Competitiveness Enhancement and
Enterprise Development (CEED)

PRE-STRATEGY ASSESSMENT OF THE MOLDOVAN WINE SECTOR

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CONTENTS

ABOUT THIS ASSESSMENT REPORT

The final assessment report is a very comprehensive and lengthy document. Readers are encouraged to read the entire document from front to back; but as a guide for those readers wishing to focus attention only on particular portions of the assessment report, we have developed short summaries of each section of the document. Underlined text indicates those portions of the assessment report that the CEED team believes are particularly relevant and important for Moldova and its wine industry.

Section I: An executive summary of the entire report, outlining key strategic recommendations made by local and international experts for increasing wine sector competitiveness.

Section II: An introduction of the current situation facing the Moldovan wine industry, and the rationale behind this pre-strategy assessment and a national wine sector strategy.

Section III: A comprehensive review of the global wine market, including production and consumption trends and a breakdown of the major market categories facing Moldovan wine producers; an overview of world wine trade (i.e. imports and exports); a summary of the key difference in regulatory framework of New World and Old World wine producing countries; and critical for Moldova, a thorough assessment of key trends and influences affecting global wine commerce.

Section IV: An overview of the current state of the wine sector in Moldova, from three perspectives: (i) the industry, including viticulture, winemaking, markets and distribution, and the legal and regulatory structure; (ii) wine producers, again examining viticulture, winemaking, and marketing; and finally (iii) sector support services, such as education and training for the labor force and certification.

Section V: An overview and benchmarking of competing wine production nations from Western Europe; New World countries, such as the United States, Argentina, and Australia; and regional competitors Bulgaria, Hungary, and Romania. Each section ends with a presentation of key lessons that Moldova can learn from the experiences, including where each country as done well and where they have not. This section contains many valuable lessons for Moldova, based upon the experience of other nations.

Section VI: A review of the key opportunities and challenges facing the Moldovan wine sector.

Section VII: A presentation of thoughtfully developed recommendations for upgrading the competitiveness of the Moldovan wine sector, including strategic recommendations and short-, medium- and long-term recommendations for the sector; specific recommendations dealing with technical issues covering viticulture, wine making, branding and marketing, the legal and regulatory environment, and sector support.

Annex I: An overview of the wine industries of China and India, and an assessment of the current and future market opportunities in these countries for wine.

ACRONYMS

ACSA	National Agency for Rural Development
AOC	appellation d'origine contrôlée (appellations of origin)
AVA	American Viticultural Areas
INVV	National Institute of Vine and Wine
CAGR	compound annual growth rate
CEFTA	Central European Free Trade Agreement
CIS	Commonwealth of Independent States
EBRD	European Bank for Reconstruction and Development
FAO	UN Food and Agricultural Organisation
GATT	General Agreement on Trade and Tariffs
GSP+	generalized system of preferences
GPRI	Grape Processing and Research Institute
WTO	World Trade Organization
OIV	International Organization for Vine and Wine
IFAD	International Fund for Agricultural Development
NIAO	National Institute of Appellations of Origin
NGO	non-governmental organization
SAWIS	South Africa Wine Industry Information and Systems
SIVAP	State Inspection for the Supervision of Alcoholic Products
SPS	Sanitary and Phytosanitary
TBT	Technical Barriers to Trade Agreement
TRIMs	Trade-Related Investment Measures
TRIPS	Trade-Related Aspects of Intellectual Property Rights Agreement
VQA	Vintner's Quality Alliance
UOM	Union of Moldovan Oenologists

SECTION I

Executive Summary

Moldova-Vin's desire to think strategically about the wine sector is timely given the current situation of the Moldovan wine industry and the changing global wine market. Many of the world's leading wine producing countries are going through a process of strategy development and continuous reassessment. With the survival of the wine industry at stake, this process is urgent for Moldova. The importance of the sector for the Moldovan economy and poverty alleviation is well known; a long list of supporting statistics related to economic growth, employment, industrial output, rural household incomes, and exports show the sector's far-reaching impact both pre-ban and post-ban. Moldova can learn from other countries whose wine sectors fell into crisis (see text box). In each instance government and the private sector worked together to develop and quickly implement short-, medium-, and long-term strategies that eventually turned around the market.

The recommendations in this assessment take into consideration the objectives defined in Moldova's Law of Vine and Wine (see text box), international best practices within the Moldovan context, identification of an advantageous regulatory regime, and the following critical factors:

- The Russian ban, as well as the changing global wine market, offers the wine sector the opportunity—some would say *obliges* the sector—to quickly improve its understanding of new markets, their consumers, and the skills necessary for a competitive wine industry. Ultimately for Moldova the goal should be a more nimble, market-driven sector.

- Even as exports resume to Russia, Moldova has seen damaging effects on its reputation and its commercial aptitude in Russia eroding. Increased competition from other suppliers who established a foothold in the Russian market during the ban period and new Russian stipulations are limiting Moldova's ability to recapture its previous market share. Moldova must identify and ready itself for other markets where it can effectively compete.

- Moldova's wine sector has been built on a mass-production, command-economy model, a model not compatible with the global wine market. Moldova can not be competitive with such an

National Wine Sector Crises Lead to Action

Hungary. Around the time of the 1990 regime change Hungary lost access to its high-volume Eastern-bloc markets causing oversupply. Export volumes fell 70 percent from 1989 to 2002. Producers were forced to find other markets and respond to demand for higher quality wine. Investment and international advice in winemaking techniques meant that Hungary was able to export to new Western markets, reaching a peak of 1.5m hl by 1996. But the country failed to capitalize on this development and has experienced a further decline in export sales in recent years. However, it has developed a strong domestic market that now consumes around 80 percent of all production.

New Zealand. Successful industry results in the late 1970s led to increased investment, hectares planted, land prices, and local interest and pride. By the 1980s, over planting, particularly in the "wrong" varietals that consumers no longer preferred, led to a glut. In 1984 the government paid growers to pull up vines. Many growers used funds not to restrict planting, but to swap out unpopular hybrid and other port and sherry-producing varieties to more fashionable ones (Chardonnay, Sauvignon Blanc).

South Africa. South Africa's wines were shunned by the world during apartheid. With the advent of democracy, the South African Wine Industry Trust (SAWIT) was established in 1999 to promote the exports and transform the industry, focusing on varieties and wines preferred by consumers. As a result, South African wine volumes rose from 22 million liters in 1992 to 282 million in 2005.

Law on Vine and Wine: Overarching Objectives

- Protect the economic interests of the state and society in viticulture and winemaking
- Create adequate conditions for production of commodity grapes, wines, and other must and wine-based products
- Adjust to international requirements in viticulture and wine making areas
- Consolidate the image of Moldova as a country with traditions in viticulture and winemaking, increasing the export of quality wines
- Combat and counteract counterfeiting of wines and of other must and wine-based products
- Improve the wine consumption culture

approach unless wine quality is significantly improved. Moldova must find a new model – one focused on international markets and wine quality starting in the vineyard – for Moldova to secure a foothold in world markets.

- Although Moldova-Vin has developed new strategies in response to the ban, they have tended toward overregulation given Russian and internal quality concerns. This is on top of an already overregulated sector. For example, wineries are required to process dry wines in the same way as sweet wines, leading to loss of color and flavor. Strategies instead must be driven by markets and the wine styles and enhanced quality that those markets demand. Moldova-Vin must find a balance between ensuring quality and supporting commercialization of the wine industry. The Law of Vine and Wine objectives are relevant but a refocus is needed, ensuring that activities, regulations, and strategies support them.

- Competing successfully in the global wine market requires close cooperation and partnership between the public and private sectors. Neither side on its own can ensure that the sector can compete successfully. Both sides must work together to define appropriate roles and responsibilities, as well as sector goals and strategies, including specific actions to be taken.

- Moldova has many of the basic building blocks required for a successful wine sector, but Moldovan wines are not yet well known around the world. This offers an opening to promote the discovery of Moldovan wine; opportunities to discover new wine regions of the world is of great interest to many wine consumers when the taste profile of wines meets their approval.

- Moldova should encourage development of smaller wine companies. Smaller companies around the world are the vanguard of the wine industry, bringing innovation and the ability to react quickly to the changing market.

Strategic Recommendations

Strategic recommendations focus on six areas:

- Crisis management
- Public-private sector collaboration
- Rationalizing and streamlining the role of government
- Legal and regulatory reform
- Domestic market development
- Skills enhancement

Crisis management. No long-term strategy can be implemented when there are significant short-term challenges as a result of an unexpected event such as Russia’s ban on Moldovan wine and its stipulations upon lifting of the ban in June 2007. Most wine producers are currently in crisis management mode and decisions for future investment are impossible while the focus is on taking immediate action for survival. The entire sector is at risk and requires immediate and significant assistance with a view toward balancing quality assurance with the need to commercialize wine. In particular, the government needs to provide support and leadership to develop a strategy in collaboration with the private sector in the second half of 2007. The strategy should aim to streamline legal and regulatory impediments, facilitate debt restructuring, foster investment to bring innovation and increase quality, and assist in export market research and country promotion. The public-private strategy must be developed immediately and include agreed-upon actions to mitigate the crisis. A crisis management committee formed by Moldova-Vin with active, thoughtful private sector representatives should be formed to identify the most pressing needs and ways to provide relief for a period of time that allows the private sector to shift its business model and re-direct its commercial focus. Potential actions and activities for this committee are contained in the section below on short-term recommendations.

Public-private sector collaboration. The wine producers and supporting enterprises must organize themselves and know when to compete and when to collaborate, while the private and public sectors must understand the synergy that comes from working together. And now is the time to collaborate. There is strength in numbers and the world market is too competitive to go it alone. An independent wine producer member association should be created (or identified) to work in tandem with Moldova-Vin. The association should be funded jointly by its members and with government funds. The association would voice issues, could administer promotional funds and lead the marketing effort to promote Moldova wine in internal and external markets. The association should be governed by a rotating president occupied by one of its members and selected by a board of directors comprised of industry representatives voted to the board by member wine producers. A government official appointed by Moldova-Vin should also have a seat on the board. The president and board would set objectives and policy, ensuring that the association serves the interests of the association rather than any specific stakeholder. The board would also hire an industry professional to lead a select number of professional staff who will be responsible for implementing a country brand, collecting and disseminating export market intelligence, and leading the promotional effort in domestic and export markets. The recommended approach was selected based on successful public-private sector collaboration in a number of wine producing countries. It parallels the highly successful Australian model, has some commonalities with the California model, and is similar to nascent organizations in other Eastern European countries that are showing promise.

Rationalizing and streamlining the role of government. Beyond clarifying and rationalizing the role of government in terms of minimizing direct activities in the private sector, clear organizational structure is needed. The wine sector is too important to have multiple government agencies responsible for various aspects of appropriate government support. One agency, Moldova-Vin, should be tasked with all wine sector-related activities. This will reduce inter-agency friction and place full accountability in the hands of one agency to administer financial support, secure quality, negotiate inter-country agreements to overcome trade barriers, and facilitate wine commerce.

Legal and regulatory reform. Moldova’s wine sector is bound by laws and regulations inherited from the Soviet system. They are obsolete and should, in many cases, be annulled. For example, the requirement that a wine producer provides annual production forecasts to the government for each wine type and its packaging limits flexibility to react to changing market demands and entails lost productivity due to the notification and approval process for inevitable divergences from submitted forecasts. In addition, many laws and regulations are overly complicated, duplicative, and/or contradictory. It is critical to simplify, streamline, and harmonize them to bring renewed energy and innovation to the sector. As an example, licensing requirements for wine and spirits producers require revision as many provisions have fallen into disuse, are not necessary, are obsolete, or are inconsistent with the principles stipulated by other laws.

Domestic market development. Moldova-Vin, in partnership with the private sector, must foster domestic wine consumption as part of a strategy to expand wine sales, but also to broaden the wine culture perception that is part of any good export promotion program. As part of a country brand and wine sub-brand, creation of a domestic advertising campaign that encourages commercial wine consumption as an alternative to beer and spirits can be developed. The campaign can take advantage of wine as a part of Moldova’s national identity and pride. Taxes on alcoholic beverages should also be based on degrees of alcohol. Adjusting taxation by increasing taxes on high proof distilled beverages would foster development of the domestic market and support the sector’s growth.

Skills enhancement. Improved education and training for skills enhancement is needed across the sector—from farmers and viticultural managers to winemakers, laboratory technicians, and restaurant staff. Formal, education system viticulture and winemaking programs at universities and colleges need overhauling, while professional and on-the-job training needs to be jumpstarted. This is a long-term effort but many shorter-term initiatives to help revitalize the industry through agricultural extension and professional, short-term courses can be put into place in the near future.

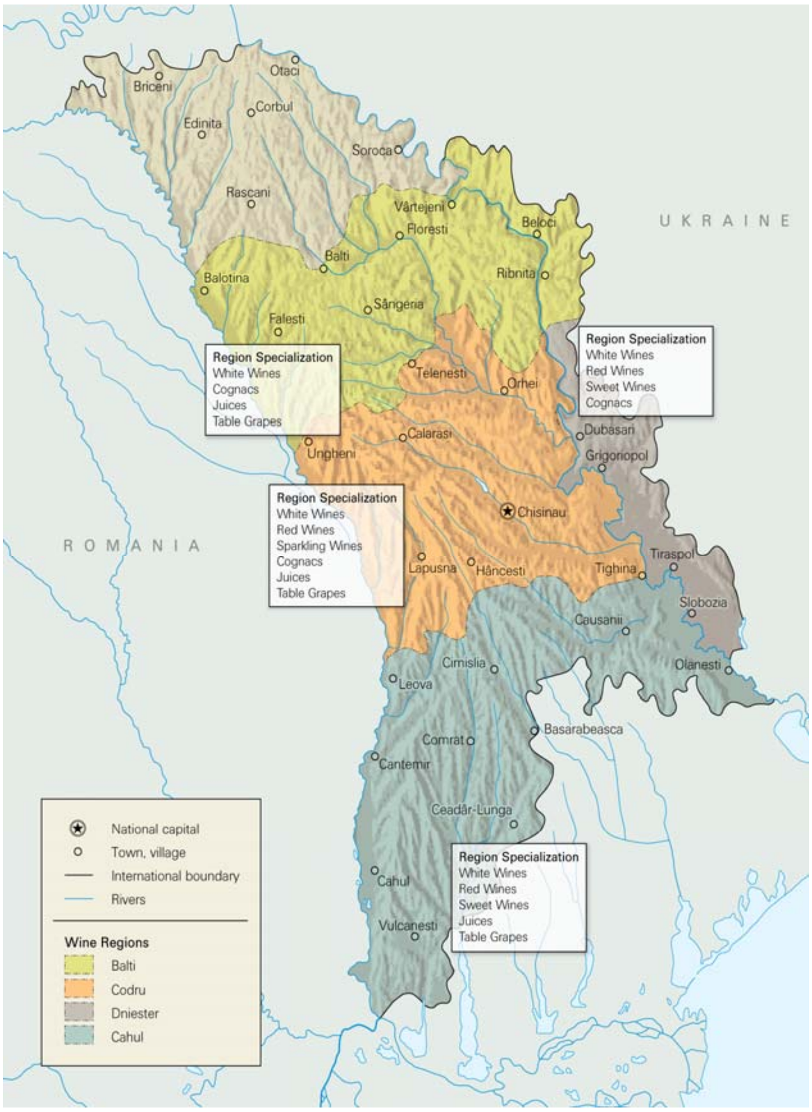
SECTION II

Introduction

Moldova has a long and rich winemaking tradition. Grapes have been grown and made into wine in the area for thousands of years, which is not surprising considering its location near the Black Sea and the Danube Delta and the fact that Moldova shares the same latitudes as the best wine-growing regions of France. Moldova possesses natural advantages for winemaking, which have sustained the wine industry for many years, making it a main supplier of the former Soviet Union. Moldova was known principally for its sweet and semi-sweet wines and aged collection wines from the vast cellars of the state-owned Cricova and Milestii Mici, whose cellars are the world's largest. Moreover, wine exports have been an important source of foreign exchange earnings and employment. Up to 10 percent of industrial and agricultural employment is connected to this sector, larger if considering the entire value chain that includes many small growers. It affects the livelihoods of thousands of small farmers who supply grapes to processors. The sector is an essential part of the economy.

A. External Factors

Exhibit II-A — Wine Map of Moldova



In recent years, the international wine trade has changed significantly. Consumer tastes in the world's largest wine consuming nations have evolved to favor younger wines produced in a dry but fruit-driven style, and New World (non-European) countries, such as Australia, Chile, South Africa, and the United States, have been quick to capture this market. Even some Old World (European) countries are now adapting to these trends in tastes. There is also increased global competition in the industry as retailers are rapidly consolidating and wine inventories are in excess. As a result, many wineries and wine producing countries are reassessing their strategies and spending record amounts to brand and promote their wines and the country of origin via industry associations with government support.

The Moldovan wine industry has been slow to adapt to the evolving international wine trade dynamics in part due to its comfortable position in Russia, which provided an artificial barrier to normal international market forces. A strong cultural and financial linkage to Russian distribution companies strongly favored

Moldovan wine in the Russian market and provided little incentive for Moldova's wine producers to pursue other markets. The barrier fell in March 2006 when Russia imposed an embargo on Moldovan wines over concerns that adulterated products could harm consumers. While Moldova acknowledged some problems with wine quality, it does not acknowledge that the problems are as widespread as Russia's consumer rights watchdog Rospotrebnadzor has alleged. The situation created opportunities for Russian wine companies and others from the region to flood the Russian market, filling the void left by Moldova.

The ban has caused serious damage to the Moldovan wine industry and its economy at large. No market or combination of markets in the world can absorb the quantities of Moldovan wine that exist today, or replace Russia as a market. Moldova's GDP, which was expected to grow by 6 percent in 2006, grew by only 4 percent in large part because of the wine ban and increased gas prices imposed by Russia. Losses for Moldova's largest wineries run into the tens of millions of dollars. And the negative impact on the image of Moldovan wines, while difficult to quantify, has done significant damage. As a result, all Moldova's wine exports slumped by almost half in 2006 with exports of bottled wines down by 58 percent. Moldovan wines have been quickly replaced in Russia by those of Bulgaria and others. By the spring of 2007, wine exports had fallen fivefold[1].

By the Numbers: The Importance of the Sector to Moldova

Pre-Ban

- Roughly 25% of resident population impacted due to number of households that had a member working in sector
- 9% contribution to GDP by wine production in 2005
- 28% contribution to exports in 2005
- 80% of wine produced sold to Russia
- Grape growers had highest, most stable farmer incomes

Post-Ban

- 63% wine production decrease in 2006 from 2005
- $180 million loss in wine sales March 2006-January 2007
- 6.9% industrial production decrease in 2006 from 2005
- 16% contribution to exports in 2006
- 4% contribution of wine production to GDP in 2006
- 4% growth rate in 2006 from 7.1% in 2005, due to ban and increase in gas import prices

Though high-level talks between Russia and Moldova in late 2006 offered hope that Moldovan wines would return to Russia in early 2007, little progress was made until June 2007. Regardless, during the ban and after the recent lifting of the ban, Russia continues to threaten or impose trade-inhibiting obstacles, such as the designation of a single window facility through one wine importer in Russia. Non-tariff barriers include Russia's lack of urgency in approving new certification and other requirements like the insistence on accreditation by one single testing laboratory.

B. Internal Factors

These difficulties are compounded by a new Moldovan wine export regime that has introduced a complex, costly, and time-consuming system. This mandates winery inspections, quality control certificates, authenticity stamp (i.e. state trade mark), prohibitions on label names, and, for the Russian market, a single export/import entry point. Even wines destined for markets that do not require such rigorous controls are subject to them. In addition, the existing laboratory equipment at the single, state-owned testing lab, which can issue VI-1 certificates for the EU market, is inadequate, lacking proper testing equipment, causing long and costly delays. Though the past lack of effective regulatory control to enforce minimum quality standards has been a noted weakness, the new system, introduced in late 2006, is seen as overly complicated and too centralized. The new system is compounding the complexities of the existing system, which is obsolete, contradictory, and opaque.

The embargo-induced crisis in the sector, where wine producers are fighting for survival, is compounded by fundamental, long-term challenges within the entire value chain, ranging from poor

[1] BASA-press News Agency. *Basa-manager* Daily New Bulletin, March 28, 2007.

viticulture practices that damage quality of raw material to inappropriate winemaking equipment and technology, poor hygiene standards, and substandard bottling lines. Moreover, there is a lack of skills and understanding of modern winemaking techniques, wine styles, marketing, and branding as well as an absence of an effective country promotion program supported with public and private funds.

C. The Need for a Strategic Response

There are many challenges facing the wine sector that require strategic planning at all levels with progressive leadership from Moldova-Vin. Opinions vary widely on what the sector's strategic priorities should be. Some hope that Russia will one day fully reopen its market to Moldovan wines while others are searching for new markets, but most seem conflicted by the choices. The Moldovan wine industry was sheltered from competitive market forces for decades, depriving decision makers of the knowledge and skills they need to fully understand the challenges before them and make the necessary strategic choices that will help them overcome this crisis and compete against the world's other great wine producing countries.

