



VINE AND WINE ECONOMY

PROCEEDINGS
OF THE INTERNATIONAL SYMPOSIUM
KECSKEMÉT, HUNGARY
25-29 JUNE 1990

EDITED BY
E. P. BOTOS

AKADÉMIAI KIADÓ · BUDAPEST

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INTERNATIONAL SYMPOSIUM
ON
VINE AND WINE ECONOMY



held at

KECSKEMÉT, HUNGARY
25-29 June 1990

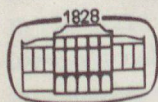
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C. Sc. (Economics)



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PREFACE

Due to the long history of viticulture and enology, wine traditionally represents, above all, a culture and a way of life. In spite of this or even because of this the world wine economy is rapidly changing. Therefore the economic importance of wine production is growing. All this needs new international collaboration, extensive research and efficient way of teaching. Thus there were many reasons for organizing an international scientific symposium on vine and wine economy in Hungary.

The symposium was expected to cover many areas not only the economics of the appellation origin controlled wine districts, regional and international relationship and wine marketing but also research and education in wine economy. Each area has a great impact on the wine world of the future.

Quite obviously the three sections are tightly interwoven with each other. Appellation origin control is a kind of marketing. With regard to technical and juridical fields of appellation origin control, its link with economics and marketing is understandable. Nowadays the world faces the problem of reforming their different appellation origin control systems and making them uniform.

The first step in the development of the international integration was when the Mediterranean wine producers adhered to E.E.C. regulations a decade ago. Nowadays the English speaking producers are becoming more dominant. We are aware of the economic and political changes in Central and Eastern European countries which are new factors in international wine integration. We also note that German reunification is a very important event which ought to be taken into consideration.

For the time being the world wine market is as complex as it has never been before. We must no longer stress geographical zones of the world

wine market, since we need to develop the world market as a whole. Instead segments of the wine market can be studied in categories as "fine wine", "wine in general" and "cheap wine" with different features and marketing rules which stem from their viticultural and enological backgrounds. It is time to pay special attention to all of them.

Everybody agreed that besides integrated production, research and education must also be internationally integrated. There is no reason for these areas to be divided if production no longer observes country borders. Thus the first step is to have a more extended and integrated research programme. Different systems of teaching and post-graduate education were compared. Hungary proved to be the right place and host of a symposium of this kind at this time.

Apart from Hungarian wine traditions the reprivatization programme which can increase the present 60% private sector in viticulture up to 90% by the end of the century there is a new interest in European integration. Foreign capital is waiting for a new land law to allow it in, so it can initiate many new projects. This could stimulate the interest of growers, traders and scientific workers alike. The symposium was a good opportunity for Hungarians to get acquainted with the present trends in the world.

The symposium was greeted by Mr. F.J. NAGY the minister of the Hungarian Agricultural Ministry as well as Mr. A.URBÁN the director of the Research Institute for Viticulture and Enology of the University of Horticulture and Food Industry in Kecskemét. The symposium was organized under the auspices of O.I.V. (Office International de la Vigne et du Vin) and we thank them for their support. Mr. R. TINLOT the director of the O.I.V. launched the symposium and gave the opening lecture presenting a general overview of the present world situation and the expected trends in the near future. He stressed the new factors in the wine sector and pointed out the necessity of collaboration in dealing with them.

Representatives of 14 countries, international and national organizations, societies, universities, institutes and producers worked hard participating not only in the scientific work but in visits to wine regions and cooperatives. In accordance with our resolution it was only the first but necessary step in an extensive project.

The Editor

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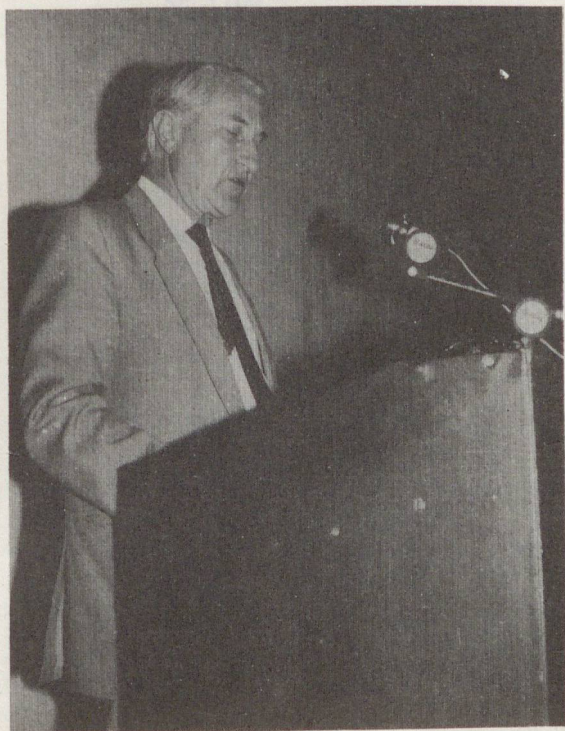
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ROBERT TINLOT
Director of the O.I.V.

SECTION 1

ECONOMY OF APPELLATION ORIGIN CONTROLLED WINE DISTRICTS

Chairman:

YRAVEDRA, G.
(Spain)

INTRODUCTION OF APPELLATION ORIGIN CONTROL

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When this section begins to work and we are going to talk about the economic aspects of appellation origin controlled wines and spirits, it seems to be reasonable to discuss the situation the programme is based on. This survey must not be carried out only separatedly on the legislation of different countries, but we should look into the definition of the international circumstances.

First of all we point out the basic principles of the O.I.V. published in 1947. They do not create a compact definition, but provided the basic rules and introductions for the countries in order to follow the basic concept and to succeed a relative homogeneity of the member countries in this term. These principles are as follows:

- 1, The appellation origin control could be applied, if that is demonstrated by the products' reputation.

- 2, This reputation must be based on the following quality factors:

- a, Determining ecologic factors (climate, soil, grape variety) which make the designation of geographical origin possible.

- b, Human being factors which have less or greater impact on the production (prunning, tillage, wine making technology, etc).

The O.I.V. also described that all the appellation origin controlled wines ought to come from exactly limited habitats and specific varieties. Although these principles are abstract of traditions of different countries it proved to be a milestone in the history of appellation origin control. Nowadays, of course, it does not provide all the necessary rules to control this field.

Secondly we mention the Lisboa convention on 31.10.1958. what was the first agreement defining and protecting the appellation origin control. The Lisboa convention described the appellation as a geographical designation of a place or origin which can draw the character of wine and wine character is in very strong connection with this origin including geographical and human being factors as well.

This definition was worked out 11 years later than O.I.V. definition, but in spite of it, it could not make it more complex or even it lost values, eg. did not pay attention to reputation as the guarantee and the way of legislation of appellation origin control. Besides it does not describe the concept of nature and human factors. It concludes a correlation between geographical origin and quality but does not regard the geographical origin as a necessary condition to be defined as exactly as variety. The Lisboa agreement speaks about geographical origin as the name of country, countryside or region without stressing the importance of their homogeneity not taking the O.I.V. definition into consideration.

The O.I.V. has been working on a wider path than the simply problem of variety and quality. We could list the resolutions performed on the Paris convention on 16.01.1987. and passed by Rome convention in 1987. All of these were established by the scientific symposium organized in Jerez, Spain in the same year.

The latest resolution asks the member countries to protect the appellation origin control of wine which must not be of simply generic form only following the variety character and to avoid the confusing designations mainly in case of world famous and traditional wine districts.

Gradually the O.I.V. has created an international situation so as to legislate the appellation origin control working together with the member countries. They have separated those countries worked against this international efforts.

Madrid contract in 1981, was the first international movement tried to introduce the concept of obstruction against the confusing and incorrect designation. Lisboa agreement was not widely undertaken because only 13 countries signed and only some of them were producers and the rest were less important importers. The real commercial impact of this was only limited because of this fact.

The main problem of the Lisboa agreement was that it followed only the main traditional producing countries so the others were not really

interested in it, because the agreement did not cover their problem as well, they see only their compromise and not the own interest and compensation. This is why we are expected to pay more attention to the problem of appellation origin control, to study it in a more complex way to include the designation of geographical origin not interesting if it is agricultural or food industrial product.

Bilateral contracts of the countries like Germany, Austria, Czechoslovakia, Spain, France, Hungary, Italy, Portugal, Switzerland and some others of those signed the Lisboa agreement, seem to be great progress. On the other side, none of these contract, O.I.V resolutions and Lisboa agreement was able to control or change the habit of the countries using rightless and incorrect appellation.

EC order No. 87/823 is regarded as one of the most important rules "Quality Wine of Limited Origin" (V.Q.P.R.D.). It is undertaken by 12 members, both producers and importers.

I am sorry to say this is the only one which hurt, temporarily till 1995, the concept of appellation origin control in case of Jerez-Xéres-Sherry, because it allows the designations of British Sherry, Irish Sherry and Cyprus Sherry till the mentioned time, exclusively in the territory of United Kingdom and Ireland referring to the article No. 129 of the contract of Spanish adherence.

We should expand the practice of appellation origin control in collaboration with producing countries. Obviously the main problems are caused by the well-known and traditional appellation origins because the most producers incline to copy them. On the other side the new appellation origins must also be strictly followed to keep and to save the prestige of it both in homeland and abroad.

Appellation origin control is not only a simply administration of origin designation, but it indicates the different characters and the qualities of products to consumers which reminds consumers' geographical origin and time to time it is demonstrated by the market and consumers.

In fact this recognition is a juridical form protecting the productions on the market, providing exclusively appellation of those products whose origin are correctly documented and so they have right to use that name.

Appellation origin control also means the control of habitats, limiting all the factors what have effect on quality and character, eg.:

expositions of plots, varieties, trellis training systems (prunning, irrigation, etc.), controlled yield per hectare, minimum natural alcohol content, vinification, final parameters of wine.

If we want to create a working system in the practice not only staying at the theoretical stage of it, we need institutional network what associations and unions of growers and wineries also actively take part in.

This organizations have right to control the production and to check it as well as to represent the regional producers' interest. The presence of authority is necessary because of state guarantee.

It is easy to understand that the appellation origin control would mean nothing if their products have to compete with others having different origin, incorrect or rightless appellation, cheaper price. That would mean unfair market what sometimes happens.

We should also take the higher level of costs of A.O.C. wines into account. A.O.C. wine is more expensive than jug or table wine by reason of extra expenditure of controlled and limited production. Extra cost needs extra protection on the market. Besides an A.O.C. district has privilege which comes from the traditions, quality control, self-control of producers in that region and of course it intend to indicate more, the essence of efforts for the purpose of introducing their products for long term.

All of these indicate the importance of economic aspects, which can help the work of appellation origin control. It always means controlled and limited supply, what causes pressure on ever increasing demand. The control requires that the rules must be strictly followed so as to reach maximum of quality, to hold on prestige, to develop production.

These standards could not be interpreted as the infringe of Rome convention article No. 30th, which prohibit any quantity restriction in case of imports.

We have to look into the article No. 36th which exempt all those restrictions served the protection of commercial and owernship rights if they do not follow arbitrary discriminative policy.

It is evident if appellation origin control can be regarded as a social trade mark, that exists in the field of commercial protecting rights.

Now we should face a very current matter and problem in EC as some members have introduced obligatory bottling methods which is not in

accordance with the article No. 30th of the Rome agreement. It looks like that in certain cases considering wine commercial and production they claim right to change or alter the traditional way of appellation and would like to dilute the efforts and effects of international bodies. There is no sense in forcing local growers and producers to sell their wine as bulk wine without paying attention to traditional rules of the wine district and in consequence of it the special character and prestige are not allowed to appear on the world market.

It would be very convenient for importers referring to the article if they could take advantage of stabilized supply-demand rate of A.O.C. wine making profit at the expense of local farmers and producers. The next trouble when a country thinks it has right to judge an other country's appellation and its conditions by its interest. This is not only the matter of tolerance but the disharmony of national regulations which may be quite against the basic international principles.

The situation have come when the importer tries to correct the imported original A.O.C. wine according to own counterfeited products' parameters. In spite of importers agreed to the principles of appellation origin control they must not claim such a false regulation which manipulate this system. Only the authority of producing country is competent and responsible for developing its A.O.C. regulation in relation to its own products.

There is no doubt about how difficult to deal with this kind of problem. It is important to introduce the appellation origin control in every producing country. The next inevitable stage of the development is when all the countries will respect the third countries' and producers' legal systems and doctrines. This is the only way to achieve an integrated world market. This is the interest of both exporters and importers.

ECONOMICS OF THE APPELLATION WINE SECTOR OBSERVATION AND PROSPECTS

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Appellation wines occupy central place in French viticulture and agriculture, and more generally, in the national economy.

The appellation vineyards represent 430 000 ha, i.e. 45 per cent of the vineyards of France, and 1.5 per cent of the agricultural surface exploited. They expand at the rate of about 6,000 ha per year, whereas the vineyards of France have lost 300.000 ha in twenty years.

65 000 farms, i.e. six per cent of the French farms, draw the main part of their income from quality wines, even though there are, of course, regional disparities.

The income of a farm specialized in quality wine is two and a half times above average. Besides, it has kept up, and even increased, in the last two years while the average income has stagnated or decreased.

The value of the deliveries of appellation wines by producers amounted to 28 thousand million francs in 1988, an increase by 44 per cent in five years, whereas this increase represented five per cent only for agricultural products as a whole. These results have their origins in the increase in volumes, but also in the increase in value of the products.

Therefore, the dynamics of those winegrowing farms producing appellation wines is very favourable, all the more so since the high income level has allowed small farming structures to survive in regions often disadvantaged, thus contributing significantly to country planning. Winegrowing farms producing quality wines, for instance, are three times smaller than the national average while employing more labour.

The value of landed property is generally a good indicator of the economic health of agricultural products; the prices of appellation vineyards have increased by 40 per cent in six years, whereas the price of land in real terms has decreased. There is another significant element; the

prospect of return and increase in value has led institutional sectors like the banks and the insurance business to invest in vineyards.

More than 1.100 cooperatives process 40 per cent of the production of appellation wines, while the winegrowing/trading business, which represents about 800 businesses, had a turnover of 33 thousand million francs in 1988 in total, about 300 000 people are estimated to be employed by the wine sector in France.

Finally, to complete this introduction, the export results must be recalled one third of the production of appellation wines is consumed abroad. As a matter of fact, half of the wine exports in volume and 85 per cent in value are appellation wines, which means that France is the first exporter in the world, ahead of Italy, in terms of value. How can we explain this economic success?

First of all, we must make an analysis of consumption, and therefore examine the determinants of demand it is a known fact that, in the context of a downward trend in wine consumption, appellation wines have been on the rise. In order to account for this phenomenon, wine must be placed within the more general framework of the evolution of food consumption habits. Developed nations show a measure of saturation. There is practically no increase in the total food consumption in volume, and food represents a steadily decreasing part of the household expenses. On the other hand, transfers are taking place towards higher quality, more original foodstuffs. After a period of mass products, there comes a period of differentiated products meeting the consumer's varied expectations.

In this context, wine is not a foodstuff anymore, what is sought is no longer alcohol, or calories, but pleasure, change, emotion. Wine is moving from the food world to the leisure world. Consumption is not regular anymore, it is becoming occasional and festive. Appellation wines are, by definition, the expression of a soil exploited by men, appellation wines do not have to adapt to the consumer's taste, which, moreover, tends to become standardized, even though there are still great disparities. On the contrary, these products must keep their diversity, their originality, their specificity. It is because of their diversity and strong cultural content that appellation wines fit perfectly into today's consumption habits.

More generally, the conditions prove favourable to the development of quality wines. However, the notion of quality as perceived

by the consumer is complex and covers many elements, such as the origin, the price, the fact that the wine was bottled at the winery, the brand, etc. The perception of quality is a combination of these elements and corresponds only partially to the legal criteria for classification. People usually think that the quality increases with the price. But reality seems less simplistic; there are psychological, and therefore totally subjective, price thresholds, under which wine is considered as being of bad quality, or above which the consumer considers that the quality/price ratio is unfavourable. In other words, the notion and meaning of the Appellation of Origin are not understood. There is no spontaneous demand for appellation products. There is no partitioning of the market according to the types of wines. In this sense, the wine market is unique. This fact appears most clearly when studying the positioning of the different types of wines; some table wines are sold at higher prices than appellation wines, for instance. In order to increase wine distribution, it is essential to create consumer demand, then foster it. Organoleptic quality is an essential element, but is not enough. For a wine to be known and recognized, it must have gained a big fame based upon a positive image. As a matter of fact, this is one of the criteria applied when deciding whether a wine can be classified in the Appellation of Origin category. The strength of Appellations of Origin lies in their ability to develop their fame in France and abroad through the action of producers and interprofessional structures.

Even though it is difficult to define precisely the components of fame, it is certain that the prestige enjoyed by a few famous estates or chateaux is beneficial to the whole vineyard. This is what we could call "the dream component".

We shall now examine the modalities of return of the appellation wine channels, i.e. how the added value is created and distributed among the various members of the trade.

The creation of wealth originates in the combined action of volumes and prices. Concerning appellation wines, the return must come from price growth, not from volumes, the surfaces and yields being limited because of the very notion of Appellation of Origin in order to guarantee the product's originality and its link to the soil. Volumes cannot grow indefinitely. It is true that productivity gains can be obtained, through mechanization, for instance, but they are limited.

This approach to increase in value through prices is essential a

drop in wine prices in real terms has disastrous consequences both in the short run and in the long run.

In the short run, the producer will make up for the drop in prices with an increase in the volumes marketed. Now, the increase in yields accounts for 60 per cent of the production growth, and surfaces for 40 per cent. Therefore, an excessive increase in yields is not desirable, since it would entail lower quality.

In the long run, a drop in prices might rob the wine of its originality in the consumer's eyes and therefore weaken its fame and tarnish its image.

A study of the prices of appellation wines in France shows that, in many regions and over a long period of time, they have little or not increased in real terms.

The Appellation of Origin is an original approach, different from the prevailing logic; unlike other sectors, productivity, which allows to reduce production costs, is not sought. On the contrary, appellation products are more expensive because quality has a cost.

The Appellation of Origin belongs primarily to the producers, and therefore it is normal that they should be privileged in the distribution of the added value.

The traditional channels of appellation wines ensured a harmonious distribution among the producers and the winegrowers/traders. The changes in the channels of distribution have increased the weight of the specialized modern trade, i.e. supermarkets, whose strategy is to cut margins and to have a rapid stock turnover. The increasing weight of supermarkets and the logic applied could entail a weakening of the producers, who would be nothing but raw material suppliers. But precisely, one of the originalities of the appellation wine sector has been its ability to produce finished products, unlike the other branches of agriculture.

However, traditional forms of trade stand up to these changes. The complex relationship between the consumer and wine accounts for the survival of specific selling channels, such as direct selling or cellar men, which still have a very important position in the distribution of appellation wines.

In these conditions, the coexistence of traditional and modern channels allows winegrowers to keep the place they are entitled to, and

therefore to continue getting the added value generated by the Appellation of Origin. Besides, the diversity of the channels maintains the diversity of the products within the Appellation of Origin itself, so that all the richness of a vineyard can express itself.

It may be interesting to try and find out to what extent the context will continue to be favourable to appellation wines.

Marketing studies show that, whatever the product, the power will pass from the traders to the consumers. The latter will then demand a more and more plentiful and diversified supply. At the same time, the distribution of purchases by range of products will change, in the 80s most purchases concerned medium grade products, a range where the quality/price ratio is essential. Recent trends show that high grade products will occupy a much more important place and that the notion of "pleasure buying" will supplant the quality/price ratio.

It is obvious that all appellation wines will benefit by these trends. Their positioning is that of high grade product, the originality of wine being stressed. They are highly specific, non standard products, and they stand outside the logic of convenience goods. The consumer will seek primarily to please himself, and he will be willing to pay a higher price. This is the niche where appellation wines must find a place. Any drift would be dangerous, because they would then compete with other types of wines, produced at lower costs and therefore more competitive. Appellation wines, which cannot be reproduced and are, in this sense, unique, escape the competition which exists among interchangeable products. You can grow Chardonnay in many countries, but only in Macon will you get white Macon.

In this day and age when industrialization of manufacturing processes is spreading, the Appellation of Origin claims its right to be different. The constant search for quality and specificity has allowed appellation products to retain the individuality and the diversity which appeal and will continue to appeal so much to consumers all over the world.

PRODUCTION AND MARKET ASPECTS OF WINES IN CALABRIA

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Viticulture is not an important sector in Calabrian agriculture economy, nevertheless it has a considerable role in terms of employment and income for the whole economy of certain districts where different kinds of production are difficult to obtain.

Today in Calabria the vine is a largely specialized cultivation mainly directed to the production of grapes for wine, in fact while about 32 000 hectares are destined to grapes for wine, only less than 1 000 hectares are cultivated with table grapes.

The analysis of the dynamic of Calabrian wine-viticulture areas points out, in the last twenty years, a reduction equal to 24 % in cultivated lands of about 10 000 hectares (tab.1). This reduction has been more considerable in the last years, in fact, in the short period of time which goes from 1983-84 to 1986-87 year, it amounts to 3 500 hectares. This trend that is still in act, is caused not only by suitable legislative intervention, aimed at supporting the abandoning of vineyard, but it also depends on a series of facts and circumstances, the main of which are: the competition of different productions (in particular citrus plantations), especially in coaster areas, and the development in viticulture areas of activity different from the agricultural one.

It has to be stressed, however, how the production, in the same period of twenty years, has had a little increase surely due to the improved productive techniques. As a matter of fact Calabria with its 185 000 tons of grapes and 1.2 millions of hectolitres of wine (1984-86 average) contributes to the national production with about 2 %.

The main Calabrian wine viticulture areas are situated in the province of Catanzaro, where more than 50 % of the plantations and about 62% of the regional production are concerned. Other provinces are those of

Table 1. Area, grapes and wine production in Calabria

PROVINCE	TOTAL AREA		TOTAL GRAPES		WINE PRODUCTION		TOTAL WINE PRODUCTION	
	1964-66	1984-86	1964-66	1984-86	1964-66	1984-86	1964-66	1984-86
	ha	%	ha	%	t	%	hl	%
Cosenza	11893	28.1	9492	29.4	36573	20.8	38540	20.8
	100		79.8		100		100	
Catanzaro	19588	46.2	16243	50.3	99603	54.9	112053	60.4
	100		82.9		100		100	
Reggio Calabria	10912	25.7	6574	20.3	42920	24.3	34826	18.8
	100		60.2		100		81.1	
Calabria	42393	100	32309	100	176096	100	185419	100
	100		76.2		100		105.3	
							100	
							217633	19.0
							240700	19.4
							100	
							110.6	
							637933	55.6
							765766	61.9
							120.0	
							231466	18.7
							79.5	
							1237932	100
							107.9	

Sources: Annuario di statistico agraria (ISTAT, Rome, several years). In order to a best comparability, the "total" area" of 1964-66 includes the promiscuous cultivated areas, these where converted into specialized surfaces applying average yields for hectare of corresponding cultivation.

Cosenza and Reggio Calabria which produce about 19% each while the cultivated lands are 29 and 20% respectively.

As far as the qualitative composition is concerned, hardly 1% of the production is represented by D.O.C. wines in spite of the presence all over the region of wines renowned for their organological characteristics.

This is a rather common fact in Southern Italy where areas and the production of D.O.C. wines are greatly inferior to those of the regions of Northern Italy.

The Calabrian wines acknowledged of controlled origin denomination are 8: 4 are produced in the province of Catanzaro (Ciro, Lamezia, Melissa and Capo Rizzuto and Saint Anna Island), 2 in that of Cosenza (Donnici and Pollino), only one in that of Reggio Calabria (Greco di Bianco) and the last one, the wine "Savuto", which is obtained in an area included in both the provinces of Catanzaro and Cosenza.

The viticultural cultivated lands registered in Calabria to the vineyards list, that is deposited at the Provincial Chamber of Commerce, are 3 306 hectares; this means that only 10 % of the whole regional viticultural cultivated lands are registered.

Taking into exam declaration statements of farms productions come out that they amount to 175 (only just 9% of registered farms) of which 147 in the province of Catanzaro. With respect to the corresponding cultivated lands they amount hardly to 689 hectares: 564 (about 82%) in the province of Catanzaro, 114 hectares in that of Cosenza, and only 11 hectares in that of Reggio Calabria. Finally, the whole D.O.C. wines production amount to 36 thousands of hectolitres, represented for 90% by the wine "Ciro". As far as the other wines are concerned the amount is insignificant.

It is clear, however, that the production obtained in the province of Catanzaro regards about 90% of that of Calabrian D.O.C. wines and it is not only quantitatively the most considerable but also qualitatively the best.

With this report, we take into exam the main wine viticulture characters of Catanzaro province in order to stress the basic problems of Calabrian wine viticulture and to outline possible interventions to involve both agriculturist and public power.

Production of Catanzaro is largely concentrated in two areas: that of Lamezia which looks at the Tyrrhenian Sea and that of Ciro on the

opposite side, which looks at the Ionian Sea. Lamezia wine viticulture history is very ancient and since the immediate post-war period wine was the carrying sector at the whole economy of that area, so all families were, directly or indirectly, interested in vine cultivation. Since the fifties a very good wine was obtained in specialized oenological-viticulture farms which were characterized by strict connections between the process of transforming and that of producing. However the great part of this wine was bought by Northern Italy operators and used to blend northern wines in order to give them body and alcoholic strength.

In the sixties, in order to face the oligopolistic demand exercised by traders and to aim at increasing farmers in contractual power, rose the first wine - makers cooperative store. It has been a period of considerable cooperative experience success, so at the beginning of the seventies, the sector has registered a change in productive policy turning its attention to table-wine production.

In this period viticulture spreads out on little bent plain areas and takes places a widespread giving up of traditional cultivars (such as: Gaglioppo, locally known as Magliocco) for the benefit of others more productive (such as "Nerello"). The traditional "small tree" system of growing vineyards (known as "alberello") is gradually giving up for laying forms (especially "espalier"). This cause, in a short time, a worse quality of products and the sector began to pass through a crisis.

Actually there cooperative stores work in the zone of Lamezia: one of them is managed directly by the Region through the E.S.A.C. (Calabrian Agricultural Development Organization) and the others by privates.

In this area, about 1 500-1 600 hectares, are cultivated and they are largely placed (about 1200-1300) in the municipal districts of Lamezia while the others are placed in the limitrophe municipalities. The average production is about 15 tons for hectar with maximum values of about 18-20 t/ha.

As far as processed quantity is concerned cooperative store managed by the Public Organization is largely the most important. The point is that it does not carry on a typical enterprising function of a cooperative store, but that of a pool wine store. This is testified by the fact that sale prices are fixed before the beginning of gather grapes.

without regarding at the market trend. It has to be stressed, however, how this policy of assistance has answered for the defence of viticulturist income through a real process of withdrawal, but it hasn't helped general interests of production having preferred quantity to the detriment of quality. As a consequence of above, Calabrian Agricultural Development Organization (E.S.A.C.) production is now largely represented by common wine to a very low alcoholic strength which is very difficult to commercialize in a market where quality and image have an important role.

For that matter the crossed quantity of grapes changes from years to year; for example, in the last ten years, it has fluctuated from 20.000 tons in the 1981 to 8 000 tons in the 1989. This is due to different factors among which an essential role has the productive trend and the possibility for farmers of selling their products.

There is no qualitative difference in the several kinds of wines produced, in fact 80 % of the production (except that one assigned at the distillation and at the long term storage) is sold loose, largely outside the regional limits. Due to this policy most of the added value is intercepted by other economic figures. Only 20% of the production is bottled and sold like table-wine.

Although the whole district of Lamezia has been acknowledged of controlled origin denomination this potentiality hasn't been completely exploited; only few plantations have the necessary qualifications provided by the disciplinary, while almost all of the vineyards of the vineyards of this area have different planting order, growing vineyards system and vines.

As long as the other two cooperative stores in Lamezia's area is concerned, we have to say that the first one, called Statti, produces about 4-5 thousands of hectolitres which are completely placed in the same area in containers of 5-10 litres. The second one, called Lento, the wine production of which amounts to about 8-19 thousands of hectolitres, sold its wine bottled for 80% as table wine, while the remaining 20% is sold like loose wine. Only this last cooperative store produces D.O.C. wines whose yearly volumes amount to less than 1 000 hectolitres.

With respect to the remaining grapes production of this area (about 5-6 thousands tons) it is directly sold at the consumers, that provide by themselves at the successive wine-making.

In addition to market problems of Lamezia's viticulture, we have

to underline the productive ones. The most evident is the large pulverization and the fragmentary of land property that doesn't allow to reduce cost prices because of the difficulties in introducing labour saving productive techniques.

Thus, it is clear that the adopted supporting policy will not have any effect if it is not coupled with a rationalized sector looking both at the productive stage and at the market.

In order to give an exhaustive outline of production and market aspects of wines in Calabria, we want to say something about the area of Ciro. The homonymous wine is the first, among Calabrian wines, to have had the origin denomination (1969). It has to be stressed that the "Ciro" not only boasts very ancient traditions but is considered by many the most ancient of Italian wines.

Viticulture is extended on 1 500-1 600 hectares and the great part of installations are entered in the official vine list.

The most diffused vineyard growing system is the "small tree" system (known as "alberello" and the prevailing cultivars are: "Red Gaglioppo", "White Greco" and "Trebiano". The average production is of 11-12 tons/ha.

On account of minor importance of pulverization and fragmentary land property, the firm average width is bigger than that of Lamezia.

In this area, from 20 to 25 thousands of hectolitres of D.O.C. wine (12-15% of the total production), are yearly produced and commercialized; the remaining part is sold like table-wine in containers up to 5 litres of capacity.

With regards to a part of grape production, it is directly acquired by final consumers which provide by themselves at the wine-making. This way of selling, once rather diffused in this area, has gone towards a continuous reduction in the last years.

Grape prices depend on quality and on market trend; besides they are by far higher than those practised in the area of Lamezia, varying from 500 to 650 thousands of Lire for ton of grapes given to the cooperative stores, while that sold in small quantity to the final consumers comes to 800-900 thousands of Lire for ton.

Moreover we want to underline that market problems regard the lacking in standardization supply: at least 9 or 10 different kinds of D.O.C. wines "Ciro" are produced. We are sure it is not useful not only to

the product image but also to the conquest and successive maintenance of new markets.

The cooperative stores actually working in this area and the corresponding average quantity of D.O.C. wines produced in the last five years are reported in succession:

COOPERATIVES	WINE PRODUCED (hl)	%
Linardi	900	4.0
Librandi	2 500	11.2
Enotria	2 000	9.0
Aloisio	400	1.8
Caparri e Siciliani	3 000	13.4
Zito	2 000	9.0
Ippolito	3 000	13.4
Torremelissa	5 500	24.8
Others	3 000	13.4
Total	22 300	100.0

However the produced wine has organoleptical characteristics of fine quality, such as: body, fragrance, alcoholic strenght, etc. Unfortunately they don't answer to the development of consumer tastes which looks towards a low alcoholic strenght. Recently the D.O.C. production disciplinary has been integrated by the 25/9/89 D.P.R. which has lowered the standard of the alcoholic strenght from 13.5 to 12.5 Baum; centigrade degrees. Together with a better commercial organization, this could allow to gain new markets and could increase commercialized D.O.C. wine with the undiscussed economic advantages.

The biggest problems of the Calabrian wine viticulture are briefly the following:

1) The high production of rough wines and the unsuccessful reorganization and/or establishment of new plantations which should increase the amount of D.O.C. wines. In fact the production capacity of the protected areas has been only partially exploited, apart from a few rare exception (for instance Ciro).

2) The growing difficulty to sell the production which is the consequence not only of the generalized lowering of the consumption per person but also of the insufficient adjustment of the supply compared to the demand. With reference to the latter, the legislative actions taken on

different levels (EEC, State, Region) have played an important role. However, they haven't promoted any improvement in the product quality, causing the present evident distortions.

3) The lack of a policy which should aim at supporting an incisive trade penetration and should substitute the episodic and not continuative relationships with the final markets. This policy is to be adopted by the associative organism in charge of the supply concentration. Due to the lack of this policy, most of the production (except for that one assigned at the distillation and at the long term storage) is intercepted by other economic figures (traders, wholesale dealers, etc.) with the immediate consequence of great loss of added value from the agricultural sector.

4) An insufficient policy about the commercial valorization of Calabrian wine with negative foreseeable consequences on the wine market which is more and more internationalized and characterized by segmentation problems.

Moreover we have to stress that the oenological-viticulture sector is crossing a particular period. First of all a generalized lowering of consumption due to the changed alimentary habits especially of new generations. As far as the demand is concerned, it looks towards more qualitative productions that means higher standardization degrees which are able to offer remarkable warranty of quality to the consumer.

In addition to this we have to take into exam EEC policy which looks towards a surplus containing taking measures for reducing the viticulture supports.

On account of this the political action should direct its efforts, on one hand, towards the supply standardization and qualification, on the other hand, the research of other markets.

In conclusion, it may be useful to number schematically the actions to follow:

- 1) Variety reconversion, regarding vocation of the different areas, increasing research and nursery sector qualification.
- 2) An efficient and capillary action of technique assistance referred to the processes of production, transforming and selling the products.
- 3) Direct intervention in order to encourage in selling products, such as: more rational distribution process, efficient service regarding market informations and aids for promotional actions in favour of Calabrian products.

QUALITY AND ORIGIN PROTECTION OF THE TOKAY WINES

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In the Tokaj-Hegyalja area vitiviniculture has a long tradition.

As for the protection of quality and origin a short historical overview is provided by the national Acts and regulations connected to wine.

It is believed that attempts to adulterate the wine have been made all the time. In Hungary King Charles III. ordered the confiscation of the adulterated wine in 1723.

None of the decrees of 1715, 1723, 1729 and 1741 could prevent the adulteration of wine.

In the 19th century after the phylloxera /wine fretter/ pestilence "doctored" wines in large quantities were available on the market throughout Europe. It was imperative to form the wine Act in order to prevent wine from this adulteration.

As to the decrees, later the wine Acts in Hungary I would like to deal only with the Tokay wines. The exclusively special character of the Tokay wine is due to the "aszu" grapes /picked individually from the bunch/.

The first aszu wine was made on the Easter of 1650 by Máté Szepesi Laczkó Reformation Church preacher for Zsuzsanna Lorántffy consort of a reigning prince from the Oremus vineyard belonging to the estate of Sárospatak. The technology of aszu which is valid and used even today can be indebted to Máté Szepesi Laczkó.

In the Tokay wine growing area the Diet /Parliament/ of 1655 orders compulsorily in its 79th paragraph to select the aszu grapes. First the king's ordinance of 1737 declares officially Tokaj-Hegyalja a closed and separated wine growing area.

The first Hungarian wine Act was the "departmental order No

83.432 of the Hungarian Royal Minister for Commerce. For the enforcement of the XXIII.rd Act on the prohibition of making and trading of artificial wines".

The enactment came into force on the 4th of January 1894.

It specifies the procedures for the national treatment of the cellars. In the case of the Tokay wines it gives the list of the names of all the 32 localities. It determines the sphere of authority of the wine experimental stations.

At the same time it also determines the task and the personnel of the Wine Testing Station established in 1881 of which today's legal successor is the National Institute for Wine Qualification. The standing committee established at the same time now still works and is today's Committee of the National Wine Connoisseurs.

In comparing this Act with those of other countries it preceded the wine growing countries and showed an example to Europe in the field of the quality and origin protection.

The V. Act of 1886 recommends the Furmint, Linden-leaf and Muscat de Lunel grapes after the phylloxera pestilence.

According to the XVII. Act of 1908 Tokay wine may be made only from the vineyards of hills of the Tokay wine-growing area. It is prohibited to blend Tokay wine with others. The second section of the IX.th statute of 1924 contains the special regulations related to the wines of Tokay-Hegyalja.

This Act includes the names and the chemical parameters of the wines of Tokay-Hegyalja. This is the first statute where the chemical parameters are shown.

The V.th statute of 1936 widens the assortment of Tokay wines with grape-wine, 6 "Puttonyos" /tubs/ Aszu and the Tokay Essence.

The Act defines exactly the ways of making the various assortments. Here the statute determines the first time the use of state countermark, certificate of origin, 0.5 litre colourless the so called Tokay bottles for the specialities among the Tokay wines.

I would like to mention the short history of the Tokay bottles. The first glass-work was set up in the estate of Rákóczi in Regéc in the 17th century. Then the manufactured (today kept in museums) old Tokay bottles were not homogeneous.

They were mainly green in colour, stocky and they had a pear

shape. In the 1930s the shape of the bottles was gradually changed and the colourless bottle was introduced.

After the Second World War the 23rd decree of legal force defines the viniculture. As far as the Tokay wines are concerned this decree of legal force is the same as the Act of 1936.

A law decree of 1970 regulates again viticulture, fruiticulture and fruit-farming. Its articles concerning Tokay-Hegyalja are as follows:

- it raises the minimum extract content without sugar from 22 gramm/litre to 25 g/l,
- it defines the so-called Tokay Aszu Essence as a new speciality of the Tokay Aszu wines, which is an outstanding quality aszu wine coming from an excellent area and only in some vintages,
- it ordains to report the quantity of the aszu grape to the specialized agencies of the county administration.

In Hungary the marks of origin are protected generally by the Code of Civil Procedure. With the purpose of more efficient protection against the false marks of origin the Union of Legal Protection of the Industrial Property was established in Paris on the 20th of March 1883. In the frame of the above mentioned the so-called Madrid Agreement came into being in 1891 which is still now accepted by 30 member states.

The designation of origin is a higher standard of the signs of origin. Tokay wine is a product of such quality. The special and unique characters are determined by the geographical environment where the wine comes from and this is the designation of origin.

When the designation of origin is widely used illegally, then it loses its significance and it will mean the brand and the producers are not able to enjoy the advantages of the good reputation of the wines coming from that geographical origin.

To protect the name of origin of Tokay wines there are special paragraphs in the wine Act. For the international protection of the designation of origin the Lisbon Agreement came into being in 1958 within the framework of the Paris Union.

The goal of this agreement was to make sure the mutual, direct and positive protection of the designation of origin in the member states. In Hungary the text of the agreement was announced in the 7th statute of 1967.

The states signing the agreement /Algeria, Bulgaria, Czechoslovakia, Upper Volta, France, Gabon, Haiti, Israel, Cuba, Hungary, Mexico, Italy, Portugal, Togo, Tunisia/ entered into an obligation that they would protect all the designation of origins of other countries that had been reported to them according to the stipulations.

The country of origin is the one which made the famous product or the country where the place of origin gave the fame.

Beginning from the 1970s several bilateral agreements were concluded between Hungary and the various countries to protect the geographical names.

Realizing the economic advantages of the designation of origin Hungary took part from the very beginning in the work of the international organizations dealing with it.

At present companies in 13 countries of the 5 continents put their own wines with "Tokay" name into circulation. These wines have nothing to do with the real Tokay wine. At the same time they mislead the consumers and these wines cause prejudice to credit of the real Tokay wine.

The false Tokay wines known up to now are the following: "Australian Tokay", "Carmel Tokay" /Israel/, Tokay d'Alsace", /France/, "Flurlinger Tokayaer"/Switzerland/, "Tokajec Tokaj" /Yugoslavia/, "Friaul Tocai" /Italy/, "Israel Tokay", "California Tokay", "Canadian Tokay", Tokaj Juzsnoberezsni" /Crimean Peninsula, Sovietunion/. In addition to the above mentioned, wines from Ethiopia, Romania and Czechoslovakia are put into circulation under the name of "Tokay".

Let us sum up what the background of the false Tokay wines can be. The story of the "Tokay d'Alsace" goes back to the 1560's. In 1564 the then German-Roman emperor and Hungarian king Miksa I. appointed baron Lazarus de Schwendi as the commander of His upper Hungarian army against the Turks and Zsigmond János. In spring of 1565 the commander captured Tokay and Szerencs. This time the baron came across the delicious Tokay wine.

Baron Schwendi was not only an excellent commander but a far-sighted landed property owner as well. In 1569 the emperor appointed him to the commander of the Rhine army.

Leaving the Tokay wine-growing area he took a few coaches packed with vinestalks with him.

This would be the origin of their Tokay wine. /In Alsace there

are not Furmint and Linden-leaf grapes at all. The main variety is Pinot gris there. The experts from that area emphasize that their "Tokay" does not resemble our Tokay wine at all. It is a pity that this situation is not shown on their label!/
1980 2164/80

It is worth mentioning that according to the resolution on 8th August 1980 No 2164/80 of the European Economic Community France was allowed to use "Tokay d'Alsace" till the end of 1985. In spite of this resolution the "Tokay" name is still used.

The origin of the "California Tokay" goes back to the Hungarian reform age in the last century. Ágoston Haraszty being persecuted left Hungary with his family for North-America in 1840.

There he is called the "American Széchenyi" since he was an economist and the father of Californian vitiviniculture. In Sonoma he gathered the best varieties of grapes.

According to the writings of Ferenc Nehéz the vinestalks of Tokay-Hegyalja were taken to Haraszty by János Xantus the scholar in Hungary. This served the basis for the "California Tokay". In Alsace and California it is enough to use the same grape variety in order to use the "Tokay" name. At Tokay-Hegyalja the Tokay wines are made of Furmint, Linden-leaf grape and Muscat grapes, but these are not enough for the Tokay wines. These grapes are produced in other parts of Hungary, but they will never be Tokay wine.

Let us go closer to Tokay-Hegyalja and examine the history of the Slovak Tokay wine. The peace contract of Trianon concerned also Tokay-Hegyalja. Kistornya /119 Ha/ and Szöllöske /59 Ha/ became a part of Czechoslovakia, they make altogether 178 hectares area of viniculture.

From the point of the protection of origin these two villages cause real problems. It is true that real Tokay wine can be produced here, but neither their wine Act nor their standards are equal to Hungarian ones, and this is the problem.

These examples show how important the protection of origin is from the point of protecting the consumer and the trade mark.

The wonderful exposure, climate, soil, the Furmint and Linden-leaf grapes, aszu, the centuries old method of ripening and treating of the wine and the specialists and of course the famous cellars here made the Tokay wine "princely". All these together result in the Tokay wine. All over the world people tried to imitate it, but they failed, because the

components mentioned above are together only in this very small part of the world, so that they take shape only in the real Tokay wine.

The Tokay wine is unique among the wines of the world, to preserve its speciality, and to protect it is our noble duty.

THE DEVELOPMENT OF THE U.S. SYSTEM FOR PROTECTING APPELLATIONS OF ORIGIN

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Many believe the United States does not protect Appellations of origin because we allow U.S. wineries to produce and sell U.S. champagne, chablis, chianti and burgundy. In fact the U.S. has protected both domestic and foreign Appellation of Origin for about 30 years. The current formal system was adapted in 1978.

Before explaining our system let me first take a quick look at history. The issue of U.S. champagne and other generics is not a question of the deliberate theft of someone else's property rights. Actually our position is similar to those of most other English speaking wine producing countries of the world. The U.S., Canada, Australia, and New Zealand all have something in common besides our language. We are all immigrant nations founded and populated by European settlers. Those settlers brought their cultures with them including their grape vines and grape names.

Therefore, from the early days of U.S. history we have had Spanish monks and missionaries producing port and sherry and French and Italian farmers producing champagne, chianti, burgundy and chablis. Those were the names they knew in Europe and that is what they used in the New World.

So when our friends complain today about American champagne, chianti or sherry, we remind them that the practice was started by Europeans - not by native American Indians.

Now, before explaining the U.S. system of protecting for appellations, let me tell you briefly how it differs from most European systems.

1. The U.S. system is for geographic protection only so it only recognizes geographic features. Unlike much of Europe, we do not regulate the types of grape varieties that may be planted, the locations of

vineyards, or the amount of production per acre. Nor does our government assign quality rankings like Germany. We let the consumer decide whether the vintner planted the right variety in the right location.

2. Trademark rights are not inferior to appellation rights. In Europe a new appellation has the potential to completely negate and eliminate the commercial rights of pre-existing brand names (eg. Torres). Our system protects whoever was in the market place first. If the appellation was first, then a new trademark of the same name will be denied. If the brand name was first, the new appellation will be denied.

3. Finally, our system is based on English Common Law and, therefore, depends ultimately on the issue of consumer confusion. In Europe an appellation is incapable of becoming generic; once granted it has absolute protection and priority forever - even if the producers from that region fail to protect it. In the U.S. an approved appellation can be lost if the producers fail to protect it over a long period time.

If we use a generic name in the U.S., we are also required to identify the place of production. Thus we must say California chablis if made in California or New York champagne if made in New York.

Now, under the U.S. system, how does one get appellation protection? To receive formal protection it is necessary to file a petition with the Bureau of Alcohol, Tobacco and Firearms. This is true for both domestic and imported wines.

Within the last few months the B.A.T.F. has expanded the protected list of European appellations by several hundreds (not thousands requested). This petition was submitted on a group basis but any wine region or government is free to submit a petition any time. If granted, it means the appellation is considered non-generic and no one else can use it in the U.S.

Since our present system was adopted in 1978, U.S. producers seeking protection have also been required to file petitions with B.A.T.F. If a petition is controversial, or is challenged by producers of other regions, B.A.T.F. will hold public hearings. The Napa Valley petition was particularly controversial because it is the most highly regarded appellation in the U.S.. Producers anywhere near Napa wanted to be included and those in the immediate valley tried to keep the boundaries as limited as possible.

The requirements for a B.A.T.F. petition are the same for both

domestic and overseas appellations and must include evidence of the following:

- 1, The area has a known and recognized reputation.
- 2, The specific boundaries for purposes of identification.
- 3, The geographic features that distinguished the area.

Please note: overseas producers are not required to seek protection in the U.S. It is suggested simply to prevent the appellation from becoming generic in the U.S. If an overseas producer is going to invest money developing a market in the U.S., then, just as he should file for trademark protection, he should also file for appellation protection if his appellation is not already recognized as non-generic by B.A.T.F.

DENTOLOGY AND FUTURE OF THE APPELLATION ORIGIN CONTROL FOR WINES AND SPIRITS

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Wine as a typical Mediterranean product has a very special situation and plays very important role in the economy of Mediterranean Bay.

Antique Greece illustrated wine by triangle, where three corners told us three functions of wine.

- food, as Pasteur wrote "wine is food",
- medicine, this aspect is not sufficiently studied,
- poison, as wine was consumed to be alcoholic.

If we compare wine of ancient ages to present wine we can conclude great changes in relation to consumption, habits and tastes. It seems in Greek time wine was consumed at 20 C and was deluted by water.

Where can we find quality and appellation in this development?

Quality as a parameter can be related to every category of wine if consumer prefers it and it can be sold. Besides wine is a social symbol of friendship and hospitality, and its quality is associated with consumption and consumers' education level. This is a complex and abstract principle beside technical definition. We have to continue studies on marketing so as to cut off wild shoots of consumption, and to associate quality with consumers' taste.

Appellation origin controlled wines which are noble and fine products in accordance with their definition, indicate geographical origin, regions where wines were produced in combination with habitat character, soil conditions.

Principle of origin has long tradition back to the ancient times, traces could be presented by all important wine producing countries.

In France, in middle age, favourable and suitable plots were

chosen for grape-vine with positive exposition (well exposed slopes), and owner saved best vineyards for self-consumptions. Holy orders and landlords did the same and drank wine of appellation origin without regulating it by wine laws.

This way of observation and consumption earned reputation of wine district in certain geographical zones. Mr. Jourdain wrote romans without any intention, and so drank people wine of appellation origin. Great wines were born in European countries above all, and because their reputation increased, commerce was ready to exchange them and vineyards were planted along the main roads of wine trade.

Prof. Branas describes "noble" viticulture as "viticulture transparent", this is the hard core of appellation origin contrasted with commercial viticulture which prefers firsts of all productivity and yield increasing.

Phylloxera disaster changed the basic structure of the European viticulture and administration was introduced in order to protect wines and wine regions. Charta against adulteration was presented in 1900 and then geographical appellation origin was legislated. The most ancient papers are written in Portuguese about Porto and Madere. France, Italy and Spain passed their wine laws in 1930.

The short history of appellation origin was necessary to look through and to understand. Appellation origin is not one merchant will or one organic philosophy but may be regarded as the sum of ancient experiences and observations of consumers on purpose to get high quality wine with controlled origin ie. to serve baptism certification rooted in origin.

The principle of appellation origin exists for centuries and designation of wine after its limited geographical origin where grape was harvested, brings authenticity, reputation and guarantee to consumers.

We ought to cite the most precious definition of A.O.C. passed by the O.I.V. after the symposium on appellation origin control in Jerez in 1987.

Consideration:

It is important to protect origin of wine as Jerez/Xerez/Sherry because origin is not generic and is not part of common public fields. In consequence of this, it is stated the concept of appellation origin need a hidden and protected position which saves legitim competitors' interest and

consumers' right to buy that quality what is designated by correct appellation origin. This right is exclusive, imperishable and inalienable. These rights are also preserved only for the products of limited geographical origins including regulated conditions of production.

Resolution:

- to intensify scientific collaboration and opportunity eg. presented by new instruments and methods much as nuclear magnetic resonance /N.M.R./ and data process to identify origin, variety, vintage of wines and spirits;
- to take advantage of every available mean to introduce and protect appellation origin control in opposition to illegal designation which may compromise original and legitimate appellation.

The resolution helps juridical legacy based on former resolutions especially on technical definition of the O.I.V. in 1947.

Each country is stimulated by resolutions to pass laws for the sake of accepted appellation origin offering large scope for more and more important national and international commerce.

The Lisboa agreement in 1958 purposed to provide appellation origin control's guarantee, ie. denomination of a country, a place or a geographical region so as to designate a product coming from that area including natural and human factors as well.

These denominations are registered by O.M.P.I. International Office /Organisation Mondiale de la Propriété Intellectuelle/ in Geneva at countries' competent administration request /interested in contract/.

The International Office provides information to other member countries too.

Unfortunately only 16 countries agreed with this agreement on 1st of March in 1989: Algeria, Bulgaria, Burkina Faso, Kongo, Cuba, Czechoslovakia, France, Gabon, Haiti, Hungary, Israel, Italy, Mexico, Portugal, Togo, Tunis, and 725 appellation origin were registered by International Bureau of the O.M.P.I. Agreement of 1958 was revised in 1967 in Stockholm and then modified in 1979.

The definition covers not only the concept of geographical origin but quality and practical parameters as well, as follows:

- production surface,
- variety,

- minimum sugar content,
- titrated alcohol content,
- yield of hectar,
- technology as space, trellis-training system, pruning,
- analitical and organoleptical experiments,
- label regulations.

There are three main concepts close to each others.

1. Indication of origin

It is a geographical nomination coming from the area or the country where wine was produced.

2. Traditional nomination

It indicates the place of origin eg. Retsina is a Greek wine type, Cava is a Spanish quality sparkling wine.

3. Appellation origin (as formerly discussed)

Appellation origin is not accepted in the U.S.A. instead of this they use "indication of origin" where quality factors are not concerned in. English-Saxon countries production is less central regulated relying on free market and focused on consumers. In some countries like Hungary, Cyprus, Luxemburg guarantee label is controlled by states. In the U.S.S.R., Mexico indication of origin is in the practice.

European appellation origin comes from the Lisboa agreement but that payed less attention to geographical indication. E.C. let countries free to regulate their production within frames of international basis. This frame is the system of V.Q.P.R.D. (quality wine, produced in limited denomination area) C.E.E. No. 23/87 and modification No. 2043/89. The lists of protected products of V.Q.P.R.D. are realeased but till 1995 there is an intermadiate period when British Sherry, Irish Sherry and Cyprus Sherry are out of list in spite of Spanish and Potuguese claim.

As Eurpean appellation lists are published, the commission does not respect the designation of a third country's geographical indication which is already recorded, so eg. Madera from the U.S.A. is not allowed to import into Europe. Americans challenge because there is a city called Madera in California.

Some months ago E.C. Counsel agreed with the resolution No. 15076/89 definiting basic principles in relation to alcoholic beverages. It deals with geographical origin and its protection and control.

The C.I.D.E.A.O. carries out education programmes in more

countries in order to make these countries sensitive and reduce illegal fields. There is progress in this sense but not sufficient to settle general agreements. From 1st of January, 1993 the inside borders of E.C. will be demolished but it is stated that an effective European regulation will turn out to be well but should always take note of this development. We study the international projects of appellation origin control. We have already mentioned the weakness of the Lisboa agreement and there are more outlaw enterprisers of some countries not signing agreements: Madera in the U.S.A., Chablis and Burgundy in California, Champagne in California or in the U.S.S.R., Cognac in the U.S.S.R. and in the U.S.A., Beaujoalis in Australia, Chianti and Sauternes and there are regarded in the U.S.A. as generic.

The O.M.P.I. covering 123 states organized a symposium in Bourgogne, in Santenay close to Beaune with 150 participants (9-10.November, 1989). Delegates of the O.M.P.I., the U.S.S.R., the U.S.A, China, France, Belgium and the O.I.V. refer to the importance of a new international arrangement which attracts more countries and would organize succession the Lisboa agreement and the Convention of Paris.

The first matter is the geographical limitation which is respected, by all the countries including other alcoholic beverages allowing compensation. The O.M.P.I. project is based on the Convention of Paris (20 of March, 1883) which is signed by 99 countries. The task is not so easy but the O.M.P.I. successes in stopping competitors and finding solutions projecting the sanctions of an international court by passing deadlines. A.O.C. and geographical indication do not belong to one firm, it is a collective ownership which cannot be bought.

In contradiction of it trade marks may be owned by single company and can be commercialized. Trade marks are completely protected in the international market, certain appellation trade marks can guarantee quality too as in case of Porto, Xeres, Champagne and spirits like Cognac, Liqueurs, Whisky.

We suppose that the bilateral agreements are very effective because describes regulations very exactly and protects appellation origin eg.:

- Principle of reciprocity of actions.
- Principle of denomination list exchange. This list includes appellations of origins, indications of origins, and

traditional denominations.

- Principle of applying for rights at international court.
- Prohibition of delocalizing nomination like gender, type and method etc.
- Possibility of checking certification of origin.

It is reasonable for the O.M.P.I. to take into consideration bilateral agreements of France, Spain, Italy, Germany, Switzerland and Austria. It is also important to repeal delocation appellation and arrangement between the U.S.A. and E.C. may be a good example of this. In 1990-91 experts will work together in the hope of developing an international contract of appellation origin.

Finally I would like to cite the words of Mr. Baumer, director of Industrial Division presented in Santenay in 1989: "Sooner internationally instituted appellation protection is more effective for the future". International contract is tremendous important both for the producers of appellation and consumers. It will increase the exchange of all denominations in the world.

STRATEGIES TO IMPROVE AND RELAUNCH QUALITY SICILIAN WINES

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Sicilian vine culture has suffered a severe commercial crisis since the beginning of the 1980s. However the sector survived due to the European community and regional support which enabled large quantities to be distilled and support of the structures and the management of the associated businesses of transformation and marketing of the product. However, in recent years European community policy has aimed at restricting production by forbidding new plants to be built and by setting limits for the amount of wine allowed to be distilled. Likewise regional policy, oriented towards joint and/or supportive intervention, is attempting to define planning policies capable of producing a balanced development of the sector.

In the "status quo" the reestablishment of Sicilian wines must take place via suitable strategies of revitalization based on incisive production and commercial and marketing policies.

In Sicily the surface area covered by vineyard cultivation in 1989 was approximately 163 thousand hectares with a wine production of about 10 million hl (1987-89 average), which is equivalent to approximately 15% of national production. The region of Sicily is the leading Italian producer of wine and one of the first in the EEC.

The unit yield of vineyard grapes, following widespread access to technical advances, and more importantly the adoption of large-scale growing techniques which enables mechanization of cultivation operations, irrigation, normally emergency, widening of the ampelographic base via the introduction of new cultivars (Trebbiano, etc.) has led to considerable increases leading to a production of 90 quintals, and in particularly favourable years reaching 100 quintals. Moreover, in the future it will be necessary to widen the ampelographic range introducing other vines such as

Sauvignon and Chardonnay. As regards the destination of the wines produced, of the 10 million hl (of which 7-8% is bottled), on average 2.5 million hl were distilled, 2.0 were for local, regional consumption, 2.0 were for other regions, 1-1.2 were exported, and 0.8 were transformed into M.C.R., vermouth and sparkling wine mainly for export. The allocation described results in a 1-1.5 million hl surplus. In the above-mentioned quotas 300 thousand hl refer to D.O.C. wines. As can be seen the outlook is discouraging. Indeed, faced with a fall in exports (4.3 million hl in 1981 compared to 1.2 million hl in 1989), with changing consumer tastes towards quality wines, Sicilian wines go against the trend. We are convinced that tastes are changing from a quantitative demand model to a qualitative one. This trend is an income related effect interpreted by economists by Engel's law, which states that an increase in income results in an increase in demand of goods with income elasticity of demand. Restaurants and meeting-places have played a role in this qualitative evolution of consumer demand. Hence the image of Sicilian wines on the national and foreign markets must be requalified to enable them to be competitive, in particular in view of the single European market. With regard to the typology of the wines produced one could be led to believe the raw material (grapes) does not meet the requirements to produce quality wines (1). This doubt is unfounded as the numerous official approvals of vineyard areas destined for D.O.C. wines testify. In fact the 9 D.O.C. recognitions (Bianco d'Alcamo, Cerasuolo di Vittoria, Etna white, rosé and red, Faro, Malvasia di Lipari, Marsala, Moscato di Noto, Moscato and Passito di Pantelleria, Moscato di Siracusa), besides the 15 otherwise recognized wines, are a clear demonstration of the high qualitative potential of Sicilian vineyards. Unfortunately, the 5 000 companies enrolled on the Register of Vineyards only represent a surface area of 20 000 ha (of which in part production is declared), a much lower area than the vineyards recognized as D.O.C. estimated to be about 50-60% of the regional vineyard cultivation. This results in an average production of D.O.C. wines of 290-320 thousand hl equivalent to 2.9-3.2% of the entire regional production, and to 3.2-3.5% of the national production.