Not surprisingly, there is a gap between the public and private sectors' opinions about the way forward. Neither has articulated a viable strategy for the sector. In October 2002 the government developed a *Program for Restoration and Development of Viticulture and Winemaking for 2002-202*0, but in light of the new realities facing the Moldovan wine industry, the plan needs to be reviewed. There is an urgent need for the sector to adopt a long-term plan that factors in international market forces, defines the necessary steps forward and related roles and responsibilities, and articulates a strategy for implementing and financing those steps.

Both the private and public sectors are now expressing openly the need for a comprehensive strategy. On March 29, 2007, Prime Minister Vasile Tarlev said at a joint meeting with Moldova-Vin that the agency should suggest new ideas for sustainable and stable development of the wine industry. He said Moldova needs more than just short-term solutions; it needs a long-term plan. He recommended that Moldova-Vin analyze the situation in the region and Europe and suggest ways for the development of the wine industry to ensure that highly competitive Moldovan products exist for all markets.[2] Meanwhile, the Union of Moldovan Oenologists (UOM) is developing recommendations for inclusion in a comprehensive sector strategy, which they hope to articulate by August 2007. The Union of Moldovan Wine Producers and Exporters has recently agreed to cooperate with UOM in this effort.

D. The Purpose of this Pre-Strategy Assessment

Before embarking on an ambitious strategic planning exercise, the CEED project suggested to Moldova-Vin that policy makers, regulators, managers from private enterprises, and other leading industry stakeholders would benefit from an independent pre-strategy assessment of the wine sector. Moldova-Vin agreed to support such an effort and this pre-strategy assessment was undertaken between May and June 2007. The objectives of the assessment were to:

- Address all aspects of the wine industry value chain from viticulture and winemaking to strategic marketing, incentives for investment, and infrastructure development.
- Examine the quality control system and infrastructure.
- Review the legal and regulatory framework.
- Benchmark Moldova against its regional competitors, including Romania, Bulgaria, and Hungary as well as leading wine producing nations.
- Analyze the investments and strategic choices made in new EU accession countries, particularly those made with the help of EU structural funds.
- Make recommendations for the Moldovan wine sector in light of market realities and international best practices.

[2] Novosti-Moldova new agency. March 29, 2007.

The team of international and Moldovan wine specialists reviewed many documents related to Moldova's wine sector as well as regional and global wine industry reports. They also met with a host of representatives from the sector—from senior policy makers at Moldova-Vin to small producers in their vineyards—to inform and shape the recommendations contained in this assessment. This assessment aims to provide industry leaders with the facts they need to make strategic choices and to catalyze a common understanding of the key issues facing the sector. Specifically to Moldova-Vin, the assessment offers ideas on the ways the agency can help to create competitive conditions and catalyze necessary changes through policy and regulatory reforms, better use and prioritization of state resources, and introduction of other market-based incentives. The assessment is meant to be both objective and independent, the product of outside experts developed with local input.

E. Assessment Structure

The assessment focuses on both the challenges and opportunities post-ban, while offering updated, relevant information on the global wine market, a variety of industry models, and features of successful strategies from other countries that Moldova can consider adapting as part of strategy development and implementation. The assessment is organized to:

- Provide information and analysis at the global (Section III) and Moldovan (Section IV) levels;
- Benchmark Moldova against other competitors (Section V);
- Present Moldova's most pressing challenges and greatest potential opportunities that flow from sections III, IV, and V (Section VI);
- Offer recommendations that Moldova-Vin and other sector leaders can consider as part of developing a new strategy for the wine sector (Section VII);

In summary, the aim is that information and recommendations in this assessment will serve as the basis for future discussions, leading to a wine sector strategy developed, adopted, and effectively implemented by Moldova-Vin in partnership with the private sector.

SECTION III

Global Wine Market Overview

The objective of this section is to provide Moldova-Vin and other readers with information on the global wine market as well as production, consumption, and trade information on Moldova's competitors. Details are also provided on the legal and regulatory aspects of the wine trade, emerging markets for wine, and recent shifts in the global and regional wine trade. Throughout this section historical data is presented to illustrate trends, while forecast data projects coming changes.

A. Wine Production and Consumption

Section A focuses on worldwide wine production and consumption trends and changing patterns.

A1. Wine Production

Vineyard area. Worldwide vineyard area decreased during the last 30 years and plummeted to 7.7 million hectares in 1998, the lowest amount since 1950. This was due to the massive uprooting of vineyards in the Soviet Union after the establishment of the anti-alcoholic laws of the 1980s and the effect of European measures motivating the uprooting of vineyards. Between 1998 and 2002 the situation improved slowly and the vineyard area recorded a small growth of 1 percent annually, reaching and stabilizing at 7.9 million hectares as shown in Exhibit III-A. This was due to three factors:

- A net global decrease of the vineyard planting pace in the southern hemisphere and United States after 2000.
- Limitation of applicability of the EC regulation that financed uprooting of vineyards.
- A slowing in Chinese vineyard planting.

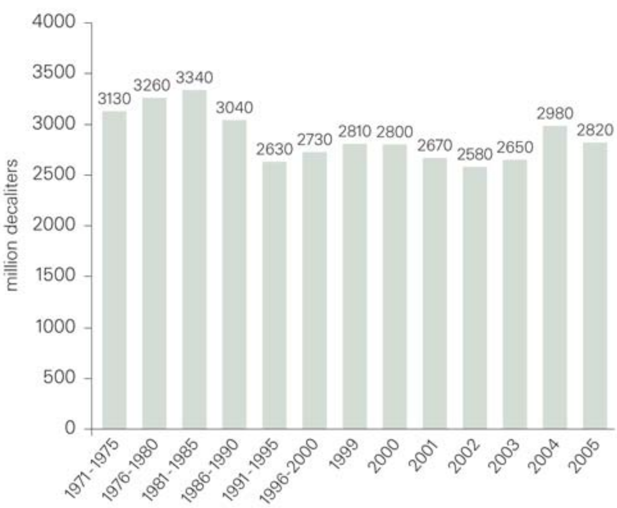
Exhibit III-A: World Vineyard Area

Periods	Vineyard Area, 1000 Hectares
1971-1975	9,961
1976-1980	10,213
1981-1985	9,823
1986-1990	8,852
1991-1995	8,128
1996-2000	7,742
1999	7,763
2000	7,891
2001	7,931
2002	7,955
2003	7,955
2004	7,923

Source: International Organization for Vine and Wine (OIV)

There is no accurate data on the average age of global vineyards; however it is estimated that non-productive young vineyards represent 5 percent of the total vineyard area. In larger European producing countries non-productive young vineyards represent 4 to 5 percent, while in South Africa, Chile, Australia, and New Zealand, young vineyards make up 7 to 12 percent of total vineyard area. In Moldova the young vineyards of one to four years represent 10 percent of total vineyard area.

Exhibit III-B: World Wine Production 1971 to 2005

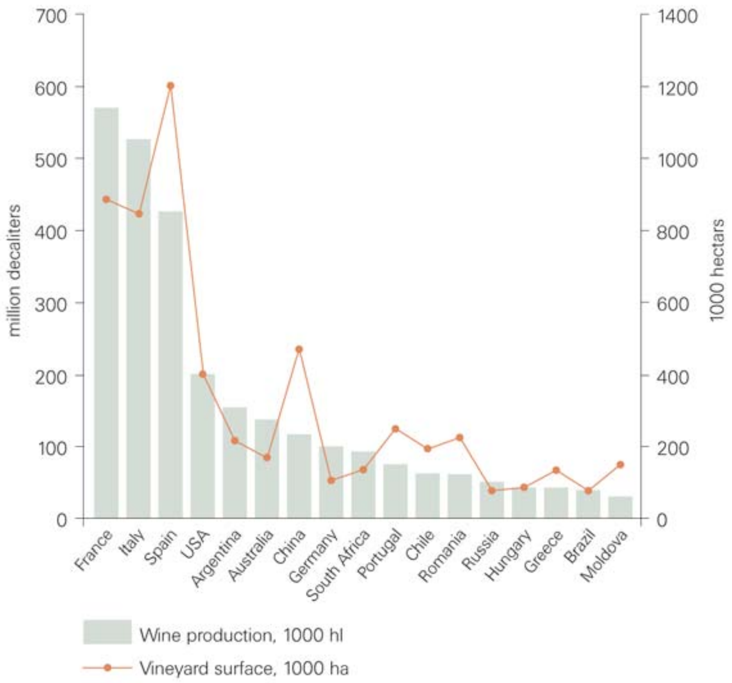


Source: International Organization for Vine and Wine, WINEFACTS, Australian Wine and Brandy Corporation

Wine production. Production has fluctuated during the last 30 years. It suffered a dramatic decrease at the end of 1980s and early 1990s, and has recovered very slowly since then as shown in Exhibit III-B.

Globally, wine showed solid growth in volume in 2004, reaching 2982 million decaliters in 2004, an increase of 12.6 percent from the previous year. This is the highest production volume registered over the last 10 years; however, it is still lower than the volume achieved before 1990. In 2005, global production decreased by 5.3 percent from 2004. Europe, with 2100 million decaliters produced in 2004, an increase of 244 million decaliters or 13.1 percent over 2003, showed a greatest production volume in the last decade.

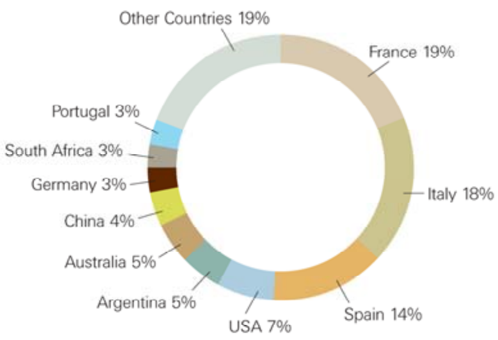
Exhibit III-C: 2004 Production Volume and Vineyard Area for Top Wine Producing Countries



Source: International Organization for Vine and Wine

The five leading world wine producers are France, Italy, Spain, the United States, and Argentina, with Spain having the largest vineyard area as shown in Exhibit III-C. The top ten producing countries account together for 81 percent of global wine production with more than 50 percent coming from the top three producers: France, Italy, and Spain. Moldova occupies the seventeenth position of top wine producers by production volume and eleventh by vineyard area.

Exhibit III-D: 2004 Production Volumes for Top 10 Producing Countries



Source: International Organization for Vine and Wine

Exhibit III-D shows the top 10 producers by country. Europe dominates production of wine, representing nearly 71 percent of the total in 2004. The EU with 25 member countries dominates wine production within the European continent, accounting for 62 percent of the world production of wine. Following closely on Europe's heels was the United States, accounting for 7 percent of the global wine production in 2004, with other countries not exceeding 5 percent. The New World countries included in World Wine Trade Group WWTG (Argentina, Australia, Canada, Chile, New Zealand, South Africa, and the United States) represent approximately one fourth of the global wine production. Moldova contributed 1 percent to the global wine production volume, although its vineyard area represented almost two percent of the global figure.

A2. Wine Consumption

While global wine production has decreased significantly during the last 30 years but started to increase since 2002, wine consumption registers similar trends. Consumption began to increase at the beginning of the 1990s, stabilized, and then started to grow gradually since then.

Surpluses. Production has often exceeded consumption throughout the past 30 years as shown by country in Exhibit III-E. The year 2004 registered a surplus of 610 million decaliters, a volume only once previously recorded at the end of 1990s. This surplus was due to a combination of factors: recently planted vineyards had started to yield and favorable global climate conditions, especially compared with the previous years, resulting in higher yields. Wine surpluses were used for distillation, other industrial products such as vinegar and vermouths, and/or remained in stock to be sold during the following years. Generally, production-consumption differences are common, putting pressure on wine producers to compete for domestic and foreign market consumers, as well as importer and distributor interest.

Exhibit III-E: Global Wine Production and Consumption

Periods/Years	Production Million Decaliters	Consumption Million Decaliters	Difference Million Decaliters
1971-1975	3131.15	2803.56	327.59
1976-1980	3260.46	2857.46	403.00
1981-1985	3335.52	2807.18	528.34
1986-1990	3041.92	2402.44	639.48
1991-1995	2630.92	2238.77	392.15
1996-2000	2725.17	2248.04	477.13
1999	2808.47	2246.60	561.87
2000	2799.93	2247.91	552.02
2001	2666.41	2268.63	397.78
2002	2578.64	2285.67	292.97
2003	2647..0	2352.39	294.91
2004	2981.70	2369.60	612.10

Source: International Organization for Vine and Wine (OIV)

Major consumers. The global wine market generated $213.8 billion of revenue in 2005, representing a compound annual growth rate (CAGR) of 2.6 percent for the five-year period from 2001 to 2005. Europe as a regional block is the main wine consumer, reaching 1610 million decaliters in 2004, or 67.9 percent of global wine consumption, compared with 73.8 percent at the end of the 1980s. The EU-15 with 1290 million decaliters of wine consumption shows a progressive decrease in wine consumption led by France, Italy, and Spain.

The Americas with consumption of 478 million decaliters in 2004 showed a small decrease of 0.6 percent compared with 2003, even though overall consumption in the United States increased by 2 percent. This is explained by the continuous decrease of wine consumption in Argentina. Asia consumed 169 million decaliters in 2004 (an 11 percent increase from 2003) led by China with 134 million decaliters. Asia represents an important growth source for world wine consumption, yet per capita consumption remains fairly low by wine consuming country standards. Wine consumption in Africa reached 61 million decaliters in 2004, a minor decrease from 2003 and in Oceania 52 million decaliters, a 3.8 percent increase from 2003 with growth registered in Australia and New Zealand.

The top wine consuming countries by volume are shown in Exhibit III-F. France and Italy are the world largest producers *and* consumers of wine. Almost all of the top consuming countries are top producers as well and depend very much on domestic market consumption.

Exhibit III-F. Top Wine Consuming Countries, Million Decaliters

	1986-1990	1991-1995	1996-2000	2002	2003	2004	Trend
France	417.15	373.10	353.05	348.20	340.81	311.41	↘
Italy	366.21	351.22	319.50	277.09	293.43	283.00	↘
U.S.	207.91	187.59	208.14	225.38	238.01	243.08	↗
Germany	183.84	185.44	192.79	202.72	197.35	195.93	↗
Spain	174.02	154.39	144.27	139.60	137.98	138.98	↘
China	27.39	50.98	98.58	114.70	115.86	132.86	↗
Argentina	178.04	157.20	128.99	119.88	123.38	111.13	↘
UK	60.39	65.42	81.39	99.16	106.62	107.29	↗
Russia	N/A	64.87	45.65	64.04	86.82	101.59	↗
Romania	67.77	52.72	59.68	49.64	50.50	58.00	↘↗

Source: International Organization for Vine and Wine (OIV)

However, as shown in Exhibit III-G, wine consumption in the traditional wine producing countries (France, Italy, and Spain) decreased significantly over the last 30 years, while the United Kingdom, Russia, and China registered positive trends. Specifically, looking at alcohol consumption changes over a 30 year period (1970 to 1999) consumption in Italy fell by 44 percent, France by 34 percent, and Spain by 15 percent, although this decline appears to be stabilizing at last. In the United Kingdom, however, alcohol consumption has grown by 52 percent since 1970, fuelled by wine.

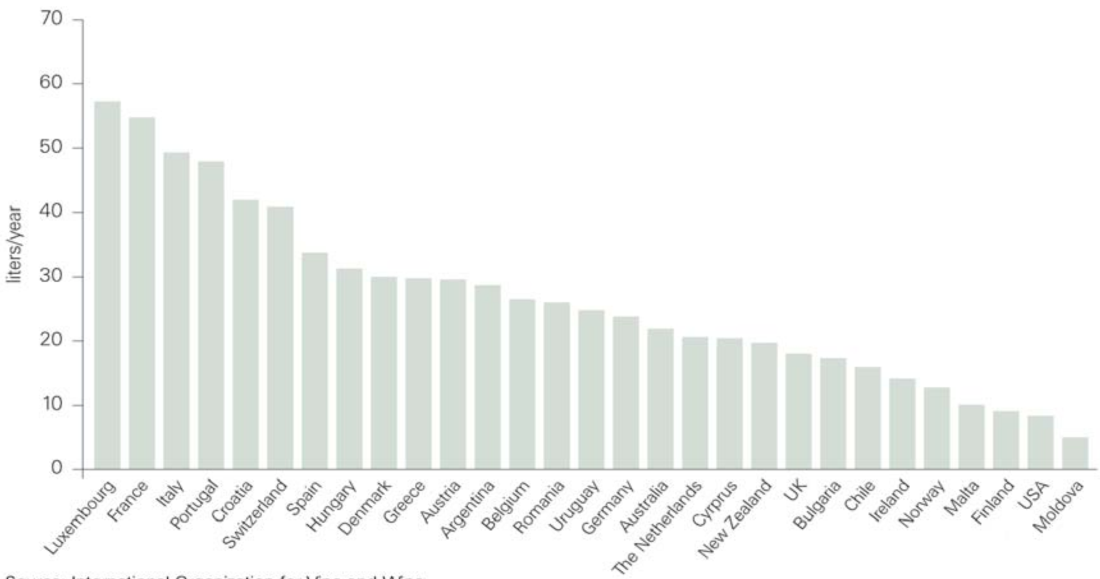
Exhibit III-G: Per Capita Consumption in Top Consuming Countries, Liters/Year

No.	Country	1999	2002	2005	Trend
1	France	59.5	58.2	53.7	↘
2	Italy	54.9	51.0	48.1	↘
3	Portugal	50.6	46.3	46.6	↘
4	Croatia	45.0	42.5	42.5	↘
5	Switzerland	41.4	42.0	38.9	↘
6	Spain	35.0	34.1	33.8	↘
7	Denmark	29.5	31.9	32.8	↘
8	Hungary	31.6	34.8	32.1	↗
9	Uruguay	32.0	32.0	32.0	→
10	Austria	31.0	29.6	29.5	↘
11	Argentina	34.3	31.6	27.9	↘
12	Greece	28.1	22.1	27.3	↘
13	Romania	25.9	22.2	26.5	↗
14	Germany	24.0	24.6	23.8	↘
15	Netherlands	16.0	20.7	22.7	↗
16	Australia	19.7	20.5	22.5	↗

Source: WINEFACTS. Australian Wine and Brandy Corporation

Consumption in the United States and Canada peaked in the 1980s and fell by 20 percent back to levels of 1970 before starting to grow again. According to OIV data the largest per capita wine consumption is 57.3 liters/year in Luxembourg shown in Exhibit III-H, but this figure is influenced by the purchases of non-Luxembourg consumers. Although France and Italy lead by volume and per capita consumption, most of the traditional wine consuming countries show a decrease in per capita consumption, while the non-producing and the New World producers register a positive trend.

Exhibit III-H: 2004 Official Data on Per Capita Wine Consumption in Key Countries



Source: International Organization for Vine and Wine

Moldova's per capita wine consumption is 4.9 liters/year, which is surprisingly low and likely does not take into consideration the consumption of homemade wine, which is high. Estimates within Moldova for per capita consumption with inclusion of homemade wine is 35 to 37 liters/year, which moves Moldova's position closer to traditional European winemaking countries.

Consumption trend factors. The volume growth of the global wine market was diminished by changing patterns of consumption in important Western European markets, specifically Italy, France, Portugal and Spain, due to anti-alcohol programs, a movement away from traditional everyday drinking to more occasional consumption, and young peoples' desire for other alcoholic beverages, especially beer. Combined volume sales of these countries dropped for 7 years and accounted for 800 million decaliters in 2004. This compares with an overall decline in the Western European region to 1290 decaliters.

The trend toward better quality products served to offset the decline in volume consumption witnessed in Western Europe. Growing consumer demand for more expensive, high quality varieties of wine is clearly visible in the Scandinavia, UK, and Ireland markets, where sales grew both in volume and value. Currently, wines costing $5 or more represent about 13 percent of the market. In 2006, analysts calculated a massive increase of 42 percent in wine sales costing $10 or more. In 2005, however, this category represents just fewer than 4 percent of volume.

Red wine still provides much of the impetus for volume growth in the world wine market, with sales rising nearly 12 percent between 1998 and 2003. Growth was driven mainly by increasing consumer interest in potential health benefits. Research shows that polyphenols, notably resveratrol, occurring in red wine may reduce the risk of heart disease, stroke, and cancer, with possible beneficial effects for muscular degeneration and Alzheimer's disease. Red wine sales have been further boosted by a growing awareness of its compatibility with food and the increasingly sophisticated nature of consumer demand.

Overall wine volume growth was also driven by increased volume sales in emerging markets, such as China and Russia, underpinned by improving living standards and rising disposable incomes. The gradual "Westernization" of the younger consumers' lifestyles was a significant driver of growth in many markets with high disposable income and where changing patterns of consumption, have led to increased sales, including Australia and some Scandinavian countries.

A3. Market Characteristics

For the purpose of this assessment, we have classified wine markets into the following groups based on consumption, trading patterns, and potential for Moldovan exports to these markets:

- Sophisticated markets
- Commodity markets
- Emerging markets
- CIS and Baltic countries

Features of each market are shown in Exhibit III-I.

Exhibit III-I: Features of Country Market Groups

Market type	Countries	Consumption patterns	Trade patterns	Potential for Moldova
Sophisticated markets	Belgium Canada Denmark Japan Netherlands Sweden Switzerland UK U.S.	• Low but growing per capita consumption • High disposable income • Focus on high quality • Image and fashionable • Favor "New World" style wines	• Higher import value shares than volume shares (purchase of more expensive wines) • Varying degree of complexity in distribution networks ranging from government run monopoly boards to highly competitive markets	Medium

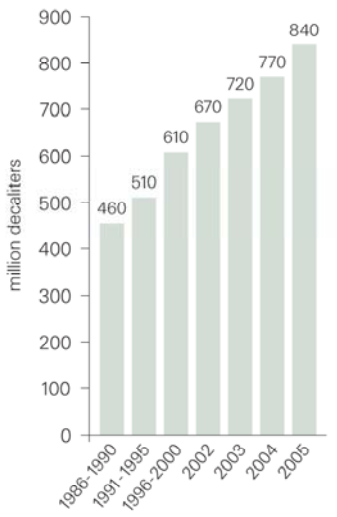
Exhibit III-I: Features of Country Market Groups				
Market type	**Countries**	**Consumption patterns**	**Trade patterns**	**Potential for Moldova**
Commodity markets	Argentina France Germany Italy Portugal Spain	• High but decreasing per capita consumption • Everyday wine as a beverage • Market in transition • Quantity focus moving toward quality preferences	• High volumes of local production and lower import volumes • Low import price	Low
Emerging markets	China India Russia	• Low per capita consumption but large population • Increasing wine education level • Rising disposable incomes • Westernization of lifestyles	• Low domestic production • Growing imports • Complicated and changing import procedures	High
CIS and Baltic countries	Azerbaijan Belarus Estonia Kazakhstan Latvia Lithuania Poland Ukraine	• Low per capita consumption • Driven by old winemaking styles • Label design important • Low but increasing wine education level	• Low import price • High bulk wine import volumes	High

B. Wine Trade Flows

This section provides information on world export markets for wine, major importers, emerging markets of China and India, and anticipated changes in global consumption in the next 5-10 years.

The world wine trade is considered the sum of export volumes of all wine exporting countries. In 2004, as shown in Exhibit III-J, the world wine trade represented 770 million decaliters, up by 6.6 percent from 2003. In 2005 exports continued to grow by 9 percent, reaching 840 million decaliters—more than eight billion liters. The dynamics of the wine trade are positive and showed an increase of nearly 40 percent from 2000 to 2005 compared with 20% in the period 1996 to 2000.

Exhibit III-J: Global Wine Trade Volume, Million Decaliters



Source: International Organization for Vine and Wine, WINEFACTS. Australian Wine and Brandy Corporation

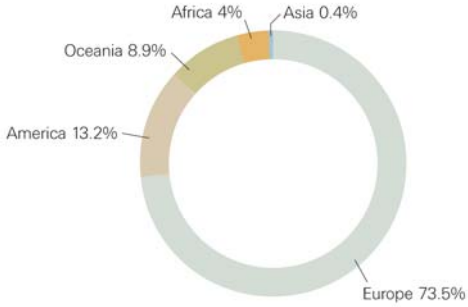
B1. Existing Export Markets

In the last 20 years, the global wine industry has become increasingly international and consumption patterns changed accordingly. In 2004 total exports represented 32.5 percent of global wine consumption, which at the end of the 1990s, was 18.1 percent. Strong value growth continued with wine exports up 15 percent to $20 billion due to a nine percent increase in average price to $2.47 per liter according to the Australian Wine and Brandy Corporation.

Major exporters. In 2004 France was the largest wine exporter with 1.5 billion liters followed by Spain with 1.4 billion and Italy with 1.4 billion liters. Together they accounted for 54 percent of world trade, down slightly from the previous year. The other top five European export countries included Portugal in seventh place with 360 million liters and Germany in tenth place with 272 million liters.

Australia was the fourth largest exporter and single largest New World exporter with 643 million liters in 2004. Other New World exporters were Chile in fifth place with 475 million liters, the United States in sixth place with 393 million liters. South Africa was in eighth place with 295 million liters, and Argentina in eleventh place with 136 million liters. Global wine trade by continent is shown in Exhibit III-K.

Exhibit III-K: 2004 Global Wine Export by Continent



Source: Synergyst. Market Analysis. Competition in the Global Wine Market

Old World exports. It is estimated that the trade *between* European countries in 2004 was 48 percent (5.6 billion liters) of the global wine trade. However, overall, Europe is gradually losing the share of world trade. From 1996 to 2000 Europe showed an average of 54 percent of the global wine trade. Trade involving the rest of the world producers is increasing, with their products taking the place of European wines in major wine markets. The non-European wine trade represented 4 billion liters in 2004 and has increased on average by 42.5 percent since the period 1996 to 2000. As described above, the major exporters are the same as the major producers—France, Italy, and Spain—with 55 percent of the total wine trade in 2004. WWTG accounts for 25 percent of the global wine export volume, while Moldova's export volume represents 3 percent.

Exports from the top five European countries were valued at $13 billion in 2004, an 8 percent increase from the year before. The average unit value grew 2 percent to $2.68 per liter. France led the way with the highest average unit value of $4.67 per liter, an increase of 13 percent on the previous year. In all countries except Spain, bottled wine comprised the major share of exported wines. Bottled wine exports declined by 63 million liters to 2.7 billion liters. The largest declines were in France and Spain, both down by 73 million liters. Conversely, bottled wine exports from Italy grew 34 million liters to 882 million liters and bottled wine exports from Portugal grew 49 million liters to 203 million liters. Bulk wine exports increased by 358 million liters to 1.8 billion liters. The major contributor to the increase was Spain, with an increase of 321 million liters. Sparkling wine export declined by 10 million liters to 373 million liters. The largest decline was in Spain, down 19 million liters to 117 million liters. In contrast, sparkling wine exports from France grew 14 million liters to 161 million liters. France consolidated its position as the number one exporter of sparkling wine in the world.

New World exports. The development of global exports has been more favorable to the New World producers, which have increased their volume and value shares in the recent years. Exports from the top five New World countries grew 28 percent in 2004 to $4.4 billion. The average unit value grew 17 percent to $2.26 per liter. Australia led the way with the highest average unit value of $3.14 per liter, an increase of 6 percent on the previous year (the result of its relatively high proportion of bottled exports and high average unit value in the group for bottled wine). In 2004, Australia was the largest exporter of bottled wine among the top five New World countries, with 502 million liters. The United States was second with 298 million liters, followed by Chile with 276 million liters, South Africa with 200 million liters, and Argentina with 97 million liters. Collectively they increased exports of bottled wine by 200 million liters to 1.4 billion liters. The largest increase came from Australia with an additional million liters shipped.

In all five top New World countries, bottled wine comprised the major share of exported wines. Bulk wine exports declined collectively by a total of 29 million liters to 545 million liters. The most significant decrease was in South Africa, with bulk shipments falling by 81 million liters to 94 million liters. Australia increased exports of bulk wine by 25 million liters to 131 million liters. Sparkling wine exports were stable at 25 million liters. The largest increase was from Australia, increasing by 1.5 million liters to 10.4 million liters. In contrast, sparkling wine exports from the United States declined by 1.4 million liters to 9.5 million liters.

As producers use different export strategies, the volume shares in the world exports differ significantly from the value shares as shown in Exhibits III-L and M. For example, France had 18.3 percent volume share and 34 percent value share of the global exports, while Moldova had 4 percent volume share and only 1.4 percent value share. It is interesting to note that France and Italy switched places in 2005, Italy becoming the number one world exporter in volume, a position always occupied by France in the past.

The 10 leading exporters account for almost 90 percent of the total volume and value of global exports. Australia is increasing its weight on the global market, now the fourth exporter by volume, with 8.7 percent of the global exports, and third exporter by value, with 10.4 percent. In 2005, Moldova was the seventh wine exporter by volume and only the twelfth by value. Both the volume and value share of Moldovan wine exports increased twice compared with the year 1999. Average export prices differ by country with France the leader, then Australia, Italy, Germany, and Portugal. Details are in Exhibit III-N. Moldovan wines sells almost six times cheaper than French wines.

Exhibit III-L: Volume Share of World Wine Exports (%)

Country	1999	2002	2005	Trend
Italy	29.9	23.2	19.5	↘
France	25.0	23.1	18.3	↘
Spain	13.3	14.9	17.9	↗
Australia	3.7	6.7	8.7	↗
Chile	3.4	4.9	5.2	↗
U.S.	3.8	3.7	4.3	↗
Moldova	2.1	4.3	4.0	↗
South Africa	1.9	3.2	3.8	↗
Germany	3.6	3.5	3.5	→
Argentina	2.0	1.6	2.7	↗
Portugal	2.9	2.5	2.6	↘
Other Central Eastern Europe	0.5	0.4	1.5	↗
Bulgaria	1.4	1.2	1.4	→
Austria	0.5	1.1	0.9	↗
Hungary	1.3	1.1	0.8	↘

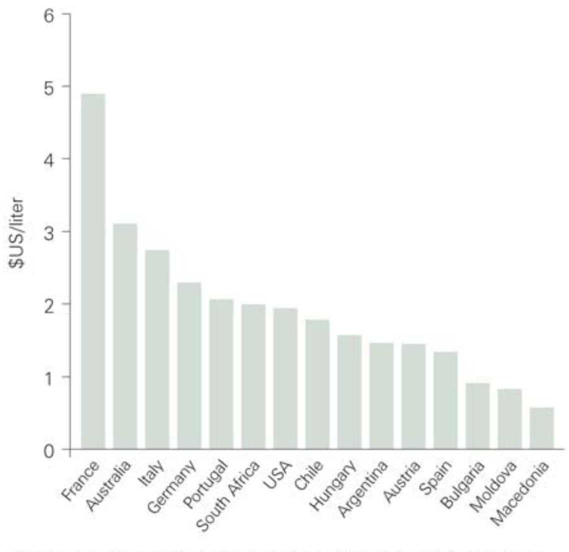
Source: WINEFACTS. Australian Wine and Brandy Corp.

Exhibit III-M: Value Share of World Wine Exports (%)

Country	1999	2002	2005	Trend
France	42.4	38.2	34.0	↘
Italy	18.1	18.5	18.0	→
Australia	5.3	8.7	10.4	↗
Spain	10.1	9.1	9.3	↘
Chile	3.7	4.3	4.3	↗
Germany	3.1	2.8	3.3	↗
Austria	3.6	3.6	3.0	↘
South Africa	1.4	2.2	2.9	↗
Portugal	3.6	3.4	2.8	↘
New Zealand	0.5	0.9	1.6	↗
Argentina	1.2	0.9	1.5	↗
Moldova	0.7	1.3	1.4	↗
UK	0.9	1.4	1.2	↘
South East Asia	0.4	0.5	0.8	↗
Belgium-Luxembourg	0.7	0	0.6	↘

Source: WINEFACTS. Australian Wine and Brandy Corp.

Exhibit III-N: 2004 Average Price per Liter of Wine Exported $U.S./liter



Sources: International Organization for Vine and Wine, Faostat Yearbook, Moldova-Vin

The percentage of total wine production exported by the major exporting countries is dependent on domestic consumption, with the share of export in production volumes lower than 50 percent for the top 10 producers as shown in Exhibit III-O (following page).

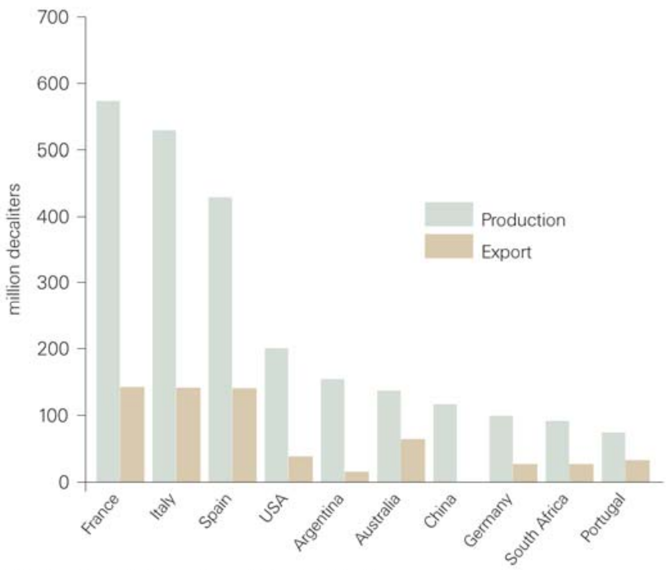
If we compare production, consumption, and export indicators, countries can be classified in 3 groups:

- Countries with wine production volumes similar to consumption volumes: the United States, China, and Argentina, where the difference between production and consumption does not exceed 20 percent. Those countries tend to self supply and depend very much on local consumption.

- Countries with net export tendency, because the internal markets are in regression still represent the main consumer-base. France and Italy are in this group, with the difference between production and consumption respectively at 42 and 47 percent in 2004, compared with 28 and 33 percent in 2003.

- Countries with a production-consumption difference of more than 60 percent. Spain, South Africa, Chile, and Moldova are in this group of countries. Australia also fits this profile since its production volumes have increased at a considerably higher pace than the domestic consumption.

Exhibit III-O: 2004 Production vs. Export, Major Producers, Million Decaliters



Source: International Organization for Vine and Wine

Moldova in 2004 was the most export-dependent country in the world with export volume representing more than 90 percent of total production. More alarming was that 81 percent of its exports were concentrated in one country as shown in Exhibit III-P, leaving Moldova wine producers vulnerable to exogenous factors and no opportunities to hedge export market risk. Combined with Moldova's very low domestic wine consumption, the situation is currently grave.

Exhibit III-P: Export Concentration: Principal Markets as Percentage of Total Exports, 2003-2004

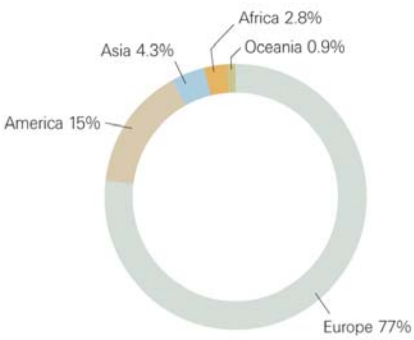
Country	Top Market as % of Total Exports	Top 5 Markets as % of Total Exports
Argentina	16	58
Chile	17	56
France	22	70
Australia	24	70
Romania*	34	67
Italy	36	73
U.S.	38	71
New Zealand	45	85
Moldova	81	99

*2006 data; Sources: State of WWTG Wine Industries (www.ita.doc.gov), Synergyst Market Analysis, Moldova-Vin

B2. Imports

Europe leads the way accounting for almost 80 percent of the imports, followed by the United States accounting for 15 percent as shown in Exhibit III-Q.

Exhibit III-Q: 2004 Global Wine Imports by Continent



Source: Synergyst. Market Analysis. Competition in the Global Wine Market

The leading importers by volume in Europe are Germany and the UK as listed in Exhibit III-R (following page). The United States is the third largest wine importer in the world with 8.66 percent of global imports in 2004. The top fifteen importing countries account for 84 percent of the total imports worldwide. In 2004 Russia was fifth with 6.82 percent of the global import volumes.

As shown in Exhibit III-R (following page), global import volumes grew almost twofold during from 1986 to 2004. The United States greatly influenced this trend with a 115 percent increase in wine imports during this period. Canada and Denmark almost doubled import volumes, while Italy and Portugal tripled imports, starting from a low base and very high domestic consumption. France showed a small increase of 16 percent over nearly 20 years, while Switzerland was the only one of the 15 leading importers with a decrease of 5 percent. The share of the five top importers accounted for 57 percent of all imports, while the 15 countries accounted for 84 percent. By 2004, Germany was the largest volume importer, with the UK close behind, shown in Exhibit III-S.

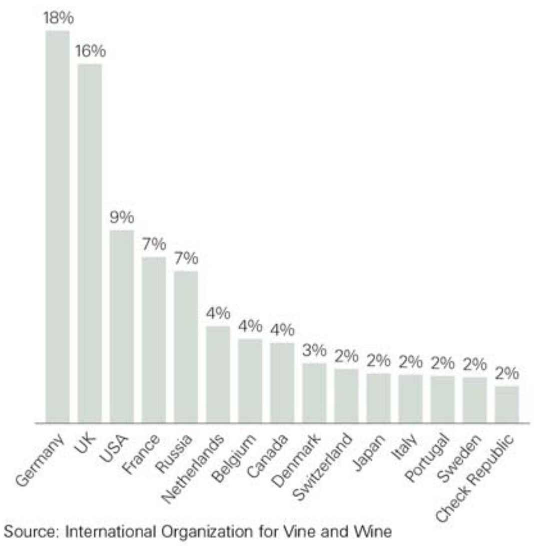
Exhibit III-R: Import Volumes by Countries, 2004, Million Decaliters

	Country	1986-1990	1991-1995	1996-2000	2002	2003	2004	Trend
1	Germany	105.50	97.70	107.96	117.10	119.06	130.43	↗
2	UK	67.04	67.35	84.37	110.66	113.07	119.45	↗
3	U.S.	29.86	25.09	40.96	54.60	60.82	64.15	↗
4	France	47.72	56.79	56.41	45.88	47.99	55.14	↗
5	Russia	N/A	31.91	21.68	29.84	41.64	50.51	↗
6	Netherlands	21.36	22.29	27.65	35.90	30.59	32.27	↗
7	Belgium	N/A	N/A	N/A	2763	26.70	28.01	↗
8	Canada	13.89	14.80	20.13	24.37	26.97	26.68	↗ →
9	Denmark	10.49	12.24	16.65	20.94	20.51	20.06	↗
10	Switzerland	19.03	18.01	18.60	18.41	18.41	18.06	↘
11	Japan	6.62	8.12	18.57	16.79	16.12	16.65	↗
12	Italy	5.38	4.56	5.63	8.22	14.47	16.25	↗
13	Portugal	4.07	4.73	14.16	13.65	13.79	15.82	↗
14	Sweden	10.27	10.61	11.46	15.16	15.60	15.28	↗ →
15	Czech Republic	0	2.47	5.85	10.34	10.48	12.26	↗
Top 15		**341.23**	**376.67**	**450.08**	**549.49**	**576.22**	**621.02**	↗
Other Countries		**90.42**	**90.00**	**118.64**	**100.91**	**113.17**	**119.45**	↗
Total World		**431.65**	**466.67**	**568.72**	**650.40**	**689.39**	**740.47**	↗

Source: International OIV

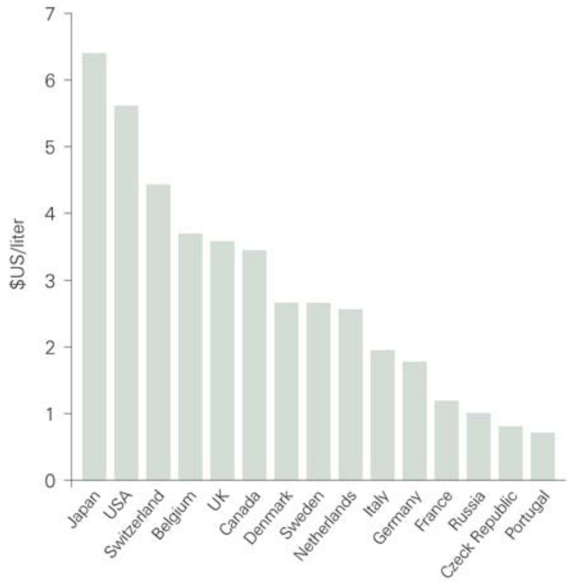
Average prices, shown in Exhibit III-T reflect the orientation of certain markets toward cheaper, low quality wines and high import volumes of bulk wines, while other markets opt for premium wines.

Exhibit III-S: 2004 Volume Share of 10 Largest Importers



Source: International Organization for Vine and Wine

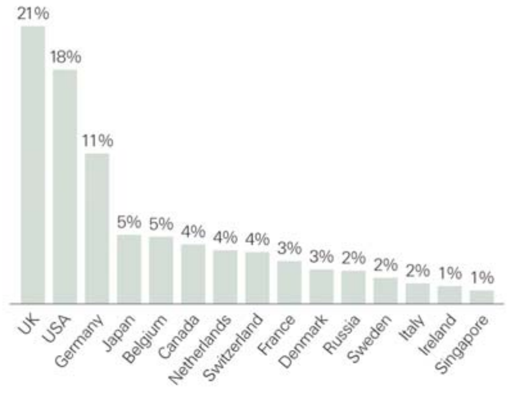
Exhibit III-T: 2004 Average Import Prices Per Liter by Country, $US



Sources: International Organization for Vine and Wine, Faostat Yearbook, www.fao.org

Japan is the world leader in buying expensive wines with an average import price of $6.40/l, followed by the United States with an average price of $ 5.60/l and Switzerland at $ 4.40/l. Although Germany is the leading importer by volume, the average import price is below $2.00/l, which places Germany third in top wine importers by value as shown in Exhibit III-U.

Exhibit III-U: 2004 Value Share of 15 Largest Importers



Source: Faostat Yearbook, www.fao.org

In Exhibit III-V, import statistics for wine imports in the leading countries are shown in value terms. The UK is the leading wine importer in value terms. Its import volumes are increasing and reached $ 4.3 billion in 2004. The UK has minimal domestic production thus relies on imports. This makes the market very attractive for wines from all over the world. The position of New World wines in the UK is stronger than that of Old World wines, the latter losing market share. The United States is the second largest importer at $3.6 billion in 2004 with foreign wines representing 25 percent of wine consumption, which is relatively low but increasing. The imports from the top five importing countries accounted for 90 percent of total wine imports. It should be noted that the U.S. wine market is very attractive, but also very complex due to two factors: 1) confusing regulations that vary by state and 2) extremely fickle consumers.