In the category of D.O.C. wines the highest production (about 230-250 thousand hl) regards Marsala, followed by Alcamo white and Etna red, rosé and white, with quotas of approximately 15-20 thousand hl for Alcamo and 15-16 thousand for Etna. It is thus clear that the prospects of

reevaluation of Sicilian wines should be based on the exploitation of existing potential in D.O.C. areas. The rest of the bottled produce was in general appreciated by the consumer as indicated by the market prices which are similar and occasionally higher than those for D.O.C. wines. The success of these wines is due to the search for quality which has led to achieving appealing market status at home and abroad. The possibility to include "typical" on the label following the Ministerial ruling of 21/7/89, will provide further advantages to these wines. The strong and widespread presence of associative bodies has redimensioned the role of wine producers concentrated in certain areas of eastern Sicily, where associated industries or producers on an industrial level are scarce or lacking altogether. At present 5.5-6 million hl of wine production is supplied by wine cellar co-operatives, 2-2.4 by wine industries and 1.5-1.6 by agricultural businesses.

The high concentration of supply from wine cellar co-operatives should have improved exploitation of production factors and bargaining power due to economies of scale, etc. Unfortunately "vintners rather than improving the techniques in order to obtain a higher quality, and at the same time improve the marketability of the product, tend to aim at immediate and certain economic income, assured by regional legislation which typically subsidizes their businesses". The result is that the structures are obsolete and require renovation. Having aimed, in the past, at undistinguished or mass production of wines for further processing or distillation has not enhanced modernization of vinification techniques of the associative bodies, nor the full exploitation of the existing equipment. The wine industry, although possessing technologically advanced structures in the larger businesses, mainly consists of medium sized businesses with inadequate technology. However, some of these businesses are nonetheless capable of producing wines of an excellent quality.

Marketing of wines by the associative bodies is a difficult obstacle as the demand for undistinguished wines and the quotas destined for distillation have greatly diminished (2.2 million hl in 1989). The present market structure - well equipped with regard to production plants and equipment to meet the demand for wine from the barrel and distilled wine - is unsuitable and incapable of providing the finished, bottled product. The co-operative bodies could fill this gap. Fortunately some adequately sized vinification businesses have been able to gain a valid

market status with quality products. However, even these businesses must aim at improving their production plants and reaching new markets.

Promotion of wine is mainly carried out by a few businesses with quality production and capable of providing a finished product to the retail market.

State initiative for the relaunch of wine on the home and foreign markets has been ill-planned. However, the Regional Law 28/73 modified by articles 50 to 84 is a beneficial initiative which provides subsidies to the co-operatives and consortiums for promotional advertising of wine on the home and foreign markets. The participation and organization of shows and fairs, and promotional business trips on the part of town councils, the E.S.A., the I.C.E., the Chamber of Commerce, the Union of Chambers, and the Regional Institute of Vineyards and Wine etc. must also be considered. Also of great promotional interest was the Medivini regional show-market and the Vinitaly in Verona, where the "Sicilia" stand promoted by the Regional Institute of Vineyards and Wine was a great success.

Despite the above-mentioned initiatives, which are still to be perfected, Sicilian wine has not improved its market, above all abroad. The reason is simple and is due to the low quantity of quality wines produced. To expect a complete success from a promotional launch of Sicilian wines requires that the quantity of the quality product must be sufficient.

The choice of quality wine production is obligatory as future prospects of wine from the barrel sales are poor, as reported by GIRA of Geneva following market research in certain European countries, commissioned by the Regional Institute of Vineyards and Wine. Besides, there are indications that reinforced Sicilian vine culture is capable of following a policy of quality. The main factors (2) in favour of this are:

- suitable environmental ecosystem;
- grouping of supply of the numerous co-operatives;
- transformation plants which may be technologically improved;
- the number of agricultural businesses and wine-makers that have carried out the policy of quality;
- presence of the regional quality mark;
- recognition of 9 D.O.,C. wines and 15 geographically classified wines;

Moreover, one should not ignore some favourable regulations on the subject, such as the one regarding Marsala of 28/11/84 no.851 and regional rulings which regard vinification fraud of 9/5/84 no. 26 and

agricultural Credit of 25/3/86 no.13. The national Piano Vitivinicolo (vineyard programme) should also help to "restructure the sector in relation to the significant transformation taking place in a market that is ever increasingly an international one".

However, careful attention should be paid to the following weaknesses in the sector:

- laws that favour production of undistinguished quality:
- inadequate organization and management:
- "Madeira-like" wine treatment in terms of the high alcohol content:
- poor commitment of the production system to put into practice marketing strategies and establish an advantageous relationship with the G.D.O.:
- poor communication, technical assistance, research and experimentation.

In conclusion from what has been described above the restructuring and refounding of the regional vinification, from an agronomic, biological, oenologic and commercial point of view etc., must be seriously considered. This would be in accordance with the strategic proposals (Palermo, April 1989), of the Regional Institute of Vineyards and Wine, in the paper "Proposal of Operative Strategies for Sicilian vine culture", which includes:

- the restructuring of supply, aiming at the setting up of II level consortiums,
- the requalification of supply and marketing, through updating of production plants and careful choice of buying groups and operative representatives,
- providing incentives and support of the finished product via assistance and services for those businesses producing particularly superior wines, like those provided for the cooperatives and their consortiums, thus encouraging the setting up of consortiums to regulate and revitalize wines,
- actuation of services through experimentation and applied research in the production-technology and commercial fields, training and courses for the businessmen, production controls, provision of services for the final stage of marketing of the good,

- information and promotion, through appropriate marketing strategies.

Any marketing strategy will obviously have to take into consideration the complex behaviour of consumers that, although greatly influenced by price and income, is also influenced by other factors: psychological, dietic, religious, social, professional, historical and ethical etc.. The unco-ordinated attempts at selling on the part of most wine-merchants should be abandoned for dedicated operative marketing techniques, in order for the business to be partner to the consumer. The marketing should be based on surveys and research on production (forecasts, technological innovations, etc.), and consumption (buying, tastes, etc.). This could lead to the relaunch of Sicilian wines on the home and foreign markets.

The setting outlined in our report enables us to make further suggestions such as exploiting the enormous potential of Sicilian vineyards, aiming at the quality-factor, the new image of wine and a better, more efficient relationship between agriculture, industry and distribution.

The public and private sector businesses operating a policy of quality should remember that "easy" market outlets no longer exist and have indeed become ever more competitive, characterized by legal and commercial regulations that aim to protect the established interests in the vast drinks sector.

NOTE

- (1) - Some factors which enable us to establish a quality wine are the grape disposition to vinification, technology adopted in vinification, the method and period of ageing. However, the qualitative judgement of the wine is made by the consumer in terms of demand and unit price obtained by the goods on the market.
- (2) - A. BACARELLA - S.FOTI: Aspetti economici della produzione e della commercializzazione dei vini di qualita in Sicilia, Catania, 1989.

OPTIMAL VARIETY STRUCTURE FORMING IN THE TRANSYLVANIAN WINE
DISTRICTS ACCORDING TO THE PROTECTION OF GOVERNMENT
ORDERS CONCERNING THE FEASIBILITY OF VITICULTURE

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1. Historical review of the evolution of variety structure of Transylvanian
wine districts

The names of varieties of Transylvania are known mainly since the 18th century. The dictionary of Pápai Páriz Ferenc (1708) contains "vine with goat leg berries, Romogna vine with rose berries, bacator and grégorie wine". The "Erdélyi Borgazda" (Wine producer of Transylvania) publication (at about 1800) contains the offer that the good varieties are collected separated like Gohér, Vert, Sheep Tall, Pozsonyi, Muscat, Czirfandli, Limeleaf, Ste Hélène.

Ferenc Milotai mentions the following varieties in his publications (1832, 1839): Muscat white, Black, Iordovana white, Black, Lampor (King's vine), fat vine (this one and the previous one turn into aszú wine), Furmint (or similar), the best "aszú" if it matures, Vékonyhajú, ovis (bad), Ágasfarkú black (this one can be regarded for a long time in winter), rose vine, Romogna or Pápaszőlő (vine of pope, table vine), vine with goat leg berries (table vine) Leányka (Feteasca) (rather a play of nature than a real variety).

There are also others: Molnárszőlő (Miller's vine), Chasselas, Pinot, Kadarka, Bakator - the cultivation of them is not so widespread.

According to these the Chasselas and Pinot groups appeared in Transylvania since the beginning of the 19th century.

Pál Fekete, who is perhaps the first Ampelographist of Transylvania in the presentation of the Transylvanian varieties (1869) mentions the following ones: Muscat white of Transylvania, Feteasca, Furmint, fat of Transylvania, Iordovana, Lampor (King's vine), Gohér white, Vineux, Ovis.

The same author in a dissertation in 1872 has already mentioned Muscat Frontignan, Rhine Riesling, Rose Traminer, Italian Riesling, Pinot Gris, Pinot Blanc, Portuguese Blue, Pinot Noir, these latest ones are lately imported that are widespread since the collection of varieties realized in the beginning of the 19th century.

Vilmos Gamauf published the estimation of the stranger grape varieties after 206 tests according to their acclimatization in 1879.

The most important varieties that are worth mentioning even today are the Rhine riesling, Rose Traminer, and Gewürtztraminer, Muscat of Alexandrie, Sauvignon, Semillon, Italian Riesling, Pinot Gris, Pinot Blanc, the Cabernet Group, Malbec, Merlot, Pinot Noir and Portuguese Blue.

The varieties that are not found on a great surface are Italian Riesling and Traminer, and fewer Pinot Gris and Sauvignon.

The autochtone varieties also play a considerable role: these are Feteasca Alba, Feteasca Regala and Iordovana - this latter is for base wine of sparkling wines. Furmint and Gras are not so widespread.

After the damage caused by phylloxera the renovation was executed without any system using several varieties that were unexperimented. That is the time when the direct productive varieties (American varieties) appeared, but fortunately these ones do not occupy too much surface in Transylvania. That was also after the phylloxera crisis that Muscat Célèbre, Muscat Ottonel and later Neuburger were planted.

These were N.Pop (1908) and D. Graur (1912) who have given these dates all concerning the variety structure in Transylvania after the renovation (beginning of the 20th century).

N.Pop mentions the existence of the following white vine varieties in the region of Tirnave-Aiud-Bistrita: Feteasca, Iordovana, Furmint, Ovis, Italian riesling, Rhine riesling, Feteasca regala, King's vine, Lampor, Muscat, Lampau, Green silvaner, Semillon Blanc, Grasa (Gras), Pinot Gris, Pinot Blanc, Muscat lunel, Rose traminer. As red vine varieties he speaks about Cabernet sauvignon, Cabernet Franc, Malbec, Merlot. In the use of D. Graur the following white varieties are represented in the region of Tirnave-Aiud-Bistrita: Feteasca, Rhine riesling, Iordovana, Sheep tail, Lampor, Grasa, Riesling of Bánát, Furmint, Italian riesling, Ovis, Muscatoasa, Pinot Gris, Pinot Blanc, Green Silvaner, Rose traminer, Slancamenca, Magiarka, Sauvignon Blanc, Semillon blanc, Muscapelle of Bordelais, Gros sauvignon, Green of Szerém, Dinka white, Velteliner,

Bakator, white grape, borovita and gardurarita. The red vine varieties are: Cabernet Franc, Malbec, Merlot, Verdot, Lugojana, Pasaresti, Franconien blanc, Portuguese Blue.

The distribution of these varieties are represented in table 1.

Table 1. Varieties cultivated in the Transylvanian wine districts from the beginning of the 20th century after N.Pop (1908) and D.Graur (1912)

Varieties	N.Pop	D.Graur	N.Pop	D.Graur
	1908	1912	1908	1912
	white wine grapes		red wine grapes	
Autochtone	8	11	1	2
Hungarian	-	7	-	-
Occidental	9	11	10	6
Totally	17	29	11	8

This variety structure change is not always economic and was inherited by the planned economy after the 2nd World War. Regarding the improvement of the variety structure, in 1954-1955 the zonal distribution of vineyards began indicating the varieties for cultivation.

In 60's the surfaces favourable for viticulture and the varieties for cultivation were limited in detail in certain regions (microzonal distribution).

Previously Romania had signed the usbonne treaty concerning the protection of origin (1958).

In 1971 the wine and vine law appeared that was realized after the criterion of quality. That is why the appellation of origin was introduced and the quality wines are classified as vs (vine superior), vso (vine superior with appellation of origin) and vsoc (vine superior with appellation of origin and degree of quality).

In 1979 the distribution of zones of vignobles determined the wine regions, their borders and their centres, the proposed and accepted varieties. In 1978 a cabinet-decision determined the classification of the prices of wine grapes and enumerated them by place of production. This decision has really not taken into consideration the costs of cultivation so viticulture became a sector at loss. The decision of M.A.I.A. of 24th of March, 1990 cancels this situation insuring an improvement of purchase of grapes by 50-140 per cent and protecting the interest of producers, mainly in case of the years when sugar degrees are lower. The varieties ranged in the price categories by this decision are represented in table 2.

2. Propositions concerning the decision of M.A.I.A. (24th of March, 1990)

For improving the quality level, it would be profitable to prescribe not only the variety structure but the proportion of varieties as well.

This would be a measure regarding the improvement of quality by the new categorization of prices that would increase the rentability of grape and would satisfy the demands of market at the same time.

Increasing the purchase price of wine grapes is necessary for insuring the rentability of vinification, and the increase of the price for the wine producer as well in that case also when the price of consumption do not change.

It becomes possible decreasing the taxes on the articles and the commercial profit that represents 43.5-56.5 per cent of the production price of wine at this moment.

Nevertheless the minimal level of the production price of wine has to be established, that should represent at least 85-90 per cent the actual consumption price for making vinification profitable. We have considered the price structure valuable at present in the viticulture and vinification in the case of wine districts belonging to the first price group (the other districts belong to the second group).

The data of table 3 result that in case of actual variety structure of enterprise the price categories of M.A.I.A. even if the rentability of viticulture makes vinification losing, on the one hand because of the increased price of the raw materials, on the other hand because of the actual low production price. This deficit can be up to 35 per cent in the years with normal yield.

The deficit increases with the variability of large production (51 per cent) and decreases with the quality ones (17 per cent).

Concerning table 4, in point of view of the beginning of variety structure of enterprise that are the most convenient for environment conditions of economic conductures, thanks to the most recent price categories of M.A.I.A. and at the actual prices of purchase of wine vinification can count a deficit of 20 per cent. This deficit can be reached even in the case of quality variety wines, 16 per cent.

In case of variety structure considered optimal by us, the proportion of quality varieties is 60 per cent that of the varieties of large production is 40 per cent, the sugar degree of the first ones is more than 200 g/l, that of the varieties of large production is more than 180 g/l. The quality of harvest of both groups will be the same. We have evaluated the harvest of quality varieties as 6000 kg/ha, possibly it can be awaited only in the more favourable years. The yield of 6000 kg/ha of quality grapes can be found on 60 per cent of the surface, compensating that of the grapes of large production of 9000 kg/ha (that can be found on the rest of 40 per cent of the surface).

Calculating an average harvest of 7200 kg/ha, that is indicated in table 4, that is not so few in the conditions of Transylvania, mainly considering the unsafe harvest here - the price of income of grapes is at least 8 lei/kg profit of what insured by the purchase price of 11.58 lei/kg is quite reasonable.

As we have seen, the deficit of vinification of about 28 per cent, or rather 16 per cent makes the change of price structure of wine necessary, and the elevation of production price - even in the situation of closing the consumption price of wine - up to a degree that insures the vinification an average profit of 10-15 per cent particularly for quality wines.

These causes result that it would be necessary not only categorizing the price of grapes, but also that of wines in compliance with the classes of VCC, VS, VSO, VSOC (this order distinguishes the following price categories: table wine, quality table wine, wine of a wine district, quality wine of a wine district and wine of variety).

Concerning table 5, in case of the most advantageous variety and price structures and not supposing the best yield, the profit would be only 4 per cent in case of wines that contain rest of sugar of 6.5 per cent in

case of dry variety wines. Besides the varieties represented in table 1 with prices categorized by M.A.I.A., one can improve the variety structure like this:

1. One have to categorize Furmint, mainly its clone selected in the wine region of Alba Iulia-Aiud, and Grasa, also, both of them result wines of great tradition of this region, and plebanos that has gained the great golden medal at the O.I.V. competition in 1972. This one has to be regarded as a great variety among the VSOC I, all of these concern also for Steininger of Bistrita.

2. The new varieties that were perfectly satisfying the demands have to be also categorized, we mean particularly Ezerfürdő that insures quality and also a yield rich enough other observations.

The Neuburger of Alba Iulia, Ighiu and Aiud is also worth to be classified like VSOC as it produces there the same quality like Pinot Gris.

It is curious that the Italian riesling of Bistrita, Batos, Simleul silvaniei, Zalah and Samsud are not classified because they are quite widespread at this region and give good quality wine.

Simleul silvaniei is the dominant variety. Simleul silvaniei Feteasca should also merit a better category, because here it gives a wine with better quality like Medias, Zagar or Valea Nirajuil that are counted in the VSO category.

3. Short presentations of new economic integration possibilities for helping the disadvantageous situation in the cooperative sector in Romania reinforcement and modernization of cooperation system for common interest bounded to final product.

That form of cooperation would enlarge vertically the associations of the state and the cooperatives that are already exist (AESC) - namely the creation of common bottling plants and the offices for qualifying among these associations.

The associations would sign the contracts with state enterprises (IAS), with which they are associated for insuring interest and working capacity. The part of profit would be proportional with the volume of displayed work and with the extension of the surface associated.

An other variation of verticality should be the rent (LEASE) of cooperatized surfaces for private persons for a longer period, based on the succession of lease laws and the union of leases of lands in viticultural cooperatives.

Leasing is now in practice but the dimension of surface satisfies only the family needs. The reorganization practised by places since the revolution has to be regarded as a resource that gives results, that transforms cooperatives for limited companies (the number of individual shares are established the following number of days worked during the previous years).

The work done by individuals are paid separately, the shares have influence only on part of the profit.

These agricultural societies should then account their vines based on cooperation, that is a common network of the bottling plant and the supermarkets. The little production of private exploitations has to be greatly supported by the collaboration of great enterprises. This should be a possibility to make durable profit of lands that are less cultivated by the means of great enterprises, lands that are situated, on steep slopes and insure quality.

The more efficient means of development of little production should be the form of privatization. For the quality wine districts this should be the most convenient mode for producing wines with appellation origin (VSO and VSOC) for insuring the best quality. The consolidation of great enterprises (plants) is also an important task, because they have in the possession material resources of great value, sold infrastructure, high intellectual potential, an inland commercial network and also export relations.

In this direction the network of state enterprises and the research stations disposing a complete verticality has economic and actual role. It is in their possibilities that they produce firstly a great uniform quantity of wine-product and satisfy by this the exigences of internal market.

4. The most famous types of wines that continues the traditions are possible to be realized after the variety structure.

Rose traminer of Tîrnave, a Blaj, Jidvei and medias can be classified in the VSOC group.

This gives a quality similar to Aiud (Aiud-Rose Traminer) since in the wine district of Alba Iulia (Rose Traminer) the VSOC II group was introduced. We mention here that Rose Traminer of Samsud reaches the level of Tîrnave, but it is classified in the price class of VSO.

The Rose Traminer cultivated in Transylvania is hostly

Gewürtztraminer. We propose this in the group of VSOC I. with an alcohol content of 11.5-12.9 v/v %.

Actually the wine of variety has to have an alcohol content at least 12,1 v/v %. Semi dry and semi sweet types can be produced, that means a wine with golden colour that has a special rose odour, aromatic flavour and it is spicy, round, velvety.

Tirnave - Muscat Ottonel - in the centres that has already been mentioned can reach the VSOC I group being able to insure the same quality in Aiud as well (Aiud-Muscat Ottonel) since Alba Iulia can be part of VSOC II. class.

For VSOC I. group we propose an alcohol content of 11.5-12.1 v/v% as semi dry wine, this is the quality that can be reached in Sebes, Alba and in Samsud as well.

Muscat ottonel is one of the most famous perfumed wines of Transylvania. It has a yellow green or golden yellow colour, its odour is like the flower of lemon it is tender, not too rich, its flavour is similar to the skin of lemon, it is an excellent reductive type wine. Aiud-Pinot gris (Alba iulia - Pinot gris and Tirnave - Pinot gris) have similar qualities.

Pinot gris can reach the price category of VSOC I. in the central regions: we recommend it like the one that has an alcohol content of 11.5-12.10 v/v % and rest of sugar of 20-35 g/l golden yellow or dark yellow with a bit spicy, peppery, smooth odour, a fresh flavour reminding of chocolate or rum, sweet-bitter, greasy, quite spicy several years after bottling, a wine that has a long life. Tirnave Sauvignon - in Blaj and in Jidvei can be classified in VSOC I. The actual categorization of prices classifies this quality in Aiud and Ighiu as well.

The semi dry or semi sweet types of it are preferred, but it can give a good dry wine as well. This is a semi-parfumed, golden yellow or greenish wine. Its rich odour is similar to that of gunshot or strawberries, this strawberry-like character is well recognizable in the flavour as well. The dry wines have an odour similar to that of hazel-nut, overmatured, they can have a character of pine-apples. This is an elegantly acidic, vivid, velvety wine.

Tirnave-Italian riesling is similar to that of Alba Iulia or Aiud. Generally it is classed in the VSO group. It is rather dry, but its semi-dry type is also known. We propose it with an alcohol content of

11.0-11.6 v/v %. The weaker wines are classed in the VS group. This is a yellow green, golden or like straw, it has a good special flavour, weakly bitter, full-bodied. Tirnave-Feteasca Regala-Tue best known dry wine in Transylvania is part of VSO group. We propose it with an alcohol content of 10.5-11.6 per cent greenish white or greenish yellow wine with a neutral odour, it is light, fresh or a little crude, round enough and has a special odour a bit similar to that of grass.

The name of "country of wine" is historical tradition. Romania in fact is a country of quantity wines. It applies as we have demonstrated it by the ordered measurements and by those that are imposed in the future - this regulation by the promotion of quality in the viti-vinicultural production.

Table 3. Actual structure of varieties and that of prices for enterprises

List	Variety of quality				Variety with large production				Totally			

A. Viticulture												
- Surface %	40				60				100			
- Average production												
kg/ha	3000				6000				4800			
Harvest in proportion												
with variety groups	1200				3600				4800			
Where:												
- Min.220 g/l	%	kg	price	%	kg	price	%	kg	price	%	kg	price
			lei			lei			lei			lei
sugar	40	480	6.490	-	-	-	10	480	6.490			
204	40	480	5.866	10	360	4399	17.5	840	10.265			
190	20	240	2.638	30	1080	11869	27,5	1320	14.507			
180	-	-	-	30	1080	9590	22,5	1080	9.590			
160	-	-	-	30	1080	7020	22,5	1080	7.020			
Total value												
lei/ha	100	1200	14.994	100	3600	32878	100	4800	47.872			
Average price												
lei/kg			12.50			9.13			9.97			

Table 4. Optimal variety structure (by factors of condition) and that of prices for enterprises

List	Variety of quality			Variety with large production			Totally					

A. Viticulture												
- Surface %	60			40			100					
- Average												
production kg/ha:	6000			9000			7200					
- Harvest in												
proportion with												
variety groups:	3600			3600			7200					
Where:-min												
	220 g/l	%	kg	price	%	kg	price	%	kg	price		
				lei			lei			lei		
sugar	40		1440	19.008	-	-	-	20	1440	19.008		
204	40		1440	17.604	20	720	8800	30	2160	26.404		
190	20		720	7.913	40	1440	15826	30	2160	23.739		
180	-		-	-	30	1080	11869	15	1080	11.869		
160	-		-	-	10	360	2340	5	360	2.340		
Total value												
lei/ha:	100		3600	44.525	100	3600	38835	100	7200	83.360		
Average price												
lei/kg :	12.37			10.79			11.58					
B. Vinification												
- % Yield	60			63			61,5					
- Litre	2160			2268			4428					
Grape for												
1 l wine:	1.66			20.53			1.59			17.16	1625	18.32
Profit lei/l	3.50						3.00			3.25		
Total cost of												
production:	24.03			20.16			22.07					
C. Valuation of												
wine:	price (lei)			price (lei)			price (lei)					
Wine of	-of	-of		-of	-of		-of	-of				
variety:	lit.	con.	inc.	lit.	con.	inc.	lit.	con.	inc.			

(Table 4 cont.)

List	Variety		Variety with		Totally	
	of quality		large production			

B. Vinification						
- % yield	60		63		61.5	
- litre	720		2268		2988	
Grape for						
1 l wine	1.66	20.75	1.59	14.50		
Profit lei/l		3.50		3.00		
Total cost of						
production		24.25		17.50		
C. Valuation of wine						
	price (lei)		price (lei)		price (lei)	
wine of variety: lit.	-of	-of	lit. -of	-of	lit. -of	-of
	cons.	inc.	cons.	inc.	cons.	inc.
- With rest of						
sugar	288	11.932	6.748	-	288	11.932 6748
- Dry	288	10.696	6.296	228	8.394	4940 514 19090 11236
Quality wines						
of wine						
districts:	144	2.808	1.468	680	13260	6936 824 16068 8404
Wines of						
wine districts:	-	-	-	680	11900	5950 680 11900 5950
Quality table						
wine:	-	-	-	680	10540	4590 680 10540 4590
Total income						
lei/ha:	720	25.436	14.512	2268	44094	22416 2988 69530 36928
Average price						
of wine:	1	35.33	20.16	19.44	9.88	23.27 12.36
- Profit	1	11.08		1.94		4.14
- Deficit	1		4.09		7.62	6.77
- Profit %		45.69		11.08		21.64
- Deficit			16.86		50.80	35.39

(Table 4. cont.)

List	Variety of quality			Variety with large production			Totally		
-With rest									
of sugar: 864	35.795	20.244	-	-	-	864	35.795	20.244	
-Dry 864	32.089	18.887	454	16.862	9924	1318	48.951	28.811	
Quality									
wines of									
wine									
district: 432	8.424	4.406	907	17.687	9251	1339	26.111	13.657	
Wines of									
wine									
districts:			680	11.900	5950	680	11.900	5.950	
Quality table									
wine:			227	3.518	1532	227	3.518	1.532	
Total income									
lei/ha: 2160	76.308	43.537	2268	49.967	26657	4428	126275	70.194	
Average price									
of wine: 1	35.31	20.16	1	22.03	11.75	1	28.52	15.85	
- Profit 1	11.28	-	-	1.87	-	-	6.45	-	
- Deficit 1	-	3.87	-	-	8.41	-	-	6.22	
- Profit %	46.94			9.27			29.22		
- Deficit		16.10			41.72			28.18	
Proposed:									
-Profit	31.13	20		4.50	8.00		15.36	13.86	
-lei/l	6.87	4.41		0.10	1.77		3.39	3.06	

Table 5. Optimal variety and price structures (extreme situation)

List	Variety of quality			

a. Viticulture				
- Surface %	100 % (1 ha)			
- Average harvest kg/ha	6000			
Where:	%	kg	price (lei)	price (lei)
- Min. 220 g/l sugar	100	6000	81.120	
- Oe:				
- Min. 204 g/l sugar	100	6000	73.320	
b. Vinification				
- % Yield	60			
- l/ha		3600		
Grape for 1 l wine		1.82	24.61	
Profit lei/l			3.50	
Total cost			28.11	
c. Purchase of vin l/ha				
	price (204 g/l)		price (220 g/l)	
	of	of	of	of
	consumption	income	consumption	income
	(41.43 lei)	(21.86 lei)	(37.14 lei)	(23.43 lei)
- VSP	3600	133.704	78.696	149.143
- Profit		4.776		84.348
- Lei		6.51		3.228
				3.98

LOCATION OF GRAPE CULTURE IN THE USSR: AGROECOLOGIC AND ECONOMIC ASPECTS

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The Soviet Union's vine growing regions and grape processing industry are located in 11 Union Republics and play an important role in their economy. This is especially the case with Azerbaijan, Georgia, Armenia, a number of regions in the Ukraine and the Republics of Middle Asia, 30 per cent of their agricultural products revenue made by viticulture.

Though grapes are of great nutritive and dietary value, consumer demands for this product are still ill-satisfied in our country despite suitable agroecologic conditions.

For several decades, surplus of low quality fortified wines has been typical of the Soviet Union's home market, being one of the causes for alcoholism. Under pressure of the industry's regulating authorities, commercial vineyards produced mostly late maturing wine grapes to be made into low quality wines, consumer demands little taken into account.

The country's total proportion of table and raisin grapes was only 15 per cent, with even 7-8 per cent in Azerbaijan and Moldavia. Only 10-12 per cent of purchased grapes was destined for fresh consumption.

Several factors have made the industry's situation critical: going to extremes with the 1985-88 anti-alcohol campaign aimed also at reducing production of dry, sparkling and quality wines, varietal assortments of the growing regions already established, the industry being unready for conversion to new products from grapes, shortage of transport means and cold storage facilities under conditions of increased table grape production - all this has substantially reduced the efficiency of the industry. Over this period, the country's total grape area decreased more than by 200 thousand ha, making 1 105 thousand ha in 1988.

One should recall reduction in grape areas in France, Italy,

Spain, Greece and a number of countries on the American, Asian and African continents in 1978-80s. The reasons for that were mostly changes in market condition and measures of the industry's regulating authorities with an aim to stimulate grubbing.

In the Soviet Union, the situation was different. Neglecting problems of the industry has led to worse vineyard maintenance, shorter productive life of vines and a larger proportion of missing plants in the row. In 1988, prime cost, selling price and profit per ton of grapes were 313, 463 and 150 roubles, respectively, profit rate being 47.9 per cent.

In the period 1984-87, the industry's retail turnover and turnover tax dropped from 19.9 and 9.7 milliard roubles to 9.8 and 6.5 milliard roubles, respectively. Over this period, table grape retail turnover moved up from 420 to 845 million roubles.

Grapes have been severely grubbed up. The ratio of grubbed vineyards to new plantings is 2.5 to 1 now, which causes serious concern.

The average annual grape production fell from 7 to 5.5 million tons in this period, which led to decline in purchases of grapes and grape products. It is necessary to emphasize that non-conditioned grapes accounted for 25-40 per cent of the total in different years. This was caused by several factors, improper assortment and distribution of plantings among those of primary importance.

Today's situation of the industry urges growers, producers and scientists to give heed to problems connected with grape culture location and specialization of the Union Republics' viticultural regions as well as to development of economic mechanism capable to change things for the better.

Creation of viticultural zones should be considered based on economic and agroecologic factors.

Specifying size of the industry and establishing new commercial vineyards should be preceded by studying the home market demands for grapes and products of the processing industry, and, besides, a possibility of export should be considered.

Evaluation of the country's demands for grapes and products of the processing industry should be based on consumption norms, increase in population and standards of living also taken into account.

These factors should be considered of primary importance in developing and realizing such program for a certain planning period.

One should bear in mind that consumption norms are dynamic and restricted to certain regions and that export depends much on market condition and competitiveness of a product determined by its assortment, price and quality.

Success of such program will certainly be restricted to natural resources, genetic potentials of grapevine as well as proportion of working age population, production capacities, technical aids and availability of advanced technologies.

The Soviet Union differs substantially from many countries in its geographic characteristics due to extensive length of its territory as well as soil and climatic diversity. Thus, proper assortment of grapes, both from qualitative and quantitative standpoints, and distribution of plantings are of special importance.

Grapevine has specific soil and climatic requirements, and this is also the case with cultural practices.

Correct distribution of grape varieties based on their biologic characteristics and uses of fruit along with a suitable training system favor better realization of grapevine genetic potential.

A "macro" approach to the problem should deal with establishment of principal grape growing regions and their specialization in regard to uses of fruit. This is a geographic classification based mainly on climatic conditions of a region.

In relation to Union Republics, problems connected with grape culture location and specialization of viticultural regions should be solved in the following way:

For Moldavia, it is a good prospect to have table grape production making 25-30 per cent of the total, while the rest can be made into juice and other soft drinks, quality wines, sparkling wine and brandies. Other table grape varieties should be reestablished in zones of "open" viticulture, without covering vines in winter.

In the Ukraine, one should reconsider establishment of existing plantings with an aim to locate them mostly in south zones of "open and "semi-protected" viticulture in the Crimea, Odessa, Kherson and Nikolayev regions. Only a reasonable proportion of vineyards producing grapes destined for fresh consumption should be preserved, yet table grape production should be increased. Intensification of the industry should make for the area reduction.

In the Russian Federative Republic, existing vineyards should be preserved only in Dagestan and in the Krasnodar region. In other regions, especially in the zone of "protected" viticulture, in plains, grapes should be planted in the vicinity of large industrial centres and in zones of quality wine production.

In the Transcaucasus region, table grape production is expected to satisfy the local demands for grapes.

Georgia, already engaged in production of soft drinks, is intended to be a zone of quality wines destined for export. Competitiveness Georgian dry, semi-dry and semi-sweet wines can be achieved by upgrading their stability to total haze for a year and more.

In Armenia, one should preserve unique zones of brandy production.

In the Republics of Middle Asia and in Azerbaijan, a profound specialization of the industry is still to achieve. Progress of viticulture there is due not only to favorable soil and climatic conditions, but also to social factors. Besides, quicker reconstruction of plantings is possible in Middle Asia due to preserved grapes on their own roots, large mother block vineyards of excellent varieties and long traditions of table grape culture. Table and raisin grapes in these regions should account for 70-80 per cent of the total grape area.

The "micro" approach should aim at realizing potential of a variety by taking into account its biologic characteristics regarded as a basis for specifying optimum conditions of culture.

The U.S.S.R. has 206 natural grape growing regions, 196 of them being promising for profound specialization in viticulture and the rest ten planned to produce grapes destined for local, mainly fresh, consumption.

Changes in agricultural structures and proportions of crops, with an increase in grape and fruit plantings, can be seen today in a number of the Soviet Union's regions, especially in the Republics of Middle Asia.

It is easy to understand that within these regions, conditions of growing a variety and its uses do vary, as well as requirements for varieties depending on their post-harvest destination.

A promising approach to this problem includes complex evaluation of a zone to be planted with a given variety and knowledge of its biologic characteristics as well as optimum ecologic conditions and cultural practices.

This will allow to make necessary amendments, to specify the varietal specialization of viticultural regions, with an emphasis on table and raisin grapes and on production of wines, sparkling base wines and brandies, and to preserve the Soviet Union's unique zones of viticulture.

Proper grape distribution in corresponding ecologic conditions will also make it possible to increase yielding capacity and productive life of grapevines and to specify micro-zones suited for production of quality wines with controlled appellation of origin. Today, such wine brands as Aligote Zolotaya Balka, Riesling Alkadar, White Muscat Krasnogo Kamnia, sparkling wine Abrau-Durso, Kindzmarauli, Khvanchkara and others can be assigned to this category.

To realize agroecologic potential of a variety and its zone of culture, it is necessary to make an effective use of economic factors. Today's mechanism regulating the country's food industry and agriculture has been unable to create prerequisites for production of quality grapes and wines. That is why grape culture location is still inefficient, and so is the research in this field.

Scientists of the Institute "Magarach" have developed a grape distribution methodology which is being tested in the Crimea now. Proper location of the industry depends to a large extent on improvement of economic mechanism capable to make the best job of grape growing and processing, storage, transport means and trade with an aim to meet consumer demands for a good product. In this relation is pricing along with material and technical supply of the industry of great importance.

Existing prices of products from grapes do not stimulate producers who are uninterested in their final results. Mechanism of revenue distribution between the State trade and a winery based on several wines produced by the "Massandra" winery (Crimea) is presented in Table 1.

As it can be seen from the table, turnover tax is one order of magnitude higher than profit of the winery. Thus, the industry's revival is in need of new pricing policy that will take into account interest of the State and a producer.

This is the case with other wineries of the country, the "Abrau-Durso" winery (Krasnodar region) and the research and industrial centre "Vierul" (Moldavia) among them.

Table 1. Revenue distribution between the State, trade and winery
based on several wines produced in the Crimea

PARAMETERS	W i n e s		
	Red Port	White muscat	Pinot gris
	LIVADIA 1)	KRASNOGO KAMNIA 2)	AL-DANIL 3)
	roubl- % es	roubl- % es	roubl- % es

Retail price of one bottle	6.00	100	7.20	100	7.20	100
Turnover tax	3.56	59.4	4.47	62.1	3.81	53.0
Trade profit	0.28	4.6	0.33	4.6	0.33	4.6
Price of container	0.20	3.3	0.20	2.7	0.20	2.7
Wholesale price	1.96	32.7	2.20	30.6	2.86	39.7
Profit of the winery	0.31	5.2	0.50	6.9	0.19	2.6
Prime cost	1.65	27.5	1.70	23.7	2.67	37.1
Profit rate, %	18.8		29.4		7.1	

- 1) 2 golden, 3 silver and 1 bronze medals
- 2) 2 "Grand Prix" cups, 18 golden and 1 silver medals
- 3) 7 golden and 2 silver medals

Government order of wines accounts today for almost 100 per cent of the total production, yet the industry's material and technical requirements are only 30-50 per cent satisfied. Equipment for grape and winery industry could be acquired through foreign economic activity, yet this field is still overregulated.

Thus, search for approaches to the problem is of vital importance for the industry. Possible solutions should lie in developing ecologic patterns for grape varieties and in determining proper size of areas planted to early, mid and late maturing varieties taking into account climatic conditions of regions and uses of fruit. Distribution of grape culture in zones with suitable economic and natural situation may be expected to provide higher efficiency of the industry on the condition of compatible varieties, cultural practices and size of production as well as radical change of economic relations in the Soviet Union.

THE NEW BASIS AND ITS ELEMENTS OF THE HUNGARIAN WINE APPELLATION ORIGIN CONTROL

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INTRODUCTION

Hungary has been famous for the traditional elements of appellation origin control for a long time. Examples are vine monography in the 50's, Tokaj wine law and the closed wine district which is comparable to the appellation origin control regions in other countries, the latest habitat cadastre worked out in the 80's, etc. On the other hand these elements have not been organized into a compact system as a consequence of economic regulation in Hungary. This has changed a lot, making the rapid development of the appellation origin control system possible.

The regional structure which depends on market potential is changing. Regional associations of farmers are being born; and are developing. These are important in creating the institutional background of appellation origin control. Although appellation origin is well-regulated by the Hungarian wine law its elements and practice need constant development. More effective international integration is inevitable. The State is going to play a different role to its former practice: there is no direct economic control or a central planning system.

NEW ELEMENTS OF THE HUNGARIAN APPELLATION ORIGIN CONTROL

We have been working on new basis and the elements of the Hungarian wine appellation origin control for a decade. We intend to work out the Hungarian appellation origin control system based on cadastres and special information systems, namely:

- the habitat or ecologic cadastre,

- the vineyard cadastre,
- the wine cellar cadastre,
- the viticultural information system,
- the winery information system.

Some wine districts and integrators have provided land registration and vineyard cadastres covering their own interests, but nation wide, uniform and comparative ones which could help the A.O.C. programme effectively have not yet been developed. On the other hand the A.O.C. must be partly related to cadastres controlled and worked out on the basis of common principles.

Hungarian wine law from 1970, described the principles of appellation origin very well and preciously including geographical designation and human factors as well. In spite of this it could not provide effective control because of a lack of exact and detailed registrations. Our work is expected to fill in the gap, now the conditions are much better than before.

The habitat cadastre was worked out at the beginning of the 80's, vineyard cadastre operates in many wine regions and the wine cellar cadastre is just being developed.

THE NATIONAL HABITAT CADASTRE AS THE BASIS

The vine monography in the 50's was composed of some ecological indexes as well as the parameters of vineyards. That study limited not only the wine districts but microregions, within them as well.

The national vine habitat cadastre system has been developed and works only for the wine sector. This system includes mark evaluation of habitat, from (0 to 400 points) hectare by hectare, map and computer registration. It seems to be quite adequate as the basis of Hungarian appellation origin control in the near future. The system evaluates the habitat by 18 factors (soil and its characteristics, slope, ground water, winter frost, belated frost, quantity of rainfall, exposition, altitude, road conditions, etc.). The most important factors are the winter frost, the belated frost, soil type, exposition and altitude. We arrange the ecotops into four main groups using cluster analysis: excellent, good, conditionally plantable, forbidden for planting.

This cadastre covers more than 400 000 hectares of potential

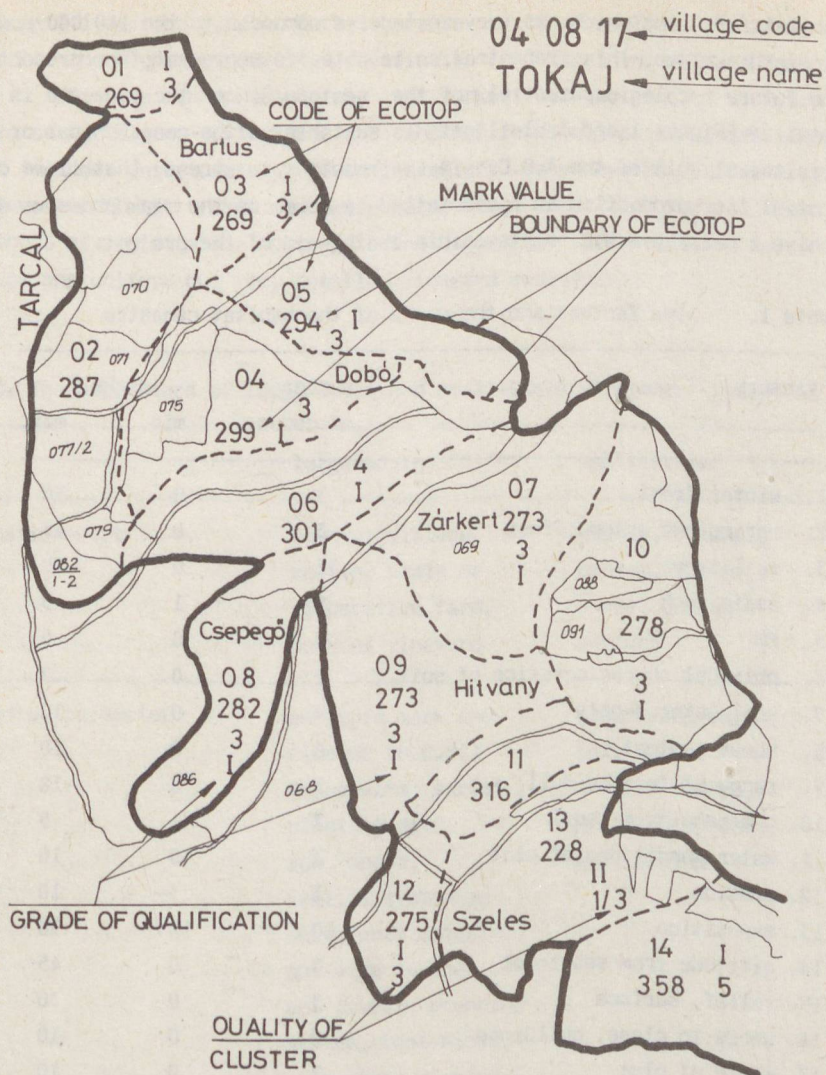


Figure 1. The map of vine habitat cadastre, ecotops in Tokaj

habitat for vine which is very extensive compared to the 140 000 present vineyard surface. This registration is able to represent the present and the future ecologic potential of the sector. Since the cadastre is very detailed (Figure 1 and Table 1) it is suitable as the geographical or even territorial unit of the A.O.C. It is important to stress that if we could control the production in as detailed a form as the map shows we would achieve a precise A.O.C. system. This is the aim of the project.

Table 1. The factors and the marks of the habitat cadastre

factors	number of codes	marks	
		min.	max.
1. winter frost	3	0	50
2. spring and autumn frost	3	0	45
3. soil type	31	0	40
4. basic rock	9	1	5
5. PH	5	0	5
6. physical characteristics of soil	7	0	7
7. soil water supply	9	0	10
8. humus content	6	0	10
9. range of fertile soil	5	0	10
10. homogeneity of soil	3	1	5
11. water conditions of plot	3	0	10
12. erosion	3	3	10
13. exposition	80	10	90
14. altitude from sea level	3	0	45
15. relief, surface	3	0	30
16. woods in close, buildings	9	0	10
17. scale of plot	2	0	10
18. road and path conditions	3	0	8
TOTAL		25	400

The vineyard cadastre records the grape-variety, trellis-training system, stock and row space, the vigour of the grape vines etc. (Table 2). In Hungary the private sector is really very different to

the cooperatives and state farms, because of the smaller plots and vineyards, the higher variability of varieties and training systems etc.

This is the reason why we worked out two kind of vineyard cadastre on for large-scale farms and another for small-scale farms. The latter includes unfortunately fewer parameters on vineyards (because of their lower availability) but much more information about the growers. These two methods of registration correlate and because of privatization we can introduce one uniform but very detailed vineyard cadastre.

Table 2. The parameters of large-scale and small-scale vineyards' cadastres

	large-scale	small-scale
registration part	county, village, ecotop, state or cooperative farm, code of vineyard	county, village, ecotop, farmer, owner, ecotop, surface
vineyard's parameter	ecologic mark and cluster (h.cad.) grape-vine variet., planting date, row, space, trellis system as post, post material, guy wire (number and level), pruning system, root-stock, vine-stock missing, diseases, yields, date of renovation (if it was)	grape-vine var. row, space, trellis system, prunning system, age, yields

Note: Parameters are indicated by different number of codes in order to computer process. Habitat and vineyard cadastres are joined, works together.

The viticultural cadastre as part of the vineyard one, records the phenology of the grape vine, meteorological data and the technological factors of viticulture, for example, fertilization, the results of the leaf-analysis and soil-analysis, plant protection, etc.

The wine cellar cadastre records the measurements of containers, barrel, pressures and other technical measurements. This kind of work has been operating only in some wineries.

INSTITUTIONAL BACKGROUND

Up till now an effectively working institution such as the A.O.C. has not been available in Hungary. In spite of the wine law which could provide all the necessary principles, institutes took part in appellation origin only at the state level. There was no regional organization which could protect the wine districts, their producers and their interests. Now for every region there is the urgent task of electing associations and unions being responsible for local affairs. This is the regional level on which the new A.O.C. system is based. They are interested in not only protecting traditions, but international integration and being involved the market too.

If we want to operate two levels, state and regional, we should produce an information system which works. In our opinion the information system is the connection among the horizontal levels that is, it describes the production process vertically. There are three parts in the information system of the wine sector: viticultural, enological and market information systems. The basis of these information systems is formed by the cadastres. In other words it works at the region level as well as the state although the content is different, of course.

However these information systems face some problems. In Hungary inside one region we can find three economic sectors: state, cooperative and private, for vineyards, wineries and shops. There are lot of grape vine varieties, trellis training systems, grape growing and wine making technologies and very different habitats within a wine district.

So the situation being recorded and the production process being described are both very complicated.

THE CHARACTER OF THE DEVELOPING HUNGARIAN A.O.C.

The goal of the appellation origin control system is to simplify, the production process, to determine and to control it at certain points including geographical designation. The main check points are the habitat, the grape vine variety, the grape growing and wine making technology and the vintage. We realise the basis of the Hungarian appellation origin control system must be an information system based on cadastres.

The **habitat** is the most important factor because Hungary is located at the Northern border of a grape growing area and a small distance may result in significant differences in quantity and quality of production. This factor must be controlled carefully. It is expected to be controlled by the state because on the one hand the state have to protect the habitat and the soil so as to control the leasehold and on the other hand, the budget subsidises the plantation so it must control the profitability of the investment.

Variety: So-called world varieties, traditional and recently bred Hungarian varieties are fighting for the leading position in every wine district. This makes for a high number of varieties in certain districts. This number must be limited in accordance with the character and tradition of the region. This factor must be controlled and dealt with by each region.

The **technology** both in the vineyards and in the wineries is intended to be followed in a much more traditional way so as to save the rich Hungarian traditions of wine production. The technology and its elements must be determined and controlled by the region in the frame work of state regulations.

Vintage: The new appellation origin control is going to take vintage differences into consideration more than ever before. In Hungary because of climatic conditions this is a necessary but complementary element to the system. It is the region's task to decide, which vintage is up to the quality level of the appellation origin (with the help of central analytical labs).

ECONOMIC ASPECTS AND AIMS

A developed appellation origin controlsystem has three functions in Hungary: technical control, economic and market integration. We regard all of them as equally important but nowadays, in Hungary, the second and the third are the most urgent.

The great variety in grape growing and wine making technology in the Hungarian wine districts are unreasonable. It is very difficult to describe typical technologies and their elements, and so it is almost impossible to control them.

Economic regulation may be the most important function of the appellation origin control, because this system determines and controls the all production process. The A.O.C. system may help to differentiate wine districts, regional structure changes as well as privatization because of the stronger regional associations and regional autonomy. Economic regulation will become indirect rather than the former direct, central planning method.

Market regulation: Before in Hungary table and quality wines were known to consumers by categories. Appellation origin controlled wine is a new category from a marketing point of view. The wines of this category are more valuable than other wines because the origin, the grape variety, the technology and quality is guaranteed very thoroughly. Therefore the market value as well as the market price of these wines is higher. Hungarian wine has up to now represented by a narrow range in market price. A consumer could buy wine from 60 HUF to 150 HUF (1-2 USD) and only in some special cases could the consumer buy more expensive. Now this price range will probably increase because of the A.O.C. categories. It means new market segments will appear soon aimed at special consumer habits.

SUMMARY

The Hungarian appellation origin control system aims to preserve traditions and at the same time its basic principles tries to operate in accordance with the OIV as well as the systems of the EEC countries.

The subjects of the Hungarian appellation origin control are the wine the sparkling wine.

The main control points are: habitat, grape vine varieties, grape growing and wine making technologies and vintage. The most important factor is the habitat.

The indirect controlling role for the state and the autonomy of the regions are the basic principles of the introduction of the new appellation origin.

Economic regulation is the most important function of the new appellation origin but it also determines the culture of production, the farming, the trade and the wine consumption.

The development of the national appellation origin control systems promotes international integration too.

REFERENCES

- Botos E., Polónyi B. (1989): Il catasto et il sistema di classificazione delle aree coltivate a vite In Ungheria. Vignevini, 16.7-8.25-30.
- Botos E. (1990): Az eredetvédelmi rendszer bevezetése és szerepe a szőlő- és borgazdaságban. (The introduction of A.O.C. and its economic role in the Hungarian wine sector). Magyar Tudományos Akadémia. pp.123.
- Botos E., Kecskés L. (1990): Az eredetvédelmi rendszer kiépítése a hazai szőlő- és borgazdaságban. (The structure of the Hungarian A.O.C. in the wine sector) Szőlőtermesztés és Borászat, 12.1-2.47-54.

PRODUCTION OF D.O.C. WINES IN BULGARIA

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The production of D.O.C. wines in Bulgaria has a comparatively short history with insufficient experience and traditions. Its beginning was set up in 1978 with the acceptance of the wine legalizing the production of D.O.C. grapes and wines. The first amounts of these wines appeared at the market in 1982.

At present the vine plantations for the production of D.O.C. wines occupy only 1% of the total wine grapes plantations in the country but there is a tendency for their increasing (from 260 ha in 1980 to 750 ha in 1988). There are considerable reserves in this aspect as the suitable areas for production of high quality table wines surpass several times those established by the Central D.O.C. Wines Committee.

Table 1. Production of D.O.C. Wines in Bulgaria (in hectolitres)

Year	Total amount of production			For export		
	Table wines	D.O.C. wines	Relative share of the D.O.C. wines compared to the total production (%)	Total amount of wine	D.O.C. wines	Relative share of the D.O.C. wines compared to the total amount (%)
1987	2782,9	17.0	0.6	1179,8	1.9	0.2
1988	2711.8	20.7	0.8	1256,5	1.4	0.1
1989	2045.6	19.1	0.9	1164,4	1.6	0.1

Bulgaria produces about 20 000 hectolitres of D.O.C. wines, 8% of which is exported in Poland, West Germany, Canada, Sweden and other countries.

The production of specialised wines of this type is steadily increasing, the variations are mainly due to the unfavourable agrometeorological conditions. Table 2 shows the distribution of production of D.O.C. wines in the different viticultural districts in the country averaged for the period 1986-89.

Table 2. Distribution the production of D.O.C. wines for the viticultural districts

Viticultural district	Produced grapes (t)	Produced D.O.C. wines (hectoliters)	Relative share (%)
1. Northern	1161	6590	35.5
2. Southern	1003	6090	32.8
3. Eastern	800	4390	23.6
4. Southwestern	244	1500	8.1
5. Total	3208	18570	100.0

The greatest relative share for the production of D.O.C. grapes and wines belongs to the Northern and Southern viticultural districts where the larger parts of the grapevines plantations are. The total area of the plantations in both districts is 59% from all.

In Bulgaria as well as in the other viticultural countries the production of D.O.C. wines is of territorial character directly connected with the place of production.

Usually the wines of this type have the name of the district, the vine variety being mentioned and their quality is determined mainly by the specific soil-climatic conditions and the production traditions. As producers of grapes for D.O.C. wines there are 19 typical viticultural microdistricts in Bulgaria that have become famous in the course of many years for their high quality table wines (Fig.1).

The wines of Souhindol, Sungulare, Assenovgrad, Melnik and other have long been known in Bulgaria as well as abroad for their original and

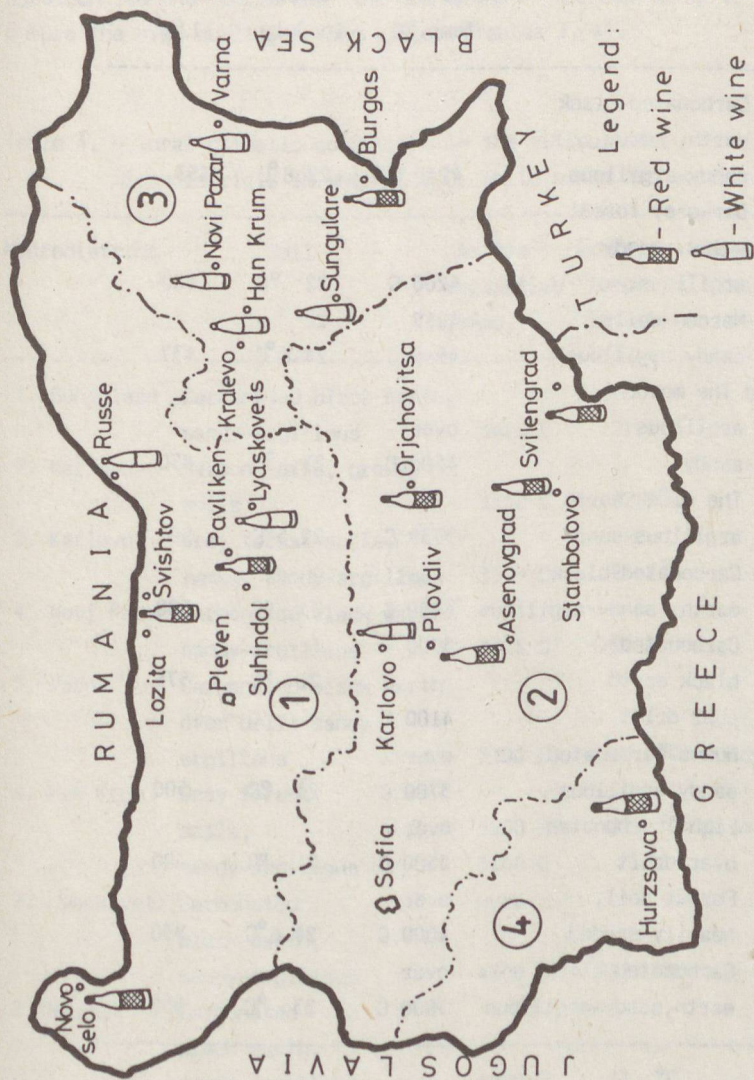


Figure 1. Territorial location of the viticultural microdistricts, producers of D.O.C. wines (map of Bulgaria)

Table 3. Natural-climatic conditions in the viticultural microdistricts in which D.O.C. red wines are produced

Microdistrict	Soil	Active vegetative temp. °C	Avarage temper in July	Amount of rainfaill 1/m ²
1. Souhindol	Carbonated-black earth, heavy sandy-argillous	4240 C	22.8 °C	653
2. Pavlikeni	Darkgrey forest soils. sandy-argillous	4200 C	22 °C	500
3. Bourgas	Maroon soils sandy-argillous	4219 - 4968 C	22 - 24.6 °C	437
4. Assenovgrad	The maroon, argillous sandy	over 4500 C	23 °C	650
5. Novo sello	The black earth argillous-sandy	3739 C	22.5 °C	561
6. Svilengrad	Carbonated-black earth, sandy-argillous	4200 C	23 °C	500
7. Svishtov	Carbonated-black earth over drift	3900 - 4100 C	21 °C	575
8. Oryahovitz	Humus-carbonated, sandy-argillous	over 3700 C	23 °C	500
9. Lozitza	Light carbonated over drift	over 3500 C	21 °C	600
10. Harsovo	Forest soil, heavily eroded	over 4000 C	24.6 °C	530
11. Stabolovo	Carbonated-black earth, sandy-argillous	over 3800 C	23 °C	550

unrepeatably fine vintage. Seven of the established specialized wines are produced in the Northern viticultural district, six - in the Eastern and

one in the Southwestern (Fig. 1). The specific natural conditions - the climate, the soil, the exposition, the active vegetative temperature, the average temperature during the hottest month, the amount of rainfall, as well as their distribution throughout the year, combined with good agrotechnics and cares for the plantations corresponding to the variety ensure the high quality grapes yield (Tables 3, 4).