Exhibit III-V: Import Statistics for Top 15 Wine Importers in Value Terms, 2004

Rank	Country	$1,000	Million Decaliters
1	UK	4,280,000	119,450
2	U.S.	3,603,310	64,150
3	Germany	2,316,573	13,0430
4	Japan	1,066,836	16,650
5	Belgium	1,034,886	28,010
6	Canada	918,831	26,680
7	Netherlands	828,722	32,270
8	Switzerland	801,460	18,060
9	France	657,894	55,140
10	Denmark	534,319	20,060
11	Russia	509,539	50,510
12	Sweden	406,149	15,280
13	Italy	316,741	16,250
14	Ireland	280,288	15,820
15	Singapore	211,043	12,260

Sources: International Organization for Vine and Wine, Faostat Yearbook, www.fao.org

Germany is the third wine importing country in value terms and the leader in volume terms. Even though the import figures are high, domestic production is important and German wine drinkers have developed a preference for domestic wines, representing 42 percent of the wine consumption. Italy, France, and Spain account for 44 percent of the German market supplying very low-priced wines. Eighty five percent of all wine sold in Germany is less than 3.99 euros, a fact that demonstrates to some extent the influence of heavy supermarket discounters like Aldi and Lidl. New World wines account for 11 percent of the German market, leaving only 3 percent for the rest of the world. This leaves only three percent to the rest of the world.

Japan is the fourth largest importer in value terms, but only eleventh in volume terms. Japan is a very sophisticated market, with a consumer base of aspirational consumers who prefer established status brands. Low yet increasing per capita consumption and a focus on quality wines should lead to higher import levels as the Japanese economy improves. In direct contract, Russia was ranked fifth by volume but eleventh by value. Reaching $ 5 billion in import value in 2004, with an average import price of only $1.00/l, Russia is perceived as an attractive emerging market by many wine producers around the globe.

B3. Anticipated Changes in Global Consumption

Invariably affected by the unpredictability of an agrarian raw material supply base, the wine industry will always have to negotiate through imbalances of supply and demand. With ample supply leading to better quality at higher prices, the picture is fairly encouraging for wine consumers around the world with continued growth likely in selective markets. Below is a description of three major global consumer trends expected to have a significant impact on the wine industry over the next 10 years.

Decreased consumption in Western Europe. In large wine producing Western European countries, consumption is expected to continue to decline for a number of years, before stabilizing. In these markets, wine is a commodity product, enjoyed by older generations of wine drinkers for whom consumption is part of everyday life. Lifestyle changes and social pressures from anti-alcohol programs are at the forefront of a movement towards consumption of non-alcoholic drinks and wine consumption albeit of higher quality wine. This trade off is expected to somewhat soften the loss in volume terms. There is also a generational shift where young adult drinkers are opting for beer and exotic drinks as the preferred alcohol beverage. As a result, per capita consumption is expected to continue to fall for a number of years from the current levels of 30 to 50 liters, albeit at a slower rate. As government subsidized re-plantings improve overall quality, and wineries renovate and retool their product mix toward quality wines, there should be greater availability of quality wines at better value. Imports will also continue to eat away at domestic share in these markets and place downward pressure on quality wine prices. After a period of retrenchment, per capita consumption will stabilize, and consumption growth should once again take hold in proportion with economic growth.

Wine as a social statement. In sophisticated world markets with high disposable incomes among consumers, there is a preference for high quality wine. These countries tend to have relatively lower per capita consumption levels ranging from 10 to 25 liters, as large segments of the population are either non-adopters or consume wine rarely, or as part of a celebratory ritual. Still, in selective markets like the United States and Canada, per capita consumption is steadily growing. Industry experts are predicting that by 2009, the United States will be the largest wine-consuming country, surpassing Italy and overtaking France as the current leader. This is in part the result of awareness toward health benefits associated with moderate consumption, and that it is currently fashionable to drink wine. Collectively, these elements present wine consumption as a lifestyle choice, which bodes well for a wine industry dwarfed by a much larger beer industry in many countries and competing for the same consumers. Clear evidence exists in the United States of young adults choosing wine as their alcohol beverage of choice, and at a much earlier age. Interestingly, this is the direct opposite of what is happening in Europe. For the more sophisticated country markets, wine consumption is expected to continue to grow at a measured pace. Also, some of these countries are global opinion leaders that have the ability to unintentionally export trends like socially acceptable wine consumption.

The role of emerging markets. Perhaps the biggest opportunity for future wine sales lies in emerging market countries, such as China and India, with rapidly rising economies and a growing middle class. (See Annex I for information about the Chinese and Indian wine sectors and markets.) Population flows from rural to urban areas are exposing individuals to Western lifestyles. In major cities, Western foods and drinks are being readily adopted. Aspirational wine consuming tendencies are being supported by modest but growing disposable incomes. As a result, wine is being discovered and enjoyed with little knowledge or understanding of quality. Yet, wine consumers from high-population emerging market countries like China and India are barely registering a noticeable effect on per capita consumption levels. Finding and marketing to this scattered consumer base in a sea on non-wine drinkers will remain a major challenge for wine companies. But as these consumers continue to grow in number, there is promise for an industry looking to new markets for continued global growth.

C. Regulatory Aspects of the International Wine Trade

This section focuses on contrasts between Old World (European) and New World (non-European) wine regulations, international organizations relevant to the wine trade, and the importance of traceability systems as part of the regulatory process.

C1. Old World Regulations

Old World wineries must follow strict rules governing the types of grapes used in their wines, the area in which these grapes are grown, and vineyard and winemaking practices. Old World wine regulations vary by country and appellation. However, in general, wines labeled with a specific appellation must:

- Be produced within, and contain grapes only grown within, the specified appellation;
- Use only permissible varieties and adhere to specified varietal amounts;
- Produce less than the specified maximum yield of grapes per hectare;
- Contain between the designated minimum and maximum alcohol percentage
- Adhere to predetermined vineyard practices, winemaking practices, and aging techniques; and
- Pass chemical analysis and varietal tests.

Below is a short overview of the key regulations by leading Old World countries.

Austria. Austria's wine laws are enforced by the Austrian Ministry of Agriculture, Forestry, Environment and Water Management and cover three designations:

- Prädikatswein (Wine with Special Attributes)
- Qualitätswein (Quality Wine)
- Tafelwein (Table Wine)

Prädikatswein wines are the highest quality wines and are produced from specific grapes grown in a selected region. The sugar content of the wines is measured and expressed as a weight percentage. The wine is labeled accordingly with one of six degrees of ripeness. After scientific testing, each wine is given an official test number. The six categories are shown in the box at right. Qualitätswein wines are lighter, simpler wines derived from less-ripened grapes grown in a specific wine region. Sugar may be added to increase final alcohol levels. Kabinett wines fall under the Qualitätswein category and are made from slightly ripe grapes, but sugar cannot be added to increase alcohol percentage. There are two types of Tafelwein wines, Landwein and Tafelwein. Landwein wines are table wines that are made from officially designated varieties, while Tafelwein wines have no varietal designation.

Austria's Six Degrees of Ripeness

1. *Spätlese*. Wine made from fully ripened grapes (often semi-dry).
2. *Auslese*. Rich, intense wines from specific overripe grapes (semi-sweet).
3. *Eiswein*. Frozen grapes picked in the winter, producing a sweet wine with extremely concentrated fruit characteristics (dessert wine).
4. *Beerenauslese*. Grapes affected by the fungus *Botrytis cinerea*; typically rich and sweet with a honey taste.
5. *Ausbruch*. Made from overripe, shriveled grapes affected by *Botrytis cinerea*. Ausbruch is the only wine specification not found within Germany's Qualitätswein mit Prädikat.
6. *Trockenbeerenauslese*. Intense, rich, sweet and rare, these wines are made from overripe grapes affected by *Botrytis cinerea* that have nearly shriveled to raisins.

France. The National Institute of Appellations of Origin (INAO) created the Appellation d'Origine Contrôlée (AOC) system in 1935 to guarantee the origin of wine and other food products, such as cheese. AOC was the first organization to define strict regulations for winemakers, and since then many countries have used AOC as a model for their own wine regulations. The classifications are:

- AOC - Vins d'Appellation d'Origine Contrôlée (Appellation of Controlled Origin)
- VDQS - Vin Délimités de Qualité Supérieure (Wines of Superior Quality)
- Vins de Pays (Country Wine)
- Vins de Table (Table Wine)

AOC wines are known as being the highest quality wines in France. In addition to wine regulations, France has many Cru systems within AOC that define quality and wine producers in many appellations. VDQS wines come from designated regions, but are deemed to be of slightly lower quality. Their grape yields are allowed to be higher than AOC regulations and alcohol percentage may vary. Vins de Pays are wines grown outside AOC regions, where non-traditional varieties and higher yields are allowed. Vins de Table are basic wines not claiming appellations or varietals.

Germany. Germany's wine regulations cover these designations:

- Qualitätswein mit Prädikat (QmP, Quality Wine with Special Attributes)
- Qualitätswein bestimmter Anbaugebiete (QbA, Quality Wine from Specific Appellations)
- Deutscher Landwein (Superior Table Wine)
- Deutscher Tafelwein (Simple Table Wine)

QmP wines are the highest quality wines that are tested and assigned one of six levels of ripeness (see text box) as in Austria. All QmP wines must be made naturally with no sugar added. QbA wines are basic, inexpensive wines made from slightly ripe grapes grown in one of the 13 official winegrowing regions. Landwein wines are table wines that are made from officially designated grape varieties and are named after one of Germany's 19 Landwein regions. Tafelwein wines are simple table wines made from officially designated grape varieties and named after one of five Tafelwein regions.

Germany's Six Degrees of Ripeness

1. *Kabinett*. Dry, light bodied wines made from grapes picked during normal harvest time.
2. Spätlese. Wines made from fully ripened grapes with a high-level of acidity and greater concentration than Kabinett.
3. *Auslese*. Translated as "selected harvest," wines are made from grapes chosen by the producer. Typically crisp and sweet with concentrated fruit characteristics.
4. *Beerenauslese*. Specific grapes affected by *Botrytis cinerea*. Typically rich and sweet with a honey taste.
5. *Eiswein*. Frozen grapes picked in the winter, producing a sweet wine with extremely concentrated fruit characteristics.
6. *Trockenbeerenauslese*. The most expensive, richest and sweetest wine. Selected grapes are affected with *Botrytis cinerea* and shriveled to raisin size.

Italy. These classifications are currently overseen by the Ministry of Agriculture and Forestry:

- DOCG – Denominazione di Origine Controllata e Garantita (Denomination of Controlled and Guaranteed Origin)
- DOC – Denominazione di Origine Controllata (Denomination of Controlled Origin)
- IGT – Indicazione Geografica Tipica (Typical Geographical Indication)
- Vini di tavola (table wines)

The DOC classification was established in 1963 to create higher quality wines that could compete with French wines that dominated the market. In the 1980s Italy had problems with low quality wines and name falsification, creating the need for a system that could guarantee higher quality standards. In 1992, the DOCG system was created, which includes 21 appellations known historically for producing the highest quality wines. To prevent tampering, DOCG bottles are sealed with a numbered governmental stamp across the cap or cork. Wines within both of these classifications must adhere to strict regulations designed specifically for the appellation they are produced in. IGT designation was created to help distinguish regions making good wine that were not prestigious enough for DOC classification. IGT wines, similar to the French Vins de Pays, adhere to regulations similar to, but less stringent than DOCG and DOC classifications. Vini di tavola have very loose guidelines.

Portugal. One classification is currently overseen by the Institute of Vines and Wines, DO or the Denominação de Origem Controlada. There are 39 DO denominations. Each DO wine requires thorough testing and is given a certified test number that must be displayed on the bottle. DOs Porto and Madeira each have separate governing bodies and regulations. When a grape variety is displayed on the wine label, the wine must be made from at least 85 percent of that grape variety.

Spain. Two classifications are now overseen by the National Institute of Denominations of Origin:

- DO – Denominación de Origen (Denomination of Origin)
- DOC – Denominación de Origen Calificada (Denomination of Qualified Origin)

DOC wines are considered higher quality than DO wines. While there are currently 54 DO denominations, Rioja is the only DOC denomination. Each DO has a governing control board that enforces wine regulations and evaluates each wine to ensure that it is true to type.

C2. New World Regulations

While New World countries have wine regulations, they are quite different from those imposed by Old World competitors. Old World wineries must follow strict rules governing the types of grapes used in their vineyards and wines as well as rigid regulations for winemaking with a general focus on preserving traditions. New World regulations are more relaxed, offering more scope for innovation.

Argentina. Many producers have attempted to band together and define Argentina's wine regulations without success. The only real regulation governs labels; wines that name a grape variety on their label must me made from at least 80 percent of that grape variety.

Australia. Wine regulations are enforced by the Australian Wine and Brandy Corporation, and include the following:

- When using a state, zone, region, or sub-region on a label, 85 percent must be from that locale.
- If a grape variety is stated on the label, 85 percent must consist of that grape.
- If a vintage is stated on the label, 85 percent must come from that vintage.
- When blending grapes, if two or three varieties make up at least 85 percent, each of the grapes that make up 20 percent or more must be listed. If four or five varieties are used, and each makes up at least 5 percent, each must be listed. Also, the varieties must be stated in the order of importance, such as Cabernet-Merlot when the wine contains more Cabernet Sauvignon than Merlot.

Canada. Canada has few wine regulations. However, in order to increase the quality of wine, many of Canada's top producers banded together to create the Vintner's Quality Alliance (VQA). This alliance enacted many regulations similar to the French AOC, such as defined appellation boundaries, accepted grape varietals, and vineyard and winemaking practices. VQA participation is voluntary, and Canadian producers that are members of this alliance may use the VQA seal on wine bottles after the wine has been tested and approved by the alliance's governing body.

Chile. In 1995, a joint association including the Servicio Agricola Ganadero, Ministerio de Agricultura and wineries established the first set of wine regulations, including boundaries for regions, sub-regions and appellations, as well as these wine label regulations:

- If a wine label carries the name of a region, sub-region, or appellation, 75 percent of the grapes must come from that place.
- When a wine label carries the name of a grape variety, the wine must be made from at least 75 percent of that variety.
- If a wine label carries a vintage, 75 percent must come from that vintage.

New Zealand. New rules for labels covering grape variety, vintage, and area of origin will come into force for wines made from vintage 2007. This is known as the "85 percent rule." New Zealand's wine regulations are controlled by the New Zealand Food Safety Authority and include the following:

- If the label states the wine is from a particular variety, vintage, or area, then at least 85 percent must be from that variety, vintage, or area. The 85 rule applies to wine labeled for retail sale, not to wine sold in bulk.
- If two grapes are named on the label, the grapes must be stated in the order of importance, such as Cabernet-Merlot when the wine contains more Cabernet Sauvignon than Merlot.
- Where a label claims the wine is a combination of grape variety, vintage, and area of origin, the combination referred to must be at least 85 percent of that wine.
- Wines made in 2006 and earlier are exempt from the 85 percent rule but remain subject to the current 75 percent requirement for statements about variety. However, export wine must meet any relevant percentage requirements of the importing country.

South Africa. In 1973, the Wine of Origin System was introduced and established boundaries for South Africa’s wine lands, which are divided into official regions, districts, wards, and estates. Wine regulations are defined by the South Africa Wine and Spirit Board, are enforced by South Africa Wine Industry Information and Systems (SAWIS), and include the following:

- A label can carry the designation of a Wine of Origin. In order to carry this designation, 100 percent of the grapes must be from the defined appellation, 75 percent of the wine must be from the specified vintage, and 75 percent of the wine (but 85 percent if exported to the EU) must be from the stated variety.
- For non-Wine of Origin, if a label carries the name of a region, sub-region, or appellation, 75 percent of the grapes must come from that place.
- If two varieties are named on the label, they must be listed in order of importance, such as Cabernet-Merlot when the wine contains more Cabernet Sauvignon than Merlot.
- If a label carries the name of a variety, it must be made from at least 75 percent of that variety.

United States. The Bureau of Alcohol, Tobacco and Firearms established American Viticultural Areas, or AVAs, which are growing regions defined by geographical and terroir features. There are more than 140 AVAs in the United States, including Napa Valley in California, Willamette Valley in Oregon, and the Finger Lakes in New York. AVAs can extend beyond state boundaries, like the Columbia Valley, which extends from Washington into Oregon. Unlike the French AOC, American AVA laws only establish growing area boundaries and do not govern which varietals can be grown or vineyard and winemaking practices. U.S. wine regulations include the following:

- If a label carries the name of an AVA, 85 percent of the grapes must come from that AVA.
- If a label carries the name of a county, 75 percent of the grapes must come from that county.
- If a label carries the name of a state, 75 percent of the grapes must come from that state; however this regulation varies by state, including California where 100 percent of grapes must come from California.
- When a label carries a vintage, 95 percent of the grapes must be grown during the stated year.
- When a label carries the name of a variety, the wine must be made from at least 75 percent of that variety.
- When a label carries more than one grape variety, all varieties must be listed and corresponding percentage noted.

C3. Role of International Organizations

The international organizations having relevant impact on the wine trade are the World Trade Organization and the International Organisation of Vine and Wine (OIV).

C3a. World Trade Organization

Moldova has been a member of the World Trade Organization (WTO) since 2000. Among the WTO agreements, the most important for the wine industry are: the General Agreement on Trade and Tariffs

(GATT), Sanitary and Phytosanitary Measures Agreement, Technical Barriers to Trade Agreement (TBT), Trade-Related Investment Measures (TRIMs) Agreement, and Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS).

The agreement on food safety standards, the Sanitary and Phytosanitary (SPS) Measures Agreement, states that technical regulations must be based on science and applied only to the extent necessary to protect human, animal, or plant life or health, and they should not arbitrarily or unjustifiably discriminate between countries where identical or similar conditions prevail. Member countries are encouraged to use international standards, guidelines, and recommendations where they exist. When they do, they are unlikely to be challenged legally in a WTO dispute. However, members may use measures that result in higher standards if there is scientific justification. They can also set higher standards based on appropriate assessment of risks so long as the approach is consistent, not arbitrary. Although not a member yet of the WTO, Russia's certification requirements for Moldovan wine are not in the spirit of this agreement.

The Technical Barriers to Trade Agreement (TBT) tries to ensure that regulations, standards, testing, and certification procedures do not create unnecessary obstacles. Having too many different standards makes life difficult for wine producers and exporters. If the standards are set arbitrarily, they can be used as an excuse for protectionism. But they are also necessary for a range of reasons, from environmental protection to safety, national security, and consumer information. Ironically, Moldova's internal standards and technological instructions are not in the spirit of the TBT and could be considered as a trade barrier. The Technical Barriers to Trade Committee is the clearinghouse for members to share the information and the major forum to discuss concerns about the regulations and their implementation. For example, a "panel" was held to resolve the dispute between the United States and the EU concerning wine labeling, geographic indicators, and oenological practices. The Trade-Related Investment Measures (TRIMs) Agreement applies only to measures that affect trade in goods. It recognizes that certain measures can restrict and distort trade and states that no member shall apply any measure that discriminates against foreigners or foreign products.

The Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS) is an attempt to establish minimum levels of protection that each government has to give to the intellectual property of fellow WTO members. The agreement defines what is eligible for protection as trademarks and what the minimum rights conferred on their owners must be. TRIPS sets important rules concerning the "geographical indication" that not only says where the product was made but, more importantly, identifies special characteristics that are the result of the product's origins. For wines and spirits, TRIPS provides higher levels of protection, i.e. even where there is no danger of the public being misled. The agreement provides for further negotiations in the WTO to establish a multilateral system of notification and registration of geographical indications for wines.

Note that in the food products sector, WTO takes into consideration the recommendations and norms of the UN Food and Agricultural Organisation (FAO) and World Health Organisation. WTO has implemented the Codex Alimentarius, which contains some main rules for food product production, including wine, in respect to consumer health and guarantees the related international trade practices. Member states have the possibility to use these rules by inserting them directly in the national legislation or by approving the rules with some reserves.

C3b. International Organisation of Vine and Wine

Moldova has been a member of the International Organisation of Vine and Wine (OIV) since 2002. OIV is an intergovernmental scientific and technical organization with recognized competence in viticulture; wine and wine-based beverages; and table grapes, raisins and other vine-based products. OIV informs members of measures of concern to producers, consumers and other players in the industry; assists other international organizations, both intergovernmental and non-governmental, especially those which carry out standardization activities; contributes to international harmonization of existing practices and standards (and, as necessary, preparation of new international standards to improve conditions for producing and marketing vine and wine products); and helps ensure that the interests of consumers are taken into account.

To achieve these objectives, OIV promotes, guides, and publishes scientific and technical research; draws up recommendations and monitors implementation of recommendations in coordination with members; submits to its members all proposals relating to guaranteeing the authenticity of vine products; contributes to the harmonization and adaptation of regulations by its members or, where relevant, to facilitate mutual recognition of practices within its field of activities; helps protect the health of consumers and contributes to food safety; and through scientific monitoring, makes it possible to assess the specific characteristics of vine products. Moldova has limited contact with OIV, a lost opportunity to obtain and disseminate information on international best practices, and is behind in its membership dues.

C4. Traceability Systems

Traceability systems are used to facilitate recall of products and to identify and correct problems as part of ensuring food safety. Traceability systems are already generally in place for food products and the global trend is for wine to be treated in the same way. The lack of a vineyard cadastre (i.e. inventory of vines) currently impedes the fulfillment of a compliant traceability system in Moldova.

Since the Russian embargo, the Russian authorities have imposed traceability as a prerequisite for export of wine to Russia. Since the EU is such an important potential market for Moldovan wines, it is useful to consider how the traceability principle will be applied in the EU.

EU Regulation 178 of January 28, 2002 was enacted in January 2005, requiring that wine exported to the EU must comply with the general principles and requirements of EU food law. This regulation includes a traceability component. The essence of this law is that all operators in the food industry must ensure that:

- Only safe food is placed on the market;
- Presentation, labeling, packaging, etc. do not mislead consumers;
- Food complies with applicable legislation;
- Traceability systems are in place; and
- Relevant authorities are informed where they consider that a product is not in compliance with food safety requirements.

This regulation is not yet applied as stringently to wine as to food products. The “Wine of Origin Scheme” already incorporates most of the EU’s legal requirements in respect of traceability. However, provision will still have to be made in respect of substances incorporated into wine. Also, traceability systems will be required for uncertified wines, with respect to the “Wine of Origin Scheme.” The legal requirements in respect of traceability are:

Identification of suppliers and buyers. All operators in the chain (from wine grape grower, to wine producer, to supplier of substances used in winemaking, to distributor, to exporter, to retailer) must be able to identify any person/business:

- From whom they have been supplied with wine or any substance intended to be incorporated into wine (one step back); and
- To whom they have supplied wine or any substance intended to be incorporated into wine (one step forward).

However, vines prior to harvesting and residues and contaminants need not be accounted for in above-mentioned process.

Identification of product. Any substance intended to be incorporated into wine, and wine to be placed on the EU market, must be adequately identified (e.g. lot number, batch number, certification seal number) to facilitate its traceability.

Records. All operators in the chain must keep records, so that the above information to be made available to competent authorities on demand.

Testing. Although not obligatory, the integrity of traceability throughout the chain can only be maintained if each operator routinely tests whether its suppliers comply with these requirements.

The lack of a vineyard cadastre (i.e. inventory of vines) currently precludes a compliant traceability system in Moldova. Establishment of a national vineyard cadastre should be a high priority for Moldova, in order to minimize delay in implementing traceability, which is, or soon will be, a prerequisite for entry into priority markets.

D. Global Trade Practices

This section focuses on the recent evolution of wine trade, other factors influencing the global wine trade, and factors influencing regional trade.

D1. Evolution of Wine Commerce

The power of the consumer. A wide array of consumer choices shifted the commercial balance of power away from the wine producer over the last three decades. The availability of so many alternative products promising to deliver on tangible benefits has led to the birth of substantial wine consumer purchasing power. Thus, wine producers have had to become more deliberate about what they produce, look for cues in the marketplace to determine what consumers may want, and then supply the market based on consumer demand. In essence, consumer choice has reversed the commercial balance power and placed it squarely in the hands of those closest to the consumer.

Increased options at every price point have expanded the value concept, where “value” in terms of quality for the money can be achieved at every price segment. Hence, a $25 bottle of wine can still be considered a good value when evaluated within a group of higher priced brands of comparable quality. Technical improvements in viticulture and winemaking have pushed up quality at every price point and trade reluctance to accept wine with defects in key “world class” markets, has made it increasingly more difficult for consumers in those markets to purchase a bad bottle of wine.

As a way to differentiate themselves from the competition, wine producers have often introduced ways to improve perceived quality, with the wine trade often driving such quality improvements on behalf of the consumer to differentiate itself from the competition. For example, Tesco, a major UK supermarket chain, took a position on stelvin capsules early on and demanded that producers move to this type of closure to prevent cork taint. These industry-driven quality enhancements have had a positive benefit and have been embraced by consumers through education and awareness programs. Likewise, consumer awareness can also go the other way. Bad press can have a devastating effect and hurt many years of brand building investment activity.

In this environment of generally good quality wine at every price point, quality becomes less of a point of differentiation and instead, the specific wine style becomes more important. Low brand switching costs for consumers, measured by a consumer’s willingness to try an unfamiliar wine, encourages consumer exploration of new wines. Consumers’ exploratory nature and interest in discovering new wines and taste sensations are at the forefront of the rebirth of wine as a luxury good and is accountable for the proliferation of premium wine brands. This also means low brand loyalty at the higher levels of the price continuum and is the reason why marketers today can only hope to have their brand be part of a consumer’s constantly evolving considerations. Understanding any given consumer's taste profile by the group of wine brands he or she consumes, is key to have one's own wine brand considered.

The challenges of choice. The rapid proliferation of wine choices has created challenges. As the assortment of wines increases, so does competition not only for the consumer's attention but also for trade support. Retailers with finite shelf space and restaurateurs with limited wine lists understand their customer base and armed with this knowledge have influence over what brands can be accessed by consumers and therefore possess tremendous power. In turn, more time, effort, and finances must be invested in wine trade and consumer marketing activities—the days of sales based on personal relationships are over. Brand owners have recognized that not only do they have to market their wines to consumers but also to retailers and other "gatekeepers" including wine critics, distributors, and importers. Gatekeepers can facilitate distribution but often are more likely to block passage to the consumer, denying a brand the ability to be measured on the most relevant performance measures related to consumer trial and repeat sales.

Wine critics for example help consumers make confident selections through recommendations. Those that have devised credible wine rating methodology embraced by the industry, have elevated their stature as wine experts and their rating systems have become a powerful tool for consumers and thereby for the trade to sell wine. A very favorable rating in Robert Parker's *Wine Advocate* can result in increased wine sales and easily exhaust all available supply of a small-sized lot of wine that is produced once per year. Likewise, a poor rating on an established brand can raise eyebrows and any persistence of poor ratings can redirect trade attention to other competing brands.

To exemplify the importance of high ratings, Whole Foods Market, an upscale U.S. national supermarket chain and now also in the UK, has a special section dedicated to wines rated over 90 points out of 100 by the Wine Spectator. While a high rating does not guarantee representation by Whole Foods, the wines selected are effectively promoted to consumers by their rating. In essence, any wine with a retail price above $20 must have a credible third party endorsement often delivered in rating point system by a well recognized trade source. Rating systems have also become international as seen by the *Wine Advocate* and *Wine Spectator* point rating systems now accepted in the UK. In addition, medals achieved in the UK's International Wine Challenge are now well regarded in the U.S. and a way for a newly arrived European wine to gain notice and instant credibility.

A wide product selection is also affecting how products are sold and how the trade views new products. Distributor consolidation in the U.S. is creating mega-distributors with huge portfolios and strong competition among brands for distributor sales attention. With too many brands to sell, distributors are not necessarily looking for new products. Inundated with wine producers seeking representation, distributors are increasingly more careful about the brands they agree to represent and consideration is given to those that can consistently deliver good, comparable quality at a significant value. At U.S. trade shows, wine samples often go untasted as the quality inside the bottle is fully expected, and distributors are increasingly relying on other factors—the credibility of the wine producer, selection of a reliable importer or reputable local market agent, collective determination for the producer and its representatives to spend funds marketing the brand are all are important factors. Often the determining factor is not necessarily a brand's potential contribution to a distributor portfolio but the adverse affect if it fell in the hands of one of the distributor's main competitors.

In the case of where representation and distribution secured, if the wine does not sell, this may reflect poorly on the importer or the local producer's agent whose reputation may be blemished by its inability to convert brand potential into meaningful sales. Hence, importers look for supplier partners with whom they can develop a solid working relationship. Special emphasis is placed on a brand owner's ability to work the market, understand its challenges, pounce on any opportunities when those are presented, and invest significantly in brand building activity at levels generally no less than 10 percent of the ex-cellars price

Increasing competition is raising costs. Given the consumer's propensity to try new products, entrepreneurial wine producers with successful track records operating in a market have better market access and can quickly take advantage of opportunities by readily and inexpensively producing comparable wine products. Product differentiation and market segmentation ensure that new market niches are occupied, and all consumer segments have plenty of choices for any wine consumption occasion. But as brand owners orient their products to better defined and more segmented markets, it becomes increasingly more costly to find and target smaller groups of consumers, and broad-based communication vehicles are expensive and ineffective.

Research indicates that wine consumers in sophisticated markets are actually not knowledgeable about wine and often have difficulty verbalizing the positive characteristics of a particular wine. To help move wine off the shelf, some retailers are employing knowledgeable wine stewards to help guide consumers in making appropriate wine choices. Many also engage in product sampling activity where legal, to introduce new wines to consumers. And, they are increasingly demanding more promotional support from wine producers, importers, and distributors for retail-oriented promotional activities. Despite the limited wine knowledge, consumers are clear about their wine preferences, and these are easily recorded by what they purchase. Wines that do not meet a minimum volume threshold at a specific U.S. grocery chain are discontinued within six months. They are replaced by other new wines also promising to deliver on consumer expectations that eventually will face the same sales test. Time constrained retail buyers dealing with an increasing number of sales people and with only so many hours in a working day are opting to purchase multiple products from large, single source distributors. This leaves little room for anyone representing a single product to even secure an appointment with a retail buyer.

Local market representation is also increasingly more difficult to establish. In the UK, multiple grocery chains commanding the greatest share of market are discriminating about product acceptance and demanding about terms of sales, affecting not only pricing and promotion but also delivery requirements and packaging contents. In addition, there is a tendency that if one chain agrees to carry a particular wine, other chains will often resist carrying the same product unless there is so much advertising support that consumers demand it be carried. In the United States, regulations dating back to the 1930s intended to stop collusion post-prohibition are now instead restricting free market competition. As wines must be sold through a mandatory wholesale tier that can not vertically integrate by law, rapid consolidation at the wholesale level through mergers and acquisitions of other distributors is restricting many producers' ability to get to the marketplace. Those producers who manage to get representation by the few distributors with large—and often unmanageable—portfolios are likely to be given little sales attention unless they are one of the top ten supplier companies with major investment budgets. These wine producers are finding that distributors are becoming conduits, logistically taking their products to market, while sales are done more and more by producers, their agents, and/or importers. For producers this requires intense study of the market, observance of commercial trading practices, cultivation of personal relationships at the local market level, professional presentations oriented on fact-based selling and creative marketing solutions, and demonstrated commitment and willingness to invest in building one's own brand. Even when all the necessary ingredients are in place, there are no guarantees of success and those with flexible strategies and a hearty determination are in the best position to reap the fruits of success.

Nine out of ten new consumer products fail in the United States within the first two years. Faced with crowded wine categories, wine marketers realize that their products need to have a "point of difference." And, a "reason for being" must be clearly communicated to those working in the wine trade to address questions like: "Why would a retailer place another Chardonnay on the shelf when he or she already has ten from the same region with the same price point?" Still, deviating too far from consumer expectations can also have dire consequences. Consumers tend be fickle and while they want to experience something slightly different, their comfort levels are not boundless. If consumer research is unaffordable, many marketers will establish competitive benchmarks and mimic the product characteristics of one of its benchmark wines. The idea is that it is less expensive to imitate than to create and this carries significantly less risk of consumer rejection.

Global wine commerce expansion. Global mass communication and the ease of mobility across international borders are bringing people together and making our world seem smaller. As a result, there is a convergence of taste preferences around the world that is supported by the ease of international logistics in the wine industry.

Attuned to an attractive and favorable global environment for wine consumption, large retailers that have been successful in catering to their customer base at home are finding relative ease in expanding abroad. Working with thinner operating margins, these large retailers leverage their increased buying power to demand lower prices from their suppliers. Offering a selection of extremely competitive and well-advertised global brands complemented by a small assortment of regional products, these global retailers can be formidable competitors, not only driving out local retailers but also bringing some stiff competition to locally produced products.

To keep up with the likes of these large international retailers—Costco, Wal-Mart, Tesco, Carrefour, and Metro—leading wine suppliers are also expanding globally. Through strategic acquisitions, these leading wine producers—Constellation Brands, Pernod Ricard, Fosters Wine Estates, E &J Gallo, Diageo, Beam Global Spirits and Wine—are not only expanding global coverage but also operating from production facilities in multiple countries and presenting themselves as single source producers. Vast technical expertise and considerable operating efficiencies from large economies of scale afford these wine producers the ability to meet the demands of the largest global retailers while striking multi-country regional purchasing deals. Concurrently, these well-funded powerhouses of global brands are targeting consumers worldwide. Having the resources from reams of consumer research and market intelligence, they pre-determine how best to approach a market and have the ability to launch products at a loss for a period of time in order to drive market share.

Small regional producers are no match for the large well-resourced global wine producers. Given the operating efficiencies of the larger producers and their ability to buy raw materials and other inputs in large volumes at lower prices, smaller producers can not effectively compete on price, nor indefinitely own a “least cost” producer position. Yet, smaller producers can enjoy other comparative advantages. They are often quick to make decisions capitalizing on market opportunities while their larger-sized competitors must follow pre-determined protocol on decision making. They can offer tailored customer service while large producers have had to standardize it. They can move with agility that the larger producers can not anticipate. To effectively compete against these large and well-resourced wine producers, smaller wine producers must be resourceful and find creative ways to reach their consumers. For example, smaller wine producers are more likely to occupy market niches too small to be of interest to the larger companies. These include, Kosher varietal wines, organic wines, and late harvest wines. Small producers can also bring innovation that is risky for large producers on brands with significant consumer franchises. An example is the introduction of Stelvin capsules employed by small producers on new and existing small brands while large producers awaited consumer acceptability measured by consumer research before using them. Small boutique wineries are also more likely to experiment with unknown grape varieties creating a consumer following before a larger producer would consider adding such variety to its product line. Small boutique wineries can also employ alternative tactics to sell wines, such as applying greater focus on winery visits, winery clubs offering direct sale to consumers, relying on third party endorsements and word of mouth to create interest in their wines recognizing full well that they can not be in a position to compete as the least cost producer. A nimble and tailored approach towards personalized customer service is another way that smaller wine producers can have a competitive advantage.

D2. Other Factors Influencing Global Wine Trade

In the last 20 years, several movements have helped define today’s wine industry. Sandwiched between the emergence and popularity of single variety wines in the late 1980s and the shift toward fruit-driven wines for immediate consumption in the mid-1990s, is the U.S. media coverage about the potential health benefits of red wine. At a time when social concerns about drinking and driving in the United States were behind an anti-alcohol movement that was pushing for legislative action to tighten alcohol abuse, a popular investigative television news show *Sixty Minutes*, dared to speak on a subject that few in the medical community would have openly embraced. Labeled the "French Paradox," it raised the question why French consumers with poorer eating habits had greater life expectancy in comparison with cholesterol conscious American consumers. Mike Wallace, the investigative reporter went further in suggesting that the reason for this may be related to wine consumption and its potential health benefits. The "French Paradox" not only opened the consumers' eyes into the potential health benefits of moderate wine drinking, but also opened the doors for subsequent research that has since supported the preliminary findings and highlighted other health-related benefits.

Consumers in the United States did not wait for follow-up research to take action. Occasional wine drinkers began following the guidelines of this news report suggesting positive health benefits of drinking one glass of red wine per day. Red wine products like E&J Gallo Hearty Burgundy went out of stock within a matter of days. More importantly, this movement is responsible for single-handedly reversing what had been a persistent declining trend of wine sales in the United States throughout the 1980s and shifted consumption from white to red.

While the potential positive health benefits of wine were communicated worldwide, they registered more noticeably in countries of lower per capita consumption but with an educated middle class with disposable income. In the United States, against a back drop of tighter controls on alcohol abuse and drinking and driving laws, it helped promote industry growth for 13 consecutive years by playing well into today's lifestyle of drinking less but better. With a large base of occasional drinkers and young consumers that traditionally did not begin to appreciate wine until in their late thirties, it also helped to bring new consumers into the wine industry at a younger legal drinking age and promoted the notion that it is healthy and fashionable to consume wine responsibly.

In the large producing countries of Western Europe with very high wine per capita consumption, anti-alcohol policies have had a more pronounced effect on these countries' wine sectors. While per capita consumption of wine continues to decline in Western Europe, it remains fairly high. Recently, the European Union's health chief urged the alcoholic beverage industry to step up its fight against the growing problem of alcohol abuse and do more to promote responsible drinking. The European Union is the heaviest drinking region in the world, with 55 million adults estimated to drink at harmful levels. Alcohol contributes to the deaths of 195,000 people in the 27-nation bloc every year, according to EU figures. EU Health Commissioner Markos Kyprianou made the call at the launch of a new Alcohol and Health Forum, part of a strategy paper on alcohol abuse published at the end of the last year. "My expectations for this forum are high ... In particular I expect the alcoholic beverages industry to market their products responsibly," Kyprianou said in a statement. "The media, advertisers, retailers as well as owners of pubs and bars should also contribute to changing attitudes and behaviors, especially among young people." The forum is similar to the self-regulation approach Brussels took last year with the food industry to combat obesity, rather than proposing tough laws like those that exist to combat smoking. Kyprianou was criticized by some non-governmental organizations (NGOs) last year for not pushing ahead with measures such as a ban on sponsorship and advertising, warning labels and an EU-wide minimum drinking age. The new forum comprises more than 40 business and NGOs and is due to agree on its first targets by November. The Commission will review progress at the end of each year. The European Spirits Organization, representing companies such Pernod Ricard, described the forum as "an important step forward."

Health Benefits of Red Wine

Resveratrol has been identified as the main ingredient in red wine that makes it healthy. Resveratrol is an anti-oxidant produced in grape skins as a natural fungicide. A recent study showed that highest levels of Resveratrol are likely found in grapes grown in regions where it often rains just before harvest. High humidity favors attack by fungal diseases. Pinot noir is likely to have higher levels than Shiraz or Cabernet sauvignon, for example, presumably because Pinot grapes, having thinner skin, are more susceptible to fungi. Various studies have shown that resveratrol has proven cancer-inhibiting properties, and it is already well known to aid in combating heart disease.

D3. Factors Influencing Regional Trade

Recent and ongoing activities related to regional trade in Europe impact Moldovan wine exports.

EU regulations. Starting January 1, 2006, the European Union applied an extended generalized system of preferences (GSP+) on goods coming from Moldova. The GSP+ helped compensate the downward trend on eastern markets, with exports to the European Union growing 13.6 percent in 2006. However, the number of orders placed by EU customer companies has evened out. At the same time, the advantages provided by GSP+ cannot be fully used by most Moldovan manufacturers. The country's product certification system is not fully harmonized with the European standards, which represents a barrier for exports. For example, only 10 percent of Moldovan wines were fully compliant with the requirements set out in the EU technical regulations in 2006. The other problems with Moldovan goods are poor packaging and insufficient promotion on new markets. The accession of Romania and Bulgaria has negatively affected Moldova's foreign trade as it no longer enjoys free trade arrangements with both under the Stability Pact for South Eastern Europe as of January 1, 2007.

The duty-free exportation under the GSP+ scheme provides free access for any products, except for some products sensitive to the EU for which preferential import tariff contingencies are established. The autonomous trade preferences will allow Moldova to expand the list of product groups eligible for duty-free export to 10,000 and may include wines. Moldova expects that the European Union will make a positive decision on granting the autonomous trade preferences sometime later this year.

Central European Free Trade Agreement. The Central European Free Trade Agreement (CEFTA) signed in December 2006 took effect on May 1, 2007 replacing the older agreement that had among its signatory countries that are now EU members. CEFTA covers Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Moldova, and Serbia. CEFTA provides for duty-free trade with manufactured goods and significant preferences on agricultural products. The new agreement establishes uniform trade rules and aims to level the playing field for trade partners. CEFTA offers the possibility of new markets for Moldova's wines.

SECTION IV

Industry Assessment

A. Overview

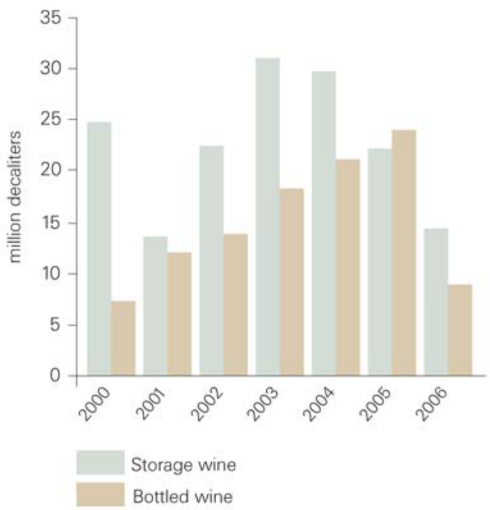
This section focuses on the status of Moldova's wine production, wine producers, viticulture, markets, distribution, transportation, employment, investment, and financing. It also covers Moldova's legal and regulatory environment and state support mechanisms for production and promotion.

A1. Wine Production

The wine industry grew steady from 2001 to 2004 with a decrease in grapes crushed and wine produced in 2005 and a dramatic decline of all the production in 2006 as shown in Exhibit IV-A.