Table 4. Natural-climatic conditions in the viticultural microdistricts in which D.O.C. white wines are produced

Microdistrict	Soil	Active vegetative temp. C	Average temper. in July	Amount of rainfall l/m^2
1. Sungulare	Carbonated black earth, sandy-argillous	3600 C	21.1°C	650
2. Karlovo	Maroon soils, gravel soils	4350 C	22.2°C	649
3. Karlevo	Grey forest soils, heavy sandy-argillous	3529 C	21.2°C	658
4. Novi Pazar	Carbonated black earth, sandy-argillous	3378 C	21.8°C	594
5. Varna	Carbonated black earth, over drift sandy argillous	3700 C	23 °C up to 700	
6. Han Krum	Grey forest soils, sandy-argillous	3200 - 3600 C	22 °C up to 700	
7. Lyaskovetz	Carbonated black earth, sandy-argillous	over 4000 C	22 °C	500
8. Rousse	Carbonated black earth, sandy-argillous	4000 C	23 °C	560

Table 5. Technological conditions for the production of grapes for
D.O.C. wines

Type of wine	Variety	Number of vines per ha	Max.yield per ha t/ha	Average sugar content %
"Gamza from Souhindol"	Gamza	2000	up to 7	21-22
"Gamza from Pavlikeni"	Gamza	2500	up to 7	over 20
"Roze from the South Beach"	Cabernet Sauvignon	2100	up to 6	20-22
"Misket from Sungulare"	Red Misket	4000	up to 6	18,5-19
"Mavrud from Assenovgrad"	Mavrud	4300	up to 6	over 21
"Misket Rosova dolina"	Red Misket	2500	up to 6	18,5-19,5
"Gamza from Novo selo"	Gamza	3000	up to 7	min.19
"Merlot from Sakar"	Merlot	2350	up to 6	over 22
"Sakrovishte from Kralevo"	Riesling	4200	up to 5	min.19
"Chardonnay from Novi Pazar"	Chardonnay	2200	up to 6	min.20
"Cabernet Sauvignon from Svishtov"	Cabernet Sauvignon	2200	up to 6	over 21
"Old red from Oryahovitza"	Cabernet Sauvignon	4600	up to 6	
	Merlot		up to 6.5	min.21
"Cabernet Sauvignon from Lozitza"	Cabernet Sauvignon	2500	up to 6	min.20
"Melnishko from Harsovo"	Shiroka Melnishka wine	3600	up to 7	21-22
"Chardonnay from Varna"	Chardonnay	2600	up to 6	19
"Traminer from Han Krum"	Traminer	2500	up to 5.5	min.20
"Merlot from Stambolovo"	Merlot	2500	up to 6	min.22

D.O.C. wines in Bulgaria are produced only by wine varieties divided into districts Cabernet Sauvignon, Merlot, Gamza, Mavrud, Riesling, Chardonnay, Traminer. The microdistricts in the Southern, Northern and Southwestern viticultural districts are specialised for the production of red wines and those in the Eastern - for white wines. Nineteen D.O.C. wines are established and produced, 11 of which red and 8 white. There is a strictly defined technology for the cultivating of the plantations ensuring the best specific for the sort gustative qualities (Table 5).

In the production of D.O.C. wines the quality of the grapes is of utmost importance. The cultivating of the plantations for this purpose is based on the applied technology in the corresponding microdistrict. Additional agrotechnical arrangements are done for achieving the necessary quality of the grapes yield. They are the following: yield standardizing so that in spring an additional pruning for the correction of the loading is done; an additional treatment of the grapes yield against diseases and insects, picking up and transporting of the grapes to the cellar, corresponding to the specific requirements of the technology for the production of the special sort wine.

The additional cares and the limited yield from an unit or area are compensated by the higher price that the producers receive for one ton of grapes. It is about 180-250% higher than the price of the grapes for the production of ordinary table wines. The resulting income from 1 ha of these plantations using the special technology is 150-180% higher income is allocated to the grape producers. Table 6. shows comparative economical indices for the production of grapes using the traditional and the special technologies of two varieties, Cabernet Sauvignon and Chardonnay (table 6).

The grapes quality is defining in the production of D.O.C. wines. Having this in mind we consider two points of interest for the future production of D.O.C. wines in Bulgaria.

1. Creation of optimal conditions for fully making use of the natural-climatic characteristics in the microdistricts and complete showing of the sort qualities.

2. Stimulating the producers for enlargement of the grapevines areas for the production of D.O.C. wines.

The necessity of scientific specifying of the technology for

Table 6. Economical indexes characterizing the production of Cabernet Sauvignon and Chardonnay

Economical indexes	Cabernet Sauvignon		Chardonnay	
	Tradi- tional techno- logy	Special techno- logy	Tradi- tional techno- logy	Special techno- logy
Per 1 ha				
1. Average yield t/ha	9	6	9	5.5
2. Aver.purchase price %	100	185	100	221
3. Total amount of pro- duction %	100	130	100	135
4. Working expenses %	100	95	100	96
5. Net profit % per 1 ton	100	157	100	167
1. Total amount of pro- duction%	100	185	100	221
2. Working expenses %	100	142	100	157
3. Net profit %	100	235	100	276

cultivating of the grapevine plantations can be related to the first point. The correct defining of the microdistricts, the suitable areas, the yield quality and quantity, as well as the training, the density of planting - (number of plants per ha), loading of the winter eyes, choice of healthy and authentic planting material in the forming of the new plantations are included. The correct solving of all these problems is of great significance as the insufficient specifying in some districts led to the deterioration of the grapes quality, mainly of the late ripening varieties Dimiat, Misket red, Gamza, Shiroka Meinishka, Mavrud. This requires seeking for new ways for their cultivation, a new specific technology with higher economic effectiveness and less labour-consumption to ensure stable grapes yield not only in quantity but in quality suitable for the requirements for production of D.O.C. wines.

The second point is the stimulating of the producers for enlargement of the grapevine areas for the production of wines of this

type. We should refer here the low prices of grapes and the existing state monopoly, namely, SO "Vinprom" in the wine production. This restricts the grape growers in the realization of the production and makes them unequal partners in the distribution of the profit from the realization of the final product-wine.

In conclusion we shall say that as delicatessen, the wine should leave high quality and maximum perserverence in its typical organoleptic and gustative characteristic to attract the attention of many clients. In this respect, with the production of D.O.C. wines, Bulgaria has set up a beginning which is of great importance for the country because of the encreasing the profitableness of viticultural and enology as well as the state's growing prestige in the international wine trade.

SECTION 2

REGIONAL AND INTERNATIONAL INTEGRATIONS

Chairman:

NEUHAUS, B.
(Switzerland)

INTERACTIONS BETWEEN PRODUCTION AND PROCESSING OF THE ITALIAN GRAPE GROWING SECTOR

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1. INTRODUCTION

The Italian wine sector is characterized by a very close relationship between production and processing.

The reason for this link is due to the almost exclusive trend of Italian vineyards towards the production of wine-grapes. This makes grapes an intermediate product requiring further processing before becoming a final consumer product in the shape of wine or one of its by-products.

It must be observed that over the past century Italian viticulture has undergone no true structural changes either at distribution or at the vineyards size level.

Like one century ago the average regional vineyard plot rarely exceeds one hectare. This is today particularly true only for two Italian regions: Puglia and Sicilia¹.

Even though over the past thirty years a slight trend towards the enlargement of the average vineyard acreage has been recorded (see Fig.1) the vast majority of the Italian vineyard acreage (more than 62 %) is made up of farms with plants ranging between 0.5 to 3 ha; furthermore 32.8 % of the total vineyard area is fragmented into 1 339 314 production units, with vineyards smaller than one hectare. On the other hand, apparently deeply rooted changes have taken place at the processing stage which should be dealt with more in details.

2. WINE-MAKING CENTRES' DEVELOPMENT

The Italian original wine-making units were the farms. The grapes' processing activity developed in a rather chaotic way starting from

these units and led to the setting up of an extremely fragmented and structurally poor reality of wineries, made up of mainly and medium-sized producing and processing enterprises and much more rarely by not large-sized processing industries.

Against this background of limited productivity, since the beginning of the century wine cooperatives (or cooperative wine-processing establishments in 1932) developed with the declared intention of becoming the rationalizing elements of a productive sector, which would otherwise be too fragmented and inefficiently organized, with inadequate means and technologies unsuitable for the development of a large-scale qualitatively acceptable as well as stable and hygienically safe product. In the sixties and seventies wine cooperatives experienced a substantial thrust. They enjoyed also the support of the agricultural policy that intended to pursue a program of wine-growers' organization based on self-discipline, aiming at improving the production situation from the quality and quantity point of view, as well as leading to an effective control of the market.

3. VERTICAL INTEGRATION IN THE VINE-GROWING SECTOR

In agriculture, by the definition "vertical integration" a whole series of mechanisms is referred to, whereby the timing and the coordination of the tasks performed by the various farming enterprises (production phase) and by other enterprises operating in other agro-industrial sectors (processing and marketing phase) are ensured, so as to meet these enterprises' structural and intervention needs in line with the general economic system's changing conditions, in the quickest and most effective way.

With particular reference to the grape-growing sector, it must be observed that the effort of rationalizing the processing stage, thus laying the basis for a vertically integrated viticulture, was almost completely addressed towards the cooperation formula and especially wine cooperatives. As already mentioned they play a fundamental role in the Italian grape processing sector. Every year almost 60% of the total grapes amount produced is processed and earmarked to wine making².

In this case, grape growers are the subjects of vertical integration. In principle, this situation is very favourable.

The cooperative provides farmers with a certain autonomy on the

trend to be followed so as to ensure an effective development to their sector, unlike what happens in the event of integration by contract with private wineries. It must nevertheless be underlined that some conditions are to be fully met for integration to be successful.

One of these conditions concerns the intervention field of cooperatives. For their members to exert a true power on the market, wine cooperatives must not only deal with product processing but also with marketing, market research activities, by promoting advertising campaigns and above all by adjusting production to the increasingly more sudden changes in consumer's taste.

Secondly, members' relations must enable cooperatives to play an effective coordination and supervising role with regard to products' quantity aspects. Hence the raw material's supply criteria can be complied with and the final product can be fully appreciated on the market.

A third prerequisite is to be satisfied. It concerns the managements's professional skills of cooperative bodies. Management is required to possess not only a thorough knowledge of the agro-industrial sector's modern technologies, but also entrepreneurial skills and personal abilities in the best interests of the whole members' community.

The extent at which such conditions are met in today's Italian wine cooperatives must therefore be identified. As far as production's adjusting ability to consumers' needs is concerned, "...the rationalization and innovation of processing plants are not as simple as it may seem in large-sized plants, due to their link to the already existing structures and to grapes' delivery times, even though that would be a desirable solution for problems affecting the grape growing sector"³.

Furthermore, "...wine cooperatives are characterized, at least theoretically, by all the technical and size related features required for the implementation of the necessary improvements in view of adjusting production to market needs. Yet, an essential prerequisite lacks in any farming enterprise, namely a suitable self-financing ability.... Therefore, wine cooperatives have no substantial financial means to make investments at a time when new massive investments are possible and absolutely necessary for their own survival"⁴.

As for members/wine cooperative relationships, as well as the winery's right to penalize the non-abiding members, the cooperative's by-laws prevent any attempt of reaction in case of supply of poor quality

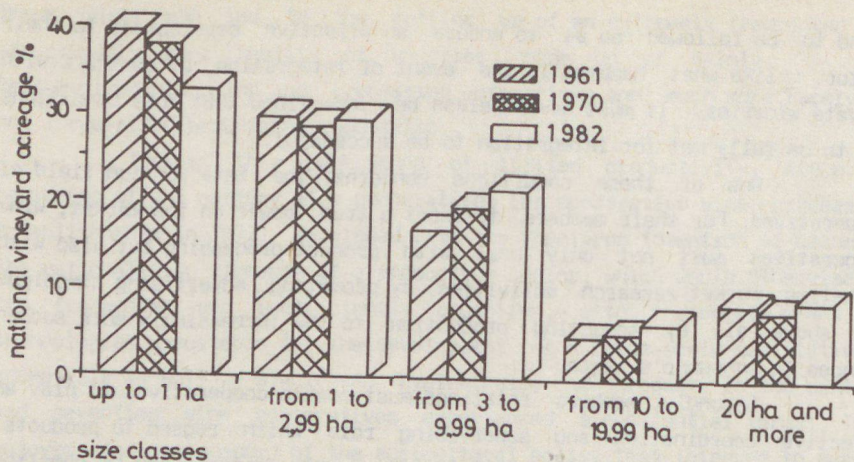


Figure 1. Structural trend of the Italian grape growing acreage from 1961 to 1981: Acreage % accupied by grape growing farms out of the total national vineyard acreage by size class

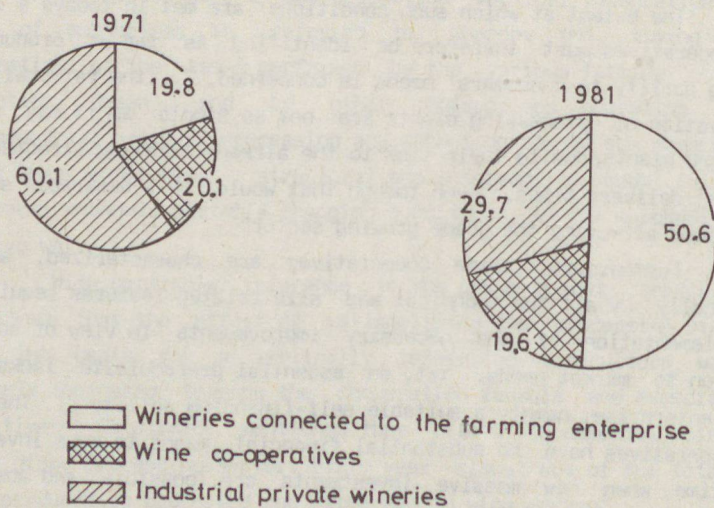


Figure 2. Dynamics of wine production structures from 1971 to 1981: percentage of the operators employed in the three wine-making structures on the national total

and insufficient raw materials' deliveries. Therefore, "...wine cooperatives could never rely upon quality products - on the ground of their by-laws as well - unlike private wineries or farming enterprises which are totally oriented towards high quality production...."⁵.

In terms of quality standards of wine produced by wine cooperatives, a substantial difference between North and South is to be highlighted. "The difference which sets apart central and northern regions from southern ones as far as the product's quality is concerned, can be clearly seen in wine cooperatives rather than in private wineries. Whereas in the North they have achieved an acceptable standard, in the South they still are at quality levels, which are markedly lower than private agricultural holdings' standards"⁶. This situation is confirmed by available data.

Table 1 clearly shows the substantial role played by wine cooperatives in the South, where the production of wines with appellation of origin is very limited, unlike what happens in the central and northern Italian regions. Table 2 shows the good quality of wine produced in northern wine cooperatives (Piemonte and Veneto), whereas in the South wine is mainly produced by cooperative wine cellars and is of poor quality.

Table 1. D.O.C. wine production and role of wine cooperatives
in the three geographical areas (1985)

	% D.O.C. on Italian D.O.C.	% grapes processed by coop. out of the national total
NORTH	64.10	17.77
CENTRE	26.00	6.27
SOUTH-ISLANDS	9.90	32.59

Source: our processing from Department of Agriculture (M.A.F.)
and Central Institute of Statistics (ISTAT) data, Rome 1986.

Table 2. Production of D.O.C. wine and importance of wine cooperatives in the main Italian grape-growing regions (1985)

	% of D.O.C. produced on national wine	% of processed grapes out of the national	% of processed grapes by cooperatives out of the regional total
NORTH—Piemonte	15.20	7.05	31.23
—Veneto	21.30	13.15	55.71
CENTRE—Lazio	6.10	5.06	57.00
—Toscana	14.10	4.97	14.95
—Puglie	2.00	18.58	57.41
SOUTH—			
ISLANDS			
Sicilia	2.30	17.66	78.72

Source: our processing from Department of Agriculture (M.A.F.) and Central Institute of Statistics (ISTAT) data, Rome, 1986.

With regard to the efficiency of the management class, it seems that "... the main obstacle hindering the full success of the marketing and processing cooperative enterprises .. - can be identified - ... in the lack of sufficiently well prepared managers both at technical and economic as well as at social level" Furthermore the wine cooperatives' development process in .. closely linked to the management skills, to the lacking will of implementing suitable policies for clear growth objectives to be achieved..."⁸.

In conclusion, in the grape-growing sector, the basic conditions for a successful implementation of vertical integration are apparently not met.

4. THE PRESENT SITUATION OF GRAPES PROCESSING IN ITALY

The development of grapes processing structures, which has taken

place over the past fifty years, has led to the definition of three main focuses in today's wine production in Italy, namely wine cooperatives, small-sized private farming enterprises - generally involved in the processing of their own grapes production - and large-sized private farming enterprises run at industrial scale.

Figure 2 shows the trend of importance attached to these three wine production centres in the delay which separates the last two industry censuses.

The grapes quantity which is processed every year by wine cooperatives and private wine makers is almost the same, with a slight predominance of wine cooperatives (56.79% of the total in 1985). Private wine makers almost always operate at a small or very small scale (the grapes average processed annually by every unit is equal to 12.5 metric tons. Furthermore, only in Trentino (90.1 metric tons) and in Puglia (56.6 metric tons) the average size of private wineries is at certain levels; whereas in other regions the national average is rarely exceeded⁹. Hence, private wine making units generally correspond to family-management small-sized wineries. On the other hand, private organizations with an industrial structure (a decline in the number and influence on the sector has been recorded since the 1961 industry Census¹⁰) become increasingly more difficult to be found and their activity is not production-oriented, but rather towards wine packaging and marketing.

5. CONCLUSIONS

The relationship existing between grape production and processing in Italy seems to be still today very strong, due to the prevailing number of wineries and wine cooperatives in the sector. Despite the revolutionary changes which have taken place over the last few years, grapes processing still remains mainly an agricultural activity. Wine making in private wineries aims at producing a quality wine. This seems to be in contradiction with the present agro-industrial sector's trend, whereby large-scale massive investments are envisaged to achieve a product able to meet the consumer's needs. Wine production seems to be an isolated case in the agro-industrial sector, mainly for two reasons. Firstly, because it is an activity, which does not require extremely sophisticated structures (theoretically anyone could make his own wine on

his own, going through all the production stage), or particular personal skills or inclinations. Furthermore, despite recent overall changes, the wine market is still extremely fragmented. It is made up of well-defined geographical areas, within which a certain wine is traditionally made and is the most requested by local consumers. It is therefore easy for small wine makers to sell their own products on a consolidated and safe market.

For these reasons, small-sized private wineries still exist and cover a wide market range, and especially in the South, a quality production range.

On the other hand, wine cooperatives represent an attempt to achieve - even in a peculiar sector - a very high degree of integration between the production as well as the processing and marketing phases. To this aim, the cooperation formula has been chosen.

Results, above all from a quality point of view, not always confirm the validity of this choice. Indeed, wine cooperatives are today in competition with private wine makers themselves, who would have required their support to overcome the difficulties deriving from the too stifling size of the production sector, according to rules and regulations aiming at promoting grape growers' cooperation. If wine cooperatives expectations were met, today not so many small grape growers exist and be able to counteract against the supremacy (taken for granted on paper) of those organizations, which do have the suitable size and skills enabling them to be competitive enough in this anomalous agro-industrial sector.

If things did not turn out in this way, it means that something has not worked. The insufficient quality control due to the company's by-laws, the employment of not well-prepared managers, the lack of solidarity between members are some of the main reasons, which have led to a partial failure of one, the integration attempts in agriculture ever before undertaken in Italy.

That is the reality we are confronted with, in spite of the utilization and sometimes the waste of resources earmarked to this sector. According to Galizzi "... a certain waste of resources is one of the prerequisites for the economic development. Yet, it is important to limit the waste as much as possible" ¹¹.

In the case of the Italian grape-growing sector, the vertical integration has taken place in a sector characterized by a limited cost effectiveness. It has given rise to many doubts, whether the waste of

public resources has really been "limited as much as possible".

The definition of such limits is nevertheless to be assumed.

REFERENCES

1. According to Central Institute of Statistics (ISTAT), "Annuario di Statistiche Agrarie", 1983, the average farming enterprise vineyard acreage per region exceeds one hectare only in Puglia (1.20 ha) and in Sicilia (1.13 ha).
2. Precisely 56.79%, Department of Agriculture (M.A.F.): "Denunce di Produzione". 1985.
3. Sorbini M. "Condizionamenti Economici nella Trasformazione dell'Uva", in *Vignevini*, n. 4, April 1987, Edagricole, Bologna.
4. Ibidem.
5. Sorbini M., "Aspetti evolutivi del settore vitivinicolo in Emilia-Romagna", in *Vitivinicoltura*, n. 24, 1986, E..S.A.V.E., Bologna.
6. Malorgio G.A., Farolfi S., "Sistemi di trasformazione e qualita del vino in Italia", Acts of the Meeting on "La Vitivinicoltura nel Mediterraneo", Bari, February '90.
7. Simeti A., "Obiettivi, organizzazione e problemi dell'impresa cooperativa nella fase di produzione". *Rivista di Economia Agraria*, n. 1, 1980, Edagricole, Bologna, pp. 106-109.
8. Idda M., Gutierrez. "Cooperazione e Cooperative Agricole: una breve analisi delle cantine sociali della Sardegna". , in *Bollettino degli Interessi Sardi*, n. 2, 1982, pp. 235/236.
9. Department of Agriculture (M.A.F.) "Denuncie di Produzione", 1985.
- 10.. Malorgio G.A., Farolfi S., op. cit.
11. Galizzi G. "Verso un'agricoltura integrata" in *Rivista di Politica Agraria*, n.2, June 1984, Edagricole, Bologna.

PROBLEMS AND PROSPECTS OF GRAPE GROWING AND WINE PRODUCTION IN THE EMILIA-ROMAGNA REGION

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1. PRODUCTION

Grape growing in the Emilia-Romagna region has changed radically beginning from the '50s. In the early part of the decade, vine cultivation covered over 40% of cultivated area in the region on a mixed crop basis, as figures from a 1952 survey show. This trend has been completely overturned and today grape growing is carried out in specialized plantings.

The change took place mainly in the '60s and by 1970 specialized plantings already covered more than 87 thousand hectares in the region. During the '70s, mixed crops were practically abandoned, while specialized plantings were maintained stable, occupying about 85 thousand hectares.

Towards the middle of the '80s, stagnation in wine consumption together with peculiar climatic conditions, with winter temperatures around -20°C , adversely affected grape growing so that acreage under cultivation dropped to a little more than 71 thousand hectares by 1989 (table 1).

About one third of the acreage under vine is located in the hill region, while two thirds is situated in the plain. Acreage in the plain region has dramatically decreased during the last ten years ($\sim 25\%$), while in the hill area investments have been fairly stable throughout the period.

Vine growing can be found throughout the Emilia-Romagna region, with greater concentrations in the provinces of Ravenna, Forlì, Reggio Emilia, Modena, Bologna and Piacenza.

The number of growers has also significantly decreased during the '80s, numbering currently at about 60 to 65 thousands. The average plot size per grower amounts to little more than one hectare, and is clearly a symptom of acute fragmentation in growing.

Regional grape output was around a million metric tonnes in the

Table 1. Evolution of grape growing area (hectares) in the Emilia-Romagna

Province	'70	'82	'83	'84	'85	'86	'87	'88	'89
Piacenza	6 998	6 734	6 624	6 652	6 678	6 648	6 648	6 632	6 642
Parma	2 174	2 164	2 200	2 258	1 977	1 885	1 850	1 830	1 826
Reggio Emilia	10 046	12 310	12 650	12 700	12 400	12 360	12 322	12 320	12 250
Modena	18 538	11 670	11 482	11 362	10 653	10 030	9 773	9 703	9 751
Bologna	12 201	11 775	11 500	11 000	10 860	10 659	10 608	10 280	9 852
Ferrara	5 039	3 014	3 000	2 900	2 300	1 740	1 715	1 659	1 589
Ravenna	22 313	24 188	24 185	24 080	19 225	20 820	18 300	17 600	17 500
Forlì	10 241	13 787	13 800	13 700	13 000	12 670	12 351	12 131	11 951
EMILIA-ROMAGNA	87 550	85 642	85 441	84 652	77 093	76 812	73 567	72 155	71 361
Mountain	2 224	1 310	1 116	1 112	1 108	955	903	878	853
Hill	21 532	22 134	23 074	23 039	23 050	23 799	23 655	23 010	22 720
Plain	63 794	62 198	61 251	60 501	52 935	52 058	49 009	48 267	47 788

Sources: General agricultural survey for 1970 and 1982, Emilia-Romagna region for the other years

early '70s, increasing considerably thereafter and reaching 1.4 million tonnes on average in the three-year period (1982-1984) (table 2). After the severe fall in production in 1985, output has stabilized at around a million tonnes per year, with an overall downward trend.

Table 2. Evolution of wine grape production in the Emilia-Romagna region

Year	Yield (t/ha)	Output (t)	Index, 71-72=100
1971-72	..	942 840	100
1982	..	1 437 780	152
1983	19	1 458 570	155
1984	16	1 278 810	136
1985	8	557 290	59
1986	16	1 119 800	119
1987	16	1 184 919	126
1988	15	1 008 562	107
1989	14	930 297	99

Sources: ISTAT

Average yield per hectare is around 15 tonnes, with considerable fluctuations from one province to another, especially as a consequence of different soil and climatic conditions and in relation to different vine varieties.

Highest yields amount to about 18 to 20 tonnes per hectare and are recorded for the provinces of Reggio Emilia, Modena and Ravenna, where highly productive plain crops prevail with varieties such as Lambrusco and Trebbiano. In the other provinces, where foot-hill and hill crops prevail, yield is around 12 tonnes/hectare for Forli and 8 tonnes/hectare for Piacenza.

With regards vine variety, black-grape vines amount to little more than half of the total cultivated area. Sangiovese and different varieties of Lambrusco are most widespread. Amongst the white grape vine varieties, Trebbiano Romagnolo and Albana are by far the most prevalent.

As far as wine production itself is concerned, Emilia-Romagna is ranked fourth amongst the Italian wine-producing regions after Sicily, Apulia and Veneto.

Production has diminished by about 30% during the '80s and in the last two years it has amounted to 7 million hectolitres (table 3). About 14% of this production is accounted for by wines with "appellation of origin" (VQPRD), 33% by wines bearing a general indication of the geographical origin and the remaining 52 to 54% by common table wines.

With regards to VQPRD wines, as can be seen in table 4, 20 thousand growers accounting for nearly 26 thousand hectares of vineyard, are actually enrolled in the "appellation of origin" wine growers list so that 35% of the overall cultivated area is VQPRD dedicated, amounting to one million hectoliters equal to 14% of total wine production. The discrepancy between grape growing area and VQPRD wine production figures can be accounted for by the fact that the amount of declared wine produced is considerably less than that actually obtained from the different wine producing areas. The reason behind this is largely due to the fact that table wines can benefit from special marketing subsidies which are not applicable to VQPRD wines.

The provinces of Ravenna, Reggio Emilia and Modena are those which declare the greatest quantity of VQPRD wines.

Regionally, 60% of VQPRD wines are red and the remaining 40% white. Of the red VQPRD wines, the Lambrusco and Sangiovese varieties prevail, and are followed at considerable distance by Gutturino and Barbera. Of the white VQPRD wines, the prevailing varieties include Trebbiano di Romagna, Albana and Malvasia.

As far as grape processing for wine production is concerned, the situation is not homogeneous throughout the region, with considerable differences as to legal status, organizational set-up, dimensions, and so on, of the various producers. On the basis of a survey conducted in 1981, it was found that over 1,000 processing plants were actively engaged in wine-production in the Emilia-Romagna region. 80% of these were part of the grape-growing establishment, while the remaining 20% were made up of cooperatives and private wine producers.

They first usually process their own grapes. In these cases, production capacity is normally quite modest and mainly meant for self-consumption or for marketing on a local basis. Amongst these

Table 3. Wine production in Emilia-Romagna region

Year	V.Q.P.R.D.		Indication of geographical origin		Table wine		Total	
	1000 hl	%	1000 hl	%	1000 hl	%	1000 hl	%
	574	14.1	1.860	45.6	1.646	40.3	4.080	100.0
1986	807	9.6	2,416	28.7	5,184	61.7	8.407	100.0
1987	1,353	15.1	2,461	27.6	5,125	57.3	8.939	100.0
1988	1,149	15.2	2,454	32.6	3,930	52.2	7.533	100.0
1989	907	12.9	2,362	33.6	3,763	53.5	7.032	100.0

Sources: ISTAT

Table 4. Acreage and VQPRD wine production in Emilia-Romagna in 1988

Province	Wine production					
	Enrolled acreage	Enrolled growers	White 1000 hl	Red or Rosé 1000 hl	Total 1000 hl	%
	Ha	Ha				
Piacenza	3 277	2 755	38	57	95	8.3
Parma	195	332	4	2	6	0.5
Reggio Emilia	3 436	2 558	21	240	261	22.7
Modena	4 718	4 368	4	192	196	17.1
Bologna	2 908	2 376	53	11	64	5.6
Ferrara	-	-	-	-	-	-
Ravenna	3 844	2 217	301	129	430	37.0
Forlì	7 437	5 571	33	64	97	8.4
EMILIA-ROMAGNA	25 815	20 177	454	695	1.149	100.0

Sources: ISTAT

producers, several have managed to acquire a considerable importance on the market as, although producing relatively small quantities of wine (from

between several hundred and several thousand hectolitres each), they have pursued a policy centred on quality and label promotion which has gained them an affectionate clientele both on the domestic and on international markets.

Whit regards cooperatives, 80 establishments are currently operating in the Emilia-Romagna region, bringing together over 50,000 growers.

The high degree of fragmentation in wine grape production noted above, and therefore in grape supply, has been largely overcome by the setting up of collective processing plants as well as of marketing organization, which control over 70% of regional wine production. Most of these plants and organizations were set up either before the 2nd World War or during the '60s. Many have been recently modernized or are currently undergoing restructuring. Their overall storage capacity amounts to over 8 million hectolitres and are therefore clearly oversized with respect to current demand.

As far as private wine producers are concerned, their importance as buyers of grapes for processing has dropped considerably over time and currently their activity is mainly based on processing bulk semi-processed wines rather than grapes.

2. MARKETING

A particularly characteristic feature of the sector has been the progressive decline in the importance of the grape market. Processing is more and more often carried out by individual growers or by associated growers such as coops.

Marketing has therefore become centered on the wine itself rather than on the grapes although a certain amount of unprocessed product is still sold to private consumers for individual processing or to local private wine producers.

Apart from the sale of the wine itself, regional wine production has several other outlets, the quantity of which varies from year to year depending on market prices. In these cases the wine is either withdrawn from the market or sent off to distillation. Withdrawals vary from between 1 to 1.5 million hectolitres per year. Of the 1988 production, over 2.5 million hectolitres, equal to 190,000 million Italian lira, were exported

abroad (table 5). The major markets included West Germany, which alone took up over 50% of Emilia-Romagna's production, the United States with 17%, France and the United Kingdom with little less than 13% each. These four countries, together, accounted for 93 to 94% of regional wine exports. Sales to Germany and France were characterized by bulk wines often used as a base for the preparation of sparkling and other types of wine, while those to the U.K. and the U.S. were generally bottled.

Table 5. Exports of Emilia-Romagna wines in 1988

Importing countries	Quantity		Value	
	Hl	%	million of It. lira	%
West Germany	1 275 480	50.7	59 681	31.4
France	325 659	12.9	16 642	8.8
U.K.	319 077	12.7	41 674	22.0
Others	58 094	2.3	7 563	4.0
TOTAL (EEC COUNTRIES)	1 978 310	78.6	125 560	66.2
U.S.A.	432 811	17.2	55 158	29.1
Others	105 961	4.2	8 934	4.7
GRAND TOTAL	2 517 082	100.0	189 652	100.0

Sources: ISTAT

Table 6. Value of Emilia-Romagna wine exports

Year	Export (million of Italian lira)
1985	203,737
1986	160,635
1987	160,399
1988	189,652
1989	227,089
AVERAGE	188,302

Sources: ISTAT

Exports, which had fallen considerably in 1985, began moving up again, accounting for 227,000 million Italian lira sales in 1989 (table 6). The provinces of Reggio-Emilia, Modena and Ravenna are the main exporters in the region.

Wine sold on the domestic market includes bulk wine used for blends or for the preparation of vermouths and sparkling wines as well as bottled and packaged wine ready for consumption.

With regards to the marketing of bulk wine for the preparation of vermouths and sparkling wines, sales are usually made via agents or buyers representing Italian companies, while sales abroad are carried out via foreign dealers rather than directly.

Other bulk wine buyers include domestic wholesalers who retail it either after packaging or in some cases even reprocessing. Direct sales from producer to consumer are still quite important.

The sale of bottled wines is often made through agents or sales personnel of the producer. The sale of this wine is increasingly being taken up by supermarket networks. In order to satisfy their demand numerous coops have set up consortiums together, equipped for bottling and having a sales organization capable of directly selling the finished product to this kind of buyer.

3. PROBLEMS

The problems associated with wine producing industry which we want to emphasize include the fragmentation in grape production and supply, the unbalanced ratio between red and white wines in relation to demand, the excessive proportion of sales represented by bulk wines and the negative fall out due to national regulations governing wine production.

In order to compensate for the fragmentation in wine grape production, cooperatives groups have been created for the processing and marketing of the finished product, which has thus permitted to maintain the existing small-scale growing units.

Towards the middle of the '80s it was realized that the production of red wines in the region was far in excess of that of white wines. In particular, the market trends of the period clearly showed that production was still over-oriented towards full-bodied red wines with high alcoholic content, which no longer corresponded to consumer tastes. In the

short term, the solution has been the adoption of wine-making techniques capable of diversifying the product, especially in favour of fresh, pearl wines with a fruity bouquet meant for early consumption. In the medium to long term, attempts are being made to renew grape varieties, reducing the black varieties and increasing the white grapes both by expanding the production of existing varieties and by introducing new ones. In connection with this trend, it is worth mentioning the activity of the regional agency E.S.A.V.E. for the study and assistance in the sector of grape-growing and wine-production in Emilia-Romagna, which sets up research programmes and conducts experiments, the results being made available to all operators.

The wines of the Emilia-Romagna region do not yet enjoy the reputation they deserve as all too often they are still marketed in bulk and reach the consumer without any appellation of origin. Numerous operators have responded to this situation by committing their efforts to marketing bottled wines. This has been done first and foremost by investing in bottling equipment and in promotional activities. In particular, the activity of the regional Wine Centre of Emilia-Romagna has been committed in this direction especially in making known the quality product.

Together with its permanent exhibition of wines in the historical Sforza Castle of Dozza on the hills outside Bologna, it also organizes promotional campaigns both in Italy and abroad, highlighting the best in regional wine production.

Economically speaking, the profitability of the sector, which until a few years ago seemed severely compromised owing to the drop in wine prices, has recently picked up thanks to a rise in prices due to a fall in supply.

The future of grape growing and wine production in Emilia-Romagna could suffer severe setbacks as a consequence of the application of EEC regulations in Italy. The policy endorsed by these new measures is clearly that of cutting down the grape and wine production of the plain areas as it is considered of lower quality. It should however be remembered, as already pointed out by the regional authorities of Emilia-Romagna for the implementation of the national programme, that this production need not necessarily be of inferior quality even in the presence of consistent quantities if the overall conditions of the ecosystem are satisfactory and varieties especially suitable and adapted to the local conditions are grown.

Despite the numerous problems, the deep-rooted tradition of grape growing and wine production in the region, the professional capacity of the operators, the natural talent and, ultimately, the lack of any alternative crops in many areas of the region, are all reasons which lead us to believe that adequate solutions will be found and that the quality and image of the product will be suitably enhanced, thus consolidating a particularly important sector of the regional agricultural economy.

OBSERVATIONS ON EUROPEAN COMMUNITY'S AND ITALIAN WINE MARKET

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1. INTRODUCTION

World wine production has recently shown a moderate decrease. After large increases during the sixties and the seventies - production was equal to 250 millions of hectolitres in 1960 and to 345 millions of hectolitres in 1980 - and a peak in 1982/83 (370 millions of hectolitres), during the eighties these figures reached more modest levels. Periodical and wide fluctuations in production, that take place year by year in various geographical areas because of the different climatic course, make always quite difficult the specification of trend of agricultural yields. However, there is no doubt that in the international global context a generalized tendency towards the reduction of areas devoted to viticulture is today prevailing.

As well as production, also the areas of vines have lightly reduced themselves in the last few years. They were 10.3 millions of hectares in 1975 while they are 9 millions of hectares nowadays. This trend has more widely interested Western Europe, whereas in Soviet Union areas of vines lightly increased.

The analysis of geographical distribution of areas of vines shows the relative importance, among producers, of Mediterranean Countries (Italy, France, Spain, etc.). European Economic Community, with its production of 209 millions of hectolitre in 1988, has the biggest share (about 70%) of total world production, with wide fluctuations among the different years because of unequal climatic conditions in the producer regions.

Among European wine producer countries, Italy plays a central role. Its viticulture extends on about 1 000 000 of hectares and in the

last year, according to provisional data, it reached about 34 % of total European production.

The main scope of the proposed paper is to forecast the future trend of the wine sector and Community's trade, with special attention to the Italian situation. This will be principally done by utilizing the relevant historical statistical data.

2. EEC WINE VITICULTURE

The relative importance of viticulture with respect to the global Community's primary sector shows itself both considering figures of agricultural statistics and evaluating agricultural specialization of specific regions for which viticulture is an obligatory condition for land conservation and the maintenance of the reached employment's levels. EEC wine production has been highly conditioned by different factors. Among these, we might remind: wine's Common Market Organization and the - sometimes different and even contradictory, especially if compared with national and regional strategies - Community's global policies in the sector; alternate results due to natural reasons and producers behaviour; the two enlargements in the last decade (Greece in 1981, Spain and Portugal in 1986) with the entrance of three producers countries; changes in consumers tastes; price movements of other drinks with high degree of substitute for vine.

Total EEC wine production was equal to 138 millions of hectolitres in 1978-79 (EUR 9), 164 millions of hectolitres in 1980-81 (EUR 10) and 208 millions of hectoliters in 1986-87 (EUR 12). However, this increase is to be ascribed exclusively to the entrance inside the European Community of producer countries, especially considering that almost all of the member States had reductions in productions.

With respect to the evolution of VQPRD and table wines production, we remark that the production of the first ones increased in the last years (they were 44 millions of hectolitres in 1980/81 and 54 in 1987/88) while table wines decreased of about 20 millions of hectolitres in the same period (they amounted to 160 millions of hectolitres in 1980/81).

Some remarks may be done with reference to the main producer States. As far as it concerns Germany, production decreased by 20% in the last five years and more than 95% of global production is quality wine

produced in limited regions. French VQPRD wines increased by about 20 millions of hectolitres but their share of national production is quite smaller (35%). Between Germany and France we find Spain (50% of total production are quality wines), while the same figure for Italy is much lower (10%).

The analysis of EEC wine consumption led us to separate the 12 countries in two different groups: producer countries (the Mediterranean countries: Greece, Spain, France, Italy and Portugal) and non-producer countries (Belgium, Denmark, Germany, Ireland, Luxembourg, Netherlands and United Kingdom).

As it is possible to see from figures 1 and 2, the main result is the following: in the last decade wine pro-capite consumption lightly decreased in producer countries while it did not change or even increased in non-producer countries.

Which are the reasons of such a trend? Changes in the habits of consumers are the first valid reason, mainly because of the new organization of work time-table and the adoption of the non-stop work time also in the Southern regions of the Community, where was the traditional three - or more - hours break between morning and afternoon with the consequent need for a light meal not accompanied with alcoholic beverages. Among the main reasons, there are probably the following ones: younger generations show to prefer drinks other than wine; the exodus from agricultural areas towards towns is always more frequent; the living standard of Europeans is improving, with the consequence that the consumer is now considering wine an unnecessary good and no more a caloric source; anti-alcoholic advertising campaigns have succeeded in their objectives especially because of the absence of an adequate education in nourishing which were able to explain that drinking the right, limited quantity of wine can become an important element of a healthy and well-balanced diet.

During the last recent years interesting market researches have been made in the wine's producer countries on wine consumption. They proved that there is a negative strong correlation with both the groups of consumers which have been collected according to the different ages (with higher data for older people and lower data for younger ones) and with consumption of alternative drinks (in order of importance: mineral water, beer, fruit-juices, coca-cola and similars, orange-drinks, etc.).

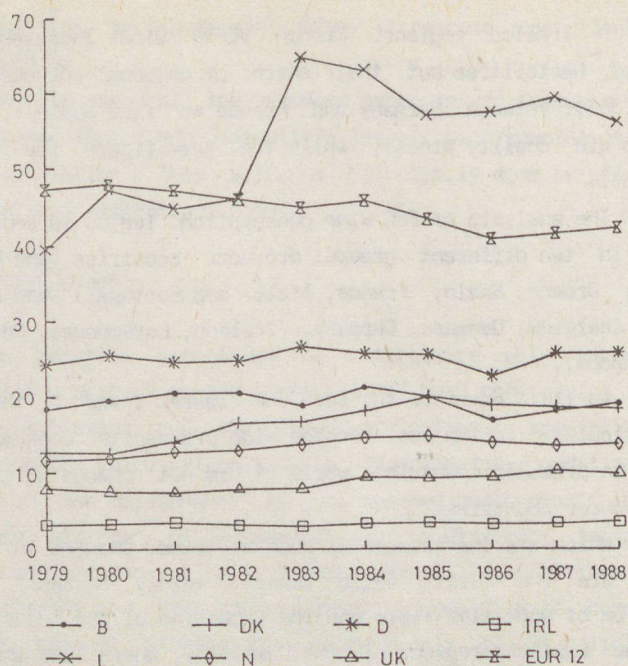


Figure 1. Pro-capita wine consumption in non-producer countries

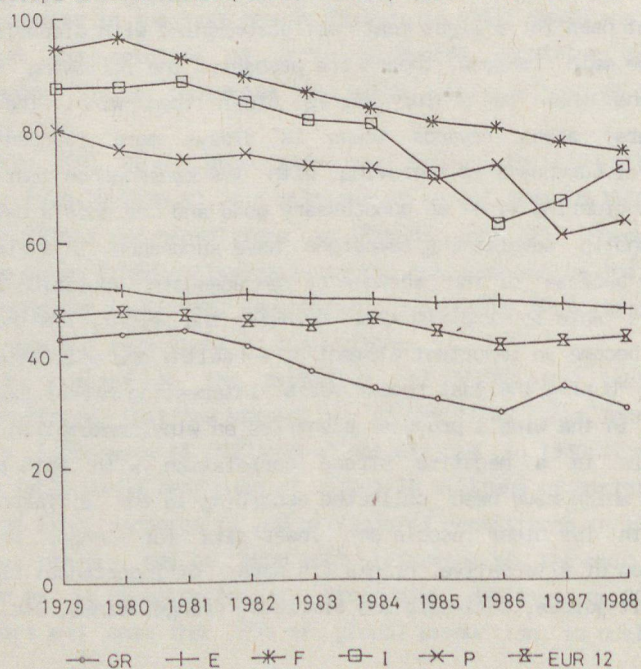


Figure 2. Pro-capita wine consumption in producer countries

A structural change of the demand has been coupled in the past - and is going to couple in the future - with the fall in wine consumption. More exactly, demand seems to be addressed in a growing way towards WQPRD wines. Such a tendency reflects the behaviour of consumers living in the well-developed countries, which are more and more demanding natural and genuine goods, with certain informations on origin and warranty.

Moreover, it is important to put in evidence that the absolute figures are still quite different with 60-70 litres pro capita in the producer countries and about 20 in the non producers, with a medium level of 42.7 litre/head for the Community (EUR 12).

An apparently surprising result is that some of the non-producer countries are exporting countries.

How to explain such a situation? It seems that some of the EEC member States, mainly Belgium, Federal Republic of Germany, Netherlands and United Kingdom, they all non-producer countries, are importing, from inside and outside EEC, not bottled wine at low prices and they export part of it in labelled bottles. They have so the possibility of obtaining added value in spite of producing countries.

3. ITALIAN WINE VITICULTURE

From 1950 upto the first years of the eighties, Italian wine production has had a continuous grow, reaching in 1980 a production of 86 millions of hectolitres.

In the last years these figures are reaching lower levels: during the last five years, the average yearly production was 67.3 millions of hectolitres.

Notwithstanding smaller quantities of wine have been produced recently, the constant and irreversible fall in consumptions, which are principally due to changes in needs and habits of life, is the cause of great problems in getting rid of the produced wine. For these reasons, large quantities of wine have been distilled.

As in other EEC countries, the production of VQPRD wines is increasing in Italy; moreover, while in countries like France and Spain the rates of growth are of higher level, in Italy the production of VQPRD wines - about 8 millions of hectolitres in the last years - is equal to 10% of the total national wine production.

Consumers preference for VQPRD wines and generally for quality wines can be explained with the well-known law of Engel, according to which when income increases, as a consequence there is a fall in the consumption of goods with a rigid demand or a negative elasticity and an increase in the consumption of goods with a high degree of elasticity. For wine, this means that table (or common) wines have been progressively replaced by quality wines.

During the last twenty years the constant increase of world stock of wines and a substantial diminution of pro-capita consumptions at a national level have driven operators in the trade of wine to look for different alternative solutions, with a preference for selling abroad.

Wine viticultural exports incidence on total national production shows a growing trends during the period 1974/75-1984/85 (from 15.5% to 24.6%), dropping drastically in the following two years (14%) and showing a considerable increase in 1988/89 (21.7%).

Wine exports fall in 1986/87 can be easily understood by an exogenous, not linked with the market, event. In fact, a lot of methyl alcohol was found in a limited stock of wine. This has led to an intense disparaging press campaign against the Italian product by the main European organs. It is a common opinion that this event did not originate from a diffused adulteration practice of Italian producers, but it is the effect of an Italian Minister of Finance Decree that taxed ethyl alcohol much more than methylic alcohol, with the consequence that some dishonest operator working in the wine sector and willing to increase the alcoholic degree of their product, did choose and added to wine the cheapest available alcohol.

These events caused a reduction in the absolute export values in 1986/87, a year with high levels of production, and a contemporary reduction in pro-capita consumptions, with serious problems in getting rid of wine surpluses.

In spite of the decrease of Italian production, in 1988/89 there was an increase in the absolute value of wine export, the share of which with respect to total national production was equal to 21.7%.

For what it concerns the composition of Italian exports in 1988, they amounted totally to 13.2 millions of hectolitres; 1.3% of them are non concentrated must, 7.8% are sparkling wines, 26% are DOC wines and the rest (64.8%) are other wines. Making a comparative analysis between production and exports of wine, it seems interesting to point out that DOC wines share

of exports (26%) is clearly higher than the correspondent share of production (10%).

We obtain different results if the analysis is made by utilizing values and not quantities. In this case, the most important items are DOC wines (50.6% of the total), which are followed by other wines (33.1%), sparkling wines (33.1%) and concentrated must (about 0.7%).

Figure 3 shows in a clearer way the conclusion just mentioned; considering only wines, we may see that percentages in quantities and values of exports are respectively 28.6% and 60.4% for DOC wines, and 71.4% and 39.6% for common wines.

Weight differences among the different types of products derived from the unequal average export prices that have been observed with respect to common wines (527 lire per litre) and DOC wines (2008 lire per litre) in 1988.

As it is possible to see from figure 4, the general trend of export prices shows with the exception of DOC wines a gradual reduction of values from 1971 to 1988, while in 1989 (a year during which total production decreased and internal pro-capita consumptions increased) average prices of all the products but non-concentrated must record a large rise.

Sparkling wines export prices are quite high, even if among them there are big differences, as DOC wines (Asti spumante, etc.) have higher prices than common sparkling wines.

For what it concerns export prices of quality and common wines, is interesting to observe that during the period 1971-1986 they had a parallel evolution, while afterwards, because of the methyl alcohol matter, it is possible to note an evident divergence due to considerable changes in demand from common to quality wine for higher healthy guarantees that the last one offers.

The evolution of common wines export prices is a good starting point for making some considerations on the possible future trends by utilizing statistical data of the last twenty years. Highest and lowest prices are situated on two lines which are parallel between themselves and have a tendency to get with extreme slowness near the axis of the abscissas, with the delimitation of a possible price band, inside which it is possible to define - according to: available quantities, pro-capita consumptions trend, etc. - the equilibrium point between demand and supply.

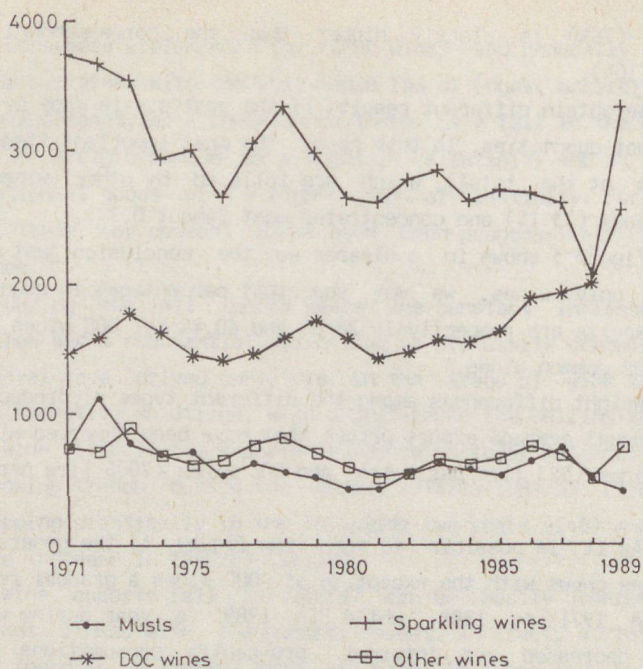


Figure 3. Italian export prices (Italian 1988 lire/litre)

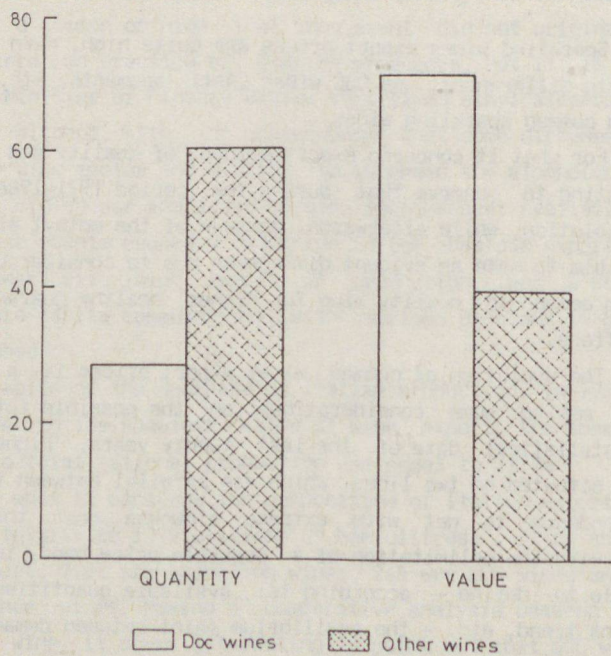


Figure 4. Italian wine export (percentage)

The observed trend of DOC wines does not differ until 1986. From that year on there is a growing increase of values, as an effect of increases in demand not counterbalanced by parallel increases of produced quantities.

4. CONCLUSIONS

As we pointed out, viticulture plays a primary role in the economy of Mediterranean member countries. There is a generalized tendency to reduction in areas and production while productivity is increasing and producers are more oriented towards quality products to give adequate answers to a changing demand.

The Italian wine viticulture shows little differences, also if it is more recently going in the same direction as the European sector.

Public actions in favour of this production need to be revised, and especially coordination among the different levels of government is necessary. European Community's policies gave their contribution to maintain operators' level of incomes, but they surely created other major problems, in particular coming out from surplus.

A complete analysis of the wine market must take into consideration the main aspects of the reinforcement of the European integration process. With the beginning of 1993 European Community would have to complete the internal market and completely abolish the barriers to the effective free circulation of men, goods, capital and services. This will involve the wine sector as well as other production and generally the global way of managing one's own life and business.

Hidden protectionistic behaviour (eg.: national or regional non transparent fiscal measures, technical requirements linked to the possibility of exporting/importing goods, etc.), the reinforcement of the trading and transformation agro-industries, the importance of cooperation and the quality of the product, the capability of introducing technical innovation within the firms and fully considering the right relationship between environment and agriculture (with the logical consequence of reeducate viticultural farmers and change their habits in utilizing chemical products and exploiting the nature in order to maximizing their short-run profit) and the need for technical and managerial training are surely some of the most important elements of the future world viticulture.

It would be also interesting to pay adequate attention to the evolution of legislation at the national and regional level and their coordination with European Community laws.

Marketing policies (especially advertisement) have to be as well the object of some work, aimed in particular at those techniques that can bring to the diffusion of the product in countries (or areas) where it is not yet known or scarcely consumed.

Spatial limit to our paper impeded to speak of supply concentration and commercial agreements (eg. joint-ventures), which might be the winning policies for most of the wine regions (surely for Italian Mezzogiorno).

Finally, quality checks will allow transparency in the market and the whole sector will benefit from their full adoption as well as the final consumers.

INTEGRATION OF SMALL-SCALE VITICULTURE IN HUNGARY

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Hungary stretches at the northern borderline of the wine growing region. Because of its geographical location and climatic conditions, high yields can be produced only if all the necessary operations such as cutting axillary shoots, sorting and truncating are carried out carefully and in due course in the growing phase. This is necessary to ensure sufficient light, appropriate fecundation and efficient plant protection. For any variety presently cultivated, the existing national average yield could realistically be increased by 40-60% to over 10 tons per hectare.

In large-scale production it is impossible to have the aforesaid operations carried out by permanent staff in the 2-3 weeks available and only few farms can hire temporary labour. In addition, strict supervision is required to make sure that the operations are performed with due care.

Family farming has somewhat improved the situation but has not solved the problem yet. Under this arrangement, the worker performs all manual operations with the help of family members on a specified area and receives a certain amount of wage as compensation. Since the wage is not set as a function of the yield, it fails to provide sufficient incentive for good performance.

Another arrangement providing greater incentives is sharecropping by farm employees because their compensation is set in proportion to yields. Although there is a risk of straining the stock, it can be eliminated with long-term contracts. The share in the crop means a higher compensation than the average but the social security contribution and other liabilities push up the cost of labour and thus the prime costs substantially.

For the above reasons, an increasing area of state farms and agricultural cooperatives has been cultivated by small producers integrated

by large-scale farms since the first half of the 1980s. At present, the majority of the 40-45 hectares of large-scale plantations is cultivated by small producers, giving about one-third of the annual national wine output. This kind of integration is also extended to specific forms of small production such as household farms, vineyards given as fringe benefits to farm employees and small plantations cultivated by specialized groups.

The forms of integration are varied in the country but they invariably include:

- the lease of land or cooperation in establishing plantations on large-scale farms;
- the development of compulsory or recommended production technology;
- in almost all cases machinery services and material supplies against charges;
- the purchase of the crop at regional mandatory or negotiated prices on the basis of contracts.

This kind of cooperation is favourable for both parties. The large-scale farm earns income from leasing its plantation and the service fees charged in most cases and has a reliable supply of raw materials for its wine processing plant in the required composition by varieties and in an appropriate harvesting schedule. The small producer in turn receives technical assistance and machinery services and enjoys a safe market for his crop. In most farms, costs are charged in proportion to the output, meaning that the risks are shared between the integrating farm and the small producer. In addition, several years of integrated cooperation, occasionally covering the full life of the plantation, ensures that the stocks are kept in good condition and give high yields. In general, the incentives are not linked to final output and at most the purchasing price is differentiated according to quality.

Small production integrated by large-scale farms take various forms with individual features almost in each case. Based on surveys, we have tried to classify them by major features. The integrating large-scale farm provides either the land or the plantation for the small producer:

1. Own employees receive **land as fringe benefit or household plots** for plantation. It means free use of land on 3-6 thousand square metres,

depending on performance. Farm employees or cooperative members can then develop up-to-date large plantations divided into plots at their own expenses.

2. The large-scale farm may **lease land** to its employees or members or even to an outside entrepreneur for uniform plantation. It is different from the previous arrangement insofar as annual rents are charged. It is possible to dispose the plantation if the rent is undertaken by the new beneficiary.

3. The large-scale farm may give the plantation to part-time growers for **sharecropping**. It is in fact a special form of land lease where the services are provided by the large-scale farm and the costs of such services are deducted from the crop or cash that the sharecropper has earned. Such cash compensation does not quality as wages for the large-scale farm.

4. The integrating farm may **lease the plantation** to small producers, taking into account the age of the plantation, any deficiencies as well as the condition and variety of stocks. The rent includes the rent of the land and the stocks. Although it is also set in cash, the rent is usually paid in kind, i.e. grapes or wine.

5. **Household farms** of land as fringe benefit can also be given as part of the **existing large-scale plantations**. In such cases, the grower pays a reduced rent for the use of the plantation.

The foregoing forms of integrated small production do not mean full-time occupation. The growers are not only agricultural employees but they can also be professionals, industrial workers or service employees.

6. As a new form, private entrepreneurs may rent 1-5 ha plantations and cultivate them full time.

7. There are even examples for leases of 40-110 hectares of plantations by entrepreneurs.

8. In addition to leasing large-scale plantations against annual rents, they can also be made available for their full life against a one-off "purchase price" by retaining ownership of the land. After the term of the lease, the right to use the land reverts to the large-scale farm. Instalment payment may also be agreed upon for the purchase.

It appears from the above examples that wine growing has been shifted for the most part to small production in a variety of forms even

though large-scale farms are still predominant owners of land. As the degree and forms of privatization are developing further, wine growing will soon exceed the scope of joint large-scale production.

We cannot expect too many private entrepreneurs for the time being. It is mainly due to economic reasons such as scarcity of capital, initial plantation costs running to HUF 400-600 thousand per hectare, high interest rates and modified government subsidies. As an important human factor posing an obstacle, we should note unfamiliarity with private business, the lack of entrepreneurial spirit and the unwillingness to make autonomous decisions and assume risks. It is expected therefore that the aforesaid forms of part-time wine growing will be more popular in the immediate future.

It is yet difficult to assess the impact of the new law on land ownership, however it is obvious that even in the future there will be need for some cooperative form and regular relations with processing and wine making in viticulture based primarily on large-scale plantations. This kind of cooperation can be organized within the new framework of present large-scale farms or in some cases new cooperatives may be formed on a voluntary basis, specializing in wine growing. It is possible - and in fact desirable - for wine growers to have financial interests in existing wine processing plants, or perhaps wine making may even be absorbed by cooperative wine cellars in some places.

THE APPLICATION OF THE TECHNIQUES OF EXPERIMENTAL ECONOMICS TO GRAPE MARKETING

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INTRODUCTION

In the markets for many commodities, institutional constraints often cause distortions to prices paid and quantities traded. However, it is not always clear what effect the removal of the distortions will have, particularly if the market is at all complicated.

In the market for grapes, we were faced with the analysis of this type of situation. A minimum price was legislated for grapes, in an attempt to stabilise and bolster growers' incomes. If demand for grapes in a particular year were assumed to be relatively inelastic, then small increases in this supply would lead to large falls in their price, and a fall in growers' revenues. However, long term problems resulted from this, including over supply, the slow response of growers to market trends, and black-market operations.

The position was complicated by several factors. The first was that, particularly for bulk wines, there were two sorts of wineries: privately-owned wineries and cooperative wineries. Private wineries had to pay minimum prices but cooperative wineries did not: instead, cooperative wineries made wine (or earlier stages in the process such as grape must) and on marketing sales, subtracted their costs and remitted the returns to growers. Thus sales to private wineries were at an assured price which was often high. But sales to cooperative wineries were at much less certain prices. To complicate matters further, not all growers were members of the cooperative wineries and were unable to join them. Thus, members of cooperatives had a choice: sell to the private wineries what they could (at a high price whenever possible), and offload their remaining stock of grapes to the cooperative (an uncertain price).

Nonmembers had less choice: sell to the private wineries or let the grapes rot on the vine. The second complicating factor was that different States of Australia had different minimum price laws, but more importantly, trade between the States was free. This meant that across State boundaries, wineries were not obliged to pay minimum prices, so some excess supply could be sold across State boundaries. Despite the high cost of transportation, in some years there was considerable movement of such grapes each way across State boundaries. In fact, there is some evidence of some trucks crossing State boundaries, their grapes being "sold" to an interstate buyer sitting on the other side and then turning back to be resold in the original State to the winery it was originally intended for.

If the requirement for minimum prices were dropped, it is not clear, a priori, what the effects would be on either the returns to growers or returns to wineries, whether cooperative wineries would prosper or go into decline, and how members of cooperative would fare compared with nonmembers.

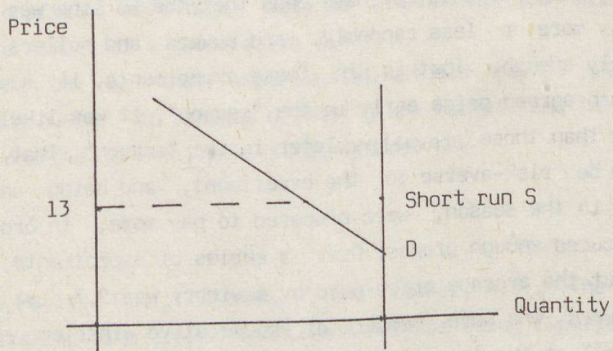
THE ROLE OF EXPERIMENTAL ECONOMICS

Experimental economics is a relatively new tool which was applied to this situation, in which individuals played the part of buyers (wineries) and sellers (grape growers). Economics experiments usually have one distinctive feature: supply and demand conditions are determined by the experimenter and are therefore known. This contrasts with the real world, where an individual firm may know its own supply curve (perhaps imprecisely, even so) by knowing its costs of production, but will in general have only imperfect knowledge of market supply, while market demand is rarely known at all precisely by any of the participants in the market.

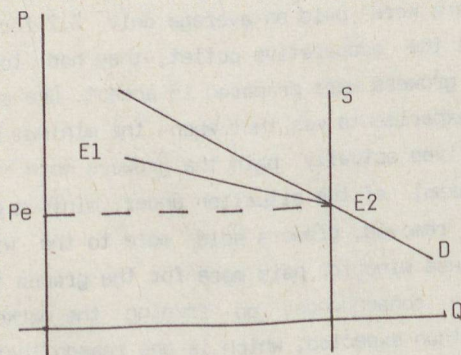
Demand is induced by the experimenter in the following way. The buyer of a good may resell to the experimenter the items bought in the market. The buyer will receive the highest resale price for the first unit, the next highest resale price for the second unit, and so on. An experimental analogue of a demand curve is thus described by joining up these price-quantity points. Sellers are told their costs of production, which determines supply. (In the case of the grape market experiments, costs were assumed to be zero, and aggregate supply was determined in advance by the experimenter.) The experiments under consideration were reported more technically in Burns et al (1989).

THE EXPERIMENTS

In the experiments, there were 3 individuals acting as private wineries, and 7 as growers, 4 of whom were members of cooperatives. It is important to specify how trading took place: it was by individual negotiation. Different forms of trading can lead to different prices and quantities being traded.



In the minimum price market, prices paid were almost entirely at the price of 13, the minimum designated price whatever the amount supplied.



However, when minimum prices were removed, an experiment with

otherwise identical conditions should have quickly reached the price P_e as in the diagram. However, in six replications of this market (with different subjects), and with the situation being repeated several times in each replication, there was a tendency for prices within a trading session to follow a line such as E_1E_2 , with the earlier trades at the end E_1 and later trades at E_2 . That is, average prices were well above P_e . From one time period to the next within a replication, there was little tendency for E_1E_2 to drop towards a horizontal line through E_2 as would be predicted by theory. The reason for this may have been that the SS line was shifted each time period, more or less randomly, and buyers and sellers could never adjust quickly enough. That is, in these experiments, if a winery made a contract at an agreed price early in the "season", it was likely to be at a higher price than those prevailing later in the "season". That is, wineries appeared to be risk-averse in the experiment, and being unsure of the supply early in the season, were prepared to pay more, in order to ensure that they secured enough grapes. Over a series of experiments, the average P_e was 7.4 but the average price paid by a winery was 9.7.

Growers who were members of cooperative wineries could not be induced to sell at the average of 9.7, but were required to be paid 11.6 by the private wineries. They were in general not prepared to sell for as low as 9.7 because they could send all unsold groups to the cooperatives, where the average price received (but known only after the event) was 12.8. That is, they were risk averse to the extent that they were prepared to get a known average payout of 11.6 compared with the unknown 12.8. However, the non-cooperative members were paid on average only 8.2 for the grapes they sold, because without the cooperative outlet, they had to settle for less than the cooperative growers were prepared to accept. One surprising result to emerge from the experiments was that when the minimum price scheme was dropped, the cooperatives actually paid the growers more than the private wineries paid, a reversal of the situation under minimum prices. With the minimum price scheme removed, growers sold more to the wineries than was expected, partly because wineries paid more for the grapes than they needed to have done. As a consequence, on freeing the market, cooperatives received less grapes than expected, which is one reason that they were able to maintain high prices to growers. Grower profits were not significantly changed after removal of the minimum prices, but winery profits increased by almost 50%.

CONCLUSIONS

As can be seen, a relatively complicated market structure was analysed by means of an experimental market, and several interesting results were found. Dropping the legislated minimum prices caused prices for grapes to fall, but profits of growers to remain unaffected because for fewer grapes remained unsold. However, this last result did depend on the elasticities of demand assumed for the private wineries in the experiment. It was a significant advantage, with or without minimum prices, for a grower to be a member of a cooperative winery.

It can be seen that experimental methods may be used to give insights into a number of aspects of the grape market, and in particular, to exploring changes in institutional structure.

REFERENCES

- Burns, J.P.A., Meyler, M.J., Tiernan, P. and Fischer, A.J., "The South Australian Wine Grape Market: an Analysis Using Experimental Economics Techniques". International Journal of Wine Marketing, pp. 15-26, Vol. 1, No. 2, 1989.

VINE-GROWING AND WINE-PRODUCING ROLE IN A DEVELOPING ECONOMIC SYSTEM: THE ITALIAN CASE

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1. INTRODUCTION

Over the last thirty years the vine growing and wine producing sector have considerably changed practically in all the stages of production.

If, on one hand, at the level of production of raw material for processing, the specialized wine growing area has increased and cultivation systems have improved, on the other hand, at the processing level, evolution has been rapid and the greater availability of machinery and technologies has made wine making quite efficient; finally, at the level of marketing, in addition to the wine with D.O.C. (wines with appellation of origin), the vine growing and wine producing sector had difficulties in keeping up with the changes in the communication system and their effects on ultimate consumers.

In particular, as for wine making, changes have partly met the demands resulting from a continuous evolution of the national economic system over the last thirty years, on one hand by a better productivity of resources, on the other hand by trying to produce quality products capable of meeting the changing and various market demands. Until the '50s, Italian vine growing and wine making based essentially on the small family concern for the production and processing of raw material (grapes) in order to obtain the final product (wine) but, after the '50s there has been a clear-cut change in the Italian system of wine production and the trend has been towards larger national-based system, namely, by developing cooperative associations and, to a lesser extent, private concerns which still are of small-medium size.

This dichotomy needs to be stressed in that, beyond the aspect

related to the surface, a number of problems make wine processing inadequate to produce the quality products the market demands.

2. WINE MAKING UNITS

The system of production of the wine making sector in Italy is still, at present, highly fragmented.

Considering the typical strong integration between the production and processing sector in the Italian vine growing and wine making, such a fragmentation is mainly due to the expressive dispersion of the units which produce the raw material for processing.

Based on the available data of the last census of industry (1981) (Table 1) it is noticed that the number of processing units which process only their own production in the farm, is 12 401, about 77.3% of total processing units. The remaining processing units consist of cooperative associations (7,6% of the total number) and industrial units belonging to industrial concerns which represent about 15.2% of the total.

From the point of view of employment, the order of importance of producing units remains the same but percentages change.

Out of a total of 47 159 people employed in the wine making sector, about 50.7% of them are employed in the processing centres in the farm and they have, in terms of employment, a medium size of 2.5 people per production unit. Industrial concerns with a medium size of 7.4 persons per production unit, are becoming of increasing importance and employ almost 30% of the people employed in this sector.

Also cooperative wine growers' associations are playing a greater role and employ 19.6% of total people employed, with a medium size of 9.7 persons per production unit.

The analysis of the structural evolution of the wine producing sector in the last twenty years is of interest.

From the data of the last three censuses of industry (1961,1971,1981) it is observed that the total number of processing units slightly decreased in the first ten years (-9.1%) whereas it greatly increased (about + 188%) in the second ten-year period.

As for the number of people employed, an increase was observed in both the two ten-year periods and especially in the second one. This is mainly due to the proliferation of processing units in the grape producing

Table 1. Units and people in the wine producing sector
(1961-1971-1981)

	year 1961			year 1971			year 1981		
	Units	Pers.	Pers./	Units	Pers.	Pers./	Units	Pers.	Pers./
	n ^o	n ^o	empl.unit n ^o	n ^o	n ^o	empl.unit n ^o	n ^o	n ^o	empl.unit n ^o
Processing activity in the farm	2 242	9 564	4.27	1 659	6 253	3.77	9 601	23 905	2.49
Processing activity(x) by coop.				626	6 351	10.15	951	9 266	9.74
Processing activity by industr. concerns	2 502	21 523	8.60	2 025	19 114	9.44	1 895	13 988	7.38
TOTAL	4 744	31 087	6.55	4 310	31 898	7.40	12 447	47 159	3.79

Source: Our elaborations on Central Institute of Statistics (ISTAT) and Industry Census data, 1961, 1971, 1981.

(x) In 1961 there is no distinction for the activity by cooperative associations

farms which, between 1971 and 1981 (omitting 1961 because the survey made no distinction between private and cooperative units) increased from 1 659 to 9 601¹.

Also the processing units with cooperative activities greatly increased from 521 in 1971 to 832 in 1981.

But, as for industrial processing units a reduction is observed starting as early as from 1961, and they decreased from 2 502 units to 2 025 in 1971 and to 1 895 in 1981.

These changes over the last twenty years resulted in a decline of the number of people employed. On the average, the number of persons employed per processing unit decreased from 6.5 in 1961 to 3.8 in 1981. Such a decline refers to both private and cooperative producing units.

In order of importance, in the ten-year period between 1971 and 1981, the units with processing activity within the farm show a decrease of 35% in the number of employed people, of 25% in the industrial concerns and, finally, of about 7% in the wine growers' cooperative associations.

Particular attention within the processing sector is to be paid to the ever increasing importance of wine growers' cooperative associations in these last years. From the analysis of available data it is observed that the number of wine growers' cooperative associations increased from 446 in 1960 to 834 in 1986 (Table 2); out of the total, the percentage of grapes processed by these wineries raised from 15.1% in 1960 to 52.8% in 1986. The influence of wine growers' cooperative associations on Italian vine growing and wine producing sector is negligible until 1950 but, it greatly increases afterwards due to the changes of some basic economic parameters related to the national production system.

Table 2. Number of wine grower's cooperative associations in the vine growing and wine producing sector in Italy through the period 1950-1987

Years	cooperative	Tons of processed grapes	% on the total processed grape
1951	217	3 559 755	5.56
1960	445	1 877 896	15.10
1970	630	26 592 500	26.80
1980	797	51 245 712	41.85
1987	834	52 369 844	52.80

Source: our elaboration from INEA (National Institute of Agricultural Economics) "Annuario dell'agricoltura italiana" Rome, various years.

The growth in the number of wine growers' cooperative associations, reckoning on sufficiently large size to justify the use of adequate technologies, ensured on one hand the sanitary and quality

improvement of the product, on the other hand enabled to lower fixed production costs. The diffusion of these associations raised the hope, and for some also the certitude, that the small artisanal-wine makers would enhance the average quality of their products in order to stand the competition of the quality wine produced by cooperative associations. The "wine growers' cooperative association" effect would have been expressed both in the imitation of the behaviour of cooperative associations and in the competition for better quality. In any case, it would have resulted in a reduced number of small processing units and an increased size of those still present in the sector.

Therefore, also indirectly, wine growers' cooperative associations would have imposed a notable improvement of quality production. This would have entailed a better aggregation between production, processing and marketing for them to gain a better position in the market.

But, the increased importance of cooperative associations in wine production did not result in the acquisition of a corresponding market sector. In fact, quite often wine growers' cooperative associations simply make the preliminary processing whereas the successive steps of products presentation and promotion are made by others.

Therefore, cooperative associations have still continued to produce mainly ordinary wine, by more than 60%, despite a slight descending trend, in 1970, for instance, it was about 65%.

This being observed, we enquired into the impact of the growth of cooperative associations with respect to the number of small wine makers, accepting the assumption that the presence of very small wine makers is a symptom of a very low sanitary and quality level.

3. QUALITY AND PROCESSING UNITS

For our survey we referred to the data of 1985 drawn from the statements of wine production made compulsory by law.

In the course of the survey, we tried to detect any correlation between quality and type of management (private or cooperative) as well as between quality and size of processing units.

For the study of the former relationship we subdivided Italy into three big areas: northern, central and southern+islands in order to

point out the differences in the grape processing sector in our country.

Two important parameters to detect the relationship between quality and type of management of the producing units are: percentage, in each of the three areas, of D.O.C. wine out of total in Italy; the percentage of grapes processed by cooperatives out of the regional total (Table 3).

The data show that in central-northern Italy more than 90% of premium wine is produced, in southern Italy - which supplies 46% of the total national wine - scarcely 10% of premium wine is produced.

Table 3. D.O.C. wine production and role of cooperative winery in the three geographical areas (1985)

	% D.O.C. on Italian D.O.C.	% grapes processed by coop. out of the national total
NORTH	64.10	17.77
CENTRE	26.00	6.27
SOUTH-ISLANDS	9.90	32.59

Source: our processing from Department of Agriculture (M.A.F.) and Central Institute of Statistics (ISTAT) data.

Percentages are almost reversed when dealing with the influence of cooperation on wine production. In fact, wine growers' cooperative associations in southern Italy produce more than 57% of wine produced by cooperative associations in Italy, whereas the remaining 43% is shared by northern and central Italy.

Therefore, this preliminary analysis seems to show an evident contrast: great cooperation and low quality in the South and in the Islands, a greater role of private concern and a better quality in central and northern Italy.

This would lead to point one's finger indiscriminately at wine producing cooperative associations in that they produce poor quality wine which is not appreciated by consumers.

But, a deeper and detailed regional analysis can prove that there is no absolute correlation between the type of management (private of

cooperative) and wine quality. In northern and central Italy the high incidence of the cooperative system does not prevent from having a high percentage of high quality wine; in southern Italy it still exists a wine producing sector based on wine growers' cooperative associations which clearly shows not to pursue the policy of product quality and control they had the credit for.

A general picture showing the trend of the relationship between type of management (private and cooperative) and product quality can be given by relating the regional importance of D.O.C. wine production and the number of private and cooperative processing units. A slight correlation was observed between the quantity of D.O.C. wine and the number of private concerns, but no correlation was observed with the number of cooperative associations.

This shows that at increasing values of private wineries do correspond greater increasing values of D.O.C. wine production (correlation coefficient=0.49, significance level=0.03) as compared with the number of cooperative associations (correlation coefficient=0.22)

We also analysed the relationship between the size of units and the production of D.O.C. wines.

Considering the national average, it appears that the amount of processed grapes per year processing unit is equal to 12.6 metric tons for private concerns and 3 072 metric tons for cooperative associations.

Comparing the size of processing units and the production of quality wines at the regional level no correlation was found (cor.coef.=0.078). Thus, the quantity of D.O.C. wines is not related to the working capacity of producing units, especially if they are of large size.

4. CONCLUSIONS

It seems that despite the evolution of the last decades, the wine making sector in Italy has not kept up with the market needs.

Although quality production is difficult to be defined, by associating it to the certified D.O.C. and D.O.C.G. products, a clear-cut difference was observed among various Italian geographical areas. The regional analysis leads to exclude any correlation between management types of processing and quality of production. Cooperation does not seem to be a decisive factor for quality.

Therefore, the assumption of our survey proved to be wrong and cooperative associations in Italy did not succeed in "enhancing" the vine growing and wine producing sector by reducing the number of small producers who were thought to give reliable quality, nor did they take part to or promote the development of quality products which are rather correlated to the greater diffusion of small processing units.

In conclusion, is that the processing sector has not prepared all the best tools to face the new market needs.

REFERENCES

- De Castro P.-Zagnoli G., I costi di trasformazione dell'uva, in "Vitivinicoltura",n.24, 1986
- De Meo G., La cooperazione vitivinicola nel settore agro-alimentare, in "Rassegna Economica",n.2, 1986
- Frova S., Le imprese produttrici di bevande alcoliche. Aspetti economici e finanziari,in "Industria delle bevande", august 1985
- INEA (National Institute of Agricultural Economics), Annuario dell'Agricoltura Italiana, anni vari
- IRVAM, Studio-progetto per il miglioramento della trasformazione e del commercio dei prodotti vitivinicoli. Roma, 1981
- ISTAT (Central Institute of Statistics), Censimento dell'industria, del commercio, dei servizi e dell'artigianato,Roma,1961, 1971, 1981
- Paramithiotti A., Tendenze evolutive del settore del vino in Italia in "Commercio",n.31, 1988
- Sorbini M., Produzione e consumo di vino: il problema della qualita, "Atti del convegno Coltiva-Basf: La qualita dell'uva e del vino", Bologna,June 1984.

¹The adopted survey criteria in the two censuses being different the measurement of such an increase is inaccurate

WINERIES AND WINE QUALITY IN ITALY

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1. INTRODUCTION

During the 30s, when the economic system feature was characterized by a low per-capita income, vine-growing for developing production factors (mainly work) was considered as one of the best tree-crops to exploit family work.

Conversely, in a developing society, the high increase of the per-capita income has caused a change of the production factors utilization ratio as well as of the demand structure. Both changes have modified the previous balances and hence provoked the vine-growing and wine-producing sector crisis.

The technological change, which is a crucial factor for the development of the work productivity, has neither turned into profits increase nor paid work enough in viticulture. That is why, less investments, weak efforts to rationalize small vineyards and a decrease of the sector importance have occurred, with the consequent survival of typical value products or wide anonymous outputs, till when the market accepts them.

2. THE PRODUCTION SECTOR

Vine-growing has always been important for the Italian agricultural sector. Grape-vine has almost homogeneously spread all over the country, representing a constant land utilization system.

Data from the '61 census show that on a total of 4 280 000 farms, 34 % grew grape vine as a main crop. Moreover, it covered some millions of hectares as an undercropping that shows its importance.

Vineyard plots in the viticultural farms which underwent the census were small, about 85% of them owned fields smaller than 1 hectare (Table 1).

This vine-growing system (small plots spread all over the country), which usually was part of a multicourse system, exploited production factors, namely work, otherwise underoccupied when the output was devoted to farm consumption or to a small market only.

Table 1. Vine-growing farms divided by classes of surface planted with grape-vine

	1961		1970		1982	
	Farm	Surface	Farm	Surface	Farm	Surface
	No	Ha	No	Ha	No	Ha
-1.0 ha	1 207 178	405 888	1 356 566	460 784	1 339 214	377 616
1-1.9	137 607	203 264	149 875	224 949	172 377	215 104
2.0-2.9	40 903	102 710	48 612	123 792	55 161	124 374
3.0-4.9	24 252	94 160	32 238	126 597	36 773	132 126
5.0-9.9	11 559	79 951	16 080	111 647	18 053	116 432
10.0-19.9	3 749	51 843	4 828	67 213	5 868	76 381
20.0-	2 161	89 782	2 368	96 983	2 734	107 298
TOTAL	1 427 409	1 027 598	1 610 567	1 211 865	1 630 180	1 149 331

Source: Census of agriculture: years 1961, 1970, 1982

The economic development which occurred during the 50s and the 60s has changed the economic parameters, which were peculiar of the country.

The income increase has urged the agricultural sector operators to adopt themselves to the economic condition change by boosting the work productivity, replacing some crops and following the new market conditions.

That is why many farmers made some changes during the 60s. Therefore, they reduced the surface devoted to undercropping and increased the specialized crop, abandoned old vineyards, especially in the areas which could not be mechanized and a sharp yield increase took place.

This might seem the symptom of a modernization process together

with an adaptation of plantings. However, this adaptation did not completely take place in time, if compared with the changes imposed by the economic conditions of the country and those occurred in other agricultural activities.

Comparing these data with those concerning 1982, it results that the land structure of the Italian viticulture has not undergone significant changes.

The number of farms growing grape-vine as a main crop has raised, reaching 1.6 million of units, namely about 50% of farms. The plot size has only lightly increased.

In fact, vine-growing farms having plots of less than 1 hectare, are still about 82% (Table 1).

There is no modernization symptom concerning production structures, as a consequence of the economic system requests. The planting size is not yet good for using new technologies, able to reduce production costs.

Other significant remarks concern the division of the grape-vine surface for age of the plantings. More than 20% of them are older than 20 years. They include plants which are suitable for a kind of agriculture having different production and market needs. That is why, they impose cultivation methods, which reflect past technological and economic conditions.

Although the farm structure is still steady, production has undergone some changes. The production of grape-vine as an undercropping has disappeared, because of the need to reach a higher and higher production specialization, namely for trees.

The production of grape-vine as a main crop has increased by 60% during the last 30 years, mainly as a consequence of the higher unit yields. Their national average has passed from 5.95 metric tons/ha in 1955/56 to 10.03 metric tons/ha in 1986/87.

This is due to a better protection of vineyards and to a greater fertilizer availability.

An important element showing the Italian viticultural sector development is work productivity.

The economic development occurred during the last 30 years has provoked a continuous raise of agricultural and extra-agricultural wages. In the farm sector this result has been obtained thanks to the use of

Table 2. Development of the Italian vine-growing sectors

	main crop		undercropping	
	1955/56	1985/86	1955/56	1985/86
Surface (1000 ha)	1 070	1 010	2 781	-
Output (1000 m.tons)	6 371	9 211	3 213	-
Yields (metric tons)	5 950	10 030	1 150	-
Viticultural GMO/agricultural GMO(x)	10.65%	6.5%		

Source: Central Institute of Statistics (ISTAT), yearbook of agricultural statistics 1957/58 and 1987/88.

(x) Gross marketable output (GMO)

equipments able to reduce work times, supplying the same output or to increase it keeping work force constant. In the vine-growing sector this condition has not been completely met as work productivity increase is less important than that concerning the whole farm sector (Figure 1).

From the average data concerning the average work gross productivity of Forli vineyards (Emilia Romagna) it results that from 1960 to 1988 there has been an annual raise of 1.8%. On the contrary, work gross productivity of the whole farm sector during the same period has increased by 7.3% per year.

This trend has had about the same intensity in other areas, so it can be considered a general value.

In this way, it is clear that in the sector no application of techniques saving the work has taken place; generally speaking, this means that few modern technologies have been applied for grape production.

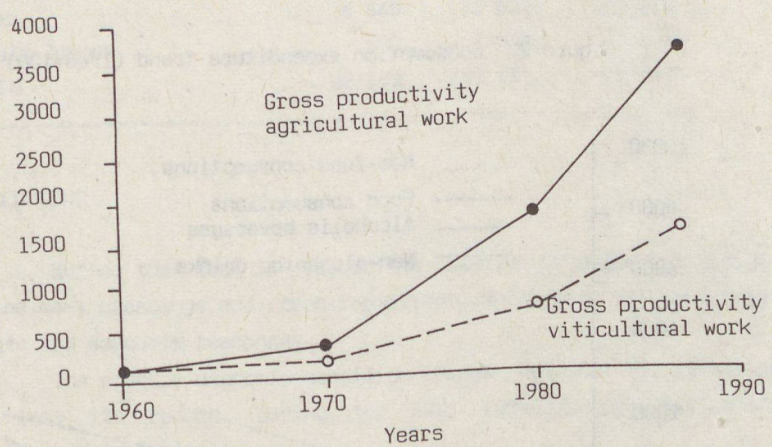
3. THE DEMAND DEVELOPMENT

Meanwhile, wine demand during the two periods has changed, together with the relative value of wine price.

The per-capita income increase, occurred during the economic development period, has changed the elementary habits.

In a society characterized by low incomes, like the Italian one, during the 30s, wine was a nutritive element supplying calories to the diet. Later on, the welfare increase, gave the possibility of spending money for new foodstuffs. Other drinks could be bought and meanwhile the diet saturation provoked a decrease of wine consumption, which was no

Figure 1. Work productivity in the province of Forlì (1960=100)



longer a drink-food, but a drink to taste during some occasions. Self-consumption reduced, too. The rural population, in fact, being a great wine consumer, has decreased these last 30 years, passing from about 40% of the whole population, during the 50s to 10% in 1987. This has caused a change of daily meals consumptions and a reduction of wine consumption occasions.

However, this long term general trend has been distorted since the very beginning. During the decade 50-60s, the economic development starting stage, wine consumption increased by 24% per year. Starting from the 60s it decreased with an annual raise rate of 0.5%; it reached its ceiling in 1969 with 115 liter per-capita. From then on, its consumption was characterized by a negative trend, with an average annual rate of 3.0%, reaching 67 liters per-capita in 1988.

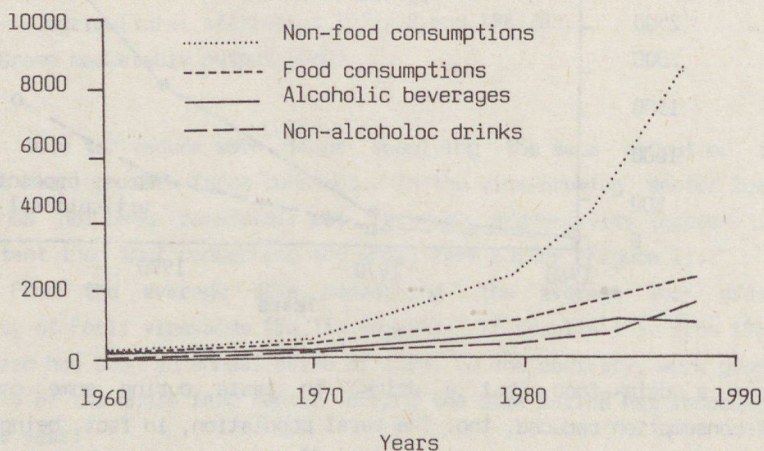
The positive trend of the demand immediately after the world war

has kept prices high, inducing farmers to repeat the same kind of wine offer and to grow new plantings to satisfy the improving wine demand.

The subsequent demand trend has strongly modified the stimuli, but in a period where the pluriannual investment structure was already done, taking the few available farm energies. That is why, it was not possible to start a complete revolution of the vineyard structure, in order to satisfy the new demand.

Moreover, the economic development has made the consumers change wine consumption, also from a quality point of view.

Figure 2. Consumption expenditure trend (1960=100)



In fact, during the 70-80s a differentiated demand of wine has occurred. The public has asked for great wines with a low alcoholic content, fragrant ones, and preferably white, while table wines demand has sharply decreased. A consequent increase of wines with the appellation of origin (D.O.C.), 62%, has occurred.

The average price has further decreased, discouraging the supply and any adaptation, and imposing a policy of price support. However, this has only prevented the sector failure, without helping its restauration.

Table 3. Drink consumption in Italy 1971-86 (1000 hectoliters)

	1971	1982	1986
Common Wine	-	40 462	31 189
Wine with appellation of Origin -		5 544	6 692
Wine Total	60 867	46 006	37 881
Mineral Waters	10 580	24 990	28 840
Soft Drinks	9 225	18 600	26 590
Beer	6 860	11 600	13 100
Fruit Juices	600	1 640	2 470
TOTAL	88 132	102 836	108 881

4. CONCLUSIONS

During the last 30 years, the Italian vine-growing sector has undergone many pressings and transformations, which only in part have met immediate and adequate responses.

The country economic condition change has made the viticultural sector lose its record, during the 60s, reducing its importance both physically and economically.

So it can be stated that the Italian vine-growing sector has not properly answered to the economic system pressures.

The technological progress, which is a crucial factor for productivity growth and effectiveness, has nor been able to focus or use techniques to face the new requirements, the main cause being a quite non-existent development of the farm and viticultural structure. Consequently, the supply-demand has not met a production sector capable of fitting in the new market requirements.

So, a sharp and irreversible crisis seems to characterize the Italian viticulture during an economic development stage of the country.

REFERENCES

- De Castro P. - Zagnoli G. - Evoluzione della viticoltura nell'Emilia Romagna, in Vitivinicoltura, n. 18, 1986.
 Di Cocco E. - Agricoltura e Societa, Edagricole, Bologna 1976.

- Di Cocco E. - L'agricoltura nelle società in sviluppo, Ed. CLUEB, Bologna, 1984.
- Eurostat - Agricultural Statistics Yearbook, years.
- Gios G. - Rizzi P.L. - Stima della domanda di vino alla produzione: un confronto internazionale e proiezioni al 1985, in Rivista di Economia Agraria, n.2, June 1983.
- Central Institute of Statistics (ISTAT) - Annuario di Statistica Italiana, Rome, years.
- Patuelli V. - Intrieri C. - Costi di produzione dell'uva da vino e convenienza economica della coltura in Emilia Romagna, in Atti Accademia Italiana della vite e del vino, Siena, volume XXX, 1978.
- Peri C. - Rossi A. - Problemi di mercato e innovazione di prodotto nell'industria enologica italiana, in Industrie delle bevande, February 1985.
- Rinaldi Ceroni F. - Andamento dei costi in vigneti romagnoli, in Vignevini, n.5, May 1983.
- Sorbini M. - La crisi evolutiva della viticoltura italiana, Atti del Convegno "La raccolta meccanizzata dell'uva", Pesaro, Ottobre 1983.
- Sorbini M. - Produzione e consumo di vino: il problema della qualità, Atti del convegno Coltiva-Basf: "La qualità dell'uva e del vino" Bologna, Giugno 1984.

HOW TO PLANT VINEYARDS IN SLOVENIA

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Slovenia, the most developed Yugoslav republic lies to the north west of the country. Its agriculture is different, as 60% of the agricultural land is covered by grassland and the major activity is animal husbandry. Due to favourable climate soil and landscape fruit growing and viticulture are widespread. Vine and wine growing go back to the times of Roman Empire on our land. So viticulture is one of the oldest and traditional occupations in agriculture. In Slovenia wine consumption is 45 liters per capita which is about the West European average and more than double the Yugoslav average (about 26 liters per capita).

Before the disastrous invasion of phylloxera in Europe there were 51,500 ha of vineyards in the region of Slovenia. Practically all the vineyards were destroyed and the subsequent planting was not planned. At the turn of the century the resistant hybrid vine was propagated, the remains of it can be seen even today. After 1900 the grape vine started to prevail again. Up to the Second World War 30 to 40 thousand hectares were planted again, during the war the viticulture started to lag behind which is the case still today.

The total surface of vineyards was varying through years due to campaign planting and changing economic position of viticulture.

However the global trend of surface diminishing was on until 1970. Later the surface has started to increase slightly mostly due to accelerated planting of vineyards in the social (state) sector which received substantial state subsidies. The areas of hybrid vine were eliminated and grape vines, together with modern technology, and new planting systems were introduced in order to allow the use of mechanisation and more profitable training systems which could bring about better yields. The yield per hectare has doubled during the last forty years (with the

Table 1: Surface of Vineyards in Slovenia after 1950 (in ha)

	All vineyards (cadastre)	Fertile vineyards (statistics ev.)
1951-55	23 530	23 376
1956-60	24 718	22 875
1961-65	21 457	19 490
1966-70	20 530	18 540
1971-75	20 692	18 953
1976-80	21 065	19 342
1981-85	21 398	19 376
1986	21 439	19 611
1987	21 511	19 751
1988	21 516	19 805
1989	21 382	19 790

Source: Statistics Yearbook of Slovenia

Table 2: Scope and Yields of Grapes in Slovenia after 1950

	Total yield in tons	dt/ha	kg/vine
1951-55	71 124	31.3	0.49
1956-60	80 092	35.0	0.60
1961-65	74 692	38.4	0.69
1966-70	74 125	40.0	0.78
1971-75	81 238	42.9	0.91
1976-80	92 440	47.8	1.10
1981-85	103 637	53.5	1.36
1986	134 640	68.8	1.97
1987	131 409	61.5	1.82
1988	87 458	44.2	1.20
1989	91 684	46.3	1.27

Source: Statistics Yearbook of Slovenia

exception of the last two poor vintages).

However, we are not satisfied with the results and situation of viticulture in Slovenia. According to data on systematic classification of wine growing areas, carried out in Slovenia in the seventies, there are 33,500 ha of absolute viticultural positions which are capable of producing grapes of high quality.

Today only two thirds are being used. With an average vintage we are capable of producing from 700 to 750 thousand hl of wine, but 900 thousand hl are consumed annually which brings us to the 80% self-supply. Great possibilities of wine growing are left unexploited.

As a traditional wine growing country our aim should be at least self-supply in wine. Exporting companies are claiming that the exports of our quality and top quality wines could be substantially increased. The present exports are very modest as they represent just a few percents of the total wine production in Slovenia.

Thus Slovene wine growers and vintagers have decided to bring in professional knowledge and actively participate in the preparation of development plans for vine and wine growing in Slovenia. The official agricultural political circles are also to cooperate. For a long time they have neglected or even hampered wine growing with meaningless measures, as for example frozen prices of wine, ban on advertising, or development of the social sector of viticulture in spite of the fact that performance was better in the private sector (intensity, productivity and profitability), besides private farmers have 80% of all vineyards and produce more than 80% of all grapes.

In view of the problems mentioned it is essential to accelerate the planting of vineyards regardless of the ownership sector.

Hectare yields show that there are still some reserves in intensity of growing in the existing vineyards which could be increased with relevant technology without great additional investments. However low yields per hectare are also due to an unfavourable age structure of vineyards. During the last 10 years only 400 hectares per year were replanted. In order to keep the scope of wine production in future this surface should be doubled. Some estimates say that more than 40% of vineyards are older than 30 years.

Besides suitable variety selection, the most important question is how to plant the new vineyard, the choice of the best planting system

(vertical, on contourlines or on terraces) and the selection of training system and spacing of vines. These dilemmas are still alive in our country as vineyards are, as a rule, in inclination and for too long terraces were recommended without any reserve. Criteria for choosing the right option have to be of technological, economical and professional nature. This is the reason for participation of agricultural economists from the Agricultural Institute of Slovenia on this project. A technological and economic model for simulation of technological solutions in viticulture was elaborated. Solutions can be economically evaluated.

The model needs as input data the most important technological parameters like spacing of vines, training system (now the model distinguishes only between low, medium and high) characteristic properties of a variety (average weight of the grape, % of shoot fertility and coefficient of fertility), intensity of pest control and method of tillage. Based on these data it determines all the other parameters needed for calculation of planting costs and costs at full fertility: potential yield, raw materials, mechanical and labour productivity. The model automatically estimates planting costs and costs at full fertility for all three planting system - vertical on contourlines and on terraces for all possible inclinations. Taking into account the technical performance of standard mechanisation, the inclination was classified into five classes: 0-10%, 11-25%, 26-35%, 36-50%, and 51-70%. The use of mechanisation is possible up to 35% inclination, at greater inclinations most of the labour has to be done manually. The model takes into account real assumptions: planting system in vertical is possible at all inclinations, planting on contourlines is reasonable only up to 25% inclination, from 11 to 70% inclination terraces may be used.

Beside the presented variants it is possible to simulate with this model different tillage technologies - for example hoeing or grassing of space between rows, etc.

Only basic calculations of the variants will be presented. In such a way we sought the answers to questions which planting and training system are to be used for replanting of vineyards in Slovenia. Planting costs and cost prices were taken as economic criteria.

The analyses of the results of modelling have shown that spacing of vines has the greatest impact on planting costs. So planting in vertical at great inclinations (manual labour permits spacing of 5000 to 10000 vines

Table 3: Impact of Planting System on Planting Costs and Cost Price
(vertical in plane=100)

		V e r t i c a l				
Training system	Inclin.in %	0-10	11-25	26-35	36-50	51-70
low	planting costs	100	102	108	586	610
	cost price	100	103	108	195	202
medium	planting costs	100	103	108	452	472
	cost price	100	103	108	199	207
high	planting costs	100	103	110	447	468
	cost price	100	103	108	194	201

		T e r r a c e s			
0-10	11-25	11-25	26-36	36-50	51-70
100	99	97	90	109	96
101	105	107	115	148	169
100	93	88	83	105	98
101	107	111	119	152	167
100	97	90	84	109	101
101	105	110	119	150	169

per hectare), paradoxically it is the cheapest on terraces up to 35% inclination and in spite of additional terracing costs. Vertical planting costs up to 35% inclination and planting on contourlines costs do not differ significantly.

The statement is valid regardless of the height of training system. With higher training system the planting costs are decreasing as higher training means smaller number of vines per unit of surface.

If the criterion of cost price is taken into account then the most profitable is to grow grapes in planes. However research has proved that the quality of grapes is the poorest in flat areas so it should be avoided. Planting of vineyards in planes should be systematically discouraged with special measures such as differential producer prices taking into account production costs and quality of produce.

Table 4: Impact of Training System on Planting Costs and Cost Prices
(low training system = 100)

Training system		Inclin. in %	V e r t i c a l				
			0-10	11-25	26-35	36-50	51-70
low	planting costs		100	100	100	100	100
	cost price		100	100	100	100	100
medium	planting costs		91	91	91	70	70
	cost price		82	82	82	83	84
high	planting costs		78	79	80	60	60
	cost price		63	63	63	62	63
Contourlines			T e r r a c e s				
0-10	11-25		11-25	26-35	36-50		51-70
100	100		100	100	100		100
100	100		100	100	100		100
90	85		82	83	88		92
82	84		85	85	84		81
78	77		72	72	79		82
63	63		65	65	64		63

In planting of vineyards at moderate inclinations (up to 35%) planting on contourlines or on terraces should be our choice if planting costs were the only criteria. However calculated cost prices prove that planting in vertical is more profitable. As long as the scarcity of special viticultural mechanization is not solved, terracing is better for bigger inclinations, even for 50-70%.

Regardless of planting system, higher training system means lower cost price of grapes. Higher training systems mean quicker increase in yield than decrease of number of vines. As to training system, higher ones should be selected, if climate permits.

CONCLUSION

The poor situation in vine and wine growing (slow planting, poor age structure, too low yields of grapes and thus higher unit costs) and the unequal treatment of these two agricultural activities compared to the other agriculture (low state controlled producer prices and state

interventions) called for a long term development program of vine and wine growing in Slovenia which was developed last year. The project was to cover the following priorities:

- To make viticultural land-register: we had it once but today, due to inconsistent regulations it is not updated and therefore useless.
- New classification into wine districts at macro and micro level and checking of varieties selection.
- Accelerated planting of vineyards; at least 1000 hectares are to be planted per year so that there are 25,000 ha of fertile vineyards at the year 2000.
- Promotion of vine production, i.e. intensive selection of new clones and growing of virusless material.
- Greater production of grapes and wine for domestic needs and long-term exports.
- Revision of Wine Act and its adaptation to international standards for quality assurance.
- To determine just division of income in the chain from wine grower, to vintager and trade. In our country private farmers produce grapes, processing goes on in great socially owned cellars and trade is in the hand of monopolistic trade organizations.

In order to meet the set objectives which cannot be met only by knowledge but need financial assistance, the state agricultural circles were requested for assistance. Great consideration was shown for the above mentioned problems. In the first phase, subventions for planting of vineyards and vine nurseries were granted. Based on the analyses of planting costs the following funds were donated for planting of vineyards on absolute viticultural positions: 50% of value of grafts, 50% of costs for trellises and 90% of costs for land reclamation or terracing.

The subventions cover half the planting costs regardless of the ownership sector. The most cost-effective planting systems were proposed as mentioned above. The only condition to get these subventions is to decide for a prescribed selection of varieties, high quality of grafts and economically viable investment.

Wine growing awaits better times in Slovenia, however experts will have to have a greater say in these projects than in the past. Modern technologies and quality varieties will have to be introduced. Besides natural, human and technical resources will have to be used in a better way in order to grow quality wine which will open the way to European markets.

A STUDY OF INTEGRATION IN THE HUNGARIAN WINE SECTOR'S MODEL

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INTRODUCTION

The Hungarian wine sector has reached a very important turning point in its development. It could be considered the end of period and the beginning of another but the situation is not so simple.

The past was a time of extensive production, barter trade, huge amounts of bulk wine export and central state intervention etc. However the presence of the private sector and its importance, high export rate and the permanent contact with the world market have created the possibility of starting a new era. This involves intensive production and integration both at homeland and in the international market.

Now the political and social developments which seem balanced both economically and politically accelerate all the changes which new integrated areas need. The political efforts of 1956 and the economic plans of 1986 are the basis of recent movements but of course have influenced wine economy continually. The wine sector, here in Hungary, has always been in the special field of the agricultural economics, firstly because of its rich traditions and secondly because this sector has always been ready to try and expand the limits of former economic regulations.

FORMER CHARACTERISTICS OF INTEGRATED AREAS OF THE HUNGARIAN WINE SECTOR

The characteristics of previous integrated areas can be shown by the introduction of the following elements:

- private sector,
- cooperative farms,

- state monopoly in processing and export-import activity,
- export (barter, bulk wine),
- central economic regulation,
- the embryonic form of A.O.C.

In spite of the fact that Hungary and its wine sector have been regarded as part of Eastern European economy for the past 40 years, the proportion of **private sector** grape growing during this time, has been 50% and present 60% compared to the cooperatives (25%) and state farms 15%). This means that the sector has never been absolutely state monopolized. All the integrated areas were involved in grape production by this private enterprise.

On the other hand this private sector production does not resemble others called the same thing in Western Europe because it is much more heterogenous. In Hungary it also includes family so called "week-end gardens", as well as efficient larger-scale vineyards. Private interest is also involved in grape growing in other ways which we call "grape growing with private interest". In these cases the large scale farms (state or cooperative) draw up a contract with private growers in order to carry out a more efficient growing system. The large-scale farm owns the land and does machine work (tillage, spray etc.) but the essential manual work (pruning, planting, summer pruning and canopy management, harvest) is done by private farmers. Many different kinds of contract exist but the basic purpose is always to share the work and costs as well as the income and profit.

There are two reasons why such combinations were developed. The first is that it was a certain way of keeping private interest in growing activity as the basic incentive as oppose to central economic regulation. The second reason was more practical. The private sector had not had an effective industrial background in producing economically run tractors, harvesting machines and special instruments for grape growing. The industry was focused on providing machines only for large-scale farming.

We suggest that the most important aspect of the private sector is that it has survived the past era when the conditions were inconvenient and economic regulation did not support private enterprisers directly.

Cooperative farms here are also different from similar ones in Europe. There are two main types in Hungary. One is called cooperative (without any adjective), which in fact is not a real cooperative. The

cooperative members are not always owners, sometimes the majority of members do not have any funds, land or machines, they are employers but their status and rights are those of owners. The second type of cooperative is "specialized cooperatives" which is a real cooperative in the original sense because it is composed of only real owners. It is interesting that the first type is better and more strictly organized, generally cultivating a lot of sectors and activities. The second is specialized for one or only few plants and activities. In grape growing the specialized cooperatives are only a few in number, but in some wine districts, above all in Great Hungarian Plain, they play a very important role.

The **state monopoly** as mentioned before, was not always dominant in every field. In particular it was important in grape processing and in export-import activities.

In the 70's many processing plants and wineries were investigated increasing their storage capacity. These investigations were set up with state support so these capacities now still belong to the state sector. There are specialized plants for only grape processing, called state wineries (HHUNGAROVIN, EGERVIN, PANNONVIN, KECSKEMÉTVIN etc.) and state farms without any specialization only for wine. These are state farms which are the centres of different wine districts. Examples are: Badacsony State Farm in the Badacsony wine district, Szekszárd State Farm in the Szekszárd wine district, Balatonmoglár State Farm in the South-Balaton wine district etc.

This is the reason why the state covers over 70% of grape processing capacity. Cooperatives own the biggest share of the rest.

The state monopoly in the export-import area had a stronger impact on the Hungarian wine sector in the past. It controlled the integrated areas of the wine sector. It simply meant growers and farmers were not in direct touch with the international market. They found difficulties following its main trends. MONIMPEX which is the state export-import company was an intermediary passing demand and supply information from the market to the farmers and vice versa. There was time when it worked relatively well because the Soviet market - the biggest importer of Hungarian wine - which demanded a regular amount of wine year by year, based on a long term mutual state contract. Now it is over. MONIMPEX still has an important role in national export-import because the cooperatives and the private farmers are not quite ready to do their own

business because of the lack of information and practical experience.

The state ensured **export** was a very important aim for the wine sector with regard to the national financial balance. It overloaded the sector because at first 50% of the 5 million hectolitres Hungarian wine produced was exported mainly to the U.S.S.R. (1.5 million hl). Later this was cut down to 40%. The main problem was that wineries were export orientated and they neglected the domestic market. On the other hand this export, or more exactly a certain part of it was bulk wine with depressed prices and barter trade which excluded the producers' direct interest. The barter trade was not a good solution but the worse thing was that the rate of exchange of barter trade was not evaluated in the world market so it gradually deviated from world tendencies.

Central economic regulation was not as dominant as in some other Eastern countries but of course it limited decentralization very much. Indirect tools of regulation like credit and interest rate were not as important as direct subsidies and support coming from the state, the ministry or the county. Economic regulation protected the large scale farms (cooperatives and state farms), but was not neutral not only because of the wine sector's aims but because of circumstances and the economic practice of the other sectors. All of these factors resulted in low manual labour wages, low production costs as well as depressed and narrow range prices both in domestic markets and in export.

Hungary was a pioneer in the **A.O.C.** programme and it is exactly in line with the present wine law. In spite of this the control system and network were not sufficiently worked out, and farmers' interest in it was not developed. There were no regional associations charged to carry out the programme in each region. The programme's factors have previously been described. Luckily the basis of A.O.C. traditions are available and create a good opportunity for further developments.

These characteristics allowed for integration to take place horizontally. Among private, state and cooperative sectors the collaboration was very strong in order to plan the amount of harvested grape. Large scale farms helped integrated growers with a view to getting better quality grapes. They provided only technical support and expert advice and not a partnership for the sake of a better market position. This integration took place separately from the market. Neither the integrated system nor integrating body was not in direct contact with the market. This

is why this kind of integration was very limited from an economic point of view.

WINE SECTOR'S MODEL INTEGRATION STUDY

The model

The Hungarian wine sector model (Figure 1), based on the characteristics of the past was created so as to study new ways and opportunities for development. This model is a national one but the main goal is to adopt models in different wine districts so as to analyse the local conditions. The model is composed of levels (habitat, grape growing, wine making and market) and sub-levels in the case of grape growing and wine making (propagation, ownership, technology, variety and wine cellar property, packaging, type of products). We can find elements on each level and sub-level. The elements on the same level have the same technical and economic functions but they do it in a different way from a technical and economic point of view. In fact different elements represent different technical characteristics, different costs, prices etc.

Every element (technical character) has to join with an other one on the next level. If we start from the bottom choosing one element and going up to market level joining with only one on every level and sub-level we can find quite different type of integrated area depending on which sector, technology, type of production and market is involved ie. integrated. Different combinations represent different economic conditions too.

The model is a little bit more complicated than we can see at the first sight. One element can join not only with another element but, in a wine district or at national level, many elements. Eg. a private wine cellar can produce not only one type of bottled wine but bulk wine as well. This multipleconnections make the model and the wine sector complicated if there are too many connections.

The connections are composed of technical and economic characteristics and parameters of different elements. Therefore the final character of the integrated production depends on the elements being integrated.

THE HUNGARIAN WINE SECTOR

LEVEL SUB-LEVEL

<u>MARKET</u>	(4 500 000 hl)	domestic	socialist	hard currency
		55 %	35 %	10 %
<u>WINE</u>	table w.w., quality w.w., table r.w., quality r.w., sparkling w., wermouth, juice, wine cooler			
	45 %	17 %	10 %	2 % 2,5 % 0,5 %
	packaging		bottled	barreled
			65 %	35 %
	property	state	coop.	private
		60 %	30 %	10 %
<u>VINE</u>	variety	white	red	
		70 %	30 %	
	technology	high cordone	"gobelet"	
		70 %	30 %	
	property	state	coop.	private interest
		10 %	20 %	10 %
				private
				60 %
<u>HABITAT</u>	vineyards	excellent	conditionally plantable	forbidden
	(140 000 ha)	15 %	20 %	10 %
		good		
		55 %		

Figure 1. The Hungarian wine sector's model and production shares of elements

Database and method

In the model every element is characterized by the following parameters:

- 1, production size,
- 2, price of element or its calculated marginal price,
- 3, production cost (direct and indirect parts),
- 4, materials, circulating fund,
- 5, permanent assets, amortization,
- 6, wage cost, manual labour,
- 7, invested production capacity,
- 8, yield, bottle, or calculated marginal yield,
- 9, production cycle (years).

The database is not homogenous because there is not one united database coming from the same source for the all sectors or even for one wine district. This is why calculated, aggregated, representative and speculated data can be found. It makes the model rough, but in accordance with our results it also makes it possible to draw conclusions.

The aim was in general to understand the integrated areas, to investigate the possibility of new integrated areas, and to find out which ones could be the most effective horizontally and vertically. We can find these using computer simulation looking for the extremes of integrated areas calculating their values, drawing the economic characteristics of the suggested, possible and impossible, or simple and complicated integrated areas. These calculations have provided sufficient information to come to the conclusions related to the Hungarian wine sector's integration developments in the near future.

The mathematical methods used are simulation, calculation of extremes and marginal and combined effect.

CONCLUSIONS OF THE MODEL STUDY

1. This model is composed of many elements which unfortunately may appear in anyone wine district. It causes complicated and almost unregulated production. Theoretically the model makes 17280 combinations possible, but not including the impossible ones (eg. white wine from red grape "in general" impossible) the total is 11880. Including only the dominant combinations in practice the figure is 7392. In Hungary there are

wine districts where the integrated combinations may be as many as 7392. The reason for this is: there are too many sectors, too many varieties being cultivated, too many types of products being produced in too many combinations.

2. Economic variance (price, cost, quality etc.) is substantial for the grape-growing level up to wine making, but it does not have an effect on products from an economic point of view. The narrow economic possibilities of price and profit fluctuation are because of central economic regulation's preferred homogeneity.

3. The sector is not regulated as one production process but it is regulated at different levels. These are not in harmony with each other at the state and international level (eg. grape growing and wine making are separat or regional).

4. The wine district needs to preserve its geographical character and production traditions. Typical economic and market profiles are also important but in the most cases these are not used. This is because of irregular (sometimes illogical) combinations of private, cooperative and state sectors, and lack of regional power and direct market contact. These combinations were born not in accordance with market demand but based on central will.

NEW FACTORS OF INTEGRATION

As we have already stated taht this may be the time to start new developments in the Hungarian wine sector with regard to integration. There are many reasons for this, not only the results of the model study but new factors and events there are some of them:

- reprivatization and privatization,
- the new land law,
- the effect of foreign capital investment,
- market effects of new German market and Soviet market,
- associations of producers,
- the new A.O.C. system.

Privatization and the reprivatization are social and economic demands but their type and rate of introduction are the subject of fierce national debate. This is not only a political question economic aspects are also or more important. The question is, whether to give back the land to

the former owners (who may be out of business because of death, emmigration, age etc.) registered in 1947 before socialization, destroying large-scale farms and state wineries or to give the land to the present enterprisers, who are ready to cultivate the land providing the opportunity for large-scale farms to transform themselves retaining their position in the markets. Total reprivatization seems to be very dangerous because it would destroy present production capacities, eliminating existing and working integrated areas. The **new land law** is expected to be passed in the near future but the final result of it is not clear.

Over the years more and more farms and wineries have had an export-import licence to be in the market themselves, and now this right belongs to companies. The positive result of this takes time to develop. It does not mean that export-import companies are needless and all export-import activity must be linked to the producers. Specialization is reasonable but it must not create the state monopoly again.

Foreign capital investment is cautious and this is quite understandable. It waits to find out what the final conditions will be. There is no doubt about the important role foreign capital in the Hungarian wine sector in the near future will play for example it will bring not only capital here but markets, marketing systems and technical developments as well.

Hungary was an export-orientated producer and it will probably remain so for long time. On the other hand its basic **former markets, West and East German and the U.S.S.R.** have changed a lot for different reasons but both have transformed our market strategies and production very much. The Russian anti-alcohol campaign and also the end of barter trade are examples. Hungary is interested in a steady Russian market where mainly bottled wine can be sold based on a hard currency long-term contract. This type of wine trade has started but it needs new partnerships with Hungarian companies. Not only the markets but the types of exported wine have also been changing, more bottled Hungarian wines are exported at higher price in more trading channels.

The former central economic regulation has already gone and a regulation at three levels is going to replace it. International, state and regional levels will control wine production. Hungary more than ever before, pays attention to international regulation and accepts it. It would also like to take part in its creation. The state intends to provide only a

frame work of regulation by indirect means such as tax and a new bank network which does not work very well at this moment because it has not been completed. The regional levels where unions and associations are created to represent and to protect their interests as well as to regulate themselves are tremendously important sometimes where in Hungary, wine-villages are autonomous, very strong regional organizations can carry out the A.O.C. programme.

The new A.O.C. programme is based on the regional autonomous unions and associations work in collaboration with the state which is above all responsible for this field. This will help both regional and national level regulation.

SUMMARY

Integration of the Hungarian wine sector is changing. This is due to many events and factors having a combined effect. These are once more, the new market situation (German and Russian market problems), the privatization and reprivatization programme, the development of a cooperative system, new economic regulation closer to a free market system, increasing regional power and more active international interactions including foreign capital participation in the wine sector.

The main goals are more complex integrated areas including powerful companies being able to integrate small vineyards, completed vertical integration from habitat-choosing to market strategies and last but not least, active international and market interactions excluding barter trade and much bulk wine export. It will be possible if wine districts regulate themselves in order to create typical growing and processing characteristics based on traditions and market demands.

REFERENCE

Botos E. (1988): A szőlő- és bortermelés vertikuma, folyamatvizsgálatának alapjai. (The Hungarian grape and Wine Integration and the basis of its Economics) Szőlőtermesztés és Borászat, 10.2-3.37-42.

SECTION 3
NEW MARKET STRATEGIES AND TENDENCIES

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RECENT DEVELOPMENTS IN WINE MARKETS IN THE UNITED STATES

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INTRODUCTION

Total wine consumption in the United States reached a maximum 22.2 million hl in 1986 (Wines and Vines, 1989). Total consumption decreased in each of the next three years. The fact that wine consumption is no longer increasing in the United States is remarkable given the optimism that growers, and exporters had in the late 1960's and 1970's.

The United States market for wine matured much earlier than most analysts expected. Indeed, recent developments in the U.S. market more nearly mirror the maturation of the French and Italian markets in the 1960's when consumers began to drink less wine in total, but more quality wine. The major distinction between the American and the European experience is, however, that per capita wine consumption reached a post-World War II high at more than 100 liters in France and Italy compared with a maximum of 9.2 liters in the United States in 1985 (Wine Institute, 1989).

The objective of this paper is to trace developments in the U.S. wine market over the last 10 years. The trends in consumption of major wine types by quality and by area of production will be described. The paper ends with an analysis of factors affecting these changes, as well as a discussion of the future prospects for wine consumption in the U.S. market.

CONSUMPTION TRENDS

Statistics on U.S. wine consumption are published on the basis of seven different wine types as follows: table wine (1), dessert wine, sparkling wine and champagne, vermouth, other special natural (OSN) wine

not over 14 percent alcohol, other special natural (OSN) wine over 14 percent alcohol, and wine coolers (2). In this paper, I have focused on the consumption of table wine, dessert wine, sparkling wine and champagne, and wine coolers. The three remaining wine types were combined into a single category called "other".