Exhibit IV-A Recent Moldovan Wine Industry Statistics								
Indicators	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2006 as % of 2005**
Grapes crushed, thousand metric tons	360	200	330	450	430	320	210	66%
Wine produced, million decaliters	24.7	13.6	22.4	31.0	29.7	22.2	14.3	64%
Grape wine, million decaliters	7.4	11.9	13.9	18.2	21.1	2.4	9.0	37%
Sparkling wine, million decaliters	0.52	0.64	0.74	0.90	1.13	1.19	0.93	78%
Divin (brandy, cognac, etc.), million decaliters	0.41	0.55	0.67	0.66	0.69	0.87	0.56	65%
Source: Moldova-Vin								

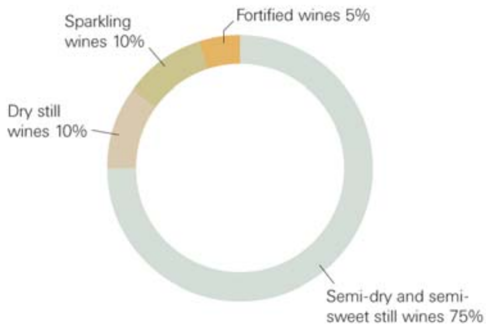
Wine production depends on several factors, including weather conditions and evolution of wine demand. During the period from 2000 to 2006 wine production peaked in 2003 with 31 million decaliters produced. The year 2001 showed the lowest levels of production, when wineries crushed only 200 thousand metric tons of grapes and produced 13.6 million decaliters. This was mainly due to weather conditions. And although volumes were low, the fruit quality was high and allowed producers to make good wines. In 2006, the Russian ban caused low wine production. Bottled wine production follows a similar trend. The proportion of bottled volumes to bulk volumes varied – from 30 percent in 2000 to 108 percent in 2005, as shown in Exhibit IV-B. However it must be noted that bottled wine volume is based on the volume of bulk wine produced in the previous year(s).



Source: Moldova-Vin

The lingering influence of the 1998 Russian financial crisis, which led to a decrease in sales and production volumes, caused the low volume of bottled wine in 2000 as wine producers normally only bottle wine when they have signed contracts with buyers. In 2005, wine produced for storage was lower than wine produced for bottling the first time. Exports increased and absorbed the stocks from previous years. Moreover, demand grew so much that Moldovan wineries had to import bulk wines to supplement their stocks. The bulk wine imports were often combined with Moldovan wines, bottled locally, and exported to existing markets.

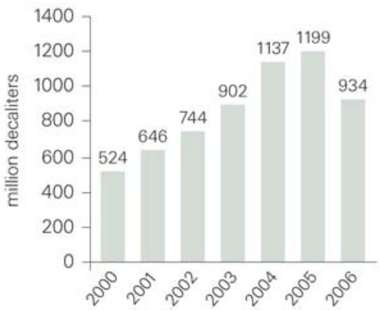
The proportion of red to white wines produced in Moldova is roughly 40 to 60 percent. In 2005, as shown in Exhibit IV-C, the structure of wine production was 75 percent of semidry and semisweet wines, about 10 percent of dry wines, 10 percent of sparkling wines, and 5 percent of fortified wines, following customer preferences in target markets.



Source: Moldova-Vin

According to the data available from Moldova-Vin, the wines with controlled denomination of origin (VDO and VDOC) represent less than 1 percent of all wines produced. Aged and collection wines represent around 5 percent of all wines. The remaining 94 percent are table and high quality wines. Sparkling wine production had shown a very positive trend before 2006, increasing more than two-fold in five years. Sparkling wine production figures, shown in Exhibit IV-D, did not suffer as large a decline as other types of wine after the Russian ban. The volume dropped only 22 percent, compared with a drop of 63 percent for bottled wine.

Exhibit IV-D: Volume of Sparkling Wine Produced, Million Decaliters



Source: Moldova-Vin

Moldovan wineries currently have 30 million decaliters in wine stocks of which 10 percent represent wines from Isabella or other hybrid varieties according to Moldova-Vin. These stocks are the equivalent of 400,000 metric tons of grapes, almost double the 2006 crush and about 80 percent of the combined 2005 and 2006 crush.

Note that because industrial production is concentrated in Transnistria, the wine industry contributes a higher percentage to industrial production in the Bessarabia portion of Moldova than reflected in the 2006 figure of 8 percent, down from 17 percent in 2005.

A2. Wine Producers

The wine industry in Moldova includes several types of winemaking companies that specialize in producing still wines, sparkling wines, and spirits. As shown in Exhibit IV-E, they can be categorized in three groups: bulk wine producers (37 percent), bottled wine producers (33 percent), spirits producers (7 percent), and bottlers (17 percent). Also, there are a small number of wine exporting companies (6 percent) that do not produce wines. Moldovan wine companies follow several business models:

Exhibit IV-E: Structure of the Moldovan Wine Industry

Categories	Number of enterprises
Bulk wine producers	75
Bottled wine producers	67
Bottlers	35
Spirits producers	14
Exporters, non-producing	12
Total number of companies	203

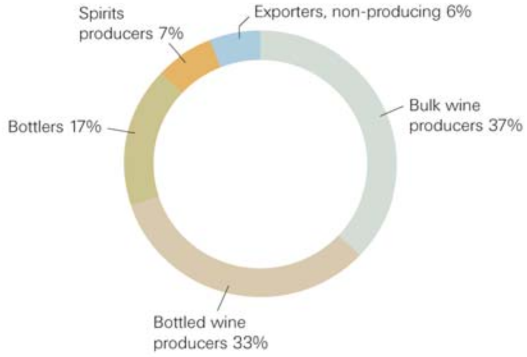
Source: Moldova-Vin

- The first model represents the bulk wine producers. These companies have only processing and storage equipment, following the Soviet model of producing wine in Moldova and shipping to its destination in cistern trucks or railroad cistern carriages, where it is bottled at the destination, usually another country such as Russia or Belarus.

- The second model comprises those companies that have processing, storage, and bottling equipment. Sometimes these companies own several processing wineries (called primary wineries) located in different winegrowing regions of the country and one central location. The wine is shipped from regional wineries to the central winery for treatment and bottling. Most of these wine companies have their own trademarks. Sometimes producers of bottled wine are involved in commercialization of bulk wine as well.

- The third model covers bottling companies. They have only storage capacity and a bottling line. These companies buy wines from bulk producers or import wine from other countries and bottle it for export. Bottlers emerged on the wave of increased wine exports from Moldova to Russia. Most of them are branches of Russian wine distributors, which have their own trademarks.

Spirits producers (brandy, cognac, etc.) usually don't process grapes. They buy bulk wine and distill it. All these companies have storage and bottling facilities. There are wine companies that produce and bottle a whole range of grape products, including bulk and bottled wines, sparkling wines, and spirits. The trend in the industry has been to diversify as much as possible. However, diversification did not reduce risks as all exports were oriented towards one market.



Source: Moldova-Vin

It is estimated that around 40 percent of all wine and spirits producing companies have planted new vineyards in the past five to seven years. Their goal is to gain control over the vineyard management, which will allow them to secure higher quality grapes. Nevertheless, currently they are not able to supply all their raw material from their own vineyards. Supplying grapes from the spot market was very common practice few years ago, but declined after the 2006 crisis.

Production facilities are estimated as follows:

- Bulk wine producers – 1 million metric tons
- Bottled wine producers and bottlers – 60 million decaliters
- Spirits producers – 1 million decaliters

According to 2006 figures, producers of bottled still wine are grouped in terms of production as shown in Exhibit IV-G. Twenty companies produced around 70 percent of all bottled wine in 2006. Therefore most of wine in production is concentrated in the hands of a few large wine producers, some of them financed with Russian capital. Industry consolidation will be likely after the lifting of the Russian ban as only a handful of companies will be allowed to sell to Russia. Also, current winemaking legislation is very restrictive toward smaller producers, which will further stimulate the consolidation of the industry.

Exhibit IV-G: Bottled Wine Producers' Volumes, Thousand Decaliters

Bottled volume	Number of firms	% of total
More than 375	6	32
150 - 375	14	38
75 - 150	19	16
Less than 75	46	14

Source: Moldova Vin

In the past, the bulk wine business represented a large portion of wine production in Moldova. For example, in 2006, the ratio of exported bulk wine to bottled wine was 52 percent to 48 percent. In 2007, bulk wine commercialization has been discouraged by the government. Nevertheless, bulk wine producers account for 37 percent of all producers. Also, due to their difficult financial situation, even wine companies equipped with bottling lines exported bulk wines. Taking into account the Russian ban and changing rules for exporting bulk wines to Belorussia, bulk wine companies will have to make strategic short-term decisions such as merging with bottling companies, establishing strategic alliances with bottlers, or investing in their own bottling equipment. Given the current financial situation of these companies, the last option is less possible now.

A3. Viticulture

This section covers climate, varieties, surface area, controlled origin (VDOC/VOC) production areas, grape producers, wine grape production techniques and issues, and the market for grapes.

A3a. Climate

Moldovan viticulture can be characterized as continental. The southern half of the country benefits from climate and soils that are propitious for wine production. The latitude is comparable to Bordeaux, being intersected by the 47th parallel. Annual sunshine hours are 2100 to 2500 with precipitation from 350 to 700 mm/year and altitudes from 100 to 300 meters above sea level, all strong indicators for viticulture production.

A3b. Varieties

About 80 to 85 percent of total vineyard area is planted to *Vitis vinifera* varieties of Western European, Caucasian, or indigenous origin with roughly 70 percent planted to white varieties, mainly concentrated in the central part of the country, and 30 percent to red varieties, mainly in the south. About 5 percent is planted to table grapes, and 10 to 15 percent to *Vitis labrusca* varieties (Isabella, Noah, and Lidia).

Moldova's Main Wine Grape

Whites
- Aligoté, 23%
- Rkatsiteli, 15%
- Sauvignon Blanc, 9%
- Feteasca Alba, 7%
- Chardonnay, 4%
- Rhine Riesling, 3%
- Traminer, 2%

Reds
- Merlot, 9%
- Cabernet Sauvignon, 8%
- Pinot Noir, 7%

The main wine grape varieties are listed in the text box. Other white grape varieties include Muscat, Pinot Blanc, Pinot Gris, Italian Riesling, and Plavai. Other red varieties include Malbec, Saperavi, and Rara Neagra. More than one-third of the total vineyard area is planted to two white varieties: Aligoté and Rkatsiteli, which are unknown on Western markets, and are suitable for spirit production, rather than for the production of high quality varietal wines. Cabernet Sauvignon and Chardonnay occupy respectively only 8 and 4 percent of the total vineyard surface area. Generally, Moldovan vineyards are planted to varieties suitable for production of wine sought after in CIS export markets. New plantings should be with varieties predicted to be in demand in target markets.

Older plantings often have hybrid varieties interspersed with noble varieties. White varieties may even be mixed in with reds, and vice versa. This is obviously a problem for labeling, but also for wine quality because color is diluted in reds, and must be fined out in whites, with inevitable loss of aroma and flavor. Moreover, since different varieties ripen at different times, the optimum harvest time is hard to determine, compromising quality.

Widespread production of wine from table grapes has occurred in the past with obvious negative implications for quality. This problem is worsened by the tendency to vinify table grapes that are unsuitable for consumption as fruit, because of disease or damage.

A3c. Surface Area

Moldova has about 101,500 hectares of vineyards planted with the *Vitis vinifera* varieties of which 85,600 hectares are dedicated to wine grapes. Exhibit IV-H (following page) shows the evolution of vineyards surface area and average yields per hectare from 1990 to 2006. The vineyard surface area decreased by roughly 8 percent per year from 1992 to 2002 with grape production decreasing concomitantly. This decline was largely the result of the privatization of vineyards following independence in 1991. As part of privatization, vineyards were fragmented into parcels too small to be worked efficiently. Mechanization became cost ineffective for the average landholding. Consequently, grape growing became only marginally profitable.

Surface area declined steadily from 1975 to 2000, from 289,000 to 149,000 hectares. Since 2002, the decline has stabilized due to new plantings at a rate roughly equal to uprooting of old vines. However, it should be noted that the new vineyards are considerably more productive than older ones.

Exhibit IV-H: Evolution of Vineyard Surface Area of *Vitis Vinifera* Wine Grape Varieties and Their Average Yields, 1990 to 2006

Source: Moldova-Vin

A3d. Controlled Origin Production Areas

Moldova has a complicated appellation system stipulating that wines produced within specified regions and "denominated by origin" (VDO wines) are made using defined methods and that they satisfy defined quality standards. VDOC (denominated by controlled origin) regions are sub-territories of VDO regions that are subject to more stringent production and quality standards than those applying in the surrounding VDO region. Moldova adapted their system from systems in France and Italy as did most wine-producing nations. In June 2005, the government declared 12 VDOC zones, six in the central (Codru) region with a total area of 515 hectares, and six in the southern (Cahul) region with a total of 295 hectares.

In light of the current crisis, this system's value should be reviewed. The system's rationale was that it maintains traditions and assures quality, and so adds value to wines. However, this rationale is now questionable. Even in Moldova's traditional markets, Russia and the CIS countries, the average consumer will not be more inclined to buy if a Cabernet Sauvignon is attested to be VDOC from Hincesti, for example. In new markets, the average consumer has only a vague idea of Moldova itself.

Such a system may be justifiable in countries like France, which have regions with established quality reputations and winemaking traditions valued by consumers. However, even in France the value of the system is being challenged, and the industry is moving towards other means to maintain a perception of quality. In Moldova, it is doubtful that the purported benefits merit the productive hours lost in the private and public sectors through maintaining the system. Moreover, the system stifles innovation, which is critically important in adapting to rapidly changing consumer tastes.

A3e. Grape Producers

About two-thirds of grapes available on the market are produced by small, private grape producers with less than one hectare. However, vineyard size has increased in the last several years as owners lease or buy their neighbors' vineyards and streamline production and labor. This trend is reflected in the gradually increasing yields per hectare, from a low of less than two metric tons per hectare in 1997 despite the trend towards older average vineyard age as shown in Exhibit IV-M (page x). These associations could serve as models for accelerating the consolidation of vineyard holdings into sizes amenable for cost-effective grape production. To encourage voluntary cooperation between owners, deep-seated aversion to any form of association that resembles collectivization of Soviet times has to be overcome. There is also often an assumption that association members will steal and otherwise unfairly profit from the association.

Vineyard ownership structures. Other forms of vineyard ownership are cooperative farms, and vineyards owned by joint stock companies (usually owned wholly or partly by wine companies). The distribution of various ownership structures are shown in Exhibit IV-I. Types of producers and their harvest yields are detailed in Exhibit IV-J.

Exhibit IV-I: Vineyard Ownership Structures

Ownership	Total	Percentage
Individual, village farms	50 000	64%
Joint stock companies	224	26%
Cooperatives	6	10%
Source: Moldova-Vin		

Exhibit IV-J: Gross Harvest of Grapes and Yield per Hectare

	1998	1999	2000	2001	2002	2003	2004	2005
All producers								
Gross harvest, thousand metric tons	342.7	464.9	703.8	505	641.2	677.2	685.6	518.5
Yield per hectare, metric tons	2.16	3.14	4.95	3.35	4.33	4.74	4.95	3.62
Area of vineyards	166	154	149	154	152	149	146	148
of which bearing	157	147	142	150	148	143	138	140
Agricultural enterprises								
Gross harvest, thousand metric tons	161.6	173.3	218	133.7	166.8	179.4	190.2	122.8
Yield per hectare, metric tons	1.73	2.49	4.46	3.01	3.74	4.12	4.64	3.13
Area of vineyards	97	71	50	46	46	46	45	44
of which bearing	93	69	49	44	44	43	41	39
Individual farmers								
Gross harvest, thousand metric tons	181.1	291.6	485.8	371.3	474.4	497.8	495.4	395.7
Yield per hectare, metric tons	2.83	3.74	5.22	3.50	4.56	4.98	5.11	3.92
Area of vineyards	69	83	99	108	106	103	101	104
of which bearing	64	78	93	106	104	100	97	101
Source: Statistical Yearbook 2006								

Extension services. Most small-scale producers acquired their vineyards as a result of privatization of collective farms that included vineyards and so most have limited training or experience in viticulture, so viticultural extension services must be a vital element in any strategy to restructure the sector.

Currently, the extension service providers are thinly stretched, and so extension services represent a weak link in the viticulture/wine value chain. Organizations active to various degrees in providing viticulture training and materials in approximate order of importance are: National Agency for Rural Development (ACSA), Agroinform, Moldova-Vin, Ministry of Agriculture and Food Industry, and National Institute of Wine and Vines. Fungicide and other chemical input suppliers also provide instruction, but it is often biased to increase sales. Damage to the environment is rarely considered.

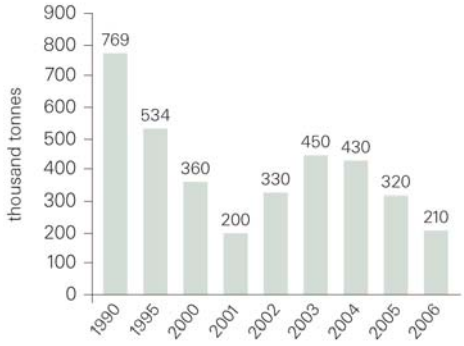
ACSA, the biggest extension provider, was launched as an NGO in 2001 with a contribution from the Moldovan government to implement the extension services component of the World Bank Rural Investments and Services Project. ACSA's supervisory board includes representatives from three ministries and from various donor organizations. ACSA has 460 consultants distributed in the regions through a network of 35 teams, contracted through an open tender basis. About two-thirds are trained agronomists and each team in the south and central viticultural zones has at least one viticultural specialist. ACSA must continuously recruit new viticultural consultants to replace those poached by better paying commercial grape-producing companies. ACSA claims to reach more than 60 percent of the rural population.

A3f. Wine Grape Production

Productivity. The decline from 769,000 metric tons in 1990 to 200,000 metric tons in 2001 as shown in Exhibit IV-K reflects the decline in vineyards area over the same period as well as the effects of privatization from 1995 to 1998. However, the annual variations away from this underlying trend reflect the vulnerability of grape-growing productivity, due to weather conditions. Crop productivity levels are often adversely affected by drought, frost damage, hail, strong winds during flower set, and untimely rains just before harvest.

Exhibit IV-L shows how Moldova's yields compare to other leading wine producers over a ten-year period.

Exhibit IV-K: Grape Processed for Wine Production



Source: Moldova-Vin

Exhibit IV-L: Average Viticultural Yield in Selected Countries, Metric Tons Per Hectare											
Country	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Australia	12.3	16.8	13.1	14.2	13.3	11.9	11.8	12.2	10.5	13.4	13.2
Bulgaria	6.2	6.2	6.0	3.5	3.4	4.1	3.4	3.6	3.3	2.7	2.1
Chile	13.4	14.0	13.5	12.2	11.2	12.1	10.7	10.3	11.5	10.9	12.6
France	8.1	8.7	8.2	8.0	9.3	9.0	8.4	8.0	7.4	8.9	8.0
Germany	14.4	12.3	11.2	14.4	16.4	13.4	12.3	13.9	10.3	8.4	10.3
Greece	8.9	9.4	9.8	10.7	9.7	10.0	10.9	6.1	7.4	7.0	9.4
Hungary	5.4	6.7	7.2	7.3	5.8	7.7	9.9	6.1	6.3	8.5	5.7
Italy	9.4	10.6	9.2	10.6	10.7	10.2	10.1	8.5	8.7	10.4	10.2
Romania	5.3	5.7	4.6	3.4	4.4	5.2	4.6	4.6	4.8	6.0	2.9
Moldova	4.9	4.7	1.9	2.2	3.2	5.0	3.4	4.3	4.7	5.0	3.7
Source: FAO Agricultural Database, http://faostat.fao.org/											

New planting. The decline in vineyard area has stabilized in recent years due to new plantings by new investors. The new investors are small-scale grape producers, cooperatives, vertically integrating wine producers, and joint ventures between wine producers and local farmers/cooperatives.

The State Development Programme for Rehabilitation of the Viticulture and Wine Sectors aims to achieve about 100,000 hectares of new plantings by 2020. Despite this, recent projections forecast a resumption of the decline because wine companies and growers are now reluctant to invest in new plantings in light of the excess supply resulting from exclusion from the Russian market. Approximately 8,000 hectares are lost to grape production yearly due to their age and declining productivity. To counter this trend, the government has offered a subsidy of 25,000 MDL/hectare since January 2004 for new wine grape plantings. This subsidy is funded by a tax on wine producers. The initiative also encourages consolidation of vineyards into larger, economically viable areas because it applies only to areas larger than 5 hectares for wine grapes. There were 38 applications for subsidies in 2004, 78 in 2005, and 103 in 2006.

In a bid to enhance the subsidy scheme, the government has recently resorted to mortgages. President Vladimir Voronin has instructed a working group to review options, including either a lump sum mortgage or a special credit line. A number of designated mortgage companies will be established by wine companies and nurseries. The selection of grape growers eligible for mortgages will be stringent; the initial installment will cover 20 to 25 percent of the total planting/cultivation costs, and the collateral will be land.