Trends in consumption of these wine types are shown in Figure 1. Total wine consumption reached a maximum of 22.2 million hl in 1986. Table wine consumption reached its maximum in 1983 at 15.2 million hl and declined in each of the succeeding four years until registering a slight increase in 1988 (3). If wine used in coolers were not included, consumption would have reached its maximum in 1983; thus the growth in total wine consumption that occurred in 1983 through 1986 was attributable to wine coolers.

Wine coolers were first marketed in large volume in 1983. Consumption grew quickly, utilizing 4.6 million hl of wine, or 21 percent of total consumption, in 1987. Consumption of wine coolers is now declining, another example of a product which enters the American market with quick success, but eventually declines or perhaps disappears permanently. Another such example in wine products was "cold duck" in the 1970's. Wine coolers apparently substituted for non-premium table wines, so-called "jug wines", sold primarily in four liter bottles.

Sparkling wine consumption reached a maximum of 1.8 million hl in 1984 and continued to decline in subsequent years. Dessert wine consumption has generally declined since 1975 (Wines and Vines, 1985).

QUALITY WINE CONSUMPTION

The trend analysis presented above ignores quality differences. The difference is particularly important in the table wine category which accounted for 62 percent of total U.S. wine consumption in 1988. Unfortunately, the available statistics do not facilitate the separation of the volume of quality wine included within the broad category of table wine.

Gomberg, Fredrickson and Associates (1990) provided estimates of "premium table wines" produced in California. Gomberg, Fredrickson and Associates define "premium table wines" as those wines selling at USD 3.00 or more per 750 ml bottle at retail. California produced table wines

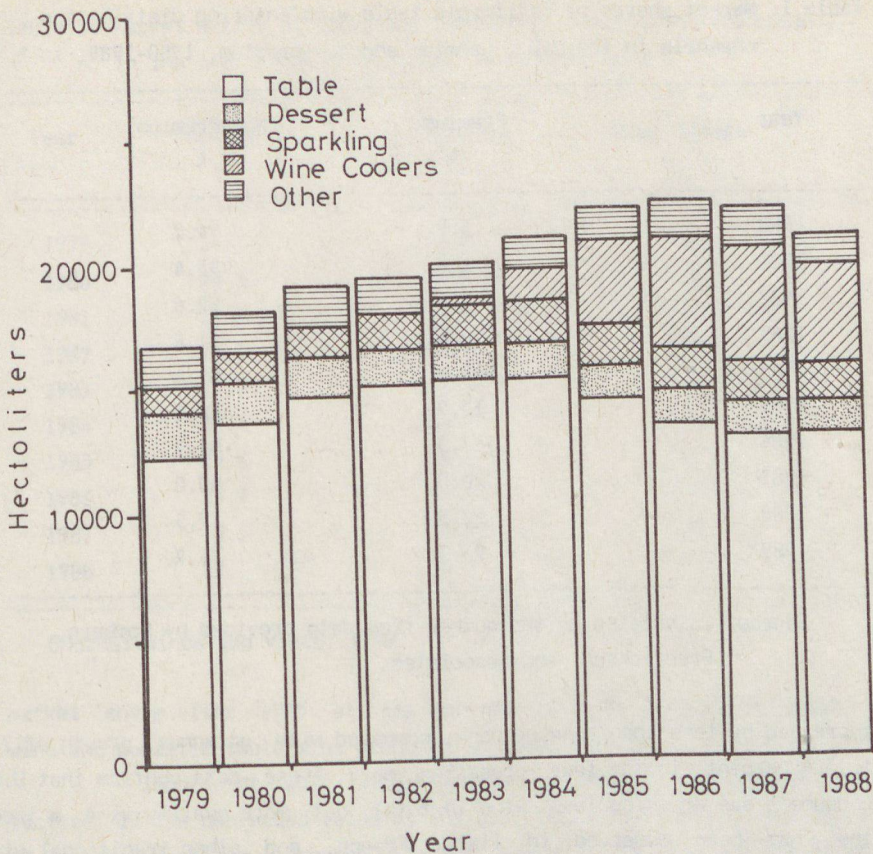


Figure 1. Wine entering distribution channels, U.S., 1979-1988
(1000 hectoliters)

account for 78 percent of table wine consumed in the U.S. market; thus, the sales of wine produced in that state provides a fair representation of the entire product category. California table wines selling at USD 3.00 or more per bottle are generally those wines sold as varietals which are mostly produced from *Vitis vinifera* varieties. This designation roughly corresponds to quality wines produced in specified regions by the EC definition.

The market share of California premium table wines as defined above has increased markedly over the last 10 years from approximately six percent of total California table wines in 1980 to approximately 23 percent in 1988 (Table 1). The market share of premium wines in 1989, however,

Table 1. Market shares of California table wine entering distribution channels in the U.S., premium and non-premium, 1980-1989, in %

Year	Premium %	Non-Premium %
1980	5.8	94.2
1981	6.6	93.4
1982	7.4	92.6
1983	8.4	91.6
1984	10.6	89.4
1985	13.9	86.1
1986	17.3	82.7
1987	20.0	80.0
1988	22.5	77.5
1989	23.3	76.7

Source: Calculated by the author from data provided by Gomberg, Fredrickson and Associates.

increased by less than one percent, compared with an annual growth of 2.5 to 3.4 percent in the four preceding years. These data confirm that U.S. consumers are drinking less wine in total, but more quality wine, a trend that has been observed in Italy, France, and other traditional wine consuming nations. Since the consumption of wine is nearly 10 times greater in these countries, the causal factors are probably somewhat different. Although comparable figures are not available for sparkling wine and champagne, depletion analysis of major brands by Impact (1989) showed a similar pattern.

CONSUMPTION OF IMPORTS

The erosion in market share of imported table wine is shown in Table 2. In 1979, California accounted for 68.9 percent, other states seven percent, and imports 24.2 percent. Imports reached a market share of about 30 percent in 1984 and 1985 at the time of the peak in the value of the U.S. dollar. Since then, the market share of imports has decreased each year and represented only 17.6 percent in 1988. California gained

Table 2. Market shares of table wine entering distribution channels
in the U.S. by area produced, 1979-1988, in %

Year	Foreign %	California %	Other States %
1979	24.2	68.9	7.0
1980	24.5	69.1	6.4
1981	25.5	69.5	5.0
1982	26.5	68.8	4.8
1983	27.7	67.6	4.7
1984	29.6	65.9	4.5
1985	29.6	66.6	3.7
1986	23.7	72.2	4.0
1987	19.5	76.6	3.9
1988	17.6	78.3	4.0

Source: Wines and Vines, 1989.

market share after 1985 at the expense of both foreign produced table wine and domestic table wine produced in other states.

Imports of table wine have been affected by three interrelated factors: 1) the decreased value of the U.S. dollar relative to the currency of exporting nations (compared with the value in 1984-85); 2) the tendency of American consumers to drink less in total but more quality wines; and 3) the price and income elasticity of wines with an established image, such as A.O.C. wines from Bordeaux and Champagne (Blandford and White, 1987). This effect can be illustrated by examining data from 1987 and 1988 regarding French imports (Wine Institute, 1989). In 1988, the volume of imported table wine (U.S. definition) consumed in the United States decreased by 8.9 percent. The consumption of French A.O.C. wine decreased by 2.8 percent, but the average price per case increased by 1.2 percent from 299 to 303 F. francs. The total value of A.O.C wines decreased a mere 1.6 percent, while the value of non-A.O.C. table wines decreased nearly 16 percent. Having premium wines with an established brand and appellation image is thus a distinct advantage in the U.S. market today.

The average customs value (in U.S. dollars) for European imports has increased dramatically since 1984, as shown in Table 3. The value per

Table 3. Average customs value per liter for table wines imported into the United States, 1984-1988, U.S. dollars per liter

Year	France	Italy	Total EC-12
1984	2.46	1.01	1.48
1985	2.82	1.04	1.63
1986	3.49	1.33	2.14
1987	3.96	1.58	2.41
1988	4.15	1.76	2.62

Source: Foreign Agricultural Service, U.S.D.A., 1988 and 1989.

liter increased 69 percent for France, 74 percent for Italy, and 77 percent for all EC-12 wine. Although data are not available to show a comparable analysis of Italian imports by appellation, the relatively high increase in the average value of Italian wines probably reflects a large decrease in the imports of less expensive wines relative to wines with a higher image.

FACTORS AFFECTING CONSUMPTION

The before-mentioned trends have obviously caused a great deal of concern, and even alarm, within the wine industry. Apparently, fundamental shift in demand of consumers for wine is occurring for several different wine types. In fact, it is not only the consumption of wine which is being affected by these changes. The adult per capita consumption of distilled spirits, beer, coffee, and tea have also declined within the last decade. Some of the factors affecting the consumption of wine are as follows:

- 1) Concern About the Health Effects of Alcohol - The detrimental effects of high consumption of alcohol are well known. Industry spokespersons believe that it is unfair that wine is linked with other alcoholic beverages since it is more often a "beverage of moderation" consumed at mealtime. The estimates of American consumption by time of day shows that about 47 percent of wine is consumed at dinner compared with less than 20 percent of other alcoholic beverages (Impact, 1989).

Nevertheless, the industry has been ineffective in countering the effects of negative publicity from anti-alcohol activists.

2) Changing Demographics - Wine consumption by persons of ages 30 through 59 account for about two-thirds of total U.S. table wine consumption (Impact, 1989). According to population projections by Spencer (1989) of the Bureau of the Census, the population of persons of prime wine consuming ages is expected to grow through the year 2010 (Table 4). As noted by Exter (1989), persons of younger ages than those shown in Table 4 tend to drink beer. Older people, including the ages represented in Table 4, tend to drink wine, with the peak consumption occurring in the 50-54 age group. The "baby boom" generation, consisting of those persons born between 1946 and 1964, will be entering the prime wine consuming years through the year 2010. The oldest of the baby boomers will be aged 64 in the year 2010.

Age, combined with disposable income, are factors which suggest a continuation of increased consumption of premium wines since the income elasticity of many premium wines is relatively high (Blandford and White, 1987). Of course, as noted by Exter (1989), the baby boom generation brings different attitudes, values, and beliefs about health and fitness. They may drink less than the generation that preceded them. Many analysts are concerned about the slow growth rate in premium table wine in 1989. Exter

Table 4. Projected populations of the United States by age, 1990-2010, in millions (middle series projection)

Year	Age (years)		Total 35-64	Annual Percentage Growth
	35-44	45-64		
1990	37.9	46.9	84.8	
1995	42.3	52.6	94.9	+ 11.9
2000	43.9	61.4	105.3	+ 11.0
2005	41.0	71.4	112.4	+ 6.7
2010	37.2	78.6	115.8	+ 3.0

Source: Spencer, Bureau of the Census, U.S. Department of Commerce.

believes, however, that the image of wine as a beverage of moderation, the fact that "baby boomers" will be entering their peak earning years, and that they are the highest educated generation in U.S. history, are factors that will lead that generation to wine consumption in the 1990s. If so, it is the consumption of premium wine that is likely to increase rather than non-premium wine due to the relationships between age, income, education, and quality of wine consumed.

3) Government Regulation and Taxation - In October 1988, all alcoholic beverage containers sold in the United States had to conspicuously display the label, "GOVERNMENT WARNING: 1, According to the Surgeon General, women should not drink alcoholic beverages during pregnancy because of risk of birth defects. 2, Consumption of alcoholic beverages impairs your ability to drive a car or operate machinery, and may cause health problems." In addition, warning labels which indicate that wine contains sulfites are necessary. These requirements cannot have been directly responsible for the downturn in consumption in the years up to 1988 but negative publicity as these measures were being debated may have had an impact. Most of the impact, however, is likely to be felt in future years.

Various states, as well as the federal government, are looking to excise taxes on alcoholic beverages, tobacco, and other items as a way to raise revenue. One proposal in California would raise the 1 cent per four liters tax on wine to USD 1.29 per four liters. Excise taxes in New York State on alcoholic beverages other than wine were increased in each of the last two years. California and New York State are the two largest consuming states in the United States, collectively accounting for 30 percent of U.S. wine consumption. These measures would have a significant impact on consumption if enacted. Again, the effect would be greater on non-premium wine.

It is significant that the two states with the highest consumption, New York and California, also account for about 95 percent of domestic wine production, and hence strong lobbying efforts on the part of the wine industry will probably be mounted to prevent state excise taxes from being levied on wine. Additional excise taxes at the federal level, however, are a distinct possibility as the U.S. government attempts to reduce the federal deficit.

SUMMARY AND CONCLUSIONS

The wine market for several wine types in the United States has been declining for the past several years. Apparently, the U.S. wine market matured at a much earlier stage than European markets, and earlier than expected by the industry and by analysts.

Future prospects should be considered carefully by those who plan to enter the market or improve their market share in the United States. Several factors such as the tendency to drink less wine, but higher quality; possible future tax increases; new government regulations; and consciousness about the potential health effects of alcohol have coalesced to reduce wine consumption. These factors appear to be dominant for at least the next several years. Most of these factors affect non-premium table wines more than premium table wines which may continue to benefit from favorable demographic trends. The number of brands have proliferated in recent years, resulting in intense competition for retail shelf space. These trends could result in high volume premium brands making further inroads into the market in the 1990s.

REFERENCES

- Blandford, David and Gerald B. White, 1987. "The Outlook for U.S. Wine Imports". Fruit Situation and Outlook Report, Econ. Res. Service, U.S.D.A., Washington, DC, March 1987; pp. 24-31
- Exter, Thomas, 1989. Factors Affecting Beer and Wine Consumption: A Socio-Demographic Perspective, paper presented at the Seventh International Conference on Gastronomy, November 2, 1989, Chicago, Illinois, 7 pp.
- Foreign Agricultural Service, U.S.D.A., 1989. "Table Wine: U.S. Imports", Horticultural Products Review, Circular 3-89, p.20.
- Foreign Agricultural Service, U.S.D.A., 1988. "U.S. Imports of Grape Wine", Horticultural Products Review Supplement 7-88, 46 pp.
- Gomberg, Fredrickson and Associates, 1990. Correspondence, May 11.
- Impact, 1989. The U.S. Wine Market, 1989 edition. M. Shanken Communications, Ins., New York, 101 pp.

- Spencer, Gregory, 1989. Projections of the Population of the United States, by Age, Sex, and Race: 1988 to 2080. Bureau of the Census, U.S. Department of Commerce, Series P-25, No. 1018, Washington, D.C.: U.S. Government Printing Office, 171 pp.
- Wines and Vines, 1989. "The 46th Annual Statistical Survey", July 1989, 16-41 pp.
- Wines and Vines, 1985, "The 45th Annual Statistical Survey", July 1985, 18-46 pp.
- Wine Institute, 1989. "International Grape and Wine Statistics", Wine Institute Economic Research Report (Special Report), San Francisco, California, 29 pp.

NOTES

- (1) A broad category including wine of the type that the European Community (EC) designates as table wine as well as wine that the EC designates as quality wine produced in specified regions (p.s.r.).
- (2) Wine cooler is a product comprised of a blend of wine and fruit juice. Only the volume of wine used in wine cooler production is included.
- (3) Table wine consumption declined 2.8 percent in 1989.

PARTNERSHIP AGREEMENTS IN THE WINE BRANCH

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We can experience rapid developments of marketing agreements and relationship of the wine and spirit sector in two main trends.

I. The first is a considerable development and concentration of big distribution in West Europe. According to this fact partnership agreements more or less successfully increase among dominant companies and trade centers:

- accords among national companies,
- accords among international companies.

II. The second trend is stimulated by difficulties what companies should face integrating the best grape quality from the growers so as to supply the market in accordance with its ever increasing demand. This situation forces the trading companies to create and develop on the one hand horizontal integration and relation of growers and on the other hand vertical integration of producers.

First of all we have to think about what trading relationship means in a liberal economy and in a free market. There are two sides for the companies, one is inconvenient side, the other is positive for them. Both side must be taken into consideration in order to analyse.

Market action without integration in power

Advantages

- possible relations with powerful companies

Disadvantages

- often less solid partnerships
- often disharmonious connections

- joining and growing powerful of parts
- different parts of the market
- know how transfer to the potential concurrent partner
- or
- cost distribution and saving
- complement of trump: 1+1 2

Key words of the victory/ three "C"

- compatibility
- capacity
- commitment

Market action participation in power

Advantages

- rapidity of covering market segments
- obtain traditions of country
- good local management

Disadvantages

- investments
- higher risk of false project
- partial return of limited investments and expenses of headquarters

Key words of the victory

- the choice of partner and project
- progressive integration and managers' agreement
- keep the partner in the position
- choose the right time for financial transaction
- correct relation between parent company and affiliated firm

I. ASSOCIATING WITHOUT LOOSING INDEPENDENCE

We can define two forms of relationship:

1. **Vertical relation** is a connection which prefers one or limited number of activity:

Distribution

Trading

Production

This kind of connection joins top quality with principle of integration up- and downwards in the firm. The reason is that vertical agreements can stabilize the market segments both to producers and to distributors.

Recently stabilized functions turned out first of all by financial reasons, and not because of exactly worked out strategies.

2. Horizontal relation changes and improves horizontal interactions and connections among one firm and the other similars. The point is that a firm can unite with an other without loosing its indepenence, and with intention of more effective means by using together or to carry out a common project eg. in trading field (eg. to set off an export relation Ex/YVON MAU/MOILLARD) logistic (eg. to set off a common transport project) or industrials (eg. to set up a new bottling plant).

In general we can state that enterprisers can not associate effectively or in case of their market position is strong and stable, and if they have advantage of concurrence and further more financial and intellectual resources. If it does not happen, the week point of the partnership will be lost.

The horizontal relation although formed by consequence of relation types and their concentration (financial cover, centralization of commercial structures...) in fact ever increasing demand stimulated its developing.

Analysis of some European markets show characteristics which belong to a perfect relation control.

	France	Germany	Great Britain	Italy
Price	1	1	4	1
Presentation	3	2	2	3
Quality	4	4	1	4
Respect	4	3	3	2

The criterions of buying desicion in order of increasing in each country.

Two extreme products' price indicate permanent existing speculation on the market (Figure 1 and 2). If we accepted speculation in relation to special climatic conditions, regulations would not be possible only as a relationship of companies.

In 1988 and 1989 relationships were agreed as follows:

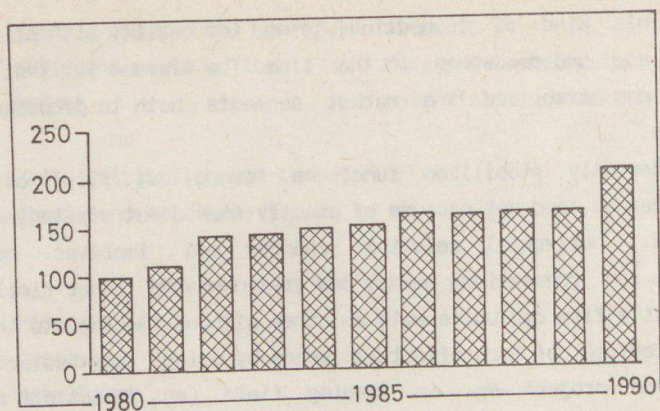


Figure 1. Index variation of price of sold table wine in France (1980 = 100%)

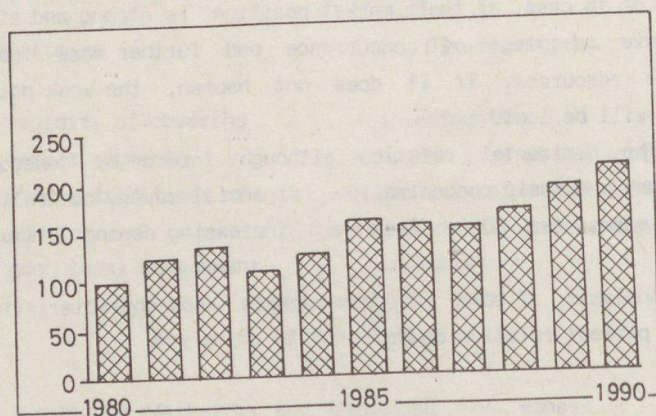


Figure 2. Index evolution of price of kg/grape in Champagne (1980 = 100%)

- COMMERCIAL/PRODUCTION:

SICA DE PEYRIAC/GROUPE TAILAN CHANTOVENT

SKALLI and contrats "3 strings"

LATOIR (Bourgogne) and contracts of Chardonnay production

- DISTRIBUTION/COMMERCIAL:

CARREFOUR and CARREFOUR products

-DISTRIBUTION/PRODUCTION:

CASINO/ participation in production structure

Partnership may be very extreme in some cases eg. LECLERC extended distributor and CORDIER LA HENIN trading company have bought vineyards.

In the 90's this events will increase, also in international term.

II. MARRIAGE/LOOSING OF AUTONOMY IN EXCHANGE OF INVEST OWN RESOURCES

Middle-size firm often face the next problems: do it let the more powerful partner enter with its capital and organization.

What is sure in this kind of polemia, small firm's activity multiply from commercial and production points of view. The financial partner invests plus resources and its potential what is necessary to develop and to trade (network, investemnts) and in financial fields (trade mark fund, merchandise action).

At the same time the danger of loosing independence for shorter or longer period is also very important matter.

An other danger is that the marriage can strengthen rigidity and unflexibility and cannot save advantage of the firm: flexibility of its structure and the conformity potential to the market.

A manager of the firm supported by outside fund must be opened as well as careful. It is obviously there are no written rules. Everything depends on the partners' way of thinking but and this important to stress.

In a simple commercial event the situation is simple, nevertheless problem arises when minority participation or victory sharing should be experienced. Motivation of extended firms and coming agreements must also be taken into consideration. What will happen if short run result and development of the firm need further investment and capital? Who will take this capital transfer apport? If does the more powerful partner change its strategy and organization, what will happen to the smaller one?

Analysing the ten biggest companies in the wine and spirit sector we conclude that the internationalization of the market, the dominance of the main trends and the higher rate of centralization are significant. It seems to be sure that PME, PMI will face difficulties to find agreements and to draw contracts. The disparity is expected to grow and will be dominant because of stock manoeuvres of financial groups and lobbys.

III. PRINCIPLES OF PARTNERSHIP BASED ON SUPPLY AND DISTRIBUTION

The wine distribution began to develop in West Europe very much and rapidly. In the past 20 years the new was the distribution, grande distribution, special market chains provided new basis of distributing network.

Specialization of distributing channels and preference of selfservice have produced the disperse of supply so small-large producer in collaboration with powerful companies appeared in that new market competition where the achievements were not always professional and included certain kind of folk character.

Changes in distribution differing from modification of consumption indicates the demand concentration and financial operation have become more pronounced (Table 1).

Seeking partners which is composed of commercial agreements and capital mutation is expected to give answers to criterions of distribution.

Service of render is going to be more determining in supply. Actually marketing tools are rapidly developing. The task is to distribute and to cover the market much more and this mainly belongs to transporter. It is easy to imagine that companies not extended up to a certain critical scale are not able to produce this kind of service. This is one factor of the other which contributes the restucture of supply.

Situation of the big distribution of the European market

DENMARK

In this country supermarkets are dominant which is recently concentrated exceptionally. Approximately 70% of wines are distributed by this sort of channels.

GREAT BRITAIN

One third of domestic wine consumption is absorbed by chains of supermarkets (70% of the total consumption of wine is in the United Kingdom).

NETHERLANDS

More than half of commercial wine, in Netherlands, is sold in supermarkets and general food stores. For more years the import intends to cut short-run profit so this tendency prefers big destillaters and brewhouses.

Table 1. Distribution rate of the main groups in Europe in %

	Million cartons of sold spirit in Europe		Main markets	
Pernod Ricard	50.0	91	France	81
Martini and Rossi	27.4	83	France and Italy	45
Allied Lyons	21.6	42	Great Britain	66
Grant Met (IDVC)	20.1	22	Great Britain	60
Guinness-LV-MH	19.6	36	Great Britan and France	31
dont Guinness-LV-MH	(14.6)	(33)	(Great Britain	35)
	(5.0)	(46)	(France	23)
Seagram	15.0	20	Germany	23
Bols	8.2	72	Netherlands	52
Cinzano	6.0	80	Italy	36
Bacardi	4.5	17	Spain and Great Britain	62

Source: International Drinks Bulletin, Vol. 3,n.22.

BELGIUM

Specialized retailer's market share has lost its importance a little. It resists the competition in long distance distributing of spirit and bulk wine.

GERMANY

Food trading has concentrated and self-service is very popular. The 5 big companies (EDKA, ALDI, SELEX and TANIA) shares 60% of the sector's activity, of which 25% are hypermarket.

On the other hand we can point out the difficulties trading companies meet when they want to provide food sorces:

- quantity of standard quality products,
- price of stable products.

Market law has its perverted price calculation because the price is very sensitive to the harvested quantity and its quality. Example is:

Campaign of Bordeaux blanc, the price fluctuates by 25-30% during the campaign.

This disturbs the stabilization of operators to provide the products to the market and causes hesitation among consumers with regards to the price on label which fluctuates in spite of it represents same quality in the bottle.

We have experienced in the past few years that distributing companies take part in the production so as to extenuate the difficulties.

Distribution approaches an integration policy to get rid of this kind of difficulty. This proves the concentration of market activities and this tendency is getting more dominant in the close future in Europe.

It is supposed that the distributing companies which would investigate in transforming firms or vineyards supply their foreign partner and presents a good rentability for their innvested capital.

THE SOUTH AUSTRALIAN WINE GRAPE EXCHANGE

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INTRODUCTION

For many years in Australia, grapes for wine production were sold subject to a minimum price. This price was set before harvest time by a Government-appointed group of State Agricultural Department officials, and representatives of both grape growers and wineries.

The minimum price was set because of the potential for very low grape prices in years of oversupply, leading to hardship among growers. Oversupply may often occur in the industry because of variations both in the size of the harvest from year to year, and in demand for different grape varieties and for grapes in total. Since the demand for grapes is relatively inelastic in any one season, even a small oversupply would cause the price of grapes to fall substantially. It was felt to be better to restrict the quantity of grapes traded to what would be bought at the legislated minimum price. In that way, the revenues of growers would be maintained at a fairly high level and would also be relatively stable from year to year. This would occur despite the fact that it would on occasion lead to some grapes being left to rot on the vine. A further reason for legislated minimum prices was that it was felt that information regarding the "correct" market price was asymmetric between buyers and sellers. Buyers (wineries) would typically be buying grapes from many growers, and would therefore have a good idea of what should constitute a reasonable price. Growers, on the other hand, would in general not know grape prices, other than what they could learn from social contact. Without a minimum price scheme, the potential existed for some growers to be exploited by wineries.

On the other side of the coin, a minimum price scheme which left

On the other side of the coin, a minimum price scheme which left some grapes on the vine would often leave the same groups of growers without a market, year after year. Those growers who had established strong links with wineries over the years would sell all their grapes each year, while others would sell none. There was also the problem that growers who had an assured outlet for sales had an incentive to expand their plantings, even when there was an oversupply in general. Furthermore, it encouraged wineries to plant their own vines in order to get the grapes more cheaply, adding to the oversupply once more, and leaving even more independent growers without a market. This situation also had the potential for black-market operations, as some wineries would expect a fourth unrecorded ton of grapes to be delivered with every three tons officially paid for. In other cases where a grower grew several varieties of grapes, some of which could be expected to sell above the minimum price, but others which would only grudgingly receive the minimum price by the wineries, the wineries could insist on a package deal where they would only buy the less-desirable grape varieties by dropping the price on the more-desirable ones. Furthermore, for some varieties the market price would be the minimum price in some years and above the minimum in other years. To guarantee sales each year, growers would be tempted to seek less than the full market price in the high-priced years in return for being able to sell in the minimum-price years.

It is not known to what extent these and similar practices flourished: after all, most black-market activity goes unannounced and undetected, as it is not in the interests of either buyer or seller to make known their dealings. Nevertheless, these things have occurred and have led to increased wealth among the less scrupulous at the expense of the law-abiding wineries and growers.

Perhaps the main problem with minimum prices, however, was that it was felt they perpetuated the growing of too many grapes of varieties whose demand had declined. Growers who continued to grow varieties no longer in demand had less incentives to switch to more popular varieties while minimum prices persisted. Wineries continued to accept these grapes because more popular varieties were not being offered to them in sufficient quantities.

Over the past four or five years, therefore, State Governments have progressively removed minimum price legislation. This has left an information gap, because now the market has to reach an equilibrium

unaided. With minimum prices, either the minimum was reached, or if the prices were above the minimum in a particular year and minimum prices were sensitively set, they gave wineries and growers a benchmark for further negotiations.

The economic implications of minimum pricing in the market for wine grapes have been described by O'Mara (1981), Alston and Smith (1983) and Burns et al (1989). Burns et al (1989) also considered the effects of supplying the market with information concerning the prices paid on sales of grapes early in the season, in an experimental setting. It was observed that the information on prices came too late to significantly affect later trading in the market. We believe that this is the only time that the method of experimental economics has been used in a study of a wine-grape market anywhere.

THE GRAPE EXCHANGE

To help deal with this situation, an association of farmers, the United Farmers and Stockowners, which represents wheat, sheep and other farmers as well as grape growers, set up a Grape Exchange with some Government funding, in 1986. The Exchange has been a separate legal entity since its establishment. The Exchange began operating primarily in South Australia, but is gradually extending its clientele to encompass most grape-growing regions of Australia.

The Exchange has had several aims. The first has been to act as a clearing-house for grape sales in the same way as stocks and shares are traded on the Stock Exchange. In theory at least, a grower would inform the Exchange usually by telephone that he wished to sell a certain tonnage of grapes of a particular variety, and would nominate a selling price. If this did not meet with a sale, the grower would lower the price, in competition with other growers trying to sell their grapes. Wineries would make offers for the grapes, raising the price until a sale was enacted. With commodities such as shares in particular, this method of buying and selling is an extremely efficient one. In Australia as in many countries, much agricultural product is sold by an auction method. In some markets, such as for wool and for pigs, the method of sale by description has been used for some years. In such a market, buyers do not need to see the item being sold if the description is a full one. The transactions costs are thereby

considerably reduced. Could grapes be sold in this way? The second aim of the Grape Exchange has been to act as a place in which both growers and wineries can seek information about the prices of all varieties of grapes in varying grades of quality. In cases where the Exchange has been the broker (that is, when many sales have been made through the Exchange) the price information would be generated by the Exchange itself. In other cases, the Exchange would receive bids and offers without actually undertaking the transactions directly, but from such information would be able to establish a price range which would reflect the market price with almost the same accuracy as if the actual transaction had gone ahead through the Exchange. The third aim of the Exchange has been to conduct surveys of both growers and wineries of a variety of market information, particularly prices paid and expected market trends in wine consumption and exports.

A fourth aim of the Exchange is to attempt to convert regional markets for grapes into a national market.

THE PERFORMANCE OF THE GRAPE EXCHANGE

The Grape Exchange has acted as broker in the sale of very few grapes, so in that sense it has not lived up to the expectations of some of its early supporters. In some cases at the height of the picking season it has been inundated with callers, and has put growers and wineries into direct contact. In that way, it has helped in the smooth-running of the market without being able to show any proof of its usefulness. Even so, the volume of such sales has not been substantial.

The Table 1 shows a summary of the activities of the Exchange since 1987.

The largest aggregate of 28 000 tons in 1987 represented about 16% of the estimated vintage of wine grapes grown on independent vineyards that year.

The aggregate figures in Table 1 of tonnages listed and sought at the Exchange show a considerable mismatch from year to year between the quantities offered for sale and those for which the wineries have been prepared to bid. Even so, these aggregate figures obscure an even greater mismatch by variety. For example, in 1987, 4 900 tons of the variety Muscat Gordo Blanco (in oversupply) were listed by growers but only 100 tons were

Table 1. Activities of the S.A. Grape Exchange

Year	Tonnage listed by growers	Tonnages sought by wineries	Direct Sales	Initiated Sales
1987	28 000	5 900	1 100	3 900
1988	10 000	19 000	1 000	(direct and initiated)
1989	1 600	5 600	157	?
1990	6 200	3 200(x)	about 100	about 1000(x)

Sources: Post-Vintage Reports of the S.A. Wine Grape Exchange, 1987-1989. Personal communication with Grape Exchange 1990.

(x) Includes an order of 3000 tons from an interstate winery, of which about 1000 tons was delivered by growers put in contact by the Exchange. Otherwise the tonnage sought by wineries was less than 200 tons.

sought by wineries. 600 tons of the Chardonnay variety, in short supply in the same year, were sought, but only 137 tons were listed by growers.

The overall supply of grapes for wine-making in Australia fluctuates somewhat from year to year, but because the bulk of sales is of irrigated grapes, the fluctuations in supply are not as great in relative terms as have occurred with non-irrigated crops. The production figures for grapes for wine-making in South Australia and Australia are given in Table 2. The years of high and low production do not correspond very closely with the years of over and under supply at the Grape Exchange, because of variations in demand from year to year by wineries. For example, excessive optimism by wineries in 1989 resulted in a year of relatively short supply. Subsequently, this has led to excessive stocks of wine on hand, and together with a large 1990 vintage, a gross oversupply of grapes.

The reasons for the low volume of direct sales through the Exchange are several. Mainly, however, they are ultimately concerned with the perishability of the ripened grape crop. Growers generally wish to have a reliable buyer arranged in advance of vintage but the quality of the

Table 2. Production of grapes for winemaking
 (thousand tonnes fresh weight)

Year	South Australia	Australia
1982	329	500
1983	254	431
1984	288	495
1985	321	559
1986	280	491
1987	284	477
1988	247	460
1989	310	563
1990	305 (estimate)	

Source: Viticulture in Australia (ABS) 1982-89. S.A. Wine &
Brandy Producers Association for 1990 estimate.

fruit cannot always be known in advance. Once the quality is known accurately, it is likely to be within days of picking, so growers with a better-than-usual-quality crop will often be locked into an agreement with a winery at a particular price. On the other hand, they are protected by such agreements from the crop will be at its peak condition for only a few days, neither buyers nor sellers can afford the luxury of being able to reach more efficient decisions at the optimal time: that is, there will be a tendency to pay a similar amount for all grapes of a particular type regardless of quality. Only to the extent that, on past history, a particular grower has consistently had a better quality performance than other growers in that particular year will the price offered be higher than average, and vice versa for growers with poor quality performance in past years.

So it seems that grapes, unlike wool or pigs, cannot so readily be sold by description. Thus, most grape sales are made on a contractual basis somewhat in advance of harvest. Indeed, to assure themselves of supplies, many wineries own their own vineyards (although this trend was exacerbated by the minimum price legislation). Thus, the Grape Exchange is

dealing in what amounts to a residual market. This market is one which is typically either in severe oversupply (when quantities supplied increase in good growing seasons, or when demand declines) or severe undersupply (for the reverse reasons). In the years of oversupply, the Exchange has been flooded with calls from growers trying to sell grapes, but with few buyers, and in the years of undersupply, the wineries clamour, through the Exchange, for grapes which mostly do not exist.

However, the Exchange still has a substantial role as a disseminator of information. It is the marginal goods in any market which largely determine the price of those goods. So with grape varieties, the offer and bid prices at the Exchange of growers and wineries will help set the prices which are paid by all wineries in a particular year. Both growers and wineries use the Exchange as a way of checking on what can be regarded as fair prices for grapes they are about to sell or buy, or have recently sold or bought. For most growers and some wineries, this would be perceived to be the most directly useful activity of the Exchange.

However, perhaps the most important role of the Exchange has been its conduct of market surveys of growers and wineries, which surprisingly do not appear to have been carried out regularly elsewhere. Growers have been asked to provide information, for each variety grown, on the area grown, the tonnages picked, the prices received, and the type of purchaser. They have also been asked about their selling methods, written contracts, terms of payment, picking arrangements and cost of transport. Wineries have been asked for an assessment of market prospects for various types of wine and for grape varieties, for an estimate of their unfilled demand at the last vintage, the prices paid for grapes, their quality, formal contracts and on the concept of the Grape Exchange. In some years, different special surveys (for example, on plantings of particular varieties) have also been carried out.

These surveys will become more important should the Exchange begin to assume a greater presence nationally rather than being confined primarily to South Australia. For example, surveys of recent or intended plantings of new varieties will help to indicate on a national basis which varieties will be in short supply, and which over-supplied, in a few years' time. These surveys are particularly important to the industry, in order to establish future supply, because of the long lead time before vines reach maturity. Regional surveys will not be able to give the total picture so

accurately if there are regional differences in plantings. The same applies to the flow of information between regions: it will become increasingly inefficient to pay different prices in different regions for the same varieties of similar quality. The extension of the Exchange nationally will increase information flows and therefore help to reduce regional price differences, and possibly reduce fluctuations from year to year in growers' returns.

THE FUTURE

The Exchange must therefore be seen primarily as a provider of information at a number of levels. The difficulty faced by information-providers of this sort is funding. Everyone agrees that the information is useful and should continue to be provided. However, once it exists, it is in the nation's interest that it should be freely provided as a public good. That leaves a gap: who pays for its provision? In an industry well known for its independent-minded participants, levies on growers and wineries would be hard to collect and may contain too many free riders. On the other hand, governments are hard pressed in these days of calls for lowered taxation to provide a fully subsidised service. Should the industry levy both growers and wineries, and the most efficient provision would probably be to levy wineries in proportion to the aggregate amounts paid for grapes: these charges would not be very great and would in large part be passed on to growers anyway.

There is little doubt that the future success of most industries requires that they become increasingly efficient. Some of the greatest gains in efficiency are to be obtained through a greater awareness of market trends, both nationally and internationally. This can only be achieved by the collection, dissemination and absorption of information most relevant to the industry. Applied to the grape-growing and wine-making industries, this implies that its members must thoroughly investigate what mix of information will be of most benefit to them. Being at the interface between growers and wine makers, the Grape Exchange is in a good position to carry out investigations such as this, in conjunction with Federal Government Agencies. As we move towards a world which is becoming a single market in wine production and marketing, the relative competitiveness of particular countries is assuming greater importance, as Moulton (1988)

demonstrates. The relative costs of production and the price of land will increasingly determine the countries in which particular styles of grapes will be grown. To be aware of the likely ramifications of this, it is essential for viticultural authorities to be in close liaison internationally, and for major producing countries to undertake comprehensive national studies of their markets. In Australia's case, this will need to be supplemented by more specific research, into areas such as the expected demand for neutral dry white grape varieties and the movement of grapes between wine production, table grapes and the dried fruit industry. These are all tasks in which a body such as the Grape Exchange with its support base from both sides of the grape market and its experience in surveys is in an excellent position to participate. It is no longer a question of whether industries can afford appropriate market information, but whether they can afford to be without it.

If future funding can be assured, it would seem that the role of the Exchange or an equivalent organisation as a provider of short term and long term information will be an indispensable part of the industry's future in Australia.

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REFERENCES

- Alston, J.M. and Smith, V.H. (1983), "Some Economic Implications of Minimum Pricing: The Case of Wine Grapes in Australia: Comment" Review of Marketing and Agricultural Economies, Vol. 51, No. 2, August 1983.
- Australian Bureau of Statistics (1984 to 1990), Viticulture in Australia, Catalogue number 7310.0.
- Burns, J.P.A., Meyler, M.J., Tiernan, P. and Fischer, A.J. (1989), "The South Australian Wine Grape Market: An Analysis Using Experimental Economic Techniques", International Journal of Wine Marketing, Vol. 1, Number 2, 1989.

- Moulton, Kirby (1988), "Competition in the Wine Industry - a Comparison of Europe and the U.S.", Bulletin de l'O.I.V., Vol. 61, March-April 1988.
- O'Mara L.P. (1981), "Some Economic Implications of Minimum Pricing: The Case of Wine Grapes in Australia", Review of Marketing and Agricultural Economics, Vol. 49, No. 4, August 1981.
- The South Australian Wine Grape Exchange (1987), 1987 Post Vintage Report, Hyde Park Press, Adelaide. (Address of S.A. Wine Grape Exchange: 13 Gawler St, Nuriootpa, S.A. 5355).
- The South Australian Wine Grape Exchange (1988), 1988 Post-Vintage Report, Hyde Park Press, Adelaide.
- The South Australian Wine Grape Exchange (1990), 1989 Post-Vintage Report, Hyde Park Press, Adelaide.

BEHAVIOURAL MODIFICATIONS IN WINE CONSUMPTION

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Wine consumption has been declining over the last decades in all European wine production countries: Spain, France, Italy as well as Portugal (See Figure 1).

In France, three different sample surveys have been carried out in 1980, 1985, and 1990, based on samples of 4000 individuals. The purpose was to analyse wine consumption behaviours to try to explain the mechanism of this recession and furthermore to foresee the likely evolution for the next few years.

The present paper will sum up the most important results of these surveys (the analysis of the 1990 data not being yet completed, one will have to wait a little more for further detail).

I. A FUNDAMENTAL FACTOR: THE FREQUENCY OF WINE CONSUMPTION

- Concerning the total population

The 1980 survey has shown that the main differentiation in wine consumption behaviours is expressed by the frequency of consumption. Figure 2. shows the distribution of the French population in 1980, 1985 and 1990, according to reported frequency.

In the last ten years, the proportion of people reporting never to drink wine has risen from 32.5% in 1980, to 50.7%. On the other hand, people reporting a daily consumption of wine, 32.5% in 1980, are only 18.5% in 1990.

The only category that is stable or progress slightly is formed of consumers drinking wine either once or twice a week, or less often. If one call "regular consumers" people who drink wine every or nearly every

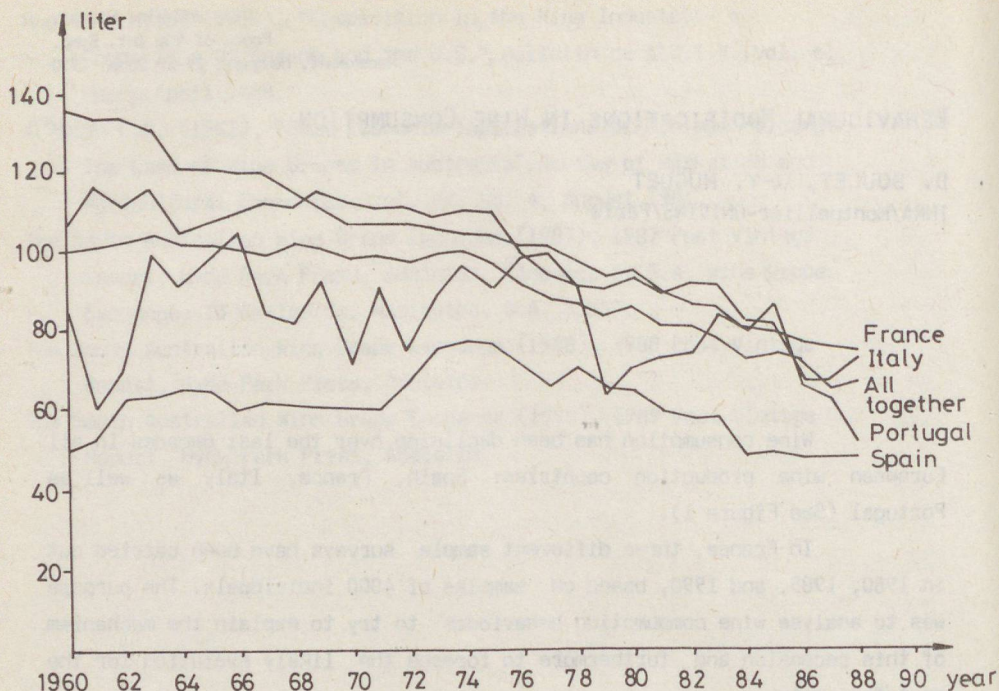


Figure 1. Consumption per capita (France, Italy, Spain, Portugal, all together) in litres

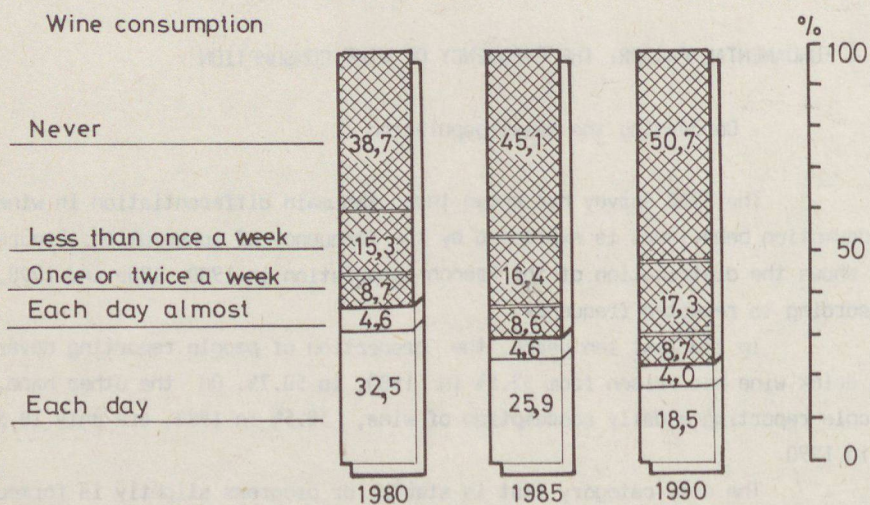


Figure 2. Frequency of consumption (expressed in %), all together

day, and "occasional consumers" those who drink wine either once or twice a week, or less often than the statistics concerning the population over 14 are:

In ten years the proportion of consumers, whatever the frequency, has fallen from 76.4% to 61.5%, but in this group the regular consumers have gone down sharply, from 46.8% to a mere 28.2%.

- Differences according to sex

If one compares male and female consumption behaviours, important differences appear:

. Among women only 10.9% report to drink wine on a daily or near daily basis. This proportion has decreased by 54.8% since 1980. This compares with a 32.2% decrease for men.

. To the opposite, the proportion of non-consumers among women has been increasing by 34.5% for 1980, reaching 58.5% in 1990. For male non-consumers, the figures are respectively + 26.5% and 43%.

- Differences according to age

Figures 4, 5 and 6 show the distribution by age group respectively of non-consumers, regular and occasional consumers in 1980, 1985 and 1990.

. Non-consumers (Figure 4)

The population of non-consumers has increased in every age group.

This means among other things that between 1980 and 1990 many people of all ages have stopped drinking wine.

However the increase among those under 20 seems to have stopped in 1985.

. Regular consumers (Figure 5)

The decline of this category has also concerned every age group, but it was sharper for people between 25 and 50.

. Occasional consumers (Figure 6)

In 1980, we met a difficulty in interpreting the distribution of occasional consumers according to age groups. The shape of the Figure, reaching a steep for the 20-25 age group, could have meant two different

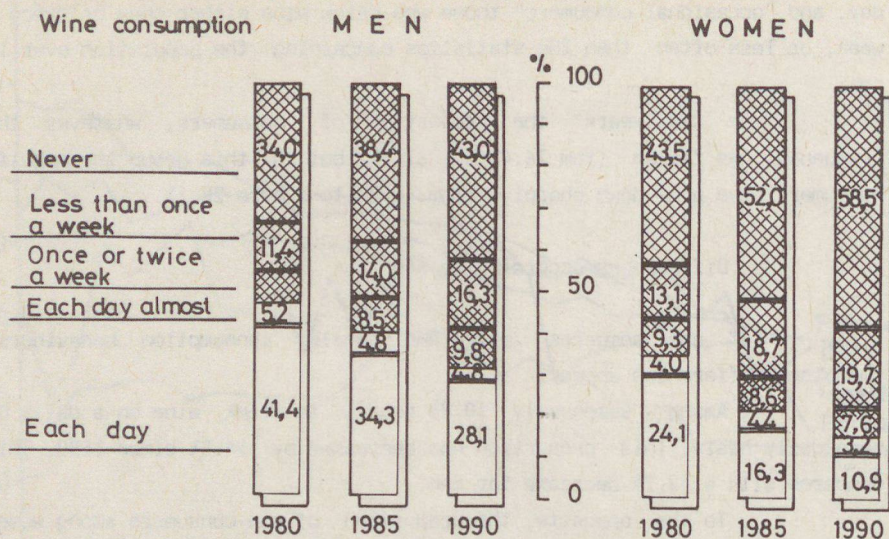


Figure 3. Frequency of consumption (expressed in %), according to sex - age groups

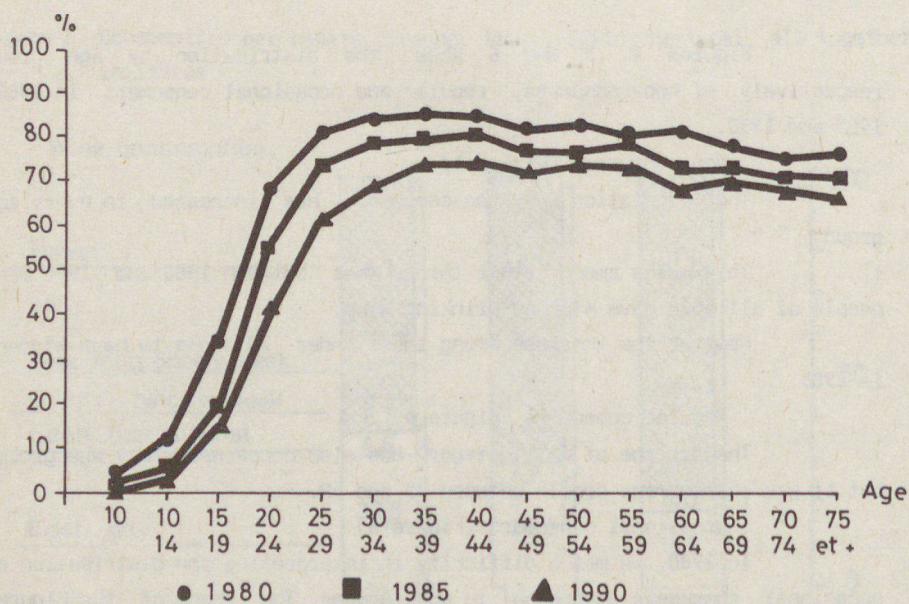


Figure 4. Consumption habit of wines, consumers together

things:

- either it reflected the evolution of individual behaviour through each lifetime: no consumption or hardly any, till the age of 15, then occasional consumption till 25, then regular consumption from 26,

- or it reflected a generation effect: the consumption of the young in 1980 being structurally very different of their older's.

We thought and still think the latter more likely. Indeed as shown by Figure 6 in ten years the peak shifted two steps to the right, each step corresponding to a bracket of 5 years.

In 1990 one observes that the proportion of occasional consumers still rose for people over 30, but it stopped declining for people under 20.

Figure 7 a triangular representation, sums up the evolution between 1980 and 1990. The cloud of points has moved closer to the "non-consumers" and "occasional consumers". The distance between young people (points 1 to 4) and other age groups have diminished significantly over the decade.

- Differences according to geographical location

The map (Figure 8) divides the French territory into 8 areas, designed to be homogeneous in terms of wine consumption behaviours. It shows the corresponding distribution of the population into our 3 categories in 1980 and 1990.

One notices that the proportion of regular consumers declines faster in areas where it was above average in 1980. In the same way the proportion of occasional consumers is stable or recedes slightly where it was high in 1980: Northern and Paris areas.

Figure 9. sums up these modifications. Schematically one may say that regional patterns tend to come closer to each other, which indicates that behaviours become more homogeneous.

- Differences in household wine consumption behaviours

The figure below shows how the addition of individual behaviours defines 3 groups of households, according to the number of wine consumers: none, at least one and in such a case, at least one regular member.

This approach implies that the presence, or absence, of wine in household may have an influence on the attitude of its young members towards wine, possibly resulting on actual consumption later on.

The regression of households including no consumers has almost

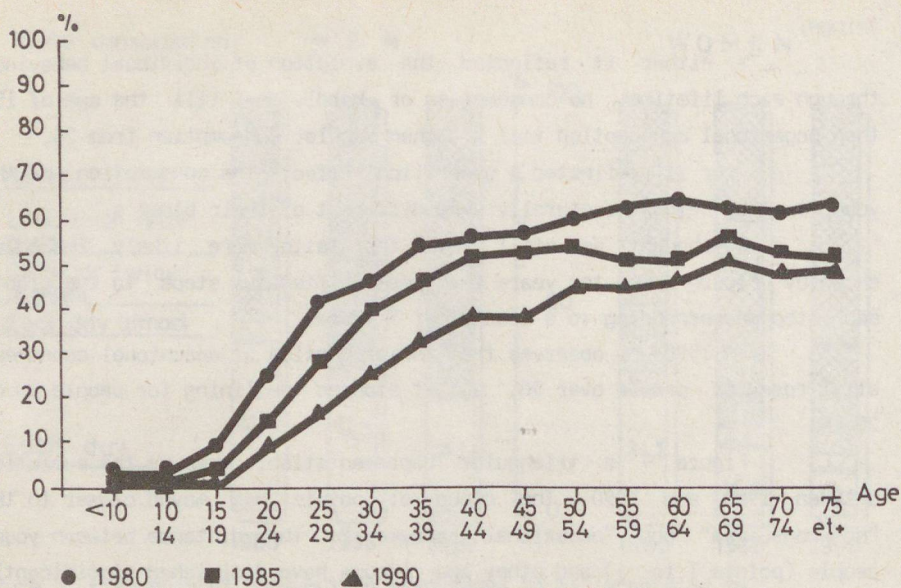


Figure 5. Consumption habit of wine, regular consumers

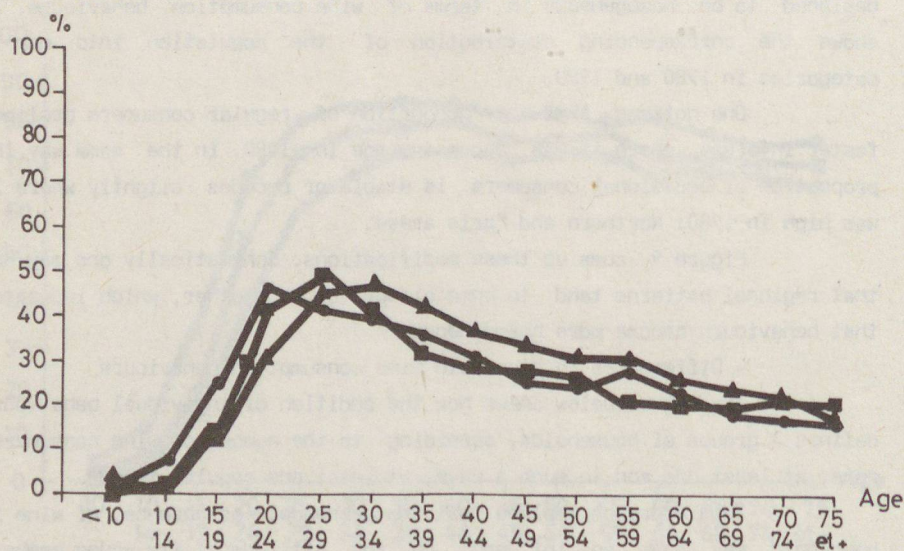


Figure 6. Consumption habit of wine, occasional consumers

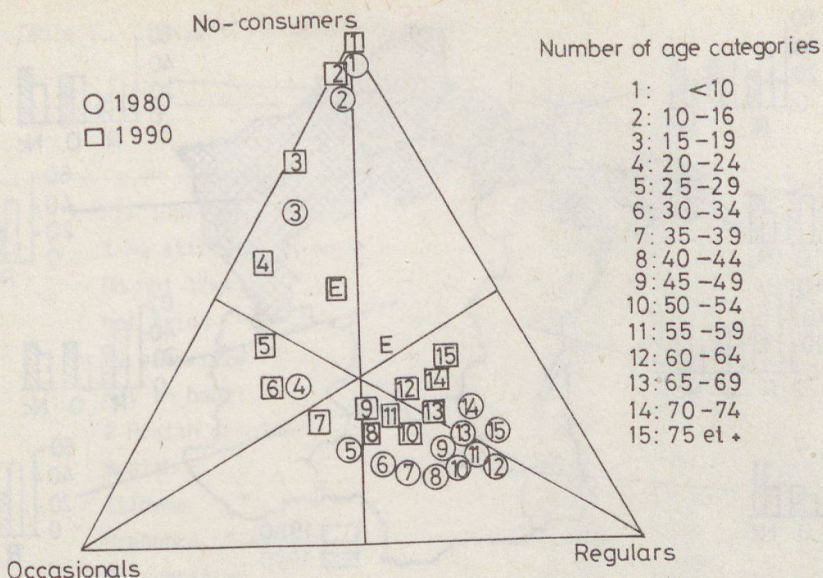


Figure 7. Consumption distribution expressed in term of age

		80	85	90	
Households including at least one regular consumer		64.3	51.8	40.3	
"	"	no regular consumer	26.3	33.3	44.1
"	"	at least one consumer	90.6	85.1	84.4
"	"	no consumer	0.4	14.9	15.6

stopped between 1985 and 1990: this group now amounts to 15.6% of the total number of households. This confirms the idea that disaffection to wine concerns chiefly young people.

On the other hand, a majority of households includes no regular consumers and their number increases. In these households wine is not present every day on the family table.

II. CONSUMERS' MOTIVATIONS

During the sample surveys, both non-consumers and occasional consumers were asked (by way of open questions) the reasons of their attitudes towards wine (Tables 1-2).

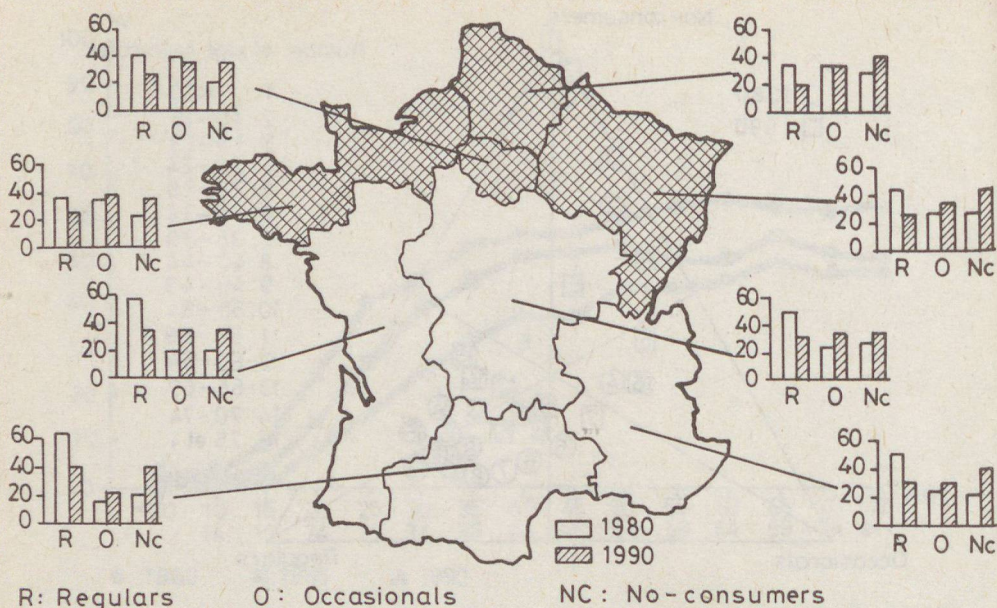


Figure 8. Wine consumption distribution according to regions

. Non consumers

For this group the motivations remain very much the same between 1980 and 1990.

1) Lack of attraction to wine or rejection (67.2 % in 1980, 83.3 % in 1990). It would be interesting to be able to locate precisely the organoleptic elements that provoke rejection such as taste, flavour, acidity, alcoholic content...etc. Perhaps technological modifications or better communication could win over some of this resistance.

2) General concern about health (21% in 1980, 25% in 1990) directly linked with the alcoholic content of wine. In France as well as in most developed countries this concern has become a very important issue, specially now that sets of restrictive measures are being taken, to fight against alcoholism and more generally to reinforce public health policies. As wine represents 2/3 of the total consumption of alcohol in France, it forms one of the targets of these measures. Beyond the actual anti-alcohol campaign, the French consumers have progressively made their idea that daily consumption of alcoholic beverages can change health, especially for

Table 1. Motivations of non-consumers

	1980	1990
All together	100.0	100.0
1 No attracted by wine	67.4	73.3
Do not like	52.1	55.5
Not tried	15.5	11.1
By principle	1.5	4.4
Not in habit	-	5.7
2 Health problem	21.0	25.3
Health	10.0	14.1
Illness	8.4	2.8
Presence of alcohol	1.5	7.8
Own decision	1.3	2.3
3 Financial reasons	0.8	0.9
Price	0.8	0.9
4 Wine quality	0.4	2.1
Quality of the product	0.4	2.1
5 Different reasons	3.8	4.1
Not allowed by parents	2.9	1.3
To stop	-	2.1
Others	0.9	0.7
N.S.P. - N.R.	10.7	2.9

Source: Inquiry INRA/ONIVINS

urban people with sedentary occupations.

Lastly, other reported motives contribute for less to explain behaviour of non-consumer.

. Occasional consumers

Reported motives are mainly the same as for non-consumers, but with a different ponderation.

Table 2. Motivations of occasional consumers

	1980	1990
All together	100.0	100.0
1 No attracted by wine	67.1	53.5
Do not think about	43.9	11.2
Do not like much	24.5	22.1
Do not feel like drinking/no need	-	22.5
2 Health reasons	20.0	28.5
Health	11.7	20.9
Own decision	3.7	4.5
Treatment	2.7	1.6
Professional reasons	1.3	2.3
Anti-alcohol campagne	0.8	0.6
3 Quality	11.1	20.1
Resists on quality wine	7.1	19.0
Wine does not satisfy	3.3	0.9
Poor quality	0.8	0.4
4 Financial reasons	4.1	3.7
Price	4.1	3.7
5 Different reasons	0.8	8.9
Prefers other drinks	-	5.3
Not allowed by parents	-	0.1
Unable to be used to	-	0.9
Being alone	-	1.4
Others	0.8	1.3
N.S.P.-N.R.	4.5	3.2

Source: Inquiry INRA/ONIVINS

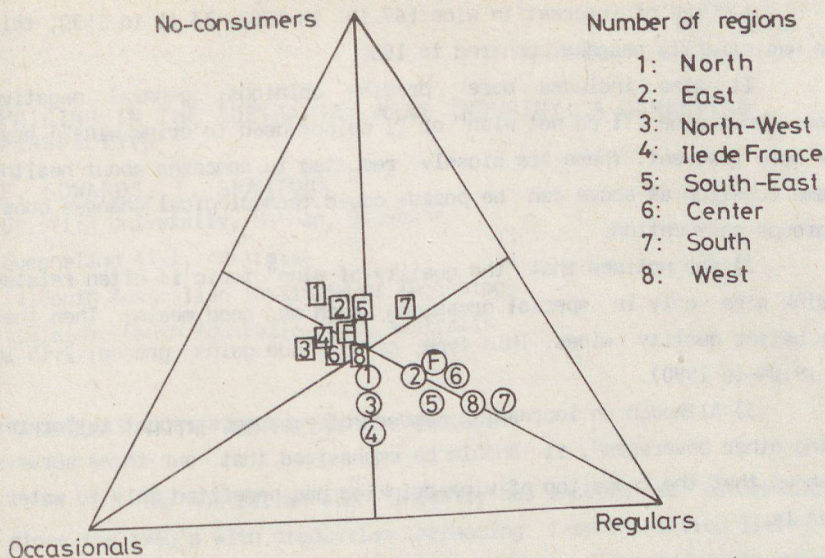


Figure 9. Consumption distribution expressed in terms of region (14 years)

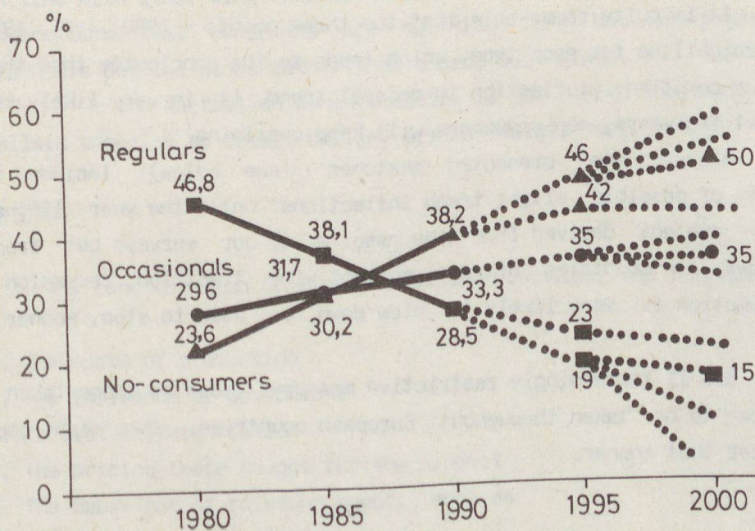


Figure 10. Elements of comportment prediction of wine consumption (over the age of 14 years)

1) Lack of interest in wine (67.1% in 1980, 33.1% in 1990, this motive has slightly receded compared to 1980.

It also includes more precise opinions: general negative opinions about wine ("I do not wish" or "I do not need to drink wine") have become more frequent. These are closely reduced to concerns about health. The same question as above can be posed: could technological changes boost this groups consumption.

2) One notices that "the quality of wine" topic is often related to drink wine only in special occasions such as good meals. Then they prefer better quality wines. This type of attitude gains ground: 7.1% in 1980, 19.0% in 1990).

3) Although an increasing number of consumers report to "prefer drinking other beverages", it should be emphasized that our three surveys have shown that the reduction of wine-drinking has benefited only to water, as bear is.

III - FUTURE PROSPECTS

Figure 10 presents, since 1980, the evolution of the population over 14 according to our 3 types of behaviour.

It is quite remarkable that the three points - 1980, 1985, 1990- form a straightline for each type, which leads to the conclusion that there is no evidence of any inflection in general trend. It is very likely that in the next few years, non-consumers will keep declining.

However the presented sketches (see below) include the possibility of possible slight trend inflections until the year 1995 and 2000. They are not derived from the results of our surveys but from a logical idea: in countries of very ancient wine tradition, recession in wine consumption is very likely to slow down, or even to stop, sooner or later.

But if increasingly restrictive measures such as these taken in France were to be taken throughout European countries, this might occur rather later than sooner.

PRICING IN THE AUSTRALIAN WINE INDUSTRY: A MARKETING PERSPECTIVE

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INTRODUCTION: THE AUSTRALIAN WINE INDUSTRY

The Australian wine industry has experienced remarkable growth since the 1960's with production increasing from 55 million litres in 1960 to 330 million litres in 1986/7. This growth is due not only to demographic changes but also to a change in consumer preference and lifestyle. Wine consumption per capital has increased from 14.2 litres in 1977/8 to 21.3 litres in 1984/5. Consumption has dropped slightly in the last four years in line with other wine industries around the world. In Australia there are indications that consumers are drinking less but are preferring more expensive bottled wines rather than cheap, bulk wines.

The Australian wine industry is now worth about USD 1 billion dollars annually at retail selling prices (Retail World, 1980).

PRICING

Any consideration of wine pricing must consider the following:

1. The costs of production
2. The influence of government
3. Product differentiation
4. The pricing image sought for the product
5. The behaviour of relevant agents, such as distributors and suppliers
6. Competition
7. The wine consumer and buyer behaviour (Kotler, et.al., 1989, p.398).

THE COSTS OF PRODUCTION

The major costs involved in wine production are the costs of grapes, the machinery of production, maturation, packaging materials, and marketing. From a marketing perspective, the costs associated with maturation are important.

A significant cost of production is that of maturation, especially where imported oak is used. A barrel will cost USD 700. This high cost needs to be recovered in the cost of production of such products as Chardonnay in year of vintage (Australian Wine and Brandy Producers' Association, 1988).

Maturation provides the industry with its profits as added value is a feature of profitability e.g. the cost to produce a red wine in year of vintage costs about USD 0.60 a litre, if sold 4 years hence the added value could be USD 2.50 per litre. However the low profitability of the industry coupled with high interest rates has forced winemakers to forgo value added gains with the more pressing need for working capital. This has led to wines being released for sale earlier at lower prices in the expectation that the consumer will cellar the wine to peak maturation (ibid.).

Problems associated with the high costs of maturation have also led to the sale of wine futures by winemakers such as Murray Tyrrell who will then pass a part of the value-added component on to the consumer.

In recent years, the wine industry has not enjoyed good profitability with returns as low as 4% on funds employed being common.

PRICE AND THE GOVERNMENT

One of the principal influences on pricing strategies is the government (Kotler et. al., 1989, p.408). In Australia, government policies have affected pricing strategies in the wine industry in three main ways.

Firstly, the collapse of resale price maintenance in the 1970's has meant that the wine producer can no longer control the price for which his wine is sold at retail outlets. In addition, there has been an amalgamation of wholesalers and retailers into powerful buying groups which, when negotiating with a fragmented industry, have taken control of the setting of wine prices paid by the consumer whilst maintaining their

standard margins (Edwards, 1986, p. 38).

Secondly, in 1984 a 10% sales tax was imposed in addition to the licence fees levied by the individual States. During the first year the tax was not passed on to the consumer as it coincided with a period of over production and intense price competition amongst the low cost producers. But increasing the tax to 20% in 1985 led to a flow-on of price increases as producers strove to regain profitability (ibid. p.39).

An ad valorem tax, it most affected sales in the pricesensitive "bag in box" and low priced segments, whereas the market share of specialised wine products has grown since the imposition of the tax (ibid).

Thirdly, Australian Governments have had an influence on the pricing of Australian wine through monetary policy. The Australian dollar was floated in 1985. This led to a substantial fall in the value of the dollar in relation to other currencies. Import prices rose dramatically, and the volume of wine imported fell 38% from 12.4 million litres in 1985/86 to 7.7 million litres in 1986/87.

At the same time, the low USD Australian value, combined with other factors, meant that the exporting of Australian wine became increasingly attractive. This has contributed to rising prices for Australian wines because of domestic shortages. Exports of Australian wine have increased from 2.8% of production in 1980/81 through 6.10% in 1986/87 to 10% in 1987/88 (Australian Wine and Brandy Producers' Corporation, 1989).

PRICING AND PRODUCT DIFFERENTIATION

Product differentiation is a key aspect of the wine industry. Wine is differentiated by grape type, production method, and vintage, and all can have an influence on pricing decisions.

For example, "rare" or extremely popular grape types can lead to wine which will command a higher price. An example of the latter is wine made from the Chardonnay grape which has been so much in demand in Australia since 1980. An unusual method of production, for example, wooding in French oak, can also command a higher price as can wine which has been stored for some time and is also from a good vintage.

Product differentiation allows the winemaker considerable leeway

when setting prices. It also makes it easy for them to justify price increases as the product changes every year.

WINE PRICING AND IMAGE

When a perceived value pricing method is used the buyer's perception of the product's value, rather than the seller's cost of production, is the key to pricing. The problem here, of course, is to determine the market's value perception.

Wine contains so many intangible values that the purchaser has difficulty in placing a value on it (Edwards, 1989, p. 15.). The consumer is aided in his perception of the value of a wine by product characteristics, by any awards it might have gained, by the prices of competing wines, and by the way the wine is presented to him through packaging, advertising, publicity, and sales technique.

Many consumers believe that a high price is a statement of quality. Some award winning wines certainly command higher prices than non-award winning wines in the same producer's range.

In some cases quality becomes confused with rarity. If the rarity of a product is one of its principal marketing facets then wine consumers to whom this facet appeals are prepared to pay for it.

"Trendiness" also sometimes masquerades as quality. The popularity and correspondingly high prices for wooded chardonnays in the 1980's is an example of this.

In summary, price is used by many wine consumers as an indicator of quality (Edwards, 1989, p. 16).

PRICING AND THE CHANNELS OF DISTRIBUTION

Pricing is influenced by the channels of distribution. Standard industry markups are 25% at the agent level, 12% at the wholesale level, and 33.3% at the retail level. Margins taken by restaurants are in excess of 200%+.

Wine is distributed using a distribution system consisting of between one and five levels.

Direct sales to the public via the cellar door provide an important outlet for the small winemaker, often providing more than 60% of

sales. Often cellar sales are supported by a mail order system. Retail outlets at vineyards and specialty wine retail outlets have largely overcome the consumer resistance to high prices. They offer better service to consumers including wine tastings and staff with a high degree of product knowledge and attract customers who have a higher-than-average income and who are used to paying more (Edwards, 1986, pp. 49-50).

A number of different methods are reported for pricing wines for cellar door sales. Cost-plus markup is the main pricing method used in small wineries. In addition, small wineries survey and evaluate prices charged for comparable wines. Wines are often discounted in relation to the size of the order.

Bottle shop patrons are price sensitive, possibly because of the chance to compare prices, and also because of the usually unexciting buying experience. There appears to be a reluctance towards paying more than USD 12.00 for a bottle of Australian wine at a liquor barn-type of retail outlet (ibid. pp. 51-56).

PRICE AND COMPETITION

Producing some 350 million litres of wine annually, the production of wine is highly concentrated with 8 companies producing 85% of the total wine sold (Australian Wine and Grape Marketing Development Centre, 1990).

The largest companies by order of magnitude are:

The Penfolds Wines Group
The Hardys Wine Group
Orlando Wines
Berri/Renmano Cooperative
S.Smith & Sons (Yalumba)
B Seppelt & Sons
Mildara Wines

The market shows oligopolistic pricing behaviour and competitive pricing is common. There is no one established price leader but price leadership behaviour in the various categories occurs where one company is dominant, for example, Seppelt in the sparkling wine segment and Orlando in

the "bag in box" market segment and Orlando in the cask market segment (ibid.).

The remaining 500 wine making organisations pricing policies are not affected by the pricing activities of the major wine companies although the published price lists are used as reference. The smaller wine companies tend to follow adoptive pricing strategies where the total volumes available for sale are varied dependent on market conditions in order to maintain a particular price level (ibid.).

Before discussing competition at the expensive end of the wine market it is useful to look at the product qualities valued by consumers.

These valued product qualities are exclusivity, rarity, and high quality, and they confer status on the consumer. Competition, then, does not come from "bag in box" packaged wines, commonly found cheap brands, mass marketed beer, or cheap spirits, but from other upmarket wines, imported wines, "boutique" and imported beers, and "exotic" spirits such as single malt whiskies.

Competition between the boutique wineries is wine variety-based and lacks the intensity of the larger wineries but is never-the-less significant. In this instance price leadership is based on regional markets with the dominant winemaker in the region setting the price standards (Edwards, 1986, pp. 31-35).

Imports make up about 7% of Australian wine sales (Australian Wine and Brandy Corporation, 1989). Imported wines offer significant competition to upmarket wines. They have a similar status appeal which arises from their exclusivity and rarity. The reputation they have for high quality is often undeserved - usually it is the cheap, low quality wine which is of comparable price to Australian wine.

The growth of exports and the poor harvests of 1988/89 have led to significant price rises of Australian wines. This price hike, plus supply shortages is creating a vacuum likely to be filled by imports especially those from Europe and California where grape prices are half those in Australia. In addition, there has been an 11% conversion amongst the "bag in box" segment from wine consumption to beer as a result of a reduction in beer prices (Crawford, 1990).

The strengthening Australian dollar is likely to make the prices of imports attractive, especially as the retail trade gears up for the Christmas trade, although the levels of 1985 are not expected to be reached when Australia was a net importer of wine.

THE WINE CONSUMER

Of the 42% of the population who are regular wine drinkers, 52% are men and 48% women. This total wine market can be subdivided into four segments: connoisseurs, 25.2%; aspirational drinkers, 50.6%; cask wine drinkers, 14.4%; and new wine drinkers, approximately 10%. The profiles of these market segments follow (McKinna, 1987).

The connoisseur, or wine knowledgeable segment, is comprised of wine drinkers who are between 35 and 50 years of age. This segment is male-dominated and most members are white collar professionals. Members of this segment drink wine almost daily, drink all wine styles, have a broad spectrum of tastes, and like to experiment although they are conservative about adopting new tastes or labels. They will occasionally buy imported wine. They are often brand-loyal. They have strong preferences and make their purchase decisions in advance (ibid.).

Most of the connoisseurs' purchases are made at specialty wine shops or directly from the winery, often in dozen lots. Members of this segment are interested in learning more about wine. They are influenced by opinion leaders and wine journalists. They are concerned with the reputation of the winemaker and will follow the progress of a label from vintage to vintage (ibid.).

Members of this segment are not price sensitive but they will recognise and take advantage of a bargain.

The aspirational segment of the wine market is comprised of members who are between 25-45 years of age and who are upwardly mobile. There are slightly more females than males in this segment. Members of this segment are concerned with the social aspects of wine drinking. They purchase fashionable wines and are inclined towards the more trendy labels. Brand purchase is important for the reassurance of status and for symbolism. "Bag in box" packaged wines are purchased for at home use and for casual entertainment (ibid.).

These aspirational wine drinkers purchase at a variety of outlets depending on convenience, time available for the search process, and confidence in the retail staff.

This market segment is price sensitive to the social situation

where the wine is to be consumed. They are concerned with the affective attributes of wine and status and symbolism are important to them.

Aspirational wine drinkers are strongly influenced by reference groups such as wine journalists, retail assistants, winemakers, and other opinion leaders. They are likely to attend wine appreciation courses.

The third segment to be discussed is comprised of the average "bag in box" drinker. These wine drinkers are between 30 and 50 years old and belong to the middle to lower socio-economic groups. They tend to buy across a range of "safe" brands where the perceived quality and taste is acceptable. They will ignore products that fall outside the safe brand category. They develop their own "safe" brand category of products and will switch amongst these brands with promotional pricing variation. They are very conservative and do little experimentation. This segment purchases mainly from supermarkets, licensed grocers and hotel drive in bottle shops or liquor barns (ibid.)

This "bag in box" wine drinker is very price sensitive.

The last market segment to consider is the new wine drinker. Members of this segment are between 18 and 25 years of age, mostly single, and are attracted to wine via wine coolers and sparkling wines. They are mostly unsophisticated drinkers although some interest in wine may be aroused by the occasion when wine is consumed, for example, during romantic dinners.

They consume wine mainly in social settings such as hotels, restaurants, discos, and parties. Generally they prefer sweeter wines, sparkling wines and coolers, and also other alcoholic beverages such as spirit mixers (ibid.).

A desensitising factor for buyers of bottled wine is the high affective component of wine as a product (Edwards, 1989, p.). It is difficult to put a value on a factor which is impossible to define but it may be that consumers who are attracted to higher priced wine by the prestige and status elements of the product are not as price sensitive as those who purchase wine as a beverage.

PRICING STRATEGY

The prominent strategy in wine marketing is a "push" rather than a "pull" strategy. Thus, pricing is often determined by the quality

perceptions of the wholesaler and retailer. This push strategy also means that the wine industry as a whole tends to be a "price taker" rather than a "price maker". The only exception to this is when there is a shortage of a popular grape variety.

Added winemaker and consumer sensitivity is enhanced by the cross price elasticity between "bag in box" wines and beer. Australia is predominantly a beer drinking country and beer and wine are substituted at the price sensitive end of the market.

This substitution has been exacerbated by the sales tax activities of the Australian Government which have been aimed at the promotion of lower alcohol consumption through differential tax breaks which encourage the consumption of low alcohol beers (Commonwealth Government, 1988). This has led to rapid growth in the low alcohol beer market to 30% of total beer consumption.

At the same time the "bag in box" sales have declined by 11% with 80% of this decline occurring during 1989 as the tax incentive became effective in the marketplace.

INTERNATIONAL MARKETS

The "push" strategy is also being used in export marketing with Australian wines being positioned in the middle varietal segment in competing countries. Australia will find it difficult to compete in this segment as it is too small, only 2.7% of production (Office International de la Vigne et du Vin, 1989). This, when combined with high production and distribution costs associated with Australia's remote geographic location and distance from the major importing countries of Canada and the United States makes exporting success unlikely. A concentration on specialty segments would appear to be a better export strategy.

CONCLUSION

The pricing of wine is a complex issue. The prices of Australian wine reflect the influence of the costs of production, government policy and legislation, the image sought for the wine, competitive forces, costs associated with the channels of distribution, and consumer behaviour.

REFERENCES

- Australian Wine and Brandy Corporation, Annual Report, 1989.
- Australian Wine and Brandy Producers Association, Submission to The Commonwealth Government on the Taxation of Wine, 1988.
- Australian Wine and Grape Marketing Development Centre, (unpublished research).Commonwealth Government, Budget Speech, 1988.
- Grawford, Tony, Media Release for the Federated Association of Winemakers' Associations, March, 1990.
- Edwards, Frances, The Marketing of Wine From Small Wineries, Graduate School of Management, University of Queensland, (unpublished MBA project).
- Edwards, Frances, Marketing Wine From Small Wineries: Managing the Intangibles, International Journal of Wine Marketing, vol. 1, no. 1, 1989.
- Kotler, P., et al., Marketing in Australia, Prentice Hall, 1989.
- McKinna, David, Marketing Strategies for Wines, paper presented at the Victorian Wine Association, 1987.
- Office International de la Vigne et du Vin, Bulletin, Sept-Oct., 1988.
- Retail World, Wine Industry Survey, 1989.

OPENING THE GERMAN WALL AND ITS IMPACT ON THE WINE MARKET

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INTRODUCTION

A citizen of West Germany cannot start speaking here without thanking Hungarian people and their government that they were among the first ones who had the courage to brake a hole in the iron curtain that has separated east and west during decades and with this action they started a progress that has spread over a large part of Europe.

And now Europe and the world are preparing themselves for a reunion of the two states of Germany, that is a theme causing a great interest in the whole world.

During the days of the near future there will be an economic and financial union between the two German countries. German mark that is one of the hardest currencies in the world will be the only legal tender.

THE WAY FROM CENTRAL PLANNING TO MARKET ECONOMY

The way from the economy planned by the state (where a little group of deciders propose and dispose everything) to market economy gave the deapest change that one could experience since the end of the sad World War II. The influence of the market economy on all fields of human life can not be appreciated totally only by those who got used to think and act according to terms of market economy and in this connection took responsibility upon themselves by those who do not wait for instructions and support determined by superiors, but think and act in full responsibility.

In the system of market economy these are prices (that are fixed by authorities in central planning) that determine the process of

production and sell demand and supply are the parameters in this aspect.

In the previous months the pitiful results of the market economy system were revealed day by day for the whole world through television, radio and press. If can I say it personally, it is now enough for the other part of Germany.

The way from central planning to market economy (what we practise in West Germany based on our engagement towards weaker ones in the form of social market economy), will not be executed without problems as the dissolution of previous structures will not succeed overnight.

How long time will it take for this new mode of thinking to appear in those heads that during the last decades denied all the responsibilities?

Now they have to bow before the claim of market and competition.

PRICE CONCERNING THE CLAIM OF MARKET

Now the heart of subject is reached: "competition and rivalry". The professors of the universities pass hours, weeks and months to make the university students understand what is the challenge in this system. Now we limit to some basic establishments: a product is competitive only when its price is interesting. Compared with its rivals and besides this if it is shown by its quality.

A product can be sold better if it has a good fame and or this reason particular effort have to be displayed at the level of production and commerce because fame will not come as a godsend.

Actually this is the consumer who decides the demands, because there is no doubt that some great clients determine by a certain extent what is offered for consumers in the supermarkets. The consumers in Germany that is the largest importer of wine in the world (about 9 million hl of import per year) got used to be able to choose among the wines offered from the whole world since decades.

Up till now offer in the other part of Germany meant essentially the table wines of Eastern Europe.

Because of the obligations among the countries of COMECON, and now a change is beginning in case of the habits of consumers as well since the opening of the wall.

Wines that are produced in two little wine districts in East

Germany (in Saxony and in the valleys of Saar) are extremely rare products. Wines of West Germany were available only in some places. From this time it is possible to taste the wines that are coming from the eleven wine districts of West Germany.

Now some ingenious viticulturists of West Germany are offering their wines in East Germany despite of the yet uncertain monetary situation. And the official organs like country Rhénanie-Palatinat also take place at the information and wine-tasting desks.

The interest for our wines is so great that it is really difficult to sell the table wines of Eastern European countries in East Germany.

HOW WILL THE MARKET REACT

Naturally no one knows yet what is the need (repressed by this time) that the population of GDR will satisfy first after the introduction of German mark. But we think that the consumers' demand towards wines of West Germany will increase. Certainly it is not erroneous to start from the assumption that commerce will follow this demand according to its possibilities (that are not exactly yet). Nevertheless, the activities of commerce in GDR will go through a deep change. Negotiators will have to get used to take their dispositions themselves and assuming the risks.

Actually accepting risks is also a necessary element of market economy. The importer and the negotiator have to estimate with all of their responsibility what kind of wines will be preferred by the consumers.

As the market that is now building up is a market where customer is the king. What does this "Customer-King" look for: table wines, quality wines, dry semi-dry, sweet, naturally sweet? White, red or rosé wines? Ordinary wines or sparkling wines?

So by this way all the new perspectives will be opened that will influence the process of selling and buying (in wine trade and also in the different forms of trade of foods and in gastronomy as well). The public relations, advertisement and promotion of selling with marketing studies (on the behaviour of consumers the tendencies) will slowly but surely increase and West German producers and negotiators will not be the only one who makes profit out of favourable situation. The other producer countries of the E.E.C. are also standing in the queue for supplying this market and

taking part in satisfying the customers' demands.

INFLUENCE ON THE COUNTRIES OF EASTERN EUROPE

The transporting Eastern European countries will soon have to face the new situation in the East German market and they have to adapt themselves to it, but the questions of trade policies are not the part of them. So quality and speciality slogans of our market strategy are more important. Opening the markets will not remain unique for a long period. Wine of E.E.C. and Hungary for the protection of quality wines and their control that had to follow the agreement with Austria in 1989 has to play an important role.

World has extremely changed since the opening of the wall and deep changes has appeared at the level of economy. Hungary has been a large exporter of wine mainly in barrels for a long time, and your country will inevitably face with this new situation, namely that is in connection with the future market of GDR. In the future one cannot cope with the studies of market and the strategies of market economy with all of those instruments what are available in the western world.

THE UNITED STATES. MARKETING THE POTENTIAL

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There are almost one quarter billion people in the United States of America. Compared to other wine consuming nations the U.S.A., in population, is four times the size of Italy, five times France, 6 1/2 times Spain, and 25 times Hungary but the total wine consumption is less than one-half of Italy or France, approximately the same as Spain and only nine times Hungary.

The U.S.A. is a major consumer of wines produced throughout the world. What is not understood is that the U.S.A. is essentially not a wine drinking nation.

Soda, beer, water, milk, coffee and tea dominate liquid consumption in the U.S.A. Wine consumption per capita is one of the lowest in the world and barely ranks with the top thirty countries.

Actual statistics prove that importation of wine into the U.S.A. is declining. Shipments from California, which accounts for approximately 70% of U.S.A. consumption is declining also. Rather than discussing published statistics which are easily obtainable, I would like to make some observations and express some opinions I have favored, especially during the past few years of difficult times.

It appears that one-half of all Americans do not drink any wine. Another 40% drink wine only for special occasions. This indicates that 10-20% of the total population drinks 80-90% of the wine in the U.S.A. These active wine consumers rank as high in consumption as the average wine drinkers in the other major wine consuming nations. The question is: How do we market to the other 80% of the population to stimulate wine awareness and therefore consumption?

The Northeast and far West states are the home for the consistent wine drinker in the U.S.A. This is partially due to the high population.

but I believe that above average per capita consumption is also due to wine production on a moderately large scale in this geographic area. This is the closest we come in the U.S. to the European situation of every day contact with wine products.

As new wineries continue to develop in the U.S. (now 43 states), the consumers will gradually expand their wine experience and become more comfortable with wine as a daily food product.

Almost 65% of wines consumed in the U.S. sell to the consumer for under USD 4.50. Approximately 90% are priced under USD 6.99. It appears that most marketing of wine through magazine advertisements, organized wine fairs, and wine writer's reports and articles are directed at the consumer who plans to spend more than USD 6.99.

If we accept this theory: 90-95% of all wine purchases in the U.S. over USD 6.99 per bottle are made by 5-10% of the customers. We are, in fact, not aiming our efforts to enlarge our consumer pool, but are targeting our time and money toward stealing our competitors customers as a way of marketing our product.

Even though total imports have averaged over 10% decrease for each of the past three years, there is significant growth being shown by some countries and categories in the U.S.A.

Wines imported from Hungary, Chile, Argentina and Romania and the new Vin de Pays varietals from France are all coming on strong.

I believe these positive sales are due to the following points and are well worth being analyzed by potential and current suppliers to the U.S.

1) Price - All of these wines reach the consumer* below USD 6.99, and most under USD 4.59. This price range includes the everyday consumer on a budget, the new student of wine, and the experimenter.

Remember, 90% of U.S. consumers spend under USD 6.99.

This does not mean that an attempt should be made to trade consumer down in price, but implement marketing to make all potential wine drinkers aware that there are wines that they can afford to experiment with.

2) Recognized Varietals - These wines are labeled with familiar grape names Cabernet Sauvignon and Chardonnay, which have been promoted for years by California wineries. Foreign names including Chateaux, estates and regions of geography are confusing, inhibiting experimentation.

3) Estate Bottled - Consumers in the U.S.A. select by brand name. We assume if a winery controls his products from grape to bottle, then puts his name on the label, he is personally guaranteeing this product. As appellation of origin expands in the U.S.A., this will help the consumer increase his confidence in experimenting new products.

4) Consumer Friendly in Taste - By this I mean, these wines seem to be at or close to their best drinkability when released, especially important for dry red wines.

No extraordinary wine knowledge is needed to buy, age or serve.

5) Packaging - The labels are modern, attractive, informative about wine and are written in simple understandable English. They are easy to select from the shelf by the new consumer who has not memorized all the pertinent information, appellation of origin, grape varieties or vineyard locations.

In closing, there are almost 200 million Americans who are potential new wine drinkers. Over a period of time with minor attitude changes, recognizing wine as a food product to be consumed in moderation: with continued education about wine usage, and a stable supply of inexpensive quality wines that are consumer friendly, I believe the consumption of wine will again begin to grow in the U.S.A.

There will always be people with enough money to be able to afford the world's greatest wines, but industry growth must come from the consumer market made up of the person who likes the wine he can afford to buy.

INTERNATIONAL COMPETITIVENESS OF THE HUNGARIAN VITICULTURE AND ENOLOGY

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Although showing a declining trend, horticulture is still an important sector of agricultural production in Hungary. Horticulture accounts for 14% of the gross agricultural output with grape production representing 4.3%.

Half of the wine produced is consumed domestically while the other half is exported. In Hungary, alcohol consumption is high but wine consumption as part of it has significantly fallen. It occasionally creates marketing problems since even foreign markets cannot be expanded as it would be desirable. The total volume of wine and sparkling wine exported was as much as 2 million hectolitres per annum in the 1970s, reaching almost 3 million hectolitres per annum in the first half of the 1980s; later it dropped significantly, showing some improvement only in the last two years averaging 2.2 million hectolitres.

Most of the exported volume (over 80%) was sold to the CMEA market against roubles and its profitability is difficult to assess because of rather confusing barter transactions. As dollar accounting is introduced in our trade with the Soviet Union, new requirements will also be set for wine exports.

We export 0.4 million hectolitres of wine to developed market economies annually, resulting in USD 25 million foreign exchange earnings.

The world market for wine is characterized by steady supply and this fact basically determines competitiveness.

Considering the situation on the world market of agricultural commodities including wine, the only viable proposition for an exporting country is to make favourable changes if it can improve the competitiveness of any given product and thus comparative advantages of the country.

International competitiveness can be measured in different ways, for example by comparing it with **our own ecological conditions**, an area where we can note considerable backwardness in viticulture and viniculture both in terms of yields and quality. We can also relate international competitiveness to our **internal economic conditions** and in this respect Hungary is in fact not in a favourable position. Profitability in viticulture and viniculture is volatile and rather low as a whole. One reason lies in fluctuations in yields and in poor quality, the other being the rise in production costs in excess of producer prices. Since the middle or end of the 1970s, input prices have increased significantly in Hungary. In viticulture, the majority of material costs are represented by plant, protection chemicals and fertilizers whose prices have increased most sharply compared to other inputs. It has been due to the rising manufacturing and procurement costs of chemicals and the reduction of government subsidies. Worsening terms of trade is a general phenomenon in developed countries, however such a wide gap as in Hungary has only been found in Sweden where producer subsidies are a multiple of those in Hungary. Between 1970 and 1988, the prices of industrial inputs used in agricultural production rose 2.6 times while agricultural output prices increased only 1.9 times and even the output price of grapes went up merely 2.3 times. As regards wine, the situation is somewhat different: the centrally fixed producer price of wine was increased at a higher rate than input prices, it does not, however, apply to free market prices which are the prime factors influencing profitability in wine production.

In addition, we can also analyze international competitiveness in relation to **other exporting countries** by comparing their **production costs** to ours. However, such a comparison may have a lot of pitfalls because of different cost structures. As a specific feature in Hungary, the value (or lease) of land is reflected neither in production costs nor in domestic prices. The ongoing ownership reform will bring major changes in this regard and the devolving market economy will also eliminate the distortions in our domestic pricing system. As a result, it will be possible to draw a realistic comparison with competitor countries in terms of production costs provided that there is an objective rate of exchange for the Hungarian forint and other national currencies and that the forint becomes convertible.

One of the most relevant indications of competitiveness is to compare our achievements with world market prices that can potentially be realized. This is a fairly new method in the technical literature and includes the coefficients of price deviation, domestic resource costs and producer subsidies.

Price deviation rates represent the extent and direction of protection. Positive protection provides an incentive for production from government while negative protection curbs production. The nominal protection coefficient (ie. price deviation) relates the domestic producer price to the export price realized by the given country in terms of its national currency. The effective protection coefficient gives the ratio of value added in domestic prices and export prices. If the coefficients take a value lower than one, they are negative; if they are higher than one, they represent positive protection.

The domestic resource coefficient or DRC reflects the efficiency of the use of domestic resources (land, capital and labour), i.e. the comparative advantage or disadvantage of the given product.

The effective subsidy coefficient relates the sum of explicit and implicit subsidies to producer prices and the production value.

Analyzing the level of domestic agricultural prices and the changes therein, we can note that the domestic price level gradually came close to world market prices between the mid-1970s and the early 1980s. Since 1983 there has been a turnaround and positive protection has developed by and large in Hungary although it is not significant in international comparison.

A similar trend can be observed in the average price level of wine with the only difference that positive protection is stronger in the case of barrel wine while the domestic price level of bottled wine has invariably remained below export prices in the past few years.

Apart from changes in domestic and export prices, the effective protection coefficient has also been influenced by quantitative and structural changes in domestic and export input prices and their uses just as by changes in yields, quality and output.

Price deviation for production inputs has favoured wine producers in the past two decades so protection in terms of value added has been somewhat higher than nominal protection. This coefficient also varies widely between barrel wine and bottled wine just as between table wine and

quality wine. The highest coefficient of positive protection is noted for barrel quality wine while negative protection is the greatest for bottled quality wine produced by agriculture.

The efficiency of domestic primary resources was most favourable in the early 1970s to be followed by deterioration as a result of rising domestic production costs and low world market prices. The first signs of recovery came only in most recent years. There are wide differences in competitiveness in terms of packaging and quality. We have comparative disadvantage in the sales of barrel wine but substantial comparative advantage in the case of bottled quality wine even though producers are not sufficiently interested in producing the latter - as it is suggested by the protection coefficients.

We can generate significant net foreign exchange earnings with wine products despite our overall comparative disadvantage on the world market. In fact, however, that disadvantage is diminishing and rather differentiated. In 1988, for example, bottled quality wine earned four times as much **foreign exchange** per hectare as barrel table wine. Unfortunately, the exports of bottled wine are not increasing sufficiently partly because of the aforesaid negative protection, partly due to the heavy tax burden on production and market discrimination. Major changes can be expended only if the level of subsidies within the EEC are moderated and the discriminative measures against Hungarian wine are abolished.

Table 1. Methodology

Nominal protection	$= \frac{p^d}{p^d \cdot r}$
coefficient (NPC)	
Effective protection	$= \frac{VA^d}{VA^b \cdot r}$
coefficient (EPC)	
Domestic resource	$= \frac{RC}{VA^b}$
cost (DRC)	
p^d	= domestic producer price
p^b	= world market price
VA^d	= value added at domestic prices
VA^b	= value added at world market prices
RC	= domestic resource cost (land, capital, labour)
r	= rate of exchange

Table 2. Protection and competitiveness coefficients
of Hungarian wine

Years	Nominal protection	Effective protection
	coefficient	coefficient
	NPC	EPC
1968-70	0.81	0.82
1971-75	0.81	0.88
1976-80	0.87	0.89
1981-85	1.14	1.32
1986-88	1.15	1.19
1988-	1.02	1.02

Years	Domestic resource	Value added at
	cost coefficient	world market prices
	DRC HUF/USD	DRC USD/ha
1968-70	82.29	431
1971-75	56.36	828
1976-80	44.84	1,455
1981-85	100.50	1,234
1985-88	80.76	820
1988	65.27	2,593

Table 3. Agricultural producer subsidies
 (PSE) in %

Description	A v e r a g e o f			
	1979-81	1982-84	1985-87	1988
EEC	43	33	39	
USA	16	22	29	
Canada	24	22	34	
Japan	59	65	82	
Australia	5	9	14	
Hungary	- 24	- 14	12	4

Of this: average of 1986-88:

	Average	Agriculture	Wine industry
Barrel table wine	+ 24.9	+ 32.7	- 2.7
Barrel quality wine	+ 7.7	- 3.7	+ 48.3
Bottled table wine	- 34.6	- 33.7	- 35.3
Bottled quality wine	- 21.1	- 19.3	- 22.7

MARKET STRUCTURE OF ITALIAN SPARKLING WINE: THE CASE OF "FRANCIACORTA" WINE DISTRICT

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INTRODUCTION

The analysis of Italian sparkling-wine market structure presents many difficulties not only for the difference between the products involved but specially for the dynamic both of supply and demand, expressed on national and on single production area level.

Even if there are few information on this subject, the Italian sparkling wine has reached a production of about 200 million bottles. Almost half of them are exported.

The biggest share of this total value is represented by sweet and "charmant" sparkling wines without geographic origin, with a production of about 130 million bottles. Another big share, of about 60 million bottles, is represented by the wine produced in the district called "Asti". The most interesting dynamic of supply develop is represented by the sparkling wine produced with classic method and the wines extra-dry "proseccchi" that have reached in few years a production of about 18 million bottles each.

The largest part of the sparkling wine-farm involved (almost 450 in all the country) shows little dimensions and are spread all over the national area.

A few number of big farms (betterly called companies), almost 20, present an "international" dimension, and are positioned in the different market shares with a leadership position. In the classic method sparkling wine sector, for example, the first 4 companies have a market share of about 45% and the leader company has by his own the 30% of share.

The principal sparkling wines area are located in the North of Italy particularly in 4 districts called "Trentino Alto Adige, Oltrepo'

Pavese, Piemonte e Franciacorta". The market analysed in this paper is referred to the production of sparkling wine made with classic method, produced in the area of Franciacorta.

This area, even of small dimension (ca 1400 ha of grape vines of which only 500 ha for white grapes) represents about the 40% of the total national supply of classic sparkling wines. All the area has produced 7 million bottles in the years 1988/89 against a national production of 18 million bottles.

The leader firm is located in this area, and has a production level of about 5 million bottles/year, the other 2 million bottles are produced by more than 30 little companies located in the area.

Therefore this district represents an interesting example of the all market, not only for the high production level, but specially a strategical model of market growing.

For this reason it is necessary to analyse the concurrence behaviour between the producers, in order to build a theoretical model of reference that can be used to understand similar wine markets.

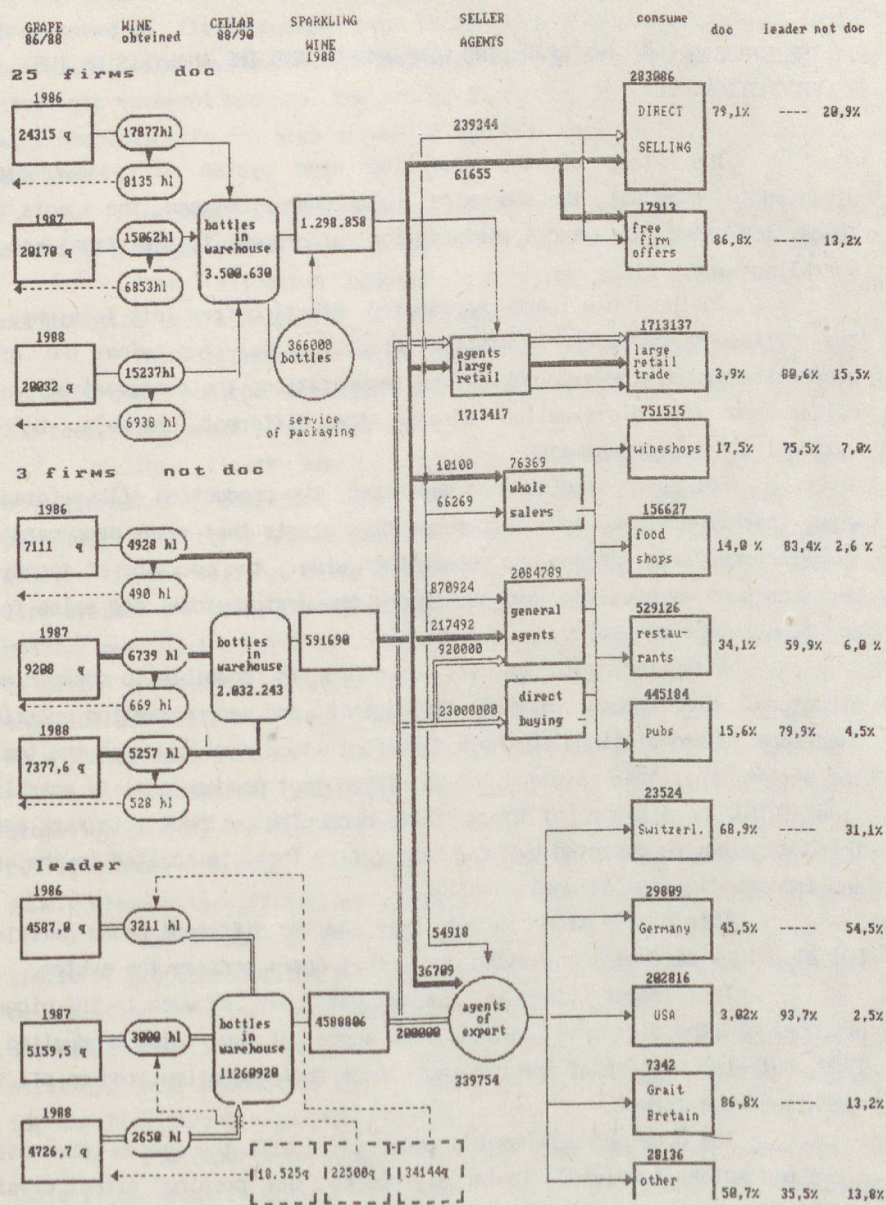
In this research it has been used a system approach according to the model of agrobusiness; it consists in the analysis of all the economical actors that are present in the system: the farm supply aggregate, the farming aggregate and the processing and distributing aggregate: each of them has concurred to the production of the final sparkling wine product, from the raw material (grapes) to the final use (15).

Through this system approach model it has been obtained the evaluation of the quantitative flows existing in the different stages of production and the concurrence models operating between the different actors of the sparkling wine system.

Particularly it has been concentrated on the analysis of three points that are more representative for the problems involved in this market:

- the problem of the flexibility of the supply in relation to the demand and the limits of availability of the raw material;
- the marketing factors and the choice of the distribution channels;
- the theoretical market model of the sparkling wine system and the price theory.

Table 1. The sparkling wine system of Franciacorta



The aim to reach with this report is the possibility to observe the concurrence relationship that concurs to the success of the product and, if possible, to forecast the tendency of actors connections.

1. THE STRUCTURE OF THE SPARKLING WINE MARKET AND THE ANALYSIS OF THE PRODUCTION FLOWS

The study of the sparkling wine system of Franciacorta is directed to show all the economics relationship between the agents that leads the production and transformation of grapes to the final use in sparkling wine.

In the Table 1 are represented, starting from left to right, all the different technical levels for producing sparkling wine: the grape production stage, the wine making, the fermentation, the conservation in the cellar and the distribution through the different channels, both to national and foreign demands.

For each stadium are described the production flows (grapes, wine, sparkling wines) and their respective agents that means producers and transformers from grapes to sparkling wine: the operator of technical services such as bottling and packaging; the distributors and sales force and finally the consumers.

Analysing this market structure is possible to observe many structural differences between the agents and many marketing policies. Therefore we can distinguish three different firm typologies on the top of the system that are: a group of 25 farms that produce quality sparkling wine (D.O.C.), a group of three farms producing without this mark and a third typology represented by the leader firm that is located in the area and is operating on national level.

This distinction is not only due to different brand politics, but also to a different marketing model that characterises the system.

The leader firm is leader not only because is the biggest producer of the district with the 70% share of the total production in 1989, but also because of the growing effect that has stimulated on all the sparkling wine market.

The developing dynamics observed in all the system (production flows and actors involved) is largely due to the "pushing" effect created by the grow of the leader firm.

The developing dynamics observed in all the system (production flows and actors involved) is largely due to the "pushing" effect created by the grow of the leader firm. His success in this strategic area (where she moved as first) pushed many local wine producers to join into the sparkling wine system. This happened as an imitative effect on the strategic movement made by the leader firm. The changing to the sparkling wine production in the area graved in quantity because of the elasticity of the demand.

Therefore it could be observed a growing of production and a consequent bigger use of white grapes to transform in sparkling wine.

This situation however continued until the raising of difficulties in the retrieval of raw material.

This difficulties were caused by the small dimensions of the district under controlled origin and of the production limits existing in the respective grape vine rules area.

This limits are so highly strong that all the system is conditioned and therefore the farms involved answered with different behaviours. The first answer was done by the leader firm; thanks to a sure position in the national market, due to a good positioned brand, the leader firm avoided the local specific region wine restriction, buying base wine mostly outside the area of Franciacorta (as shown in the table). This situation produces "imitative effects": for the biggest producers (more than 200.000 bottles a year) the mark of quality wine (D.O.C.) stopped to be a promotional instrument and became a limit for a potential growing.

The smaller producers, grown by the hangover effect, after the promotion done by the leader firm to the Franciacorta district, kept their position under the mark of quality wine (D.O.C.) even if they notices the supply elasticity difficulties according to the growing of demand request.

The problem of this rigidity in the supply function, due to the limits of grape production for the quality wine rules, is partially solved by operating on the firm warehouse. The immobilization period of the sparkling wine in the cellar is an important part of the sparkling wine strategy. This production limit leads to use the warehouse as a reserve for the firm during high demand period.

Its importance is pointed out by the presence in the system (see table 1) of about 16 million bottles stored in the cellars of Franciacorta district during 1988 year wich represent a store rotation (5) of about

twice the sold products in the same year. The relevant part of this stored bottles (about 67% belongs to the leader firm, the 21% to the origin and controlled designed producers and the 12% to the three not controlled wine firms.

The chance to an important and elastic store is a real firm need, which is similar for all the farms involved. This is also confirmed by the difficulties met in the different stages of the system, especially towards the distribution channels, that need high quantities of sparkling wine, concentrated in fixed periods (for example during new year). The economical and technical effects of this problem are present on all the system analysed, from the bottom represented by the distribution stage to the top with the grape production and wine transformation.

The agrobusiness approach, therefore looks like the better way for analysing the concurrence relationship between the operators in the market.

2. THE DISTRIBUTION CHANNELS OF THE SPARKLING WINE AND THE MARKETING MIX PROBLEMS

The recent development of the sparkling wine demand produced, as above explained, a pushing effect on the system, which had to change according to the market request.

On this subject the distribution represents a high strategical factor not only for being the liaison between the production and consumption, but also because it is a factor for a possible conditioning of the product demand, especially for the problems of marketing mix involved, such as accessibility, price and promotion that are determined by the choice of the marketing channel.

In the analysed case the system shows a number of ramifications related to the different marketing channels which differ from consumers typology.

Synthetically, it is possible to distinguish between the number of operators involved, 3 typologies of marketing channels. A first typology is represented by the "direct channel" (10) which is constituted by the direct selling from the transformation firm to the consumer without any intermediate stages.

This typology represents in the analysed system, about the 40%

Table 2. Sparkling wine's distribution channels in the system analysed (absolute and percentage)

firm types	large retail trade	resta- rants	food shops	wine shops	pubs	whole- salers	direct firm buying	free firm offers	export	total
D.O.C.	67404	385401	120631	168036	145998	66269	223806	15662	55017	1248223
NOT D.O.C.	265734	78750	23592	72137	42855	10100	59280	2375	36709	591532
LEADER	1380000	805000	805000	805000	805000	0	(2300000)	0	200000	4800000
Total	1713138	1269151	949223	1045173	993853	25456	283086	6012	291726	6576818

percentage values										
firm types	large retail trade	resta- rants	food shops	wine shops	pubs	whole- salers	direct firm buying	free firm offers	export	total
D.O.C	5.40	30.88	9.66	13.46	11.70	5.31	17.93	1.25	4.41	100.00
NOT D.O.C.	44.92	13.31	3.99	12.19	7.24	1.71	10.02	0.40	6.21	100.00
LEADER	28.75	16.77	16.77	16.77	16.77	0.00	+	0.00	4.17	100.00
Total	26.05	19.30	14.43	15.89	15.11	0.39	4.30	0.09	4.44	100.00

Source: Data directly collected by the Author + bottles distributed between pubs, restaurant, wineshops

(2.6 million bottles) of the total allocated sparkling wine and is property of the leader firm that, this way, sells about half of its production (Table 2).

A second typology of distribution is represented by the "short circle" which is composed by 3 developing stages: transformation, marketing intermediate, big distributors.

About 1.7 million bottles are sold through this channel.

This is considered the perfect channel by the firms with high dimensions and particularly for the leader firm and the non D.O.C. firm (28% and 44% of respectively total sales).

A third typology is called "long channel" because it shows 4 stages like transformation, wholesalers, specialised distributors, consumers.

This typology of marketing channel is characteristic for a selective policy because using exclusive distributors like wine shops, restaurants, pubs, where the consumers target is more selected. Therefore it is the preferred channel by the D.O.C. firms, that has distributed more than 80% of the production there. The restaurants particularly (13%) has constituted the strategical way more used for the product promotion to a possible consumer of high competence.

The presence of actors and different channels in a stage of the system that has been distinguished for a linearity upstream, suggested us that the product positioning is related to criterias that cannot be studied in a homogeneous way.

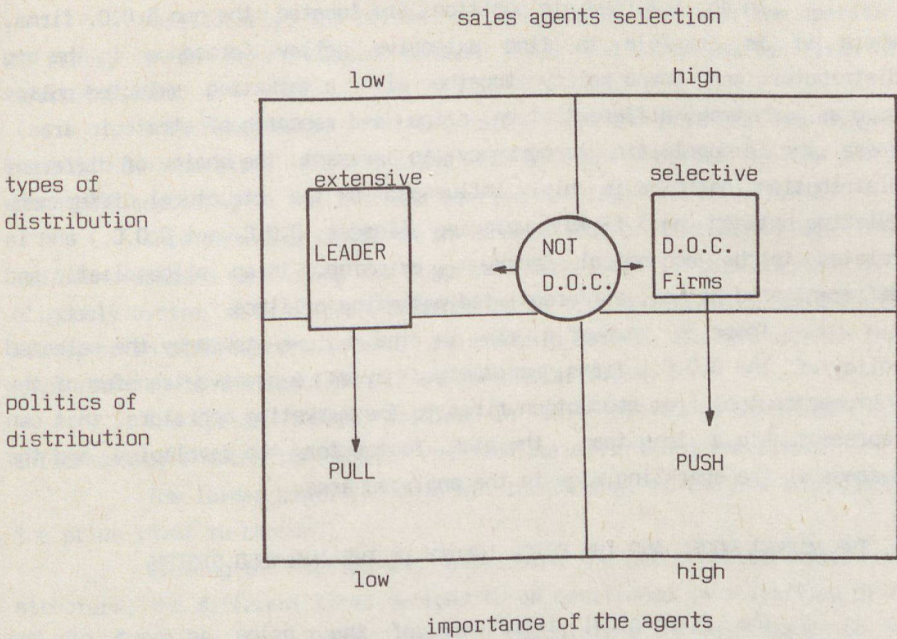
Showing the most important part of marketing strategy of this system it is possible to identify (chart 3) a synthetic matrix of the different positioning strategies used by the typology of the analysed firms.

The chosen principles for the distributing channels are highly influenced by the importance low/high, that is produced by the marketing intermediate in the different types of distribution.

Therefore it is possible to distinguish the distribution in two classes called extensive or selective (10).

The extensive distribution is based on a supply to a number of intermediates scarcely selected on quality level; this obtains a guarantee of product positioning, while the consumer choice is driven by strategy of the production and transformation firm.

Figure 1. Distribution channels politics



The second class of distribution channel is called selected because it lets the marketing operators play a relevant role referring to the image promotion, to the guarantee of the product, to the penetration in new market areas.

This theoretical classification finds a practical application in the marketing politics that characterizes the production typologies studied in this system. The leader firm entrusts to the brands policy, the preferred strategic role and the product distinguish done by the consumer.

To the marketing operators and the distribution it pretends to be capillary and efficient, but the pressing role and the demand is played by the production firm (through the brand and the high media investment) that pull therefore the organized distribution.

On the contrary the selected marketing policy characterize the D.O.C. firms, that entrust to the brand policy and to the marketing operators the role of main agents of product penetration into the markets.

It is a policy in which the marketing through highly qualitative

channels and good image (wine store, restaurant) play a pushing role towards the demand that asks for a quality product.

In an intermediate position are located the non D.O.C. firms, where it is possible to find extensive policy (presence in the big distributors and brand policy together with a marketing selected policy such as high image differentiation, price and research of strategic area). Where the monopolistic concurrency is present the choice of different distribution policies is highly influenced by the structural differences existing between the 3 firms typologies (leader, D.O.C. not D.O.C.) and is related to the economical theory existing, in an oligopolistic and differentiated market, differentiated marketing politics.

There is however a risk in the choices taken by the selected policy of the D.O.C. firms, represented by an excessive transfer of the customer control from production firms to the marketing operators, that can represent, in a long term, the risk factor for the developing and the success of the sparkling wine in the analysed area.

3. THE MARKET MODEL AND THE PRICE THEORY IN THE ANALYSED SYSTEM

The strategical importance of the price as part of the "marketing mix factors" of a product, makes it necessary to study the elements that participate to its creation.

On theoretical base, the price is related to the costs and the market; this means the relation existing between demand and supply.

Avoiding to explain, for time reason, the cost structure in the system analysed, that even if it is very important, is strictly related to the existing production structure, it is possible to identify the market model explains the concurrence relationship between the economical actors.

The system analysed shows theoretical characteristics that specify a market model called by Kaldor (12) "oligopoly with differentiation".

This definition is justified by the presence of many oligopolistic elements (a leader firm, a restricted number of wine producers firm) with other aspects that characterize concurrencial behaviour (first of all the utilization of brand policy to specify the supply and becoming monopolistic towards the different demand curve).

In this market it can be observed a price fixing of the sparkling wine produced by the three different studied typologies.

Particularly, the prices are positioned, for all the operating 30 firms, in an area included between 10000 and 13000 Italian liras for bottles (1988).

This homogeneity is also confirmed by the fact that the biggest part of the operating firms decided for a price increase (in the period 1985/1988 according to the increase carried out from the concurrence).

This behaviour confirms the theoretical preliminary remarks that had been supposed concerning the suggested market model; this consists in a oligopoly system with differentiation in a strong influence between the firms, or in other words, an exact relationship between the concurrence that pays attention to the reactions of other similar firms.