Subsidies for vineyards will be forwarded directly to the participating mortgage companies who offer mortgages. Mortgage companies will require soil treatment, planting and cultivation machinery, and they will be responsible for plantation planning, planting/uprooting, preparation of soil, installation of support systems, and mechanized treatment of vines. The outstanding mortgage sum will be repayable within four to six years, while the actual contract duration is eight to 10 years. In the case where wine companies participate as lenders, an in-kind payment with grapes may be accepted. Pending complete repayment of the mortgage, the plantation is considered leasehold; upon repayment, it will be the mortgagee's property. Several mortgage schemes are currently being considered, covering costs for:

- Planting on the mortgager's land – MDL 60,000 per hectare
- Planting and installation of trellis – up to MDL 100,000 per hectare
- Planting, trellis, and subsequent treatment of plants – up to MDL 120,000 per hectare
- Planting on newly acquired land - up to MDL 150,000 per hectare

Once approved by the government, the program will commence in the autumn of 2007.

Vineyard condition. In Moldova, vines tend to be older than in other wine growing regions. Although most vineyards appear to be well maintained, many are not as shown in Exhibit IV-M. The low yield (less than 4 metric tons per hectare compared with 10-16 metric tons per hectares in Germany and Australia, see Exhibit IV-L) is primarily due to their age and the application of less water and fewer pesticides and fertilizers, which are too expensive for most small grape-growers.

Exhibit IV-M: Condition of Vineyards as of 2002

Vine Age	**1 – 4 years**		**5 – 15 years**		**16 – 25 years**		**> 25 years**		**Total**	
Condition	**Thousand Hectares**	**%**	**Thousand Hectares**	**%**	**Thousand Hectares**	**%**	**Thousand Hectares**	**%**	**Thousand Hectares**	**%**
Good	8.11	76.5	4.18	32.4	12.3	17.3	1.05	6.0	25.64	22.9
Satisfactory	2.23	21.0	6.97	54.0	42,3	59.5	8,12	46.4	59.62	53,2
Unsatisfactory	0.26	2.5	1.75	13.6	16,5	23.2	8,33	47.6	26.84	23,9
Total Hectares	10.6	-	12.9	-	71.1	-	17.5	-	**112.1**	-
By age		9.5		11.5		63.4		15.6		**100**

Source: Moldova-Vin

The regulatory regime applied to viticulture. Once a vineyard has been established, the regulatory regime applied to viticulture in Moldova is not overly onerous. To sell their grapes, vignerons must provide phytosanitary certificates concerning pesticides used, and they must declare that residue limits are not exceeded. However, the regulatory regime applied to the establishment of new vineyards is a serious obstacle to restructuring and innovating. It reinforces the "industrial commodity" mindset inherited from Soviet times and so hinders production of quality grapes. For example, only varieties listed in the Registry of Plant Varieties can be used in production but registration of new varieties is a lengthy process. New planting projects must be approved by one of the seven organizations authorized to do so but criteria applied are usually oriented towards maximizing yield with scant regard for grape quality. Interestingly, the unauthorized uprooting of vineyards is considered a felony.

Irrigation. As of June 2007, only about 150 hectares of table grape vineyards are irrigated. No wine grape vineyards in Moldova are irrigated. Even in vine nurseries, where water is essential for the development of young vines prior to replanting, it is usually carted by truck or sourced from artesian wells. In Soviet times, several large-scale irrigation projects included plans for vineyard irrigation but those were not realized. The plans called for irrigation with high-pressure lift to holding reservoirs and high-pressure distribution to overhead sprinklers. Overhead sprinklers exacerbate spread of fungal disease, so such a system is unsuitable for irrigating vineyards, particularly in Moldova, where it is often rainy and humid during summer.

Improved production techniques for grape quality. The low yields achieved in Moldovan vineyards do not necessarily impact grape quality negatively since yield is inversely proportional to quality. Old vines, which must struggle to survive, tend to produce the best grapes, which have the potential to make the best wine, provided that they are protected from disease. Consequently, grape growers have potential to grow good quality grapes.

Growers could improve quality with greater protection against disease. Protection against disease depends on informed application of pesticides. Advanced "ecological" viticultural techniques can also be effective, and perhaps more cost effective, given low manual labor costs. Ecological methods of pest control and a better understanding of vine metabolism and pesticide mechanisms could enhance the efficacy of pesticide application.

The prevailing "industrial commodity" mindset inherited from Soviet times and emphasizing quantity over quality is also a serious impediment. Success in today's competitive wine business requires tracking and adapting to fickle consumer tastes. Ideally, there should be a compromise between yield and quality to maximize returns. But the "industrial commodity" mindset is often shared by the cadre of experts authorized to approve new vineyard projects. Therefore, even if a more enlightened small grape producer wishes to establish a new vineyard oriented towards quality, he or she has to compromise ideals to get approval, which in turn is needed to be eligible for subsidies.

A3g. The Market for Grapes

Pre-ban. Until the Russian wine import ban in March 2006, demand exceeded supply of grapes, and most growers could achieve a competitive price for their grapes from local wineries. Some wineries ensured delivery from growers by a form of partial pre-payment with pesticides, herbicides, and other inputs. However, untied growers tended to prefer early payment so they could escape the risk of crop losses due to weather damage and theft and so they could finish the year's field work earlier. Consequently, wineries competed on the basis of earliest payment instead of quality, resulting in grapes harvested before optimum maturity and inferior quality wine. This is a serious problem that reduces wine marketability and subsequently, prices wineries are willing to pay for grapes. This problem is exacerbated by local tastes that have habituated to green, high-acid, low-alcohol dry wines, and green, high-acid, low-alcohol base wines that have been made more drinkable by adding sugar and alcohol. Most Moldovans prefer these styles to Western European or New World style wines.

Current wine grapes market. Forecasting grape supply is as difficult as long-range weather forecasting; crop levels are often adversely affected by drought, frost damage, hail, strong winds during flower set, and untimely rains just before harvest. This causes lower yields and fungal disease. Drought and frost effects have been minimal in 2007. Some mostly younger vines were frost affected in some areas, but they were only just beginning to bear fruit. Nevertheless, projections for the 2007 harvest of about 500,000 metric tons seem rather optimistic for these reasons:

- There were localized high winds during flower set (June is the best time to assess yield after flower set, but there appears to be little interest in doing so).
- Additions to the national harvest from vineyards planted three to four years ago will not make up for reductions due to unprofitable older vineyards being abandoned.
- Most wine companies that prepaid growers with pesticides and other inputs in previous years have not done so in 2007.
- Most growers have not been paid for grapes delivered in 2006 and many have not been paid for 2005 deliveries. They will be disinclined or unable to buy pesticides and other inputs necessary to maximize quality and yields.

Thus industry estimates for the supply forecast are slightly lower, perhaps 400,000 to 450,000 metric tons depending on weather conditions from July through to mid-October. Meanwhile, demand is likely to be down substantially for the following reasons:

- The Russian market, which represented about 80 percent of Moldovan exports, is estimated in the future to represent only 5 to 7 percent at best. The quality perception of Moldovan wine has been devastated in the Russian market. Moreover, Moldova's previous share of the Russian market (about 45 percent by value) has largely been replaced by New World imports at the high end and Russian wine at the low end. Most Russian wine comes from the southern Russian region of Krasnodar and from packaging operations in St. Petersburg and Moscow. It is made mostly from cheap imported bulk wine from countries such as Argentina, Spain, Chile, France, and Italy.

- Alternative export markets will take time to develop and those already active are small and cannot absorb the type of volumes that need depletion.

- Wine stocks are at record levels, equivalent to about 400,000 metric tons of grapes; these stocks are mostly unsuitable for sale in markets other than CIS.

- Due to unsold stocks, many companies don't even have suitable capacity for processing their own grapes, let alone purchased fruit.

Russian Wine Fills the Need

Russian wine producers received a huge boost in their assault on the market segments previously dominated by Moldovan and Georgian wines, when imports of bottled wine were halted for several months in mid-2006. Bottled imports were stopped because new excise stickers, required from July 1, 2006, were not available for several months, due to "bureaucratic problems." The main reason for the new stickers was to eliminate counterfeiting. The Russian wine producers were fortunate because, although domestic wines also required similar new stickers, these were available promptly from July 1, 2006.

Notwithstanding the above downward pressures on demand, some wine companies will acquire grapes speculatively, given that prices will be low, and growers will have no choice but to accept deferred payment. The forecast for grape prices is sharply lower.

The single positive feature of the coming 2007 harvest is that there should be no excuse for harvesting unripe grapes except if weather conditions are unfavorable. In previous years, unripe grapes have been a major cause of poor quality.

A4. Markets and Distribution

This section focuses on Moldova's domestic and export market.

A4a. Export Markets

Major markets by country. As shown in Exhibit IV-N (following page), CIS countries in 2004 accounted for about 95 percent of the Moldovan export with Russia the most important destination. Exports to Europe and the United States were insignificant. The situation in 2005 was similar; however, no recent data on external trade in these countries is available. Since the ban of Moldovan wines by Russia in March 2006, the situation changed dramatically. As of 2004, Moldovan wine led all imports by CIS countries. However, in the Baltic States it lost its lead after the Soviet Union's collapse, and its share was moderate by 2004. Those countries where Moldova had an important share of the local market were Belarus (70 percent), Russia (23 percent), Kazakhstan (16 percent), Kyrgyzstan (13 percent), Azerbaijan (12 percent), and Latvia (10 percent).

For comparison with the current situation, Exhibit IV-O shows Moldovan wine exports in 2006. Russia was still was among the leading importers as a portion of production was exported before the ban was introduced in March 2006. Comparing these figures to the statistics from 2004, the importance of European countries, the United States, and other CIS countries grew mainly due to shrinking of export sales volumes.

Exhibit IV-N: Country Data for Moldovan Wine Exports, 2004

Country		Exports from Moldova, Thousand Decaliters	Shares of Moldova Exports, %	Countries' Statistics, Thousand Decaliters				Share of Moldovan Wine in Import, %	Share of Moldova Wine on Market, %
				Production	Export	Import	Market Size		
Europe and US	Czech Rep	43.37	0.15%	5400	310	12260	17350	0.35%	0.25%
	Germany	56.60	0.19%	100470	27090	130430	203810	0.04%	0.03%
	Israel	26.40	0.09%	600	320	4200	4480	0.63%	0.59%
	Latvia	51.90	0.18%	0	940	1440	500	3.60%	10.38%
	Lithuania	59.20	0.20%	520	50	1460	1930	4.05%	3.07%
	UK	37.33	0.13%	170	2620	119450	117000	0.03%	0.03%
	Poland	136.70	0.46%	0	30	5790	5760	2.36%	2.37%
	Romania	20.50	0.07%	61660	3760	30	57930	68.33%	0.04%
	U.S.	57.00	0.19%	201090	38740	64150	226500	0.09%	0.03%
CIS	Azerbaijan	86.20	0.29%	550	50	190	690	45.37%	12.49%
	Belarus	3514.40	11.88%	750	60	4270	4960	82.30%	70.85%
	Georgia	109.50	0.37%	9500	4000	130	5630	84.23%	1.94%
	Kazakhstan	525.70	1.78%	2500	10	710	3200	74.04%	16.43%
	Kyrgyzstan	57.50	0.19%	360	0	70	430	82.14%	13.37%
	Russia	23920.10	80.88%	51200	120	50510	101590	47.36%	23.55%
	Turkmenistan	27.94	0.09%	2400	30	100	2470	27.94%	1.13%
	Ukraine	805.90	2.73%	20000	2110	1130	19020	71.32%	4.24%
TOTAL		**29567**	**99.98%**	**457170**	**80240**	**396320**	**773250**		

Source: Calculations based on OIV and Moldova-Vin data

Post-Ban Factors for Moldova

- The quality perception of Moldovan wine has suffered serious damage on the Russian market
- Moldova's previous share of the Russian market has already largely been replaced: at the high end, mostly by New World imports, at the low end, mostly by Russian wine, made from inexpensive imported bulk wine
- Much of current excess stocks will not be exportable to Russia under the new controls

From 2004 to 2006, exports to Kazakhstan, Kyrgyzstan, Turkmenistan, and Lithuania slightly decreased while exports to Belarus, the United Kingdom, Israel, and the United States were roughly the same. There were slight increases in exports to Azerbaijan, Georgia, the Czech Republic, Germany, and Latvia. However, three countries registered large growth with a 4.9-fold increase to Ukraine, a doubling to Poland, and a 37-fold increase to Romania, which has become the leading importing country for Moldovan wines replacing Russia. There are two main reasons for increased export sales to Ukraine and Romania. The first is the relative ease of diversification to the nearest markets. The second is that some wine companies tried to use these countries as a base to re-export wine to Russia, using existing logistics and distribution channels. However, in mid-2006, Russia banned import of some Romanian and Ukrainian wine producers, revealing this tactic.

Table IV-O: Moldovan Wine Exports, 2005 and First 11 months of 2006

Country		2005		January-November 2006	
		Exports from Moldova, Thousand Decaliters	Shares of Moldovan Exports %	Exports from Moldova, Thousand Decaliters	Shares of Moldovan Exports %
Europe and US	Czech. Rep	89.5	0.28%	90.91	0.50%
	Germany	77.5	0.24%	75.97	0.42%
	Israel	16.3	0.05%	25.55	0.14%
	Latvia	71.4	0.22%	85.08	0.47%
	Lithuania	57.4	0.18%	48.64	0.27%
	UK	35.9	0.11%	36.56	0.20%
	Poland	167.9	0.52%	274.39	1.51%
	Romania	130.8	0.41%	4839.20	26.58%
	U.S.	37.8	0.12%	52.77	0.29%
CIS Countries	Azerbaidjean	246.0	0.76%	131.10	0.72%
	Belarus	3720.8	11.53%	3340.86	18.35%
	Georgia	218.8	0.68%	155.60	0.85%
	Kazahstan	422.0	1.31%	463.33	2.54%
	Kyrgyzstan	75.8	0.23%	42.85	0.24%
	Russia	25190.5	78.09%	4186.03	22.99%
	Turkmenistan	39.2	0.12%	16.91	0.09%
	Ukraine	1588.4	4.92%	3982.40	21.87%
Total		32186	99.80%	18206	99.90%

Marketing strategies. Common export strategies of Moldovan wine producers do not exist. Basically, companies provide products according to requirements of their distributors and lose control over the wine's distribution after the goods are loaded on the vehicle. The exceptions exist when a Moldovan winery belongs to foreign investors, usually from Russia. In this case, common marketing strategies may be in place, usually developed by the parent company for the export market(s).

The companies' marketing staff generally has no specialized marketing education; therefore they act at a tactical level, often not knowing the marketing fundamentals to draw on for an appropriate strategy. On a tactical level each company's approach is different. The majority try to expand the number of export countries they reach with little strategic focus, whereas a smaller number of companies try to consolidate positions in several main markets. The marketing process is generally simple in most cases: the importer provides requirements for the product (i.e. wine type, quality, label, and packaging) and a price is negotiated.

Direct/indirect exports. Bottled wine exports are mainly direct exports. Small exceptions appear in the EU territory within a common customs union—some companies have a main importer in one of the EU countries and several smaller sub-distributors in other EU countries. But, re-export is currently insignificant because when volume reaches a significant level direct shipments from the producer become the preferred route. The re-export of bulk wine is more common because bulk wine can be considered a commodity. The main market for bulk wine remains Belarus, where the wine is bottled for delivery to Russia. However, the Russian authorities have tried to limit this channel as much as possible. Alternative countries for re-export of Moldovan wine to Russia were Romania and Ukraine for several months before Russia banned import of Moldovan wines from the Ukrainian and Romanian companies involved. It is worth noting that before the Russian ban, Moldovan wine producers couldn't fully meet the demand for their wines and as such they would import bulk wine from Romania and Bulgaria in order to bottle it and export it to Russia.

Private labels. Moldovan producers usually are quite flexible in terms of tailoring their products to distributors' requirements and related markets. Many produce wines under importers' private labels. In some cases there are joint venture brands, where the distributor and producer own the brand in equal proportion and the producer can sell this product only to the distributor and the distributor can buy this product only from the partner producer. Private labels appear when a producer allows the importer to register the trademark in the country of import, thus this becomes a kind of joint venture brand that belongs to the distributor in the destination country, but not in other countries. Sometimes this is practiced when a producer has several distributors in one country, allowing the same wine for separate brands and thus expanding market coverage without direct competition. There are also examples when an importer provides a Moldovan producer full marketing and technical support to produce a specified product. This may include product name, label design, and winegrowing and winemaking support. However this is rare.

Marketing channels. All Moldovan wine producers work through import companies and therefore have neither control on their sales nor the information on how their product is being distributed. The exception has been those wine producers that have Russian ownership investment. However, theses companies are not eager to share distribution system information as it is seen as proprietary. In the CIS market, especially Russia, large wine holding companies organize complicated distribution and logistical systems, moving their products through a chain of officially and unofficially affiliated intermediaries to reduce their taxation base.

Changing Preferences in the CIS Countries

The CIS and Baltic countries preferences are for dry and semi-sweet wines with an insignificant share of semi-dry and sweet wine consumption varying by market. Moldova's wine styles have been preferred in CIS countries because for years Moldovan wine shaped consumer tastes. However, consumption patterns in CIS countries are now changing towards the European and New World wine styles.

We can assume that some of wine producers, whose products are suitable for hotels, restaurants, and catering (HoReCa), such as Purcari, Dionysos-Mereni, Acorex Wine Holding, DK Intertrade, and Lion Gri, by design and in terms of quality, use the HoReCa distribution channel to reach the final consumer. Yet, no concrete data is available to measure or validate this. The only successful example of direct mail order distribution channel used for Moldovan wine is the Direct Wines ltd., a UK-based company that imports wines from Acorex Wine Holding. In the past there have been rare cases where a local supermarket chain imported directly from a Moldovan supplier. However, no large international retail chains are currently importing directly. If this were to happen it could provide a stable distribution channel for Moldovan producers, but it would be practically impossible to achieve distribution and sales within the same market, thus limiting overall market coverage.

Product types. The dominant wine package in all main markets is a 750 ml volume glass bottle. It conforms to U.S. and EU standards for bottled wines.

Tariffs payable in major markets. Below is an overview of tariffs in key markets.

- *Russia*. The excise tax applied is 2.2 RUR/liter (approximately $ 0.085); sparkling wine is 10.5 RUR/liter ($ 0.40). Imports from Moldova are exempt from customs duties.

- *Ukraine*. The excise tax for dry wine is 0.25 UHR/liter ($ 0.05) and for semidry, semisweet, and sweet wine it is 0.92 UHR/liter ($ 0.18). For fortified wines it is 0.1 UHR ($ 0.02) per 1 percent of pure alcohol. Imports from Moldova are exempt from customs duties.

- *Belarus*. Following the national program for developing the wine bottling industry the excise tax for imported bulk wine was abandoned in June 2006. The excise taxes for natural still wines are about $ 0.24/liter and $ 0.86/liter for sparkling wines. Imports from Moldova are exempt from customs duties.

- *Kazakhstan*. The excise tax for bottled wine is 20 tenge/liter (16 cents). Imports from Moldova are exempt from customs duties.

- *European Union*. The customs duty for imported wines in the European Union is 13.1 euro per hectoliter for still bottled wine with alcohol content less than 13 percent and 15.4 euro per hectoliter for still bottled wine with alcohol content from 13 to 15 percent. For bulk still wine the duty is 9.9 euro per hectoliter. For sparkling wines from Moldova the rate is 30 euro per hectoliter. Excise taxes vary by country but most producer countries don’t charge any excise tax at present.

- *United States.* The excise taxes paid on imported table wine is $2.54 and 57 cents duty per nine-liter case. The sparkling wine excise tax is $8.09 per nine-liter case.

Non-tariff barriers. The main non-tariff barriers in CIS countries are related to corruption. The authorities, often participating in business, tend to create problems for competitors who are less influential. Interference can be artificially created by tax authorities, customs, and police, among others. At the state level, while some barriers may be intended to legitimately protect consumers’ interests, most often these are protectionist barriers, such as the ban in Russia or an unofficial ban on importing bottled Moldovan wines in Belarus, created to protect special interests. Trade barriers can be based on different requirements for quality for specific importing countries. For example, the majority of EU countries prohibit wine imports from hybrid varieties in the majority of EU countries, whereas in many other countries they are acceptable. Certification can be a barrier to enter a market. For example, it is difficult to place beverages in EU supermarkets if the producers don’t have HACCP certification.

Free trade agreements and other favorable trade preferences for Moldovan wine. Moldova is a member of free trade agreements with the following groups of countries:

- *CIS countries*. The import duty for Moldovan wines is 0 percent in all CIS countries, except, now Russia.

- *Central European Free Trade Agreement (CEFTA)*. CEFTA is comprised of Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia, and Kosovo, and it replaced the Stability Pact for Southeast European Countries. Romania and Bulgaria were also members but cancelled agreements with non-EU members after entering the European Union. This assumes the creation of the Free Trade Zone and a gradual import tax reduction and until the end of 2010.

- *World Trade Organization (WTO)*, where Moldova is also a member, aims to balance customs duties between its members. Still, wide altitude is provided to its members, allowing them to maintain relatively high customs duties for imported alcoholic beverages on specific countries like Moldova, and therefore lessoning the benefits for Moldovan wine exporters.