The price theory studied in this system is therefore highly influenced by a mechanism called "reaction curve" between the firms.

The leader plays the role of indicating, to the new born firms, the price level to choose.

Growing the system and developing the oligopolistic different structure, the different firms decided to be positioned on a starting price level, fixed by the "price leader" calculating the adjustments on the originally price by his own, but arriving finally to a nearly similar result (5).

The leader firm function is therefore called "barometer price" leadership (17) because the concurrence ascribes her a bigger knowledge of the market conditions and of the foreseen future situation.

The advantage of the price leadership is synergic for all the system; following the price policy of the leader firm, in fact the operating firms can avoid to recalculate continuously the production costs according to the economic conditions.

This explain is also the out-spoken non-concurrence regarding the price.

After having decided the price (on the base of leadership of the leader firm and costs criteria of the respective firm structures) the firms settle on "price cardin" or so-called "corner curve" (5), (11), (18), avoiding to apply reduction or price increases that could produce a dangerous competition on the fall.

The used price policy can therefore be summarized in the

strategy of "quieta non movere" (peaceful - do not touch) that confirms the strong inter-relationship between the actors behaviour of this system.

Forecasting, the oligopolistic model seems to be directed to a progressive consolidation, with the leader firms that plays a leadership role, becoming bigger and bigger in volumes but also promoting the strategical direction and promotion of all the system.

REFERENCES

- (1) ALVISI F.A.: Rapporti tra agricoltura e industria di trasformazione, Rivista di Economia Agraria, n. 1, 1981.
- (2) ARENA R., M. RAINELLI, A. TORRE: Dal concetto all'analisi di filiera: un tentativo di chiarimento teorico, L'Industria, n.3,1985.
- (3) DI SANDRO G.: Agricoltura e sistema economico, Università di Bologna, Ist. di Economia e Politica Agraria, 1977.
- (4) GALIZZI G.: Verso un'agricoltura integrata, Rivista di Politica Agraria, n.2,1984.
- (5) GAETA D.: La filiera dei vini spumanti metodo classico in Franciacorta, Provincia di Brescia, Assessorato Agricoltura, Istituto di Economia e Politica Agraria, Università di Milano, Maggio 1990.
- (6) GHERSI G.: Introduction a l'analyse des filieres, IAM, Montpellier, 1981.
- (7) GIACOMINI C: I rapporti di integrazione monte e valle dell'agricoltura, Rivista di Economia Agraria, n.7,1985.
- (8) GIOVANETTI E.: Difesa dei sistemi regionali ed evoluzione delle forme concorrenziali rendita di monopolio ? I prodotti di denominazione di origine controllata, Questione Agraria, n.30,1988.
- (9) GIOS G., RIZZI P.L.: Stima della domanda di vino alla produzione: un confronto internazionale e proiezioni al 1985, Rivista di Economia Agraria, n.2, 1983.
- (10) GUATRL L., SCOTT W.G.: Manuela di Marketing, Isedi, 1972.
- (11) HALL L., HITCH J.: Price theory and Business Behaviour, Oxford Economics Paper, 1939.
- (12) KALDOR: Market Imperfections and Excess Capacity, Economica 1935.
- (13) LAURET F.: Sur les etudes de filieres agroalimentaires, Economie et Societas, n.5, 1983.

- (14)LECHI F., GAETA D.: Aspetti strutturali e finanziari del mercato dei vini spumanti, CCAA BRESCIA, 1988.
- (15)MALASSIS L.: Economie Agro-Alimentaire, Vol.I, Ed.Cujas, Paris,1981.
- (16)SOUFFLET J.F: Ajustement et adaptation sur les filieres, Economie et societas, n.5, 1983.
- (17)STACKELBERG H: The Theory of Market Economy, Hodge, 1933.
- (18)SWEEZY P.M.: Demand under Conditions of Oligopoly, Jurnal of Political Economy, 1939.
- (19)SYLOS LABINI P.: Oligopolio e Progresso Tecnico, Einaudi Editore, 1967.

PERMANENT MARKETS: A NEW MARKETING TOOL FOR THE WINE FIRMS

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INTRODUCTION

The permanent market is a new way of marketing. I intend to define, to introduce it very briefly including its history, function and effect. I also tend to draw the character of the wine sector what makes the enterprise risky in this sector as well as sensitive to the market. In this way it will lead us to the opportunity to get acquainted with the concept of the permanent market.

DEFINITION

I would refer to two papers what was published by C.F.C.E. about the permanent markets in the U.S.A. I also cite documents coming from the different permanent markets, eg. INFOMART of Paris, this is the first permanent market in Europe providing technical and marketing information. I can list the experiences of experts like Mr. Fuchslocher on the market of Düsseldorf: "The permanent market is very similar to an international shop window, in a special place working for a special sector and demands", so it makes the direct connection with clients possible and easy. This is an international market center opened for anybody but with selected participants of powerful companies.

In general this market center (mart) is a permanent exhibition and wholesaling center of the commercial goods of the sector, where special and occasional business corners and saloons are organized for the experts.

Besides it is stressed that they are in a favourable position helping their image, fast performance and reactions, because of being always on the market.

A NEW MARKETING TOOL FOR THE WINE SECTOR

We can give reasons and advantages which may justify the importance of being on the market like this to the producers and distributors of the wine sector.

Referring to well known data of the wine sector in almost every producing country:

- the tendency is to produce quality wine (ie. healthy, technically perfect, typical character, relatively standard, well offered product),
- internationalization of consumer taste,
- internationally more intense interactions and interdependence of different markets,
- the concentration of poor supply, sometimes atomization, and interest of powerful companies in the direction of this,
- sometimes constantly increasing concentration of demands (this is the case of big distributors),
- difficulties in controlling of communication, companies, productions,
- finally the fact what certainly has impact on the wine market, the new integrated uniform European wine market which is expected to reform the world market as well.

These are the reasons, we can suppose, which can rise the interests of operators, creating a permanent market center specialized for the wine sector. The basic concept of this marketing tool is to concentrate the supplies at the same place and at the same time providing important references to buyers here, where they can find answers by return for their demand and dynamic and diversified partners.

An other advantage ought to be taken into account, the development of communication may solve certain parts of the difficulties what are expected to appear in the close future. It is duty to work on the permanent market center in collaboration with lot of countries when the 80% of the world production come from Europe as well as consumption.

HISTORY AND DEVELOPMENT

Up till now the permanent market center has belonged to the U.S.A. system by reason of the size of the U.S.A., of the stronger regional character of goods and so the goods face less competition. Recently the system has already developed much in Europe as well as in South-East Asia.

The first market center was set off in Chicago 30 years ago: named Merchant Market Center, it was specialized for furniture, gifts and home decorations.

From the beginning different and many kinds of permanent market center have been developed but nowadays a standard form and structure have turned out.

The followings of the greatest can be mentioned :

- the INTERNATIONAL DESIGN CENTER of NEW YORK,
- the PACIFIC DESIGN CENTER and L.A. MART of LOS ANGELES,
- the MERCHANT MART of CHICAGO,
- the DALLAS MARKET CENTER, what is the biggest center of the world, and others in the U.S.A.
- MART of DÜSSELDORF,
- MART of BRUSSELS,
- INFOMART of PARIS.

FUNCTION

Permanent market centers essentially work for the professionals who are the only ones making business here. The buyers are attracted by the commercial promotion and publicity campaign organized by the mart company and exhibitors themselves. The days of public relation and courses are as important part of the system as congresses and symposiums.

The advantages for the buyers are as follows:

- certain concentration of goods and producers providing general survey of the market segments,
- relative guarantee for the quality,
- favourable conditions for negotiation (integrated service in the Center).

The basic advantage for the producers and distributors is that they do not miss their meetings for the purpose of business.

REFERENCES

L Infomart de Dallas - 4 ans d existence

C.F.C.E. rapport de mission - Novembre 1988

Les Marts: Vos vitrines commerciales sur le marché Americain C.F.C.E.

MARKETING ITALIAN WINE IN THE U.S. MARKET A CASE STUDY OF CANTINE RIUNITE

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INTRODUCTION

Wine in the American lifestyle never assumed the importance that it had in traditional European wine consuming countries such as Italy and France. Nevertheless, consumption grew rapidly in the late 1960's and early 1970's prompting optimism that the U.S. market represented an almost unlimited market for table wine (1). Indeed, even as recently as 1980, the U.S. experienced a 10 percent annual growth in consumption of table wine (Wine and Vines, 1989). Table wine may substitute for other wines (dessert, sparkling wine, vermouth, and others), but in 1969-1972, the annual growth in consumption of all wines was greater than 10 percent (Wine Institute, 1988). These growth rates, if sustained, implied a huge market potential in a market with 240 million consumers.

Concurrent with the increased interest in and increased consumption of wine, Americans "discovered" European wines. As early as the decade of the 1950's, imports of wine began a period of rapid growth. That phenomenon reversed in 1984, and since then total consumption of imported wine has shown five consecutive years of decline. In retrospect, it appears that foreign wine producers, as well as American producers, misread the potential in the American market (Table 1).

Much of the impetus for the increase in consumption in the United States was the use of wine as a cocktail rather than wine with meals, which is the European tradition. Growth projections and marketing plans were made assuming that American consumers would emulate Europeans.

One exporting firm, however, was able to understand American wine consumption behavior and to design marketing plans accordingly. This firm was Cantine Cooperative Riunite, or the brand known in the U.S. as

Table. 1. Wine Growth Rate by Origin, 1970-1990

Origin	Average annual compound growth rate (%)		
	1970-1980	1980-1985	1985-1990
California	5.5	-0.9	0.7
United States	4.7	-1.0	0.8
Imports	13.1	6.5	-11.0
Total	6.0	0.6	- 1.9

Source: IMPACT Databank estimates, 1989.

"Riunite". In this paper, the factors which led to the success of Riunite in the American market are analyzed. The conclusions will demonstrate for other firms, both foreign and domestic, the importance of carefully designed marketing plans. The paper will also demonstrate the fundamentals have changed in the American wine market making successful penetration much easier at the time Riunite began its marketing operations in the United States in 1967 than it is today.

COOPERATIVE WINERIES IN EMILIA ROMAGNA AND CANTINE RIUNITE

The administrative offices and the main plants of Cantine Riunite are located in Reggio Emilia within Emilia Romagna, a region in northern Italy. In 1986, the region shipped to the U.S. 55 000 hectoliters (about 1.5 million gallons), more than half of which came from the province of Reggio Emilia (Segré and White, 1988), (2).

Despite fairly wide fluctuation from year to year, Emilia Romagna's cooperative wineries account for over half of the total volume of wine made in the region. Eighty-four cooperative wineries have more than 51,000 members and a total cellar capacity of about eight million hectoliters or 211 million gallons (Sorbini, 1986). Emilia Romagna is one of the leading Italian regions in cooperative wine production (3).

Cantine Riunite, a member of the Lega (4), is one of the six "second stage" cooperatives or "Consorzio" operating in the region (5). Riunite is the biggest wine Consorzio in the region, and also in all of Italy. Compared to the other Italian Consorzio, however, Riunite has

integrated itself with first stage functions. Not only does the Consorzio bottle and market wine from other cooperatives, but it has also built its own centers for crushing and making wine to increase its quality control over the final product.

The legal form of "Cantine Cooperative Riunite" is that of a "Limited Liability Cooperative". The Cooperative was formed in 1950 by nine founding members of the wine growers' association. When Riunite was formed, only cooperative wineries could become members. In 1970 the bylaws were modified to allow individual growers to become members. Today there are 3,700 direct partners organized under 12 wine pressing centers in the province of Reggio Emilia and 14,000 associate wine growers spread among the 15 associate wineries in various Italian provinces. This allows the Consorzio to bottle and market wine from other regions (Piedmont, Apulia, Lazio, and Sicily), thus providing a wider geographic area from which to draw their wines, as well as providing a base for future expansion (Cantine Riunite, 1987).

Riunite's development can be divided into two major periods. From 1950 to 1967, when the firm built its first bottling plant (updated and expanded several times), emphasis was placed on improving the quality of its wines. This period was one of slow growth. After 1967, Riunite recorded a spectacular growth both in bottling and marketing.

The single most important event in this period was, however, the signing of a 10 year exclusive distribution contract with Villa Banfi. In November 1967, Banfi received its first shipment of Riunite in the United States - 100 cases. In the next 20 years, Riunite sold over one million cases in the U.S. market. Recent expansion has been very rapid. From about 170,000 hectoliters (or 4.5 million gallons) in 1970, the Consorzio increased its bottled wine sales to over one million hectoliters (28 million gallons) in 1980 and 1,224 million hectoliters (32.4 million gallons) in 1985.

Old Brookville, New York is the site of Banfi's world headquarters. In the early years of its association with Riunite, Villa Banfi promoted wine from Riunite at tastings organized for women's clubs and other groups. Sales were disappointing. By 1974 they began large-scale mass-media advertising based upon the trademark "Riunite" rather than the type of wine Lambrusco.

Riunite sells only 5 to 15 percent of its wine in bulk, most of

which is destined to the domestic market. Most of its sales increases came through bottled wine sold abroad. The export market now includes 34 countries (Cantine Riunite, 1990). The Consorzio has thus become highly dependent on exports which, in recent years, absorbed three out of every four gallons of wine sold. In the early 1980s, the dependence of Riunite on foreign markets was even greater: 80 to 85 percent of the total volume was exported (Segré and White, 1988).

The dependence on export is largely concentrated in the U.S. market. In 1985, out of a total of about 1 209 million hectoliters (32 million gallons) produced, 907 000 (75 percent) went to the U.S. In the same period the breakdown by main type of wine exported was 50 to 55 percent, red-Lambrusco; about 30 percent, white table wine, and 15 to 20 percent rosé (6).

With a shipment of over 680,000 hectoliters (18 million gallons) of table wine (U.S. definition, meaning non-sparkling wine containing not more than 14 percent alcohol), Riunite was in 1986 the number one trademark for imported wine in the United States, even though in the five year period 1982-86 there was a decrease of 36.9 percent on a volume basis (ICE, 1987).

Increases in the consumption of Lambrusco, which made the Riunite brand the leader in Italy as well as in the United States, have been waning. In 1986, however, one out of every five liters of imported table wine into the U.S. market bore the Riunite label (Table 2.)

Table 2. Top Five Imported Table Wine Brands and Line Depletion Analysis, 1985-1986 (thousands of nine-liter cases)

	Imported Table Wine				
	Depletions		Change	Market Share (%)	
Brand (Importer)	1985	1986	Percent	1985	1986
Riunite (Banfi Vintners)	10 290	7 405	-28.0	21.9	21.2
Canei (Austin Nichols)	2 200	1 970	-10.5	4.7	5.6
Cella (Brown-Forman)	2 500	1 925	-23.0	5.3	5.5
Folonari (Wildman & Sons)	1 700	1 550	- 8.8	3.6	4.4
Bolla (Brown-Forman)	1 600	1 500	- 6.3	3.4	4.3

Source: IMPACT, 1987.

EXPLAINING THE SUCCESS OF RIUNITE

Apart from the sound management decisions taken by the management of Riunite, the major elements of the Riunite marketing plan that explain the success of Riunite include the following:

Adaptations Were Made in Products to Appeal to American Tastes.

An important reason which explains why Riunite was successful is the geographical location of its vineyards. Production is located in a viticultural zone which was well adapted to producing the very type of wine that many Americans were ready to begin consuming in the mid-1970's. The large generation from the post-war baby boom as well as many adults from previous generations were taken by the light, fizzy, young, slightly sweet taste of Riunite's Lambrusco (the "red Coke").

Riunite demonstrated the willingness to further adapt the product to U.S. tastes by reducing the alcohol content and increasing both residual sugar and CO₂. Other wines (white, rosé, and sparkling) were equally prepared with the American consumer's taste in mind.

To provide the right product, members of the Consorzio invested in modern vinification technology (crushing and vinification equipment) and hired qualified enologists to produce wines whose quality characteristics remained constant from year to year. The fact that Riunite was able to enlarge its membership base to zones outside of its province of origin meant that the risk of having shortfalls in quality or quantity was lessened.

In summary, Riunite was endowed with an abundance of the right raw materials and was able to create a well orchestrated, tightly integrated production system which was capable of responding rapidly to market demand.

The Prices Were Attractive to Consumers

According to Donadio (1987), in the case of cheaper Italian wines such as the Lambrusco-type (U.S. customs data on wine imports distinguish between inexpensive wines, with a custom value of less than USD 4 per gallon, and more expensive wines of more than USD 4 per gallon),

price change is the principle factor determining per capita consumption. The "real" or the "constant" (adjusted for inflation) price of Italian "table wines" (U.S. definition) exported to the U.S. dropped by nearly 50 percent between 1969 and 1980 (Sorbini, 1986). This price decrease contributed to a large increase in the importation of Italian table wine (still wine) from 140 000 hectoliters (3.7 million gallons) in 1970 to 2,0 million hectoliters (54.3 million gallons) in 1980.

The price decrease was apparently due to a combination of several factors. One of the major factors was the substantial appreciation of the U.S. dollar against the Italian lira from 1980 to 1985. This lowered the cost of wine and increased its competitiveness. Donadio (1987) estimated that imports of cheaper Italian wine increased by about 19 percent over the period 1979-1984 due to the price effect of the strengthening U.S. dollar. Real prices of imported wines declined even further because wine prices did not rise along with other goods and services.

Another important factor was the lower production costs associated with higher yields in the zones supplying the U.S. market, as well as the emergence of scale economies in production and marketing (Segré and White, 1988).

In the early 1970's, less than one-third of Italian wine exported to the U.S. was from Emilia Romagna. By 1980 this figure has reached nearly 70 percent. Riunite and its U.S. distributor, Banfi, played a leading role in this evolution, changing the image of imported wine from an expensive, sophisticated, upper-class beverage to that of a simple, easy to drink beverage sold at a very reasonable price.

The U.S. Distributor was Strong at Marketing and Willing to Devote Considerable Resources to Advertising

Villa Banfi was able to build a strong distribution network with careful attention given to advertising and packaging. Advertising campaigns in the U.S. were simple, yet original. Once the trademark began selling well, the Consorzio and Banfi were willing to back it with a considerable sum of money. In 1978 the total advertising budget was USD 15 million, USD 7.8 million of which was spent on television. In 1985, Villa Banfi's expenditures on print and broadcasting reached a peak of USD 22.3 million.

By 1986, they were spending USD 11 million in television advertising alone, and by 1987 Riunite-Banfi Vintners (including Riunite Classic and fruit flavoured wines) were still leading the top imported brand media advertisers with over USD 15 million or 31 percent of the total advertising market share (IMPACT,1988).

Based upon the number of Riunite's cases sold on the U.S. market by Villa Banfi, it is possible to estimate that from a maximum of USD 1.74 (1985) to a minimum of USD 0.83 (1981) per case was spent in network TV advertising, representing about 90 to 95 percent of the total Banfi advertising expenditures (Table 3).

Table 3. Estimated Network TV Advertising Expenditures per Case by Banfi Vintners to Promote Riunite's Wine in the U.S Market, Selected Years (U.S. dollars per case)

Year	1981	1983	1984	1985	1986	1987	1988
USD/case	0.83	1.47	1.39	1.74	1.22	1.50	1.06

Source: Elaboration from Jobson's "Wine Marketing Handbook", various issues.

Finally unlike many other wines exported to U.S. markets, Riunite was willing to present the product in various bottle sizes - 750 ml, 1.5 and 3.0 liters, with labelling that was easy to read and remember and with caps which were simple to open. In its advertising campaigns, the company promoted drinking. "Riunite on ice", almost a heresy in traditional wine circles, but a practice which was appealing to American consumers, many of whom were accustomed to consuming drinks with ice.

RECENT DEVELOPMENTS AND NEW PRODUCTS

Recent Developments

In recent years, as imports of cheaper Italian wine in U.S. markets have grown, the response to price change has declined. According to Blandford and White (1987), each one percent decline in price has led to an increase in per capita consumption of only 0.7 percent. This low price

response, coupled with the lack of income response, suggested that a saturation point has been reached for Italian exports of low-cost wines in the U.S. market, a view borne out by recent developments.

Indeed, exports of Lambrusco and its counterparts from Emilia Romagna did not reach their peak until 1981, when shipments amounted to 17.7 million cases. 1982 saw a modest decline (to 17.3 million cases), 1983 another (to 16.6 million cases), and 1984 yet another (to 16.2 million cases). In the 1985-86 "catastrophic" wine season the loss of Italian Lambrusco-type shipment in the United States was over 68 percent (to 7.9 million cases). The decline was even sharper in 1987 (5.7 million cases) and in 1988 (only 5.2 million cases). The average annual compound growth rate 1980 to 1987 was of (-)13.6 percent for the total Lambrusco-type wine and up to (-)20.2 percent for the red Lambrusco-type (IMPACT, 1989).

Much of the decrease in market share that Riunite's Lambrusco suffered in the U.S. market over this period was a result of a decline of the dollar against the lira. From 1985 through 1988 the Italian lira fell 31.8 percent (ICE, 1989). The situation was further exacerbated by the dyetylen-glycole (autumn 1985) and methanol (winter 1989) wine contamination and the American government's subsequent reaction to these scandals in removing Italian wines from retailer's shelves. Consumers in the U.S. are concerned more about product safety and their health than ever before.

It is significant that these declines were registered concurrently with the gains in sales of coolers, "the hottest category in wine business", according to the 1988 edition of Jobson's Wine Marketing Handbook, which were introduced during 1981, the Emilian wines peak year.

These three main factors - declining strength of the U.S. dollar, contamination related scandals, and competition of American-made wine coolers - affected Riunite's shipments in the United States (Table 4).

The brand Riunite "Classic", although always a leader among the top wine exporters into the U.S. market, slipped by 28 percent from 10 million cases in 1985 to seven million in 1986, and to 4.1 million in 1987. However, in 1988 the sales of Riunite recovered by 14.6 percent (up to 4 700 thousands of nine-liter cases or a market share of 18.2 percent) and Riunite "Classic" was the only brand among the Italian table wine top brands which registered an increase (Table 5).

With sales of Riunite Classics declining, beginning in 1984,

Riunite introduced several new products in an attempt to maintain the brand's market share. Significantly, the product that moved consumers

Table 4. Shipments and Share of Market of Riunite "Classic" in the U.S. Market, 1985-1988 (thousands of 9-liter cases)

Year	Depletion	Imported Table Wine
		Market Share (%)
1985	10 290	21.9
1986	7 405	21.2
1987	4 100	15.2
1988	4 700	18.2

Source: IMPACT, 1989

Table 5. Top Five Imported Table Wine Brands and Line Depletion Analysis, 1987-1988 (thousands of nine-liter cases)

	Depletions		Change,	Imported Table Wine	
	1987	1988	percent	1987	1988
Brand (Importer)					
Riunite (Banfi Vintners)	4 100	4 700	14.6	15.2	18.2
Canei (Austin Nichols)	1 100	800	-27.3	4.7	5.6
Cella (Brown-Forman)	1 120	830	18.6	3.8	3.2
Folonari(Wildman & Sons)	1 015	895	-11.8	3.8	3.5
Bolla (Brown-Forman)	1 240	1 140	- 8.1	4.6	4.4

Source: IMPACT, 1987, 1989

Wine Coolers, "Flavored Wines", and Blush Wines

from Lambrusco, as well as from other Italian semi-sparkling wines, was the American-made "wine cooler". The 1980's have seen the spectacular success in the U.S. of these new wine products. First introduced

commercially in 1981, coolers commanded about 25 percent of the U.S. total market for wine or 56 million of a total 223 million cases in 1987 (Jobson's Wine Marketing Handbook, 1988).

Many consumers of the Lambrusco-type wines have switched to coolers or have abandoned wine altogether. None of this is to say that coolers are wholly, or even largely responsible for the declining fortunes in the United States of Lambrusco and its counterparts. It may be that these wines would have lost some or all of these same consumers to other beverages like beer and soft drinks, or to other beverages had coolers not been introduced, just as pop wines and bottled sangria might have lost many of their customers had Lambrusco not been introduced.

Recognizing the trend away from Lambrusco and other effervescent wine, Riunite-Villa Banfi introduced a new product to compete with coolers: Riunite Natural Peach Wine. Indeed, like coolers, this flavored wine is not exactly a new product. What makes today's flavored wines different is principally that they are low in alcohol, and their flavors are very close to those of ordinary juice. A case might be made that the differences between flavored wines and the coolers are mainly semantic, (7) but, fundamentally, both categories of products involve wine, low alcohol, and flavors or fruits.

Introduced in July 1986, the Italian flavored wines achieved sales of over 100 000 hectoliters (or 2.7 million gallons) by year end, up 12.000 percent from the first six months of 1986 to the first half of 1987. During 1987 (January through December) the increase was even more spectacular: 344 000 hectoliters (9.1 million gallons), which means 84.2 percent of the total foreign shipments of this type of wine into the U.S. market (8), (ICE, 1988). Thus, it appeared that Italian flavored wines regained part of the lost business of table wines and perhaps expanded their producers' sales beyond what they had been.

Riunite's Natural Peach, the first Italian flavored wine on the U.S. market, appeared about at the same time as an American counterpart, Chateaux Lasalle "La Peach" (9), and soon gained first place in sales. On the heels of that success, Riunite-Banfi introduced two other flavored wines: raspberry (November 1986), apple (1987), and a peach-flavored spumante, commanding in 1986 almost 50 percent (850 000 nine-liter cases) of the total market for flavored wines (IMPACT, 1987). Riunite's "Fruits" dominated the imported speciality wine market in 1987, but the brand hit

hard times in 1988, plunging 53.6 percent to 1.3 million cases or 65 percent of the market. However, there was no other brand of major size on the horizon to capitalize on Riunite's difficulties (Table 6).

In new product introduction, 1988 was a year dominated by competitively priced varietal blush wines (IMPACT, 1989), which included the 700 000-case "Riunite Blush" first introduced into the U.S. market in March 1988.

Table 6. Selected Imported Speciality Wine Brands into the U.S. market, 1987-1988 (thousands of nine liter cases)

Brand	Country	Marketer	Volume		Change	Market Share (%)	
			1987	1988	%	1987	1988

Riunite							
"Fruits"/b	Italy	Banfi Vintners	2 800	1 300	-53.0	80.0	65.0
Yagoc	Spain	M.Henry Wines	365	320	-12.3	10.4	16.0
Cella							
"Fruits"/d	Italy	Brown Froman	170	225	32.4	4.9	11.3
Peach Canei	Italy	Austin Nichols	100	100	--	2.9	5.0

a/Based on estimated total depletions. Combined total differs from previous chart's shipment totals.

b/Includes peach, raspberry, and apple.

c/Includes Clarea, peach, and citrus.

d/Includes peach and raspberry.

Source: IMPACT, 1989.

CONCLUSION

The U.S. wine market is now in a period of malaise, which can be attributed to basic changes in consumers' behavior (White and Blandford, 1987). There is a noticeable trend toward lower adult consumption of

several alcoholic beverages, including wine, distilled spirits, and beer. Consumption of non-alcoholic beverages, such as coffee and tea, have also experienced declining consumption.

These trends are probably due to perceptions about the health effects of these beverages. General warnings from the medical professions had a negative impact on wine consumption and starting this year all wine sold in the U.S. market must carry a warning label about health risks. Americans, as are European wine consumers, now show a trend toward drinking less, in total, but drinking more higher quality wines.

Alcohol consumption in the United States has also been affected by legislative changes in many states which prohibited sales of alcoholic beverages to persons less than 21 years of age. These changes, along with a decline in the value of the U.S. dollar relative to the Italian lira, took place after Riunite had a strong foothold in the U.S. market. Even so, Riunite has not been immune to the effects of changing consumer habits, the wine "scandals" and basic economic forces such as the declining U.S. dollar.

The Riunite presence in the U.S. market is partly a matter of timing - that entry to the U.S. market was planned at a time which coincided with a rising consciousness about wine and was boosted by the strengthening of the U.S. dollar in 1980-1984. However, the Riunite success was also dependent on good marketing. First, Riunite was knowledgeable about American consumers' taste, and adapted products to appeal to that taste; secondly, its products were priced to attract consumers; and thirdly, their U.S. distributor was strong at marketing and the brand was skilfully promoted by large expenditures for advertising. In recent years, with declining sales of Riunite Classic, the firm has continued to make adjustments through new product introductions. The firm demonstrated the marketing skill and commitment of financial resources that are requisites for success in mass marketing in the United States.

The specifics of the approach of Riunite probably does not hold the key for firms which wish to penetrate the U.S. market for premium wines, but these three elements are crucial for the success of any product into the U.S. market.

REFERENCES

Blandford, D. and White, G.B., The Outlook for U.S. Wine Imports, in

- Fruit Situation and Outlook Report, USDA, ERS, TFS-241, March 1987.
- Cantine Cooperative Riunite, Personal interview by the authors, Reggio Emilia, Italy, April 1987 and Phone interview by A. Segré, April 1990.
- Donadio, N., The Italian Wine Industry and U.S. Wine Imports, M.S. Thesis, Dept. of Agricultural Economics, Cornell University, 1987.
- ICE (Istituto per il Commercio Estero or Italian Trade Commission), L'esportazione vinicola italiana, Rome and New York, various issues.
- IMPACT, The American Wine Market Review and Forecast, M. Shanken Communications, New York, various issues.
- ISMEA (Istituto per Studi, Ricerche e Informazioni sul Mercato Agricolo), Ismea Informazioni, Vino Consuntivo 1988/89-Previsioni 1989/90, supp. al n. 32, anno V, Rome, September 1989.
- ISTAT (Istituto Centrale di Statistica), Annuario di Statistica Agraria, Rome, various issues.
- JOBSON's, Wine Marketing Handbook, Jobson Publishing Corporation, New York, various issues.
- Ministero dell'Agricoltura e Foreste, Piano Agricolo Nazionale, Rome, November 1989.
- Segré, A., Some Aspects of Italian Wine Economics. An Overview of the 1980's, Cornell Agricultural Econ. Staff Paper 88-18. August 1988.
- Segré, A. and White G.B., Italian Wine in the U.S. Market. A Case Study of Cantine Riunite, Cornell Agricultural Econ. Staff Paper 88-23, November 1988.
- Sorbini, M., Aspetti evolutivi del settore vitivinicolo in Emilia Romagna, in Vitivinicultura, n. 24, 1986.
- Villa Banfi, Personal interview by A. Segré, Old Brookville, New York, July 1988, and Phone interview by A. Segré. May 1990.
- White, G.B. and Blandford, D., U.S.-EC Competition in Wine Production and Marketing, in Fruit and Nuts Situation and Outlook USDA, ERS, TFS-245, March 1988.
- Wine Institute, International Grape and Wine Statistics, Economic Research Special Report, April 1988.
- Wines and Vines. The 46th Annual Statistical Survey, July 1989.

NOTES

(1) In the American market, and in the United States' statistics, the table wine category includes ordinary table wine as well as premium table wine or the equivalent of "quality wine produced in specified regions" in the European Common Market.

(2) Although wine is a small component within the agricultural economy, Emilia Romagna is among the leading producers of wine grapes and wine in Italy. In 1986 the region accounted for about 10 percent of total Italian wine grape production and 12.2 percent of total Italian wine production (ISMEA, 1989). Emilia Romagna is primarily a table wine producing region with only about seven to nine percent of its total production being "quality wines produced in specified region" (conforming to the EEC Regulation no. 823/87) or D.O.C. wines. Only about one-fourth of the region's D.O.C. wine is white, versus 40 percent for all of Italy. According to the 1982 agricultural census the leading wine grape varieties were Trebbiano (one million acres of 405,000 hectares), followed by Lambrusco and Sangiovese with about 162,000 hectares (400,000 acres) each (Segré, 1988).

(3) The cooperative organization for wine in Emilia Romagna is divided into three levels or states: the first stage cooperatives which are involved only in wine making, the second stage cooperatives which have as their primary objective the bottling and marketing of the members' wine with a large emphasis placed upon exports, and the third stage cooperatives which deal only in wine marketing.

(4) In Italy, cooperative wineries generally belong to one of three federations: the "Lega Nazionale delle Cooperative", also called "red" cooperatives because they are generally linked with the Communist or Socialist Party; the "Federazione Italiana delle Cantine Sociali", also called "white" cooperatives because they are generally linked with the Christian Democratic Party; and the "Associazione Generale delle Cooperative". In Emilia Romagna the strongest federation is the Lega. At the basic level or first stage wine cooperatives, there are 50 percent of "red" cooperatives and 45 percent of "white": four out of the six "second stage" cooperatives in the region belong to the Lega.

(5) These Consorzi can have as members cooperatives and/or individual growers.

(6) "Lambrusco" is a semi-sparkling (effervescent), lower alcohol

(9 to 11 percent) wine which is traditionally red but can also be white or rosé; this wine is generally made under controlled (lower) vinification temperatures so as to preserve the "fruitiness". Most of the Lambrusco wines shipped to the U.S. is non-D.O.C. Lambrusco.

(7)Some producers may use or refrain from using carbonation, some may use fruit juices instead of other flavoring, and some may employ other approaches.

(8)U.S. Customs service classifies imported flavored wines as "other fermented alcoholic beverages".

(9)These subsequently have been joined by Peach Canei and Cella Peach from Italy, along with several American brands.

MARKETING ISSUES TO BRANDING POLICIES IN THE STILL WINE MARKETS IN EUROPE

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INTRODUCTION

Most companies dealing with consumer goods have adopted brand policies as a major tool for competitive advantage.

According to international definition, the commercial brand is a sign which reveals differences between the products or services offered on the market. It is an asset of the firm, thus benefiting from legal rights and protection.

From a strategic point of view, branding is one way to protect innovation and new product identification, to allow recognition of a given level of quality or price by the consumer. In a more general way, it allows the firm to communicate directly with its markets, thereby avoiding complete domination by retail organizations.

Most food and beverage firms are developing brand strategies, and some brands are famous all over the world. This is particularly true in the spirits markets.

Looking however at the wine sector, a major difference appears between the still wine markets on the one hand, and the markets for champagne wines, on the other hand.

In the latter, it is easy to observe how brands are essential to the development of the markets.

By contrast, on the still wine markets in Europe, successful brand strategies appear to be scarce, and most of the brands are only locally advertised.

Our purpose in this paper is to emphasize the weaknesses of branding and brand advertising in Europe, to underline some of the reasons for these weaknesses, and to identify the factors to be taken in brand

policies in the still wine markets, as well as the differences that might exist among European Markets.

1. FACTS AND FIGURES ABOUT BRANDS AND ADVERTISING

Market share analysis of three markets: France, Germany, England, shows clearly the weakness of brands (Table 1).

Leaders on these markets own less than 1.5 % of the total sales, and most brands are well below this type of share.

Table 1: Major brands and market shares on three European markets

Great Britanian		Germany		France	
Blue Nun(G)	0.76%	Bongeronde (F)	0.2%	Vineux Papes	0.7%
Concorde(S.Afr)	1.4 %	Amselfelder(Y)	1.6%	Champlure	
Hedges and B	0.5 %	Landwein (G)	0.8%	Carré de Vignes	0.5%
Piat d'Or	0.8 %			Listel	
Don Cortez (Sp)	0.75%	French Brands	13 %	Cellier des Dauphins	
Lutomer(Yug)	1.05%	Italian Brands	5.7%	Classiques	
Stowelles	0.86%	German Brands	71 %		
		Yugosl. Brands	3 %	All Brands:	
				less than	20 %
Sainsbury (x)	11.1 %				
Tesco (x)	4.5 %				
St.Michel (x)	2.9 %				

Retailers brand

Sources: Formexa, from CFCE, Secodip and misc.

The British market is particular in that brands owned by retailers account for 20 to 25% of total sales, whereas the first ten private brands account for 14.25%. It should be noted however that owned brands cover the whole range of the wines offered by these retailers and cannot be compared directly with private product brands.

In Germany, the first ten brands account for 24% of advertising expense and 11% of total sales. In comparison the 10 first brands in the US have a 53% share (6).

Further analysis of French wines at retail level in different European countries would show that only very few brands obtain more than 33% coverage in the supermarket distribution (Table 2).

Besides, in 4 cases, this coverage is obtained with a product line of 12 to 39 different wines. The name of the firm is then used as a general brand for all products.

Table 2: Coverage of French Brands on UK and German Markets

French brands on UK market	Prod. range	Distrib. Coverage(x) market	French brands on German market	Prod. range (x)	Distrib. Coverage
Piat d'Or	5	79.5	Bongeronde	1	79.3
Mouton Cadet	4	61.4	le Filou	3	51.1
Vignerons	21	60.2	Mouton Cadet	13	39.1
Val' Orbieu					
Yvon Mau	39	38.6	Reidemeister	12	34
Vignerons	4	29.5	Listel	3	26.1
Ardéchois					

(x) Frequency of presence on the shelf at retail level

Sources: CFCE, Annual survey at retail level in 4 European markets.

Another way to emphasize the relative weakness of brands is to look at advertising expenses for wine. Table 3 compares media expenses in different consumer countries.

Whereas differences in terms of "expense per capita" are not considerable, media expenses related to wine consumption suggest three groups of countries:

- Those where wine is clearly heavily advertised product (Japan,U.S.)
- Those where advertising expenses for wine might be in line with expenses for competitive beverages (U.K.)
- Those where wine is little advertised through the media (France, Spain). These figures do not include promotion money put into sponsoring, point of sale promotion, etc... If we

admit however that brand policies require minimum amounts of media advertising, we may conclude that most still wine markets in Europe are underdeveloped in terms of advertising.

Table 3: Compared advertising expenses on 14 major markets

	Total cons	Cons per	Media	Media	Media
			cap	expense	expense
	Mons H1	L/pers	Mons	Ecus	Ecu/pers
					per H1
Japan	0,9	0.7	30.4	0.3	33.7
U.S.	22	9	82.3	0.4	3.72
United Kingdom	7	12	16.86	0.3	2.4
West. Germany	16	27	19.3	0.3	1.2
Italy	48	85	57.4	1.1	1.2
Belgium	2.3	23	2.43	0.2	1.06
Netherlands	2.2	15	2.29	0.1	1.04
Denmark	1.2	25	1.14	0.2	0.95
Scandinavia	1.7	10	1.74	0.1	1.02
Switzerland	3.3	50	2.64	0.4	0.8
Greece	3	30	1.93	0.2	0.64
France	42	74	26.7	0.5	0.635
Spain	18.7	48	9.8	0.3	0.52
Portugal	5.7	54	2.86	0.3	0.50

1 Ecu=7 FF

Formexa, from misc sources

We may further illustrate this point with the French market: Table 4 compares the relative pressure of advertising on wine, beer and mineral water markets:

For one franc spent on media advertising for each liter of wine consumed, there are 2.6 FF spent on mineral water, and 4.3 FF spent on beer.

Looking at structures which publicize significantly, we find that only 6 to 7 advertisers show media expenses over 1 million Francs (150 000 ecus). It is to be noted that in this group, 3 are institutional advertisers and one is a retail chain (Nicolas) (5).

Table 4: Cooperative advertising pressure in three beverage markets
(France)

	WINE	BEER	MINERAL WATERS
Consumption 1/pers./an (1986)	78	38	55
Index of individual consumption compared with wine	1	0.49	0.70
media advertising (Million FF)	150.2	316	300
Index of advertising expense per liter consumed	1	2.1	2

Source: Formexa

After examination of these facts and figures we may draw the following conclusion:

Most European still wine markets show relatively low pressure brand policies with the exception of UK where brands owned by retailers have a leading role.

In all European countries, market shares owned by a single brand to not exceed 1.5% of total market. Many of these brands are corporate names (signatures) covering the whole range of products. Genuine product brands are rare.

With the exception of Germany and Italy, investments in advertising for still wine are particularly low in wine producing countries. Besides, in these countries, much of the expense comes from collective institutions such as wine boards 30% of media advertising in France.

2. RELEVANT ISSUES TO BRANDING POLICIES

In order to analyse this situation, practitioners of marketing in the wine business will take into account:

The functions of a brand: What is the point of view of the consumer or the firm concerning these functions?

How does the concept of "Appellation Controlée" fits with the marketing definition of branding ?

The consumer point of view: What do present research and survey findings suggest about consumer preferences or brand awareness? Can easily transfer marketing experience from other food sector?

How might the concentration of modern distribution throughout Europe influence purchasing behaviours and marketing strategies?

Competitive structures: Who are the firms in competition on the market, what does the "strategic game" look like and is developing?

Anti-alcoholic trends: How will restrictions on wine promotion and advertising influence firms strategies, and particularly marketing and branding policies?

2.1. THE FUNCTIONS OF A BRAND

a) The point of view of the consumer

Research work as well as interviews of practitioners lead to the identification of 6 functions of the Brand (3):

PRACTICALITY: allows the memorization of previous buying experiences.

GUARANTEE: againts purchase risks of all kinds, particularly the psychological risk in the case of a purchase of wine.

PERSONALITY: the choice of a particular brand may help the consumer in his quest for indentity and social status.

PLEASURE: branding may bring additional pleasure in the purchase trough the variety of choices and alternatives.

UNIQUENESS: the brand may gather all the characteristics of the product itself. The brand is the product.

IDENTIFICATION: The brand may be the only reference for the consumer choice, especially if all the products look the same.

b) The point of view of the firm

Branding is one strategic way for the firm in order to free itself from the collective or anonymous definition of the product and define a unique and competitive position on the market. Branding is related to other marketing strategies such as:

MARKET SEGMENTATION, through which the firm identifies its markets and competitors.

PRODUCT DIVERSIFICATION, which enables the firm to spread branding costs and to aim at different market segments through product adaptation.

PRODUCT INNOVATION, without strong branding policies which allow public recognition and temporary protection from competitors, innovation has little chance to succeed.

BRAND LOYALTY, through the building of awareness and positive attitudes towards the brand.

PRODUCT POSITIONING, by establishing clear relations between brand, price and quality level in connection with the identification function of the brand described above.

In the particular case of wine, the definition of "brand" raises a specific issue: Should the geographic name of origin (Bordeaux), or the estate where the product is raised and bottled, the name of a merchant, be considered as a brand?

Surveys and research suggest that in the opinion of the consumer, these concepts (commercial brand and "appellation d'origine") are not clearly identified and fill part of the functions described earlier.

This does not mean that they are identical from a marketing and strategic point of view, and that the functions of appellation are similar to commercial brands.

Indeed, there is a lot of arguing concerning the respective role of these two concepts, the logic of which can be summarized as follows:

THE APPELLATION APPROACH

The name of origin is a "collective" property

Favors a dispersion of supply

The consumer adapts to the product

The message concentrates on the producer.

THE BRANDING APPROACH

The brand is owned by the firm

A tool for supply concentration

The product adapts to the consumer

The message concentrates on consumer needs.

As a result, the firms in the still wine business will choose one of the two approaches, or a combination of the two. In doing so, the firms will face at least two questions:

To what extent does a commercial brand strengthen (or weaken) the positive effects of origins on consumers ?

How can the consumer oriented, commercial brand approach, and the product oriented message of the appellation be combined ?

Some of the answers will be found in an analysis of consumer expectations and attitudes towards still wines.

2.2. THE CONSUMER

Extensive research from Kapferer (4) has shown how a given consumer may be sensitive to brands for some products, but not for others.

In the case of wine, there is evidence that the purpose of the purchase interferes with brand sensitivity. In an attempt to develop

a strategic approach to branding, the GIRA suggests that the different "wine lifestyle" groups which they have identified should be related to the functions usually found in the wine by each group, concluding that brand policies would be most appropriate in the case of the "qualitativist" group which looks for large choices of specific product, and tends to compare prices (2).

Are customers in general longing for strong brands which would help them choose their wine ?

Many researchers and practitioners have come to the conclusion that the average consumer is unsatisfied with the present situation, because of a lack of information during the purchase process and the excessive number of wine products offered on the shelves. Indeed, 300 to 400 different still wines is a common range in French supermarkets.

Current research suggests that the customer in a purchase situation might not feel as bad as some would expect: a survey in supermarkets on 324 wine buyers in the Montpellier area shows that 24% of them think that choice is not sufficient and that 33% of them take great pleasure in buying wine in spite of the lengthy selection process, whereas 10% experience the purchase as an unpleasant task (Table 6).

In this context, branding strategies might not be the only response to customer needs.

In addition to these complex behaviours, it appears from surveys on customers in France, Italy, Spain and Portugal, that most customers consider wine as a natural product (Table 6 below).

Table 6: Advertising themes suggested by customers in 4 countries

Themes:	France	Spain	Italy	Portugal
Natural product	1	2	1	1
Local product	2	1	4	2
Pleasure	3	7	3	6
Social, friends	4	5		3
Tradition	5	3	4	5
Sunshine	6	8		8
product				
Celebration	7	6	6	7
Health	8	4	2	4

Source: "vin et moyens d'information", symposium CILOP Mai 1985

These results illustrate the difficulty of developing branding strategies in the wine business: commercial brands are more or less associated with industrially processed food products, and may not fit the images about wine. Therefore, branding may in some cases downgrade the product in the mind of the customer.

2.3. CONCENTRATION OF MODERN DISTRIBUTION

At retail level, it is now clear that supermarket distribution and discounters account for the largest share of total sales, as shown by the following figures:

Percentage of total discount or supermarket off license sales in 5 European countries:

Germany;	72%	of which discounters represent:	31%
U.K.	72%		
Holland	72%		

Belgium	77%	of which discounters represent:	21%
France	71%		

Retailer strategies are essential to the future of wine suppliers, will have a choice between developing their own brands, or supplying retailers with custom-made qualities sold under the retailer's guarantees this is largely the case in the UK nowadays.

For instance, if discounters like Aldi take larger shares of markets, this will entail reduced choices on the shelves, and therefore a severe fight for survival among suppliers (7).

The influence of retail on strategic choices comes into focus if we consider the purchasing power of these organisations. Indeed, retail concentration all over Europe contrasts sharply with the lack of marketing structures on the suppliers side, as shown below.

Share of total wine sales of the 5 first retailers in 4 European countries (1989):

Holland	56.5%	of which:	A.Heijn: 31.5%, Edah: 7%
Belgium	63.4%		Delhaize: 17.7%, G.B.: 14%, Aldi: 14.8, Colruyt: 10,7%
Germany	34 %		Aldi: 13%, Rewe: 7.4%, Edeka: 7%, Coop: 4.1%
U.K.	40 %		Sainsbury: 14.5%, Tesco: 11.3%, Safeway: 5.1%

Current research on retailers strategies show that the wine corner is considered a key factor in retailer strategy to attract customers.

When asked their opinion about strong brands in still wine, many retailers believe that such branding policies would entail reduced margins, and therefore less interest in the product (8).

2.4. PRODUCERS AND BOTTLERS: COMPETITIVE STRUCTURE

We cannot discuss here at length about the specificities of the wine structures.

A study (9) of firms in the wine business in 4 European

Countries producing wine (France, Germany, Spain and Portugal) shows, among other things, the following findings:

- Over 22 000 firms in France, 15 000 in Germany, have been on the market to sell wine in 1988.

- The leading firms are often subsidiaries of worldwide distributors of brands in spirits (IDV, Seagram, Rémy Martin, Pernod Ricard, Bols...) or beer (Bass LTD, Whitbread, Allied Lyons...).

These firms have extensive experience in managing international brand policies, and hope to get marketing advantage for their wine activities with worldwide networks. It is interesting to note however that, at least until now, only very few brands have obtained significant awareness levels in several countries: Piat d'Or (IDV), Black Tower (from Whitbread's Kenderman) are exceptions.

- Large firms, specialized in still wines, are very rare. Most of them have concentrated so far on local markets and international sales do not account for a large share of their turnover.

Castel Freres, second in size to the US firm Gallo Wines, Société des Vins de France (SVF) depend largely on the French market. Savin in Spain, Gruppo Italiano Vini in Italy, as well as a few cooperative structures such as Riunite (Italy) Uccoar and Val d'Orbieu (France) are some of the rare structures with sufficient size to consider full scale marketing strategies.

- Most of the suppliers are small, "family size" firms, with strong links with local production.

For these firms with limited advertising budget, the reference to the "appellation Controlée" is of major importance. Branding strategies are often limited to a signature guaranteeing the selection of the wine at production level.

These firms have a choice between cooperation with retailers on a quality price basis, or a search for excellence and luxury, where price may have no connection with quality. This choice between "craftsmanship" and "industry" depends largely on images developed by the local Appellations.

2.5. ANTI-ALCOHOL REGULATIONS

Alcoholic beverages, including wine, are nowadays conspicuous in

many European countries. The French government is preparing new regulations which will restrict advertising on wine to magazines for adults, with strict guidelines concerning the content of the messages. For instance, it will not be possible to show people in drinking situations, or to suggest that wine might help social success.

In these conditions, what kind of benefits will wine ads offer to consumers ?

The situations vary according to the European markets. However, the EEC has started to issue restrictive regulations, and other countries might follow taking harder stands against alcohol.

General acceptance for these regulations is helped by the growing concern for health and fitness as well as damages of all kinds resulting from abuse of alcohol.

CONCLUSION.

In contrast to most food and beverage sectors, commercial brands in Europe are not much developed in the still wine sector, and branding strategies are often a compromise between the collective "Appellation" and the private brand approach.

Genuine product brands are exceptional, as opposed to corporate brands (signatures) covering a large range of products, or even to collective appellations promoted by national or local agencies.

Commercial brand strategies face many adverse conditions:

In many countries, wine has lost a large part of its "food" function. Cultural attitudes in favor of custom-made, locally produced wines, call for the promotion of "appellation" rather than commercial brands. Current research suggests that many customers favor large rather than simplified choices.

Retailers may find an interest in the present situation, as it gives them a controlling position, and an interesting possibility to use the wine corner as one of the components of their corporate image.

Competitive structures on the suppliers side are scattered and local, and most firms are unable to support a brand with sufficient advertising budgets.

Anti-alcoholic regulations which find support in the present

trend for health and fitness will restrict considerably branding strategies in many European markets.

Some factors however may call for stronger brand strategies:

All markets are not culturally attracted by the sophisticated concepts of locally made, artisanal products. Market research should help identify these markets open to commercial brands.

From an industrial point of view, the brand remains an essential tool for gaining or protecting market shares, and obtaining recognition from retailers and consumers at local and international levels. Many large firms will therefore insist on building brand strategies.

Among retailers, discounters may find an interest in commercial brands as it helps them concentrate on quality/price rather than extensive choice.

REFERENCES

Brochand B.-J. Lendrevié: "Le Publicitor", Dalloz, 3eme édition.

CFCE (Centre Français du commerce Extérieur) 10, Pl d'léna, Paris:

Etudes de marché et panels sur les principaux marchés mondiaux,
Analyses de l'offre Française de vins sur 4 pays : RFA, Grande
Bretagne, Belgique, Hollande), etc...

Davidou J.P - M. Jochem- Ph. Latil - Th. Lemaire: "Le vin et la
pub", mémoire de fin d'études ESITPA (Ecole Supérieure
d'Ingénieur des Techniques et de la Production
Agro-Alimentaire, Le Vaudreuil, France)

d'Hauteville F.: "Les vins français et les autres", document de
cours audio-visuel réalisé à partir de films publicitaires
recueillis par SOPEXA, août 1989.

d'Hauteville F.-J.P. Couderc: Etude de cas: "Listel Export"

Centrale des Cas Chambre de Commerce et d'Industrie de Paris.

d'Hauteville F.: Enquête sur 324 acheteurs de vin en GMS à
Montpellier, avril 1990, Formexa/INRA (non publié à ce jour).

Kapferer J.N: "La sensibilité aux marques", Fondation Jours de
France, 1983.

Kapferer J.N - J.C. Thoenig: "La marque", Mc Grawhill, 1989

Mascotto J.: "Determining the effect of branding on UK consumers
choices of a wine, a perceptual approach", mémoire de fin de 3e

cycle de marketing, Kingston College, Londres.
Revue LSA (Libre Service Actualités) n 110 du 1er avril 1988 :
"vins : la filiere se mobilise".
"Le vin et la marque", Colloque organisé par l'Institut
International des vins et Spiritueux, a Paris, 31 janvier 1990.

NOTES

- (1) From SOPEXA sources (Société pour l'Expansion des Produits Agro-Alimentaires).
- (2) Formexa estimates, from Secodip Medial sources.
- (3) Kapferer, in "La Sensibilité aux Marques", Fondation Jour de France, 1983.
- (4) J.N Kapferer : La Sensibilité aux Marques, Fondation Jours de France, 1983.
- (5) Symposium on Branding and Wine, speech by Mr. Belay, director of GIRA (Groupe International de Recherches et Etudes dans l'Alimentaire), 31 Jan. 1990, Paris.
- (6) Research under way at Formexa Inra Montpellier, not published at this date.
- (7) A typical Aldi discount store in Belgium would offer 16 different wines, against an average of 196 in a Cora supermarket (Formexa, CFCE sources).
- (1) This is at least a point of view expressed at the Symposium on Wine and Brands held in Paris on Jan 31 1990 by Mr. Dutroux, purchase manager for the powerful SCA Monoprix.
- (2) Didier Caire: "Stratégie à l'Exportation des principaux pays européens", Thesis, Ecole Nationale Supérieure d'Agronomie, 1989.

DEVELOPMENT IN THE GLOBAL ALCOHOLIC DRINKS INDUSTRY AND ITS IMPLICATIONS FOR THE FUTURE MARKETING OF WINE

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INTRODUCTION

The historical development of the international wine industry has been based on rigidly confined viticultural regions and intense nationalism.

Changes in alcohol consumption behaviour during the last 25 years and the resultant corporate changes are likely to cause a major change to the future development of the international wine industry.

This paper is a discussion of the factors that are influencing change and draws some implications which will affect the very core of wine industry values and its future marketing strategies.

THE FACTORS INFLUENCING CHANGE

The factors that have led to changes in consumption over the last 25 years can be analysed as follows:

1. Changes in Patterns of Consumption

A study of world alcohol consumption between 1960 and 1985 shows the following characteristics:

- (a) There has been a decline in the total volume of alcohol consumed.
- (b) There is a trend towards an homogeneous per capita consumption in all countries. This assertion is illustrated by an analysis of consumption trends by The Brewers Association of Canada and is shown in Appendix 1. The figure

indicates that all countries are moving towards not only the same per capita consumption but also the same mix of alcohol beverage consumption, as follows:

40% wine
40% beer
20% spirits

This trend is endorsed by the fact that the United Kingdom, a traditional beer drinking country, now has more wine drinkers than beer drinkers (1), and by the rapid growth of wine consumption in Australia (2) and the U.S.A. (3).

2. Changes in Consumer Purchase Behaviour

A study of consumer purchase behaviour shows that:

- (a) The consumer of alcohol beverages has become more discerning.
- (b) There is a definite graduation from bulk to premium products world wide. To provide a hypothesis, the growth of wine in Australia during the 1970's and 1980's was the result of the post war (World War 2.) "baby boom" adopting wine as a major alcoholic beverage. The late 1980's has seen a maturing of the tastes and a growing affluence amongst this group which has brought about the move to quality wines.

This trend has been mirrored amongst beer (the growth of imported and boutique beers) and spirits drinkers globally(4). This trend towards "quality" has made the whole concept of "brand name" of vital importance to marketers as the ultimate communicator of quality and value. Thus the corporate ownership of a recognized "quality" brand name can mean considerable price premiums and profit.

3. Distribution Changes

In line with the concentration of ownership in the corporate arena an equivalent concentration is occurring in the wholesaling and retailing of alcoholic beverages.

In Australia the wholesale distribution of alcohol beverages is highly concentrated with 4 companies controlling distribution nationally,

viz Consolidated Liquor, Composite Liquor, Australian Liquor Markets and Australian Liquor Distributors.

Retail distribution is shared between 5 major companies, Liquorland, MacLiquor and Woolworth/Safeway, and the major brewers, Carlton United and Bond Brewing.

Internationally, concentrations are similar with Tesco, Sainsbury, various multiples and the Co-operatives dominating the U.K. market.

The characteristics of the wholesale and retail system are:

- (a) concentration on volume brands as the mainstay of turnover.
- (b) premium ranges limited to known and respected brands.
- (c) the increasing cost of the physical distribution of goods.

Every market has a small number of specialist liquor outlets which cater for a select clientele.

The major change in retail liquor marketing in Australia in recent years has been the growth of Direct Marketing led by Cellarmaster Wines. This operation has a captive clientele who are credit card holders with such organisations as American Express and the various Australian trading banks.

This has changed the pattern of wine distribution and consumer behaviour in the short term as customers buy branded products on a case lot (12 bottles or multiples) basis. Well-executed sales promotional catalogues have encouraged the consumers to cellar products in their homes. The nett effect has been that the end consumer has become a major temporary stockist of premium wines.

4. Corporate Changes

The implications of the changes in consumer tastes and behaviour and changes in the distribution chain have resulted in major changes in the corporate structure of the alcohol beverage industry.

Since January 1986, 126 major changes (5) have taken place amongst the top companies supplying the international alcoholic drinks.

The result is that:

- (a) currently, 27 brewers control 41% of the international beer market. Their share of the market is expected to improve as

their sales growth is greater than the industry average. It is expected that a rationalisation amongst the major brewers will continue as will acquisition of smaller and specialist brewers with either strong regional or "boutique" brand names (6).

(b) in the spirits industry, 41.2% of spirits volume is controlled by 6 companies (7).

The wine industry has also moved to concentration and alliance with the spirits industry as well as to acquisition and joint venture within the international wine industry itself. Major wine marketers see a singular global market and are moving to ensure their place in this market.

Examples of such strategic moves are:

- establishment of production centres in California and Australia by the Major Champagne Houses, often on a joint venture basis with local companies. These moves are influenced by the comparative price of land suitable for vineyard production (8). (France)
- acquisition of wineries and distribution facilities in the EEC prior to 1992, e.g. The Hardy Wine Company. (Australia)
- joint ventures between wineries in different markets. (Penfolds Wines, Australia and Geyser Peak, California)
- distribution arrangements and joint ventures between wine companies and the spirits giants, either globally or in selected international markets. (Moët-Hennessy and Veuve Cliquot)
- portfolio balance where companies look to strengthen both their domestic and international competitive position by being able to provide full market coverage and cater to all consumer tastes, e.g. the acquisition of Lindenman Wines by Penfolds in order to provide Penfolds Wines with strong branded products across the white and red table wine sectors of the Australian market. In addition this will strengthen Penfolds' global market competitive position.

There is also a need for alcohol beverage companies generally to match the comprehensive requirements of the major distributors and retailers, i.e. to become the preferred supplier and "close out" the competition.

This has led to an expansion by the spirits companies and brewers into the ownership of wine company assets, e.g. the South Australian Brewing Company's ownership of Seppelt Wines, Suntory - Chateau Lagrange and Andrew Garrett Wines, IDV - Chateau Loudenne, and the Allied Lyons Group which now owns Chateau Latour.

In summary therefore the move to globalisation has led to:

- concentration of ownership
- concentration of distribution
- a growing concentration of brand ownership
- a balancing of portfolios across all market segments which includes a growing acquisition of wine assets by brewers and spirit companies
- a concern for the relative competitiveness between major producing areas and countries.

5. Government and Taxation

One of the environmental threats to the wine industry is not only its inclusion with beer and spirits as the target of the anti-alcohol lobby but the threat from government to include it in the same taxation structure as beer and spirits. Governments, irrespective of the progressive sales tax systems deployed to raise revenues from the alcohol industry, will inevitably see the redistribution of consumption and the consolidation of wine at 40% of the alcohol beverages' market as a major source of taxation revenue.

The taxation measures may well be included in the anti-alcohol domain with differential taxation being applied based on the alcohol levels of the various drinks because it is believed that consumption relates to the personal health and well-being of the consumer. This differential taxation policy has been adopted by the Australian Government when applied to Low Alcohol Beers. (NOTE. The alcoholic strength of Australian beer is 5-5.5%; light/low beers, 0.92-3.5%).

This has led to some distortion to The Canadian Brewers Association assertion of homogeneous consumption as the price effect of the taxation differential has forced price sensitive consumers away from the Bag-in-Box packaged wines towards low alcohol beers in particular.

The South Australian Brewing Company suggests that Low Alcohol/light beers now represent about 20% by volume of the total Australian beer market.

THE IMPLICATIONS OF THESE CHANGES TO THE WINE MARKETER

The strategic emphasis of these global changes in the wine industry will push the marketing discipline to the forefront of wine company activity.

To quote Michael Hill Smith, Australia's first Master of wine, "Australia could more than double its wine exports if only our marketing expertise matched the skill of our leading winemakers." (9)

Before any discussion on Marketing can take place it should be noted that the major wine markets are characterised by two distinct industries - the premium industry, which is characterised by fine bottled wines, and the wine beverage industry, which is predominantly mass production of wine and has much in common with beer, spirits and soft drinks.

In mature markets such as Australia it is now evident that the marketing strategies and tactics adopted for the premium industry are entirely different to those adopted for the wine beverage industry. These differences are summarised in Appendix 2.

There are common elements however that need specialist attention. These are:

1. Branding

The strategic importance of the brand name. The importance of branding has long been recognized by the soft drink, spirit and beer industries, whereas the wine industry has been reticent to recognize and protect brands and to realise their asset value and commercial and competitive worth. The acquisition price paid by Andre Mentzelopoulos for Chateau Margaux was considered excessive until the nett worth of the name was realised by the sale price paid by Allied Lyons for Chateau Latour (10).

The advantages offered by a Global or a well-respected brand are numerous. The major advantage is that brand, irrespective of volume or

quota, can be used as "leverage" to gain distribution for lesser brands or to provide single or preferred supplier status to prestigious accounts, e.g. Hyatt International Hotels.

There is one danger however that wine marketers must avoid and that is undertaking unresearched brand extension. Marketing literature is full of examples of where brand extension has weakened well-established brand names causing market share loss in the brand's core market segment. It is inconceivable for instance that we will see a Chateau Latour Chardonnay or a Mateus Cabernet Sauvignon but a marketing manager somewhere may be tempted.....

2. Packaging

It is not only the brand name that needs care, patent protection and nurturing but also the packaging and bottle-dress, especially where distinctive bottles or label styles are used to reinforce consumer recognition.

Packaging is important in its ability to build and defend a brand name.

As the watch and camera makers have discovered replication is a modern day hazard to premium brands.

Not only do marketers need to concern themselves with defending proprietary characteristics but the industry needs to ensure that label descriptions and information are a true reflection of what the consumer can expect from the consumption of the contents.

National labelling laws do address this issue and local industries have also taken action to introduce label integrity programmes.

The I'OIV Expert Group "Law of the Vine and Wine" should move with haste to establish an international labelling standard which is accepted by all member countries. The standard should have 3 objectives:

- To establish a common international standard.
- To facilitate world trade where national labelling regulation is blatantly used as a barrier to market entry.
- To avoid the near farcical situation that is now emerging with the retaliatory use of regional names to counter the use of the French Viticultural Regional names which have become symbols of

generic wine styles in some markets.

3. Product

The research and development programme of the industry has traditionally been directed to product improvement, whether in the vineyard or in the winery.

The tangible results of this research have led to the development of a scientific and more efficient industry, but the results have not always been directed to added consumer satisfaction.

Future research will need to be judged on the overall product enhancement from the consumer's viewpoint.

A wine beverage industry positioned in competition to experienced beer and spirits marketers in a declining alcohol consumption market will need to be more consumer driven if the industry is to maintain its share of consumption.

What new product programmes and market research are in hand to replace the decline in the consumption of brandies and fortified wines? Is the current trend toward the "classic varieties" sustainable and will it form the core of the fine wine industry at the end of the decade?

In the beverage market the only product innovation in recent time was the Wine Cooler which is experiencing a very short product life cycle. How will the wine industry compete with the trend towards lower alcohol beverages in the near future?

The wine industry has benefited from the effect of the "baby-boom" but as markets reach maturity which products will attract new drinkers to wine?

The wine industry needs innovative marketers to position and present wines that will gain general consumer appeal in all market segments. This will not necessarily be achieved by the utilization of new grape varieties but by the use of innovative winemaking techniques.

4. Distribution

The concentration of distribution poses the greatest hazard to traditional winemaking and marketing.

For beverage wines the wholesale and retail channels which are

driven by inventory levels, stock turn and profit margin will demand "popular" wine styles, e.g. the concept of the "fighting varieties" in the U.S. market (11). It is likely that the regional and vintage differences that have characterised the marketing of wine historically will be suppressed in the drive for standard styles and consistent taste. It should be remembered that the truly successful global brands, e.g. Mateus and Blue Nun, have succeeded by adopting this marketing philosophy.

The distribution channels will retain the "fine wines" of the world as perceptive wine marketers will adopt "scarcity tactics" to increase the "leverage" that these brands offer. An example of the marketing tactics could:

- speciality pricing (high price/high profit-margins)
- only available in limited quantities, ie on a quota basis
- only available to particular retail outlets
- only available on the basis of the outlet stocking a full range of the distributor's other beverage products

Smaller, lesser known wineries sharing a common viticultural heritage will form associations with the major brands to gain premium status and prestige as a mechanism to gain market entry and consumer acceptance. This will require the need for the maintenance of regional characteristics and differences protected by appellation or regional integrity programmes.

5. Marketing Education

The discipline of wine marketing teaching research is a relatively new phenomenon. An undergraduate academic qualification in Wine Marketing is offered by Roseworthy Agricultural College (Australia). The University of San Francisco (U.S.A.) offers a post-graduate Diploma in Wine Marketing, and latterly the International University offers a post-graduate Diploma in Management, Marketing and Economy for the Wine and Spirit Sector (EEC). It is hoped that Masterates and Doctorates are offered in the future.

The Australian Wine and Grape Marketing Development Centre is concerned with the development of International Business as it affects the

Viticultural Industries; it believes that an understanding of the role of the wine industry in the development of the international drinks industry is essential to any curriculum, also, as a means to prepare wine marketers to contend with the competition from overseas marketers entering their own markets as the international wine market expands.

CONCLUSION

The globalisation of the international alcoholic drinks market will see a change in the practice of wine marketing in the future. Parochialism and nationalism will be replaced by an order determined by the policies of governments, multi-national organisations and a concentration of distribution outlet.

Wine will be exposed to increasing competition, especially in the beverage market, as alcohol marketers endeavour to expand market share in a declining total market.

If it is to prosper in the future, the wine industry will need to adjust and equate its marketing capabilities with those of its production skills.

REFERENCES

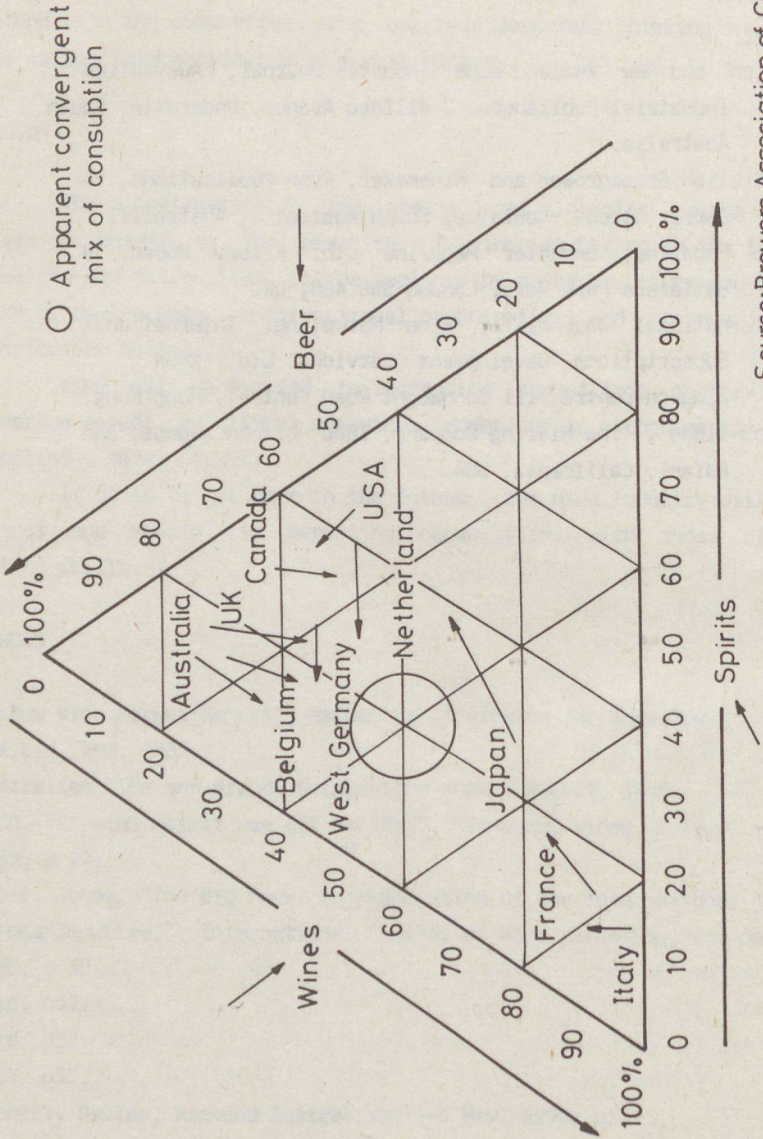
1. "A New Wine Market Report", Marketing Strategies for Industry (UK)Ltd, Sep, 1989.
2. Australian Wine and Brandy Corporation Annual Report, 1989.
3. Anon, "US wine Market was off in 1988", Wines and Vines, July, 1989, p 17.
4. Espey, James, "The Big Four: An Examination of the International Drinks Industry.", International Journal of Wine Marketing, Vol no 2, 1989, p 50.
5. *ibid*, p52.
6. *ibid*, p52.
7. *ibid*, p53.
8. Property Review, Weekend Australian, 5-6 May, 1990, pl.
9. Hill-Smith, Michael, Australian Gourmet Traveller, March 1990, p 47.
10. Parnell, Colin, Decanter, Dec, 1989, p
11. Duthy, Warwick. "Fighting Varietals: A Consumer Perspective" Wine 2000

Proceedings, Adelaide, South Australia, Winetitles, August 1989.

BIBLIOGRAPHY

- Australian and New Zealand Wine Industry Journal, Australian Industrial Publishers, 2 Wilford Avenue, Underdale, South Australia.
- The Australian Grapegrower and Winemaker, Ryan Publications, 95 Currie Street, Adelaide, South Australia, Australia.
- Decanter Magazine, Decanter Magazine Ltd, Priory House, 8 Battersea Park Road, London SW8 4BG, UK.
- The International Journal of Wine Marketing, International Subscriptions Development Services Ltd, 2904 Wing-on-Centre, 111 Connaught Road Central, Hong Kong.
- Wines and Vines, The Haring Company, 1800 Lincoln Avenue, San Rafael, California, USA.

Appendix 1. The trend to more Homogenous drinking of Alcoholic Beverages



Appendix 2

THE MARKETING DIFFERENCES BETWEEN
THE FINE and BEVERAGE WINE INDUSTRIES

Marketing Mix Factors	Fine Wines	Beverage Wines
Product	Appellation, first growth varieties limited quantity vintage and regional variables important	Varietal or blend, taste important, consistency, high quality control, little vintage, regional variation
Price	High price, price skimming/prestige pricing no price promotion	Price competitive, price sensitive, price promotion common
Positioning	Speciality branded products	Branded products
Distribution	Specialist Outlets	Supermarket and liquor stores
Promotion	By recommendation and reputation, supported by wide publicity	Via the mass media, P.O.S. displays etc.
Selling	Scarcity, quota allocation, case lot quantities	Continuous availability, truck load quantities
Inventory	Aging and maturing essential	Stock turn paramount

THE VITICULTURAL LAND REGISTER AS A MODEL OF MARKET TREND ANALYSIS

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Universita' degli Studi di Milano
Via Celoria, 2 - Milano, Italy
Istituto di Economia e Politica Agraria
Universita' degli Studi di Milano
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INTRODUCTION

A viticultural land register of an area larger than 3000 ha covering more than 100 Communes in Brescia district (Northern Italy), was made by the local Authority following a legal directive N.67/82 of the "Regione Lombardia" government according to the E.E.C. regulations N.2392/86.

Together with the local vine-growers' register it gives interesting opportunities to analyse the structural and economical situation of grape and wine production at both local and national level.

By means of a specific software called GESVIT, it was possible to make more complete data banks, collecting information about grape varieties grown and wine types obtained and their respective production.

The program manages all information stored in the land register data bank: for each vineyard of the district presents location and topographic characteristics, variety, training system, age, density of planting yield, type and amount of wine production and farming method.

THE VITICULTURAL LAND REGISTER

The data required for the description of this archive were gathered taking a census among all vine-growers in the Province.

- The Communes were identified by a number made up by the Province plus ISTAT (National Statistics register) commune code.
- The vine-growers were identified by a progressive number which refers to the wine-makers list and the wine-growers register.

- Vineyard number: progressive number for cadastral map leaf, which was given as vineyards were input into the software. The vineyard is characterised by physical continuity of the areas which make it up and for one owner for all areas.
- Map number: number of cadastral map leaves, progressively numbered for each commune.
- Plots: cadastral number of plots which make the vineyard.
- Farming method: ownership or tenancy.
- Training system: a code number defines different densities of planting.
- Density of planting: a code number identifies different densities of planting.
- Variety: code number for identification.
- DOC: is given if the vineyard is enclosed in the DOC list.
- Productive area: total of all productive plots.
- Non-productive area: eventual area in the vineyard, occupied by headlands, ditches etc.
- Code of other communes: ISTAT code of other communes where the same vine-grower owns other vineyards.
- Slope : a code correlating each vineyard to its slope class.
- Position : a code identifying the vineyard position.
- Difference in level: difference between maximum and minimum height of slope contour line.

VINE-GROWERS REGISTER

The data in this register are gathered through the annual statement on grape and wine production; it contains data on production as well as data on sold or bought products, bearing also tax-code of wine growers and information on the farm type.

Vine-grower code, as well as total area and DOC area link the vine-growers' register with the viticultural land register.

GRAPHICAL REPRESENTATION OF COLLECTED DATA

In the diagrams (figs.1-2) each vineyard is represented through a circle corresponding to its total area or to the extension of some definite

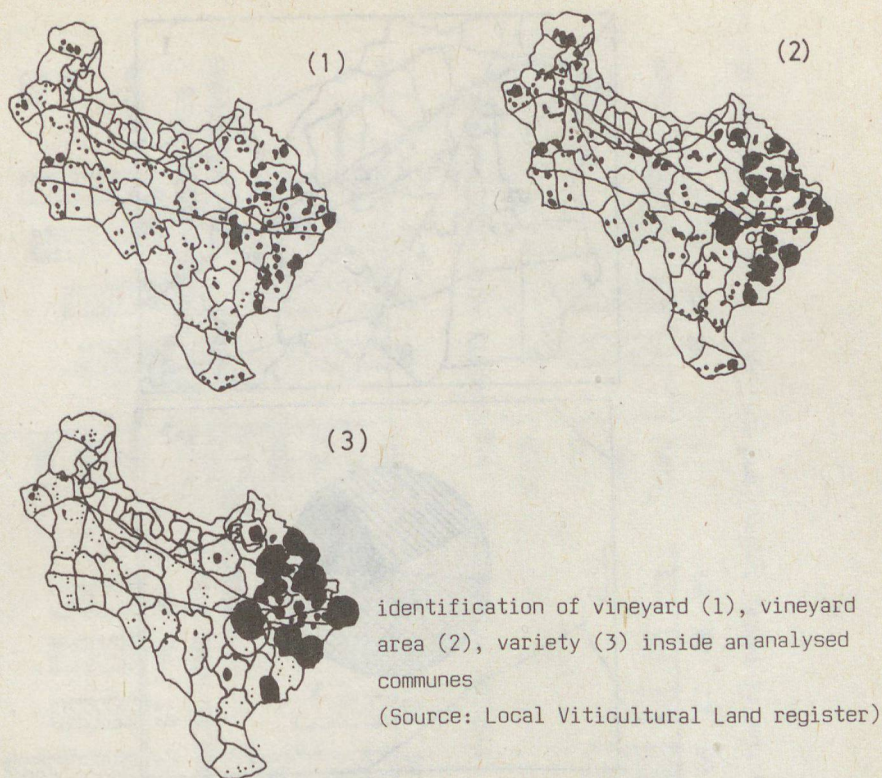


Figure 1. Different graphical representations of collected data

grown variety. Within the commune boundaries each vineyard is represented through with the points.

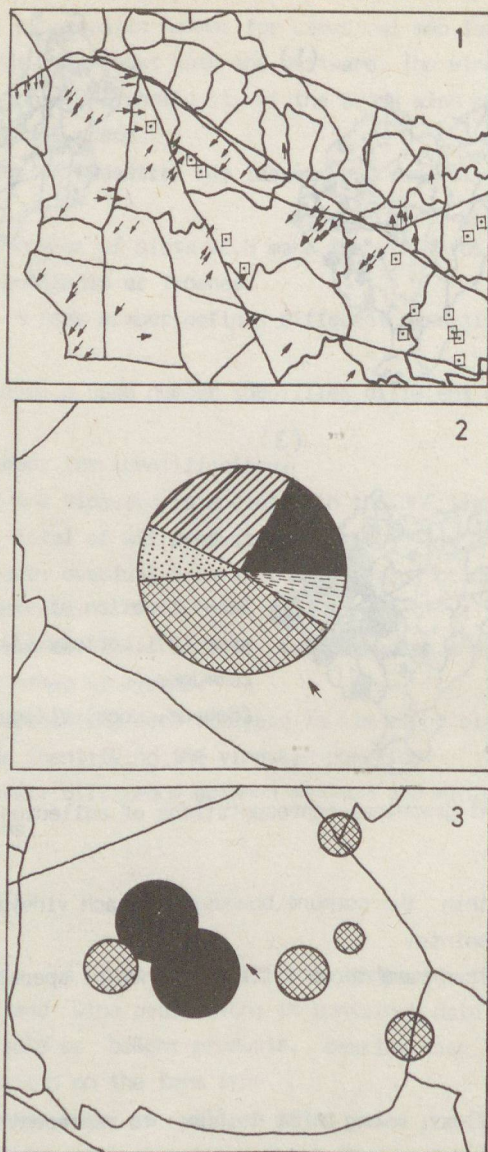
The operator can make three different kinds of operations:

- functions;
- options;
- selections.

This allows, among other things, to represent productive areas, the surface occupied by a definitive variety, the ratio between a definite variety area and the total area.

THE RESULTS: THE DINAMICS OF GRAPE-VINE AREAS AND WINE PRODUCTION (1986-1990)

The results, shown in figs. 3-4, points out at least two tendencies about the wine supply structure of the district.



Identification of vineyard slope (1), percentage of different grape varieties (2), vineyard ownership of each vine-grower

Figure 2. Different graphical representations of collected data

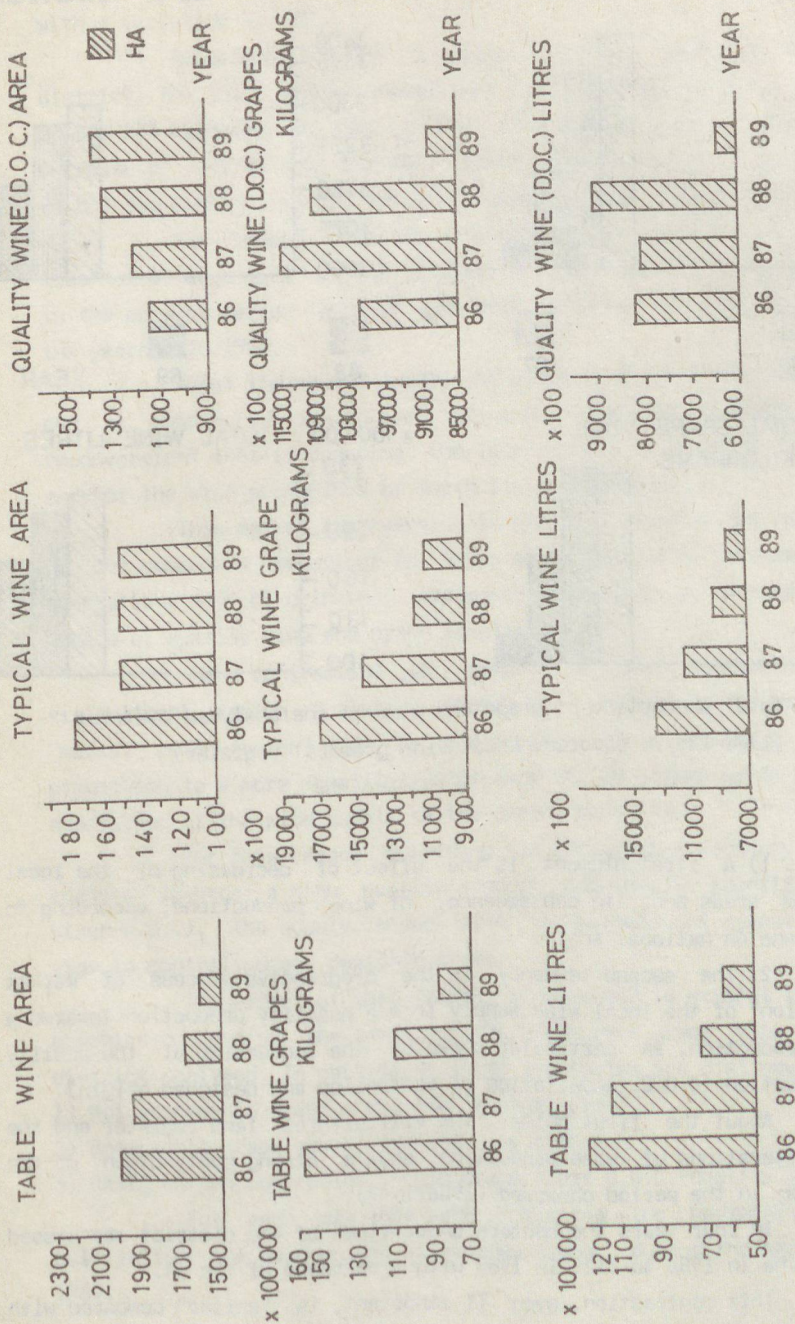


Figure 3. Area distribution and grape and wine production of table, typical and quality wine, in the analysed district (Source: Local vine growers' register)

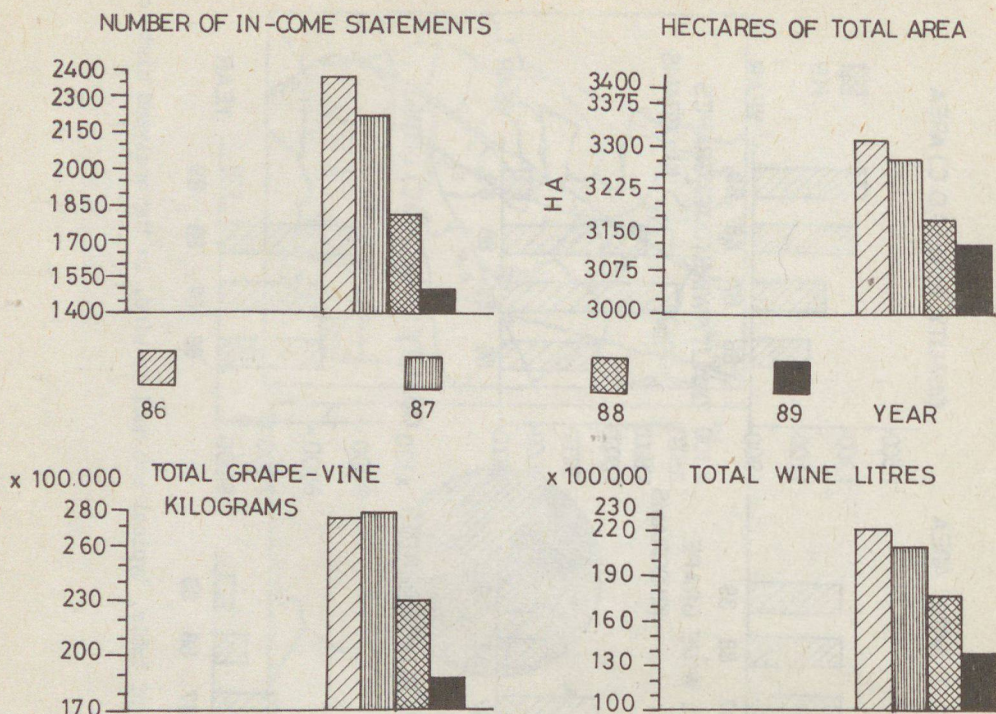


Figure 4. Total production of grape and wine in the analysed district (1986-1989). (Source: Local vine growers' register)

1) A first element is the effect of decreasing of the local grape vine areas and, in consequence, of wine productions, according to what happens on national scale.

2) The second tendency is the progressive process of "market reconversion" of the local wine supply from a quantity production towards a quality production, in particular shown by the increasing of the quality wine production (D.O.C. appellation of controlled and designed origin).

About the first point, the viticultural land register and the local declarations of wine production show a strong contraction of the grape-areas in the period observed (1986/1989).

In four years the hectares under vines of the district are passed from 3310 ha in 1986 to 3125 in 1989 with a decrease of the 6%.

This contraction, even if important, is "softer" compared with the decrease that had characterized the period between 1970 and 1982 when

the grape vine areas passed from 7 883 ha of the 1970 to 5 921 ha of 1982 with a variation of -25%.

According to the decrease of grape area in the analysed district, the total grapes production has registered a strong "fall" from 27 000 000 kilogram in 1986 to the 18.700.000 kilogram in 1989, with a decrease of -31,8% ; at the same time, the wine production is passed from 22 000 000 litre to 13 500 000 litre with a variation of -38.6%.

The results observed show therefore an effect of "definitive loss" of a large part of the local grape vine area, that is going on even in the present period even if with more moderate proportion compared with the years 1970/1980.

About the second point, the process of grape vine areas decrease can be considered as a part of a more generalized process of "market reconversion" that is crossing the local supply in particular and a large part of the wine production of North Italy in general.

This market reconversion is directed towards the new tendencies of the consumers behaviour in terms of wines; less consume but a more specialized way of drinking, expressed in particular through a stronger demand of quality wine and brand identification.

The contraction of grape and wine productions on the viticultural region analysed, therefore, accords with the process of "market reconversion" made by the local supply from a quantitative production to a more qualitative product or, in other words a progressive adaptation of the wine supply to the demand requires.

For this reason, according to the growing tendency of the wine consumer towards a high quality product and easily identified (like the wines D.O.C), the supply answer with an increase of investment in grape vine in controlled and designed areas.

The effect of this "supply convention" is evident in the present graphics concerning the trend of the different grape vine areas in the district analysed. In particular three typologies are distinguished:

- 1) Not geographic grape areas (table wine areas).
- 2) Geographic grape areas (typical wine areas).
- 3) Designed and controlled origin grape areas D.O.C.(quality wine areas).

For each of them are indicated the hectares of grape vine cultivation, the grapes and wine productions, during the period 1986 and 1989.

The first typology has lost, in few years, more than the 20% of its area, passing from 2 000 ha of not-geographic area in 1986 to 1600 ha in 1989. The same trend is observed for the respective grapes and wines production, the first passed from 15 000 000 kilogram in 1986 to less than 9 000 000 kilogram in 1989, with a decrease of -40%, a similar decrease is registerted for the wine production which was reduced of the half in 4 years, passing from 12 000 000 litres to 6 000 000 litres.

On the contrary the grape vine areas under geographic indication have kept their position in the period analysed, with a restricted but steady area of 150 ha that represent about 5% of the total wine district.

In term of grapes and wines production the trend shows anyhow a strong decrease due to the weather conditions in those years and to the tendency of a stronger selection of grapes used for wine production.

The third typology, in particular the designed and controlled origin grape areas, show a continuous and high increase, passing from 1100 ha in 1986 to 1 300 ha in 1989 with a variation of 15%.

In term of grape and wine productions the results are less continuous, because of the weather conditions particularly in the year 1989, when the wine production of the district was badly damaged by a hail.

Except this "exogenous" reason, the trend of the designed and controlled wine supply confirms the tendency towards an increase of quality production.

This tendency appears more and more dynamic and therefore it is getting harder and harder to analyse and understand the phenomena.

For this reason the use of the local viticultural land register can give useful information not only about the local wine production structure, but more generally about the evolution of wine supply and its capacity of answering towards the market request.

REFERENCES

- 1) D.GAETA: "Tendenze in atto nell'offerta vitivinicola provinciale" Rassegna di Viticoltura n.1, Luglio 1989.
- 2) P.VILLA: "Programma per lo studio della vocazionalita viticola del Garda Bresciano" Rassegna di Viticoltura n.1, Luglio 1989.

MARKETING STUDY ON WINE CONSUMPTION IN HUNGARY

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The viticulture has centuries old traditions in Hungary. Till 1920 Hungary was the second biggest wine exporter over the world. That time the technology of the grape growing and wine making was up to date. Since then our position in this field changed for the worse because:

- after the 1st World War lot of vineyards got out of Hungary and the domestic market was reduced to one-third,
- in the last 40 years the economic policy was against the developing of the real wine market in Hungary and in COMECON as well,
- from the end of 40s the consumption of the alcoholic drinks changed. So the consumption of beer and spirits increased, but the wine consumption decreased. In the latest 30 years the wine consumption changed as you see in Figure 1.

Nowadays, in Hungary the wine market is taking shape with its overproduction and competition. Starting from the fact that the consumer research is the basis of the wine makers' marketing strategy, we analysed the domestic wine market.

We studied the connection between wine products and buyers. So we try to answer the next questions:

- What are the Hungarian buyers like?
- How can we divide the consumers into groups?
- Which feature of wine does motivate the buyers?
- Are the consumers satisfied with Hungarian wines?

The marketing study on Hungarian domestic wine market began by the report on wine consumption and buyers habits in winter holidays of 1988 year. Including wine and sparkling wine data sheet investigation has produced 2245 data of 3 different character shops, figured by age, male-female rate, type of goods and their categories. The first shop is a

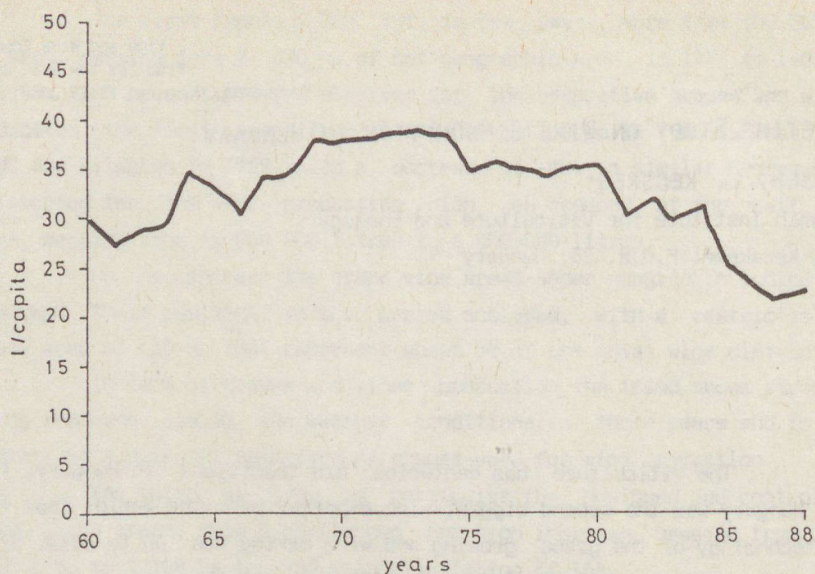


Figure 1. Wine consumption in Hungary 1960-1988

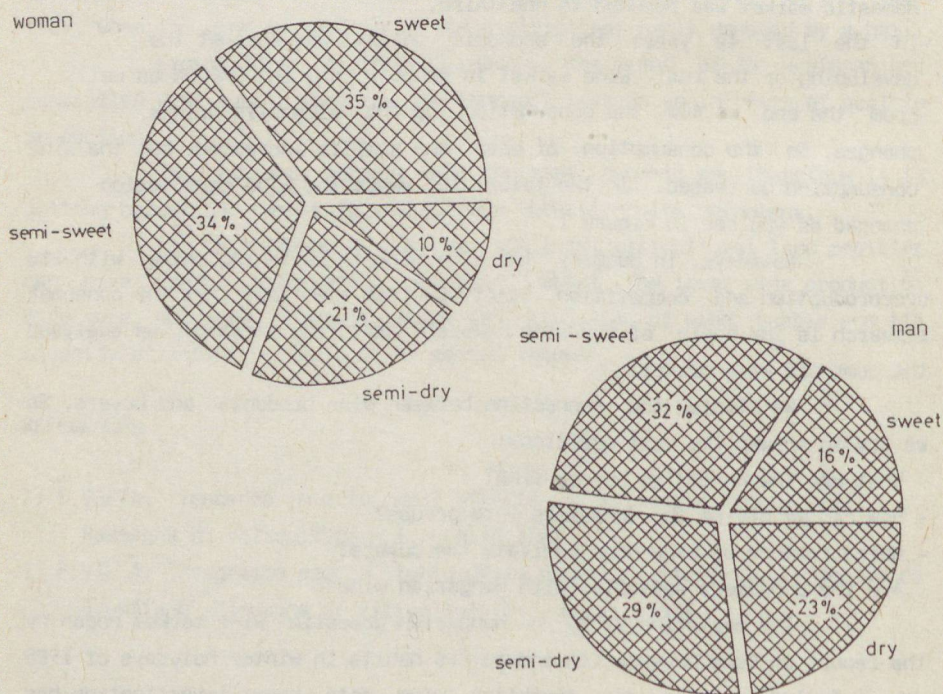


Figure 2. The consumption of different wine-types

supermarket in Kecskemét, the second is a wine shop at Kecskemét and the third is a wine shop in Budapest. Each of them has different character so different wine assortment and costumers.

In the second study we made a questionnaire and asked 4500 buyers. We have received 1032 appreciable answers. The rate of the answer 22.9%. The questionnaire included 16 questions being answered by choice. In the poster we try to give a global analysis of the Hungarian wine consumer on the basis of two studies.

THE CONSUMPTION OF DIFFERENT WINE TYPES

In the paper we present the results breakdown by sex. Figure 2 shows the buying rate of the wine types. 70% of the women buy sweet and semi-sweet wines, one-fourth of them prefer the semi-dry ones, while 10% of them give preference to dry wines.

Few men like sweet wines. The number of men preferring semi-sweet wines is surprisingly. More than half of the men buy semi-dry or dry wines.

THE WAY OF BUYING

We differentiated 5 catagories as follows:

Look for brand: The buyer likes a wine-brand, she/he insists on it and she/he looks for it.

Look for wine type: The buyer looks for sweet, semi-sweet, semi-dry, dry wines.

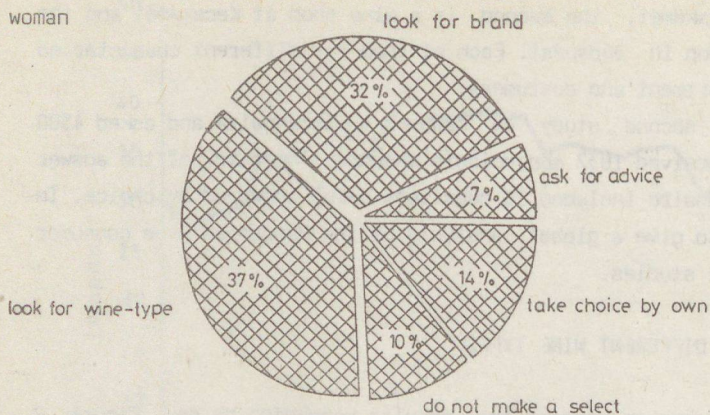
Ask for advice: The buyer has no idea about wine, she/he trusts in the shop assistants' advice.

Take choice by own: The buyer has a look at the assortment of the shop and chooses alone.

Do not make a select: The consumer wants to buy a bottle of wine and it does not matter what type, brand, grape variety, etc.

Figure 3 shows more men looking for brand or wine type than women. There is no great difference between sexes in categories "ask for advice" and "take choice by own". On the other hand 10% of women do not make a select opposite to 6% of the men.

woman



man

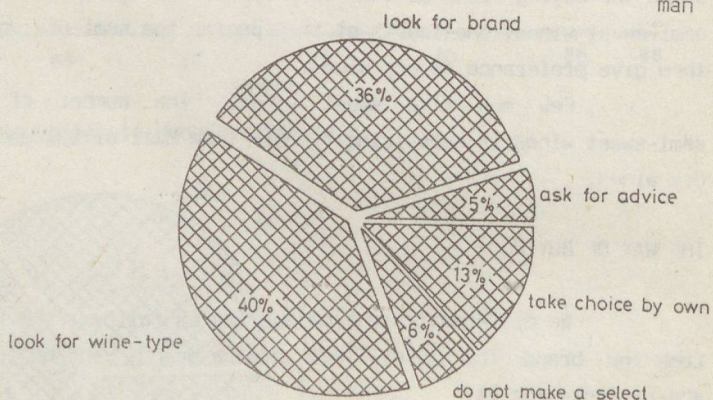
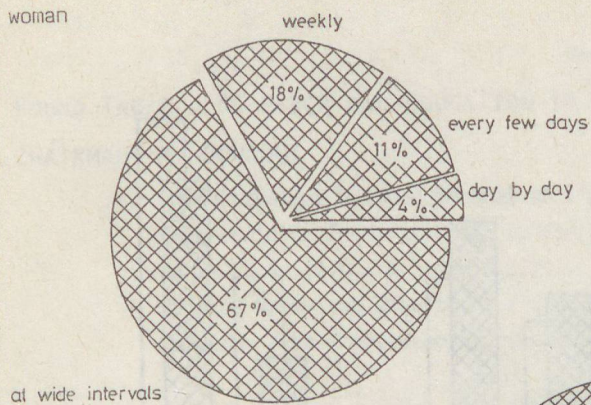


Figure 3. The way of buying

FREQUENCY OF WINE CONSUMPTION

Very different the frequency of wine consumption in the sex groups. 24% of the men admit they drink wine day by day opposite to 4% of women. The most men drink wine every few days. The women have 11% in this category. Almost the same the rate of the sexes in the "weekly" group. 67% of the women drink wine rarely. Only one-fourth of the men belong to this category (Figure 4).

woman



man

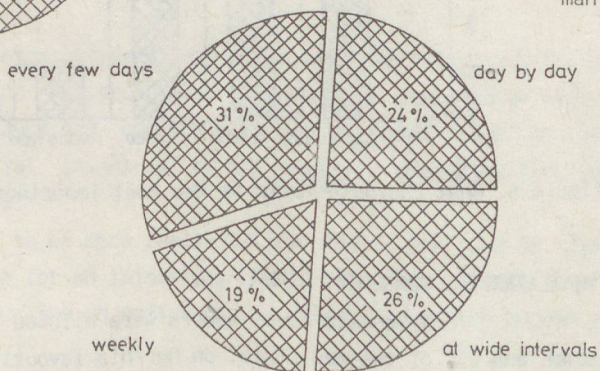


Figure 4. Frequency of wine consumption

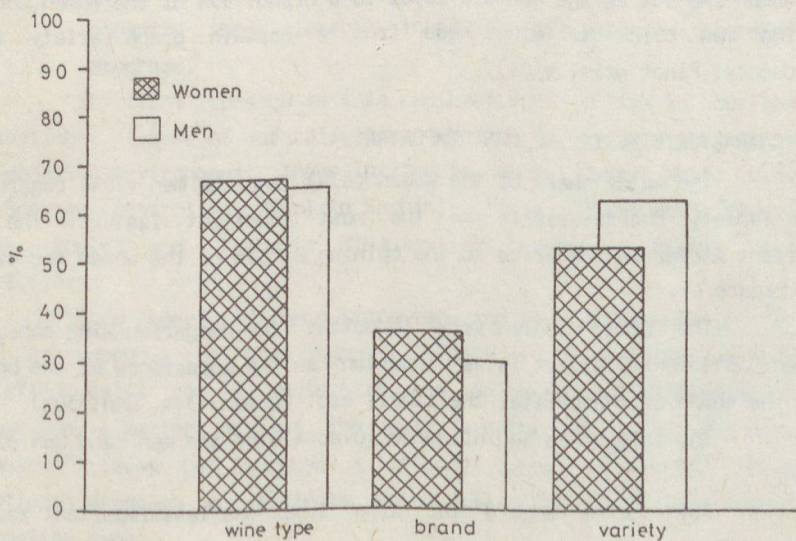


Figure 5. What does the consumer insist on?

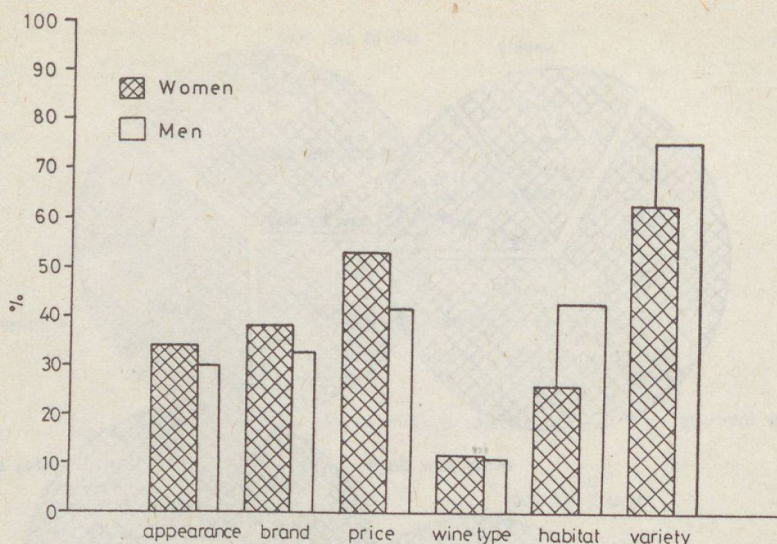


Figure 6. What characteristic is the most important?

WHAT DOES THE CONSUMER INSIST ON?

In this case more answers were allowed to choose. So 67% of the women and 65% of the men insist on her/his favourite wine type (Figure 5). We can find a little bit bigger difference at being loyal to brand. 36% of the women and 30% of the men are loyal to a brand. 53% of the women and 63% of the men stick to wine made from a certain grape-variety (e.g. Chardonnay, Pinot gris, etc.).

WHAT CHARACTERISTIC IS THE MOST IMPORTANT?

The major share of the women (63%) and the men (75%) regard the grape-variety characteristic as the most important feature. The next important factor is the price in the opinion of 53% of the women and 42% of men (Figure 6).

The brand is not very important for Hungarian wine consumers (women: 38%, men: 33%). It is as important as the appearance of the bottle e.g. the shape of the bottle, the label, etc. (women: 34%, men: 30%).

The origin has an influence over 43% of the men and 26% of the women.

Both sexes regard the wine type the less important feature (women: 12%, men: 11%).

ROUND TABLE : RESEARCH AND EDUCATION IN WINE ECONOMY

CHAIRMAN: M. BOURQUI

Administrateur Délégué Général de l'Association
Universitaire Internationale du Vin et des Produits
de la Vigne (A.U.I.V.) c/o O.I.V.
Head of Marketing Department / Ecole Supérieure de
Commerce / Le Havre-Caen. / France

When Péter Botos offered me to coordinate this round table discussion on Education and Research in Wine Economy, I resisted my early and basic desire to produce and comment here in Kecskemét "some kind of tentative project of partial inventory" of the programs and activities as developed around the world.

Considering it to be more realistic and more in the mood of this gathering to offer a space for an informal exchange about our scientific or professional ways of life. The objective of our session has then become a twofold exercise:

- identify the elements which could ameliorate our situation as macro or micro economists specialized in wine and vine issues,
- organize these elements in action programs and coordination programs.

The first approach to this systematic reflection is nourished by the testimony of some of our colleagues who try to evaluate their research and education environment. Those invited to do so: Jerry White (U.S.A.), Tony Spawton (Australia), Maurizio Sorbini (Italy), Péter Botos (Hungary), Daniel Boulet and Francois d'Hauteville (France), Michel Bourqui (A.U.I.V.).

Some experts of these improvised and lively presentations can be found as appendix to this summary. Their very approximative level of completion calls for a systematic and on-going information gathering process. As a matter of fact, the newly created O.I.V. Experts Group on "Formation" issues has launched a research questionnaire about existing educational programs and projects which will usefully help filling these information gaps.

In the meantime, the commented facts supplied by our colleagues enlightened the need for a comprehensive approach to the present situation, and the main conclusions of the exercise are easily drawn.

- Wine economists are not accustomed to scientific exchange with other environments (countries or fields). Communications within national systems is not even developed enough.
- Educators and researchers constitute a dangerously small number of part-time specialists.
- There is no permanent inventory of initiatives.
- There is very little support from the firms.
- Panel results and market research findings are not always available to researchers.
- No dynamic networking approach exists.
- Cooperation programs at national or international level are, strangely enough, underdeveloped considering the transnational exchange activity of the business field.
- Education programs in wine management sciences are scarce.
- The O.I.V. Commitments in these issues by way of, for example, the A.U.I.V. are highly appreciated and required.

Mr. Robert Tinlot, Director of the O.I.V., stressed the importance and gravity of these findings, especially in the view of the environmental factors applying pressure on our field, and expressed the formal support which O.I.V. is willing to give in order to enhance a better and stronger cohesion among the experts worldwide.

It is thus proposed and unanimously decided to produce here a letter of intent which will be presented as a project for a resolution of the O.I.V. General Assembly.

The participants of this round-table agreed on the following text initially edited in French, including the main outcome of the Symposium and the desired involvement of the present group of researchers in future common programs.

Appendix

1: Gerald B. WHITE, U.S.A.

2: Tony SPAWTON, Australia

- 3: Maurizio SORBINI, Italy
- 4: Daniel BOULET, France
- 5: Péter E. BOTOS, Hungary

U.S.A.

RESEARCH AND EDUCATION IN THE WINE SECTOR OF THE UNITED STATES

By G.B. WHITE

Three universities in the United States have continuing programs of research and education relating to the economics of the wine and vine economy. These are the University of California, Berkeley, California, Dr. Kirby Moulton; Washington State University, Pullman, Washington, Dr. Ray Folwell; and our program at Cornell. These three universities also have extension programs, or educational programs, or for growers and winery managers.

Other universities, which are too numerous to mention, periodically conduct wine and vine economic studies.

There are not, to my knowledge, any graduate courses per se regarding the wine or vine economy in the United States. Rather, a graduate program would consist of courses in economic theory, business, quantitative methods, and statistics. Specialization would normally occur with the writing of a thesis on a wine economy topic. There has been international collaboration in training of graduate students and researchers with the University of Bologna under Professor Maurizio Sorbini. Students and researchers from Bologna have studied at Washington State and at Cornell.

There are a few undergraduate programs dealing with some aspects of the wine economy - are usually organized around wine marketing themes. One can find such courses in community colleges and state colleges on New York and California and probably other states as well.

Research into the wine and vine economy has been conducted in the following areas:

- Grape costs and returns;
- Investment analysis of new plantings or wineries;
- Consumer demand studies;

- Marketing strategies;
- Export marketing potential; and
- Competitive position of the U.S. industry.

There are several firms in the private sector which conduct research into the wine economy, especially with respect to marketing. There is a charge for the services and data from these firms.

An area of needed research is the economics of organic production of grapes and wine. The current public interest and concern with pesticides and food safety is not a temporary phenomenon.

AUSTRALIA

By T. SPAWTON

WINE ECONOMY RESEARCH IN AUSTRALIA

Viticulture

Australian Wine Grape Exchange which surveys and reports on the conditions on the annual vintage.

The Australian Bureau of Agricultural Economics

A Forecast of Grape Supply

Grape Purchase Simulation Research and Experimentation

The Centre for Experimental Economics
University of Adelaide

Consumer Behaviour

Company research

taste testing

packaging

label development

Academic

Research in the importance of expert tasting and perceptions and communication on consumer behaviour.

Francis Edwards, Griffith University, Queensland.

University of South Australia

Masters of Business by Research

1. Success Factors for Small Winemakers
Tony Welch
2. The Importance of Branding in the International Wine Industry
Byron Sharp
3. Appellation Control Systems and their influence on Marketing decision making .
Anne Sharp
4. The export success factors for small and medium sized winemakers
Tony Spawton

Social Research in Alcohol use its affects on Health

Dr Terry Lee, Australian Wine Research Institute.

WINE ECONOMY AND MARKETING EDUCATION IN AUSTRALIA

Viticulture and Enology

Charles Stuart University
University of Adelaide-Roseworthy Campus

Wine Marketing

University of Adelaide-Roseworthy Campus
University of South Australia Bachelor of
Business Elective

Executive Training

Australian Wine and Grape Marketing Development Centre

ITALY

By M. SORBINI

There are several viticultural and enological courses at University level and also several high schools specialised in the subjects. However, the economical aspects in these courses are not really developed. Only the C.R.I.V.E. (Center for Research on Viticulture and Enology) has a specific economic section (Sezione Economica - chairman M. Sorbini) that is developed and has a large tradition on economic studies in Viticulture and Enology. The Center is in connection with the College of Agriculture - Istituto of Economia e Politica Agraria, University of Bologna.

Other researchers are located in various University's Centers in different regions of Italy. They are:

- Prof. Francesco Bellia, Dr.G.Laofa - University of Catania
- Dr. Davide Gaeta - University of Milano
- Dr. Gianluca Stefani - University of Firenze

They study different aspects of viticulture (specialization structures, grape supply and grape processing cost, wine supply and consumption).

Sponsors of these studies are generally public institutions (National Government, Local Committee or others) and sometimes private firms that finance these researchers for studies on marketing problems.

FRANCE

By D. BOULET and F.d'HAUTEVILLE

Research

INRA (Institut National de Recherche Agronomique)
centers in Montpellier, Toulouse, Paris 5-6 Researchers

Universities

Montpellier 2 Researchers
Centre Francais du Commerce Extérieur

Office National Interprofessionnel des Vins (ONIVINS)
Institut National des Appellations d'Origine

Education

Bac + 2 years of University studies = Brevet de Technicien Supérieur
Bac + 3 = Diplome de Technologie Approfondie en Gestion et Marketing Vitivinicole (Grenoble)
Bac + 4 = ENITA (Nantes)
Bac + 5 = ENSA DEA Mastere Formexa

Doctorates ENSA
Universities

N.B. Centre Interdisciplinaire d'études vitivinicoles
(Daniel Boulet, Montpellier)

HUNGARY

By E.P.BOTOS

In Hungary the compact research and education in wine economy and marketing have not recorded a long story. In spite of their importance the specialized courses and post-graduated education have recently been developing. Up till now there was no important international collaboration in these fields. Now it turns better, more choices, clearer and more specific courses are available, more intensive collaboration among institutes and universities as well as farmers is developing. International projects and comparative studies are much more expected than ever before.

The research is supported by the state as well as state and cooperative farmers and their associations. Above all there are three centers of education and research in wine economy and marketing as follows: Institute of Economics at the University of Horticulture and Food Industries in Budapest, Research Institute for Agricultural Economics in

Budapest and Main Department for Economics of the Research Institute for Viticulture and Enology in Kecskemét.

Education

- University of Horticulture and Food Industries, Institute for Economics, Budapest, 3 years including wine economics and marketing
- Horticulture High School, Kecskemét, 1 year including some specific matters on wine economics and marketing
- Budapest University of Economics, Budapest, 3 years including wine economics and marketing as joined subjects

Post-graduated courses

- 2 years at the University of Horticulture and Food Industries for horticultural economics and marketing including wine as well
- 2 years at the Budapest University of Economics for agricultural economics and marketing including less wine as above

Note: these courses started app. 5-6 years ago

Research

- Research Institute for Viticulture and Enology, Kecskemét
These projects are focused on wine economics as well as marketing
- Research Institute for Agricultural Economics, Budapest
- The University of Horticulture and Food Industries
These projects are focused on agricultural problems, wine is only partly involved

Scientific papers

- University doctoral thesis at the universities after getting diploma working on a field of wine economy and marketing
- Scientific academic thesis at the Hungarian Academy of Sciences

CONCLUSIONS AND RESOLUTIONS

R. TINLOT

Director of O.I.V.

It is really difficult to summarize the scientific work of such a meaningful symposium as it took place here in Kecskemét city, simply because we have listened to so many high level lectures, rich in information.

Four continents and 13 countries were represented by 33 lecturers from both East and West. The topics and papers were very colourful, exciting in the field of wine economy and even of politics thanks to the O.I.V.

This symposium proved a special opportunity for the participants to get to know the Hungarian wine sector and its economic situation.

We are going to highlight some remarkable questions, which have caught our attention over the past few days.

1, The World Market Tendencies

The decline in wine consumption seems to have stabilized in the table wine category. This means that interest in quality, including appellation origin controlled wine, is greater. Due to this fact most producers, are changing vineyards to quality wine production and the A.O.C. system is developing.

Different countries hold different points of view with regard to this fact, but we can find, the appellation of geographical origin can be regarded as a special means of evaluating viticulture. It is a simple indication of origin, controlled geographical appellation where at least one character exists what is the origin in accordance with the O.I.V. or the Lisbon Agreement. The big wine producing countries: Italy, France, Spain, Hungary, U.S.A., Germany etc. are in agreement with the concept

appellation origin control as well as indication of geographical origin.

2, New Situation

Both new (U.S.A., Australia ...) and traditional (France, Italy, Spain,...) consumers prefer "quality" wine at higher price in most cases with an indication of geographical origin.

The political and social changes in the Middle and Eastern European countries have greatly affected, the wine market. The Soviet Union imported a lot of bulk wine as part of barter trade. Then it stopped and now it is about to import again, increasing the quantity gradually and including quality products as well. Hungary has reconstructed the vineyards damaged by winter frost during the past few years and has orientated itself towards the hard currency market mainly towards the E.C. as other Eastern countries have done.

A reunited Germany means 17 million new consumers for the Western producers. Altogether the 400 million consumers in the wine market help us to believe in increasing consumption in the future due to the wine world market competition with convertible currencies and rising living standards. On the other hand there is a lack of information, unsufficient amount of market studies. Economists and market experts are working separately.

3, Economist for the Wine Sector

In fact there are only a few economists and specialists working in this area. They operate without daily contact with each other. There is need expressed here at the symposium to organize meetings for these experts from time to time so as to develop collaboration, to help them understand each other and to work out international solutions to the problems of the wine sector.

4, Education

We must stress the importance of education for the wine business and marketing. Both for developing and highly developed countries as an open international education system is expected to start. This is in accordance with Charter of Bologna signed by most European universities and with O.I.V. aims despite the newly born anti-alcohol programmes in some countries which query the position of wine in the modern social society.

INTERNATIONAL SYMPOSIUM ON VINE AND WINE ECONOMY

25-29. 06. 1990. Kecskemét, HUNGARY

After the 14 lectures from 13 countries, and the discussions led by chairmen,

WE CONCLUDE

that there is a greater interest by consumers in quality wine, with geographical indications, and especially in origin controlled wines.

WE STATE

the importance of meeting like this so that economists and marketing experts can study the wine economy, and change ideas.

WE REMIND

colleagues that the O.I.V. was the first international organization started post graduate education.

WE ASK

the O.I.V., since this symposium was supported by it,

- to organize symposiums on wine economy and marketing, with invited participants and speakers from all over the world from time to time,

- to take note of the results coming from wine economics, management and marketing sectors,

- to continue its activity in education providing and looking for grants and different way of supporting and organizing meetings for students and scientific workers.

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The symposium was organized to discuss the most important fields of vine and wine economy such as appellation origin control integrations and wine marketing. The meeting, held under the auspices of the O.I.V., was represented by many national and international authorities including the E.E.C.

The latest scientific achievements, marketing strategies and tendencies are covered and proposals have been made to the governments and international organizations for international collaboration in training and research for optimal vine and wine economy management.

The book gives an insight into the present trends of viticulture, useful for the researcher and grower alike.

BOTOS
(EDITOR)

VINE AND WINE ECONOMY

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