- *EU Generalized System of Preferences (GSP)/GSP+*. The purpose of GSP, from which Moldova benefits, is to lower the customs tariffs for developing countries exporting to the European Union. Neither GSP, nor its extended version GSP+, includes wine in its tariff reduction; however Moldova is currently negotiating its GSP+ agreement with the European Union and wine could be included as a product for reduced tariff.

- *Asymmetric Trade Agreement.* The Moldovan Ministry of Economy hopes to sign an Asymmetric Trade Agreement with the European Union by the end of 2007. This could contain significant reductions or elimination of import duties for Moldovan wines altogether.

A4b. Domestic Market

In 2006, about 2 million bottles of Moldovan wine were consumed compared with 40 million bottles of vodka. The major reasons for low consumption of commerical wine are:

- Home-made wine production
- Little or no tradition of drinking commercially-produced wines
- The price of a bottle of wine is similar to that of vodka; this favors vodka from the alcohol grade price point
- There is limited home-made alcoholic spirit production
- The active promotion and substantial growth of beer consumption

Product types and wine styles. More than a half of bottled wines sold are dry wines. The bag-in-box market is insignificant but no statistics are collected regarding its size. Bulk wine consumed in Moldova is homemade wine. In 2006, Moldova adopted a regulation stipulating that households that have more than 0.15 hectares of vineyards may sell their homemade wine in the raion in which they are located with the condition they must be licensed, have local authority approval, and pay excise taxes. In reality, homemade wine producers sell excess wine in their home villages without any declarations and control. The majority of homemade wine is produced from hybrid varieties not allowed in commercial wine; it is nearly all red dry wine, and mostly a mixture of different varieties. The average per capita homemade wine is estimated at 37 liters per year with an average alcohol content of 9 percent.

Marketing channels. The development of the domestic market was not a priority for wine producers before the Russian ban. Reasons included that marketing budgets were better spent on external markets where the return was much greater and wine producers were not interested in investing in such a small market. Another reason is that some of the leading producers (i.e. DK Intertrade and Lion Gri) have their bottling facilities in the Free Trade Zones and can't sell products domestically. There are just few companies that invested in promotion and distribution and now share the domestic market, among them Acorex Wine Holding, Purcari, Dionysos-Mereni, and Vinaria Bostavan. The rest of the companies haven't achieved significant sales except for Chateau Vartelly that is aggressively positioning itself in the premium domestic market segment. The sparkling wine market is shared between the traditional producer Cricova in the premium segment, Cascad-Vin in the low-end segment, and Vismos that is positioned somewhere between these two. So called "collection" wine is marketed by Milestii Mici cellars, but in quite small quantities. According to the estimates by industry experts, around 90 percent of commercial still wine is consumed in the capital.

The largest wine and spirits distributors are two Chisinau-based companies, Romatim and Glorinal, which supply market outlets and the HoReCa sector. However, some of the producers have built their own distribution systems.

Main market outlets. Supermarket chains supply most of the wine to Chisinau's wine consumers. The rest of the country is not covered by the supermarket chain retailers, with the exception of Balti. The chains are:

- *Green Hills Market*. The company was founded in 1995 and is a local retail market leader. It has five supermarkets in Chisinau, with a total surface area of around 15,000 sq. meters and 6,000 customers per day. In 2006, the chain was sold to the Ukrainian company Kviza-Trade.

- *Fidesco*. Fidesco is the oldest supermarket chain in Moldova. It has seven supermarkets, five in Chisinau and two in Balti. The biggest supermarket in Moldova, with a surface area of more than 5,000 sq. meters is in the Jumbo shopping center. The company also is an importer and distributor of food and drinks.

- *Shop Nr.1*. The first Nr. 1 opened in Chisinau in 2002. They now have three outlets in the capital, with an average of 5,000 daily customers.

- *Fourchette*. Owned by a Ukrainian investor that is a leader on the Ukrainain retail market. Fourchette opened its first store in 2007 focusing on Ukrainian products but also working with local suppliers. The company plans to aggressively invest in expansion.

- *Metro Cash & Carry Moldova*. The company is a subsidiary of the international holding Metro Group. Metro opened its first store in 2004 and quickly gained popularity with consumers. There are now two stores in Chisinau and one in Balti.

- *Others*. The share of other supermarket chains is insignificant. Linella is a single supermarket in Chisina and Colibri is a chain of small grocery stores in Chisinau. The rest of retail business is not consolidated, like others in the HoReCa sector.

A5. Transportation

The three main transportation modes for Moldovan wines are road, railway, and marine transport. Methods are chosen depending on destination. For most destinations, there is a preferred mode but in some cases there may be two appropriate modes, depending on size of the shipment. For instance, practically all shipments to Russia before the ban used rail transport, accounting for up to 90 percent of the total transportation used for Moldovan wine. In 2006, the breakdown of transportation modes was 57 percent for rail transport, 42 percent for road transport, and about 1 percent for marine transport. The large share of rail transport in 2005 is explained by the volumes shipped to Russia in 2006 before the ban. Without calculating the share of Russia in these figures, 84 percent of transport was by road, 14 percent by rail, and 2 percent by boat.

Railroad. The only rail service provider is Calea Ferata a Moldovei (CFM), a state-owned company. Beyond Russia, the only other rail destinations for Moldovan wine are the Central Asian republics, namely Kazakhstan and Kyrgyzstan. For Russia the main route is through Orel City on the border of Russia and Ukraine and then to several destinations, including Moscow and Novosibirsk. There are two constraints related to the rail usage for Moldovan wine. First, Transnistrian authorities have taken control of CFM infrastructure based in Transnistria, with permanent blockage of transport through this region. Thus trains must go via complicated routes, which increase shipment costs and time. Second, the difference in the gauge width standard between CIS countries and the European Union causes delays and some inconvenience for shipments directed to Western countries. However, it is not a large problem at the moment because only small batches of wine are exported to the European Union and do not require railroad transport.

Road transport. Road transport is used for shipments to Europe. There is strong competition resulting in large numbers of small and large service providers.

Marine transport. This method is used for long distance shipments to the United States and Asia. The advantage is its low cost, while the disadvantage is the length of transport time. The ports used by Moldovan exporters are Galati (Romania) and Ilyichevsk (Ukraine).

Cost of transportation. Exhibit IV-P shows transportation costs for bottled wine. The cost per bottle was calculated based on the following information:

- Road transport: 20 metric ton trucks can transport up to 15,000 bottles
- Rail transport: Mainly 50 metric ton capacity freight cars used and can hold about 38,000 bottles
- Marine: 20 and 40 foot containers, with 16,000 and 9,000 bottle capacity respectively. In these cost calculations, the cost of delivery to ports of Galati or Ilyichevsk (about $ 0.04/bottle) was included

Exhibit IV-P: Shipment Cost for 1 Wine Bottle (75cl), USD Based on Industry Data and Estimates

Destinations/ Transport Type		Auto	Railway	Marine
CIS	Russia: Moscow		0.10	
	Belarus	0.16	0.09	
	Ukraine: Kiev	0.06		
	Kazahstan		0.16	
	Kyrgyzstan		0.16	
Eastern Europe	Romania: Bucharest	0.07		
	Poland: Warsaw	0.15		
	Baltic States	0.15		
Western Europe	Germany: Berlin	0.18		
	UK	0.25		
Asia	Japan			0.05
	China: Beijing			0.05
US	US East Coast			0,08

Customs clearance. This is straightforward for exporters. CIS countries require the international waybill, while the EU requires a Transports Internationaux Routiers (TIR) Carnet. The United States requires a copy of the commercial invoice and the Federal Drug Administration (FDA) permit number. Exporters must file with FDA online in advance of shipping products, including any samples.

A6. Employment

There is little accurate data available on employment in the wine sector. The only official employment data is for the number of personnel working at the wine producers. This is shown in Exhibit IV-Q. Wine producers employed 12,500 people in 2005 or 13.5 percent of the employees in the Moldovan industry and more than one third from the food and beverage sector. Another 2,300 were employed in the production of distilled alcoholic drinks, a considerable part of which is based on wine distillation, thus expanding the employment figure.

Exhibit IV-Q: Employment in the Industrial Enterprises

Employment Indicators	Average Annual Number of Industrial Production Employees, Thousands		
	2003	2004	2005
Industry – Total	92.0	92.4	92.7
Food and beverage industry	34.0	34.9	34.6
Production of wine	11.4	11.8	12.5
Production of distilled alcoholic drinks	1.8	2.5	2.3

Source: Statistical Yearbook 2006

Generally, it is estimated that 52,000 people work in viticulture, including 2,000-3,000 nursery workers. That estimate is five times greater if you include part-time vineyard workers and small producer vineyard owners. The industry also estimates about 4,500 people are employed in support services such as wine trade, marketing services, bottle and box manufacturing, transportation, wine tourism, and other services within the wine value chain. Thus, the total estimated employment in the wine sector accounts more than 70,000 people, which represents more than 5 percent of the total employment in Moldova.

A7. Investment and Financing

This section considers current investment and finance, especially related to the wine producers.

A7a. Investment and Equity Finance

Investment climate. The investment climate in Moldova provides low incentives for domestic and foreign investors. Despite some progress, the overall business environment in Moldova remains challenging. Composite investment climate indicators rank Moldova low in regional scoring, and suggest that regulatory and tax administration constraints are major impediments to private sector-led economic growth. Romania, as an example from the region, has made a commitment to attract foreign and domestic investment and has adjusted its legal and regulatory framework accordingly (see text box). In the recent past, both foreign and domestic investment in the Romanian wine sector has increased.

Foreign Investment Incentives in Romania

One of the government's main targets is to substantially increase the volume of foreign investment by ensuring an investment climate that encourages and attracts foreign investors. Strategies include:

- Issuance of a single investment certificate.
- Foreign and local investment is treated equally.
- No restrictions are imposed on the amount of capital that can be invested in Romanian firms.
- No restrictions imposed on foreign ownership or participation in joint ventures and Romanian firms.
- A foreign entity can own 100% of Romanian-registered firm.
- The only sectors in which additional government approval is necessary for investors are government defense and state monopolies.
- Resident and non-resident companies are allowed to acquire and hold rights over movable assets. Only resident companies may hold property rights over immovable assets.
- Investment incentives include customs duty exemption, VAT postponement, accelerated depreciation, and 20% investment allowance for equipment and machinery.
- Investment earnings and profits can be repatriated after payment of state liabilities. Upon cessation of the investment/business, capital can be repatriated.

Current investments in the sector. There is no official data on the capitalization of Moldovan wine industry. It is assumed by many in the sector that the larger wineries are better capitalized, often with foreign (Russian) investment that represents Russian distribution networks. Those knowledgeable of the sector believe that more than 60 percent of industry capital is Russian. Most of the foreign investment resulting in change of ownership of wine businesses was a consequence of Moldovan owners not having sufficient capital to make vital investments in more modern production equipment, technologies, and marketing. Russian capital was directly involved in the privatization of large wine producers, including Vismos, as well as in the establishment of new wine producers, such as Aurvin. Investors greatly influence the business model of each wine producer. For example, many investors are concerned with short- or medium-term profits and high returns, thus imposing a focus on high volume/low price—and likely low quality—wines. As some of the foreign investors represent the distribution networks for Moldovan wine, they control production and also earn the highest value-addition in the chain and therefore have a large controlling power over the Moldovan wine business.

The prohibition on foreign ownership over agricultural land represents a major constraint in attracting foreign investment. It is currently considered in Moldova to be critical for a winery to be vertically integrated, in order to better control quality and the supply base through its own vineyards. There are a few approaches to overcome this barrier to foreign ownership of agricultural land, one of which is long-term leasing. However, some investors consider these approaches too risky and prefer other more secure investment opportunities.

Even being short on capital, Moldovan wine producers are reluctant to accept foreign investment and give up control over their companies. They prefer loans to investment, as they are unwilling to share the future profits. There have been rare cases when wine producers have gone public and offered shares in company stock for sale at the stock exchange in Moldova. Some wineries are still owned by the state and will not be privatized, while private joint ventures are better capitalized and disinclined to sell stocks.

A7b. Short- and Long-term Debt Financing

Effects of the Russian ban. The effects of the Russian ban have been devastating for the wine sector and the entire Moldovan economy, but especially for the wine producers. Moldova's trade deficit with Russia ballooned to $193 million from January to November 2006, compared to an $86 million surplus during the same period in 2005. According to the data provided by the Union of Oenologists of Moldova, Moldovan wine stock in Russia before the embargo was estimated to be worth $180 million. Wine producers were not paid and recognize that they will not likely see this money. The response of the banking community was not supportive. On top of their losses, wine producers had loan repayments due estimated at 2 billion lei ($160 million), according to the data published by BASA-Press news agency[1].

Wine Producer Financial Crisis

"There were times when the banks were courting us. Financial groups were fighting for us. But now the situation changed," said a director of one large wine producer. "When the embargo was imposed, we were asked not to make pessimistic statements in order to avoid creating panic on the currency market. The bankers got off clear then. But they have forgotten about the favor…"—*BASA-Press News Agency*

There are a few cases, when banks have responded well to the wine crisis. Some companies, that have good working relationships with their banks, have been able to restructure the debts. This usually is done through "purchase" of expired loans by issuing a new one or an extension of the term of existing loans. Debt restructuring seems to be an issue that bank and client are resolving on their own, and does not require government involvement. The issue rather lies with the indebtedness of the wine sector, and its ability to attract additional financial resources for new investments required raise technological levels, increase quality, and compete in export markets. This is where government and donors can play a role in facilitating access to such additional investments, e.g. by setting up guarantee schemes. Moldova's wine producers will continue to have major needs for working capital, which they no longer can obtain via loans from banks as they are already in debt. It is estimated that during a normal year, the industry needs $8 to $10 million of working capital to finance the fall grape processing.

Beyond the banks, wine producers have debts to grape growers in the amount of 350 million lei ($29 million) for the grapes procured in the fall of 2006 and more than 200 million lei ($16 million) to companies operating in associated industries (bottling, packaging, and printing). In addition, the losses to the state budget as a result of the Russian embargo on wines amounts to 40 to 50 million lei ($ 3.3 to $4.1 million) monthly.

The response. Each wine producer has done what it can to deal with the crisis. In desperate need for cash inflows, wine producers have started to sell their wine stocks at low prices. As of June 2007, wine stocks were estimated at 30 million decaliters, of which 10 percent was produced from Isabella and other hybrid varieties, unable to be sold on western markets.

Government response to the financial crisis was rather ineffective. Not only did the government not get involved in helping with debt restructuring or in ramping up export development activities, they established complicated restrictions on quality certification and bulk wine exports, even though the wine producers have large wine stocks and need to generate immediate sales. The government did not develop a crisis plan and instead focused on complying with Russian demands regarding wine

[1] The section was written using data published on www.vinmoldova.md, referring to BASA-Press news agency

compliance and quality. Unfortunately, Russia's criticism of the safety of Moldovan wine had the effect of reducing consumer confidence of not just Russian buyers, but those elsewhere as well. Another move by the government has been introduction of mortgage financing to boost vineyard planting in June with roll out later in the year. But vineyard revitalization program implementation is unclear in the current situation, with excessive stocks and lost markets.

A7c. Alternative Sources of Credit

Capital markets. Moldovan capital markets are underdeveloped and wine producers do not generally offer shares as a source of capital. Low activity in capital markets is due to the lack of investor trust in owners. Purchasing shares is viewed purely as a way to gain control of a company. Nevertheless, there are two Moldovan wine companies that placed their shares on international markets through the New York Stock Exchange. Later they had to withdraw them because of financial irregularities. Because the bond market is almost non-existent, bonds are even less common than share placements. There have been some attempts to issue international bonds, but none were successful.

Investment funds and international financial institutions. There has been no significant investment in Moldovan wine production companies by foreign investment funds. This inactivity may be explained by several factors. First, many company owners who have the controlling stake are disinterested in “outside” investors. Second, Moldovan wine producers are nearly entirely export oriented and that implies greater risks than a business that is oriented towards the domestic market. In the past Moldovan wine producers received loans through a European Bank for Reconstruction and Development (EBRD) fund to purchase processing and bottling equipment. The loans were guaranteed by the Moldovan government. Also, some wine producers applied individually for loans from EBRD, while others were EBRD granted credits. Finally, some wineries benefited from the International Fund for Agricultural Development (IFAD) loans for planting new vineyards.

A8. Legal and Regulatory Environment

There are numerous legal documents regulating the wine sector, which are overlapping, obsolete, burdensome, and costly to implement. In addition, many regulations contain many restrictions that are not justified under market economy conditions. These create unnecessary obstacles to effective business management and production operations, the inability to adjust to market forces, and limits innovation, development, and investment opportunities in the sector. Certain laws and regulations directly affect exports to Western countries and are not harmonized with EU and other international best practices. As many of these documents are not published or communicated to grape and wine producers, this leads to problems in application. Any failure to observe details of these many documents can lead to significant sanctions, including license withdrawal and application of fines. The excessive, and at times repressive, provisions seem unjustified and inefficient—most importantly to the sector stakeholders most desperate for government support. Consequently, there are clear opportunities for interference of government control bodies in all facets of production and sales.

This section describes the roles and responsibilities of key government agencies, provides an overview of the legal and regulatory framework that governs the wine sector, and discusses state support mechanisms.

A8a. Legal and Regulatory Framework for Wine Production, Sales, and Marketing

There are a number of administrative agencies with responsibilities for the wine sector. There is no strict separation of authorities between different agencies, resulting in duplication of controls and inspection. The two key agencies are:

Moldova-Vin. The specialized central administrative body with full authority in the wine sector is a ministerial-level institution that promotes state policy in the wine sector as part of the national strategy of development. It also is responsible for product promotion, organization of trade missions, and fairs and exhibitions. First and foremost it serves as a regulatory authority responsible for law and government resolutions, as well as orders, standards, technological documents, etc. Its statute also requires it to control the quality of alcoholic products. Considering the agency's promotional role, this quality control function is contradictory to the non-involvement principle. Control functions are normally executed by another autonomous authority with responsibilities to execute the law and apply sanctions for breaches.

SIVAP. An independent body subordinate to Moldova-Vin, the State Inspection for the Supervision of Alcoholic Products (SIVAP) is the state body for oversight and control of alcohol production and products and their circulation at national level. Although SIVAP has these functions, it is a monitoring authority and has no authority to apply sanctions or penalties, which limits considerably its role and permits other authorities to be involved in the control of wine sector.

Other administrative authorities, which complicate business activities, include:

National Centre for Alcoholic Products Quality Control. The centre is authorized to issue certificates of conformity and quality. It is the only body authorized to test wines for certification in its laboratory.

Centre of Evidence on Ethylic Alcohol and Alcoholic Products Circulation. This agency issues State Trademarks and controls their use on bottles.

Central Commission for Wine and Alcoholic Product Tasting. Part of Moldova-Vin. The commission is responsible for tasting wines that are under application for new names and technological instructions, and wines that require certification for conformity.

Council for Approval of Exterior Aspect of Wine and Alcoholic Products. Also part of Moldova-Vin, the council examines the labels of alcoholic products and registers new label-related technological instructions.

Other agencies. There are other public authorities regulating the wine sector, including the Licensing Chamber, Standardization and Metrology Service, Police, Ecology Services, and Preventive Medicine Services.

The National Institute of Vine and Wine. Although not an administrative body, the institute is involved in drafting technical regulations, normative and technological documents; and drawing up plans for vineyard planting. Many in the sector believe that the institute should be more autonomous and focused on research related to the vine and wine like research institutes in other wine-producing countries, rather than being involved in regulatory aspects of the sector.

In general, there are a number of critical factors relating to the legal and regulatory framework:

- The licensing and certification procedures do not comply with the national effort to reform and improve the business environment.

- The participation of the private sector in decision-making is limited. Their involvement could contribute to the creation of a just and transparent regulatory framework that can achieve quality protection measures while minimizing commercial impact.

- Even though the legal framework is restrictive, final products do not respect the principles of consumer protection and do not comply with standards of importing countries, such as those in the European Union.

- The legal system does not ensure free competition and imposes disincentives on small and medium-sized wineries that in other countries are the nerve center for creativity and innovation and contradicting a market economy philosophy acknowledged in Moldova as a democratic state.

- The Moldovan legal and regulatory system, inherited from the Soviet Union, lacks transparency and is bureaucratic in comparison with Old World and New World wine-producing countries. There have been endeavors to adjust some regulations to international practices, but they were done discretely and there has been no consolidation or generalization of these modifications in order to avoid contradictions between different regulations. The entire legal and regulatory framework needs to be harmonized to international standards and especially to EU legislation, taking into account the generalized documents prepared by the OIV.

The Many Layers of the Framework

Moldova has a multitude of overlapping laws, regulations, standards, rules, and instructions. In some cases, they are contradictory and obsolete.

- Laws
- Government Decisions
- State Agency Moldova-Vin Orders
- Technical Regulation (1)
- Standards (14, became voluntary January 2007)
- Technical Standards (100)
- General Rules (5)
- Technical Instructions (20)
- Technological Instructions (4000+)

Exhibit IV-R (following pages) presents Moldovan laws and regulations only. It is organized to show how the laws and regulations related to the same topic are overlapping and disjointed. Beyond the laws and regulations are additional normative documents (see text box). Many of these are contradictory or contain obsolete guidance. In particular, legislation and other normative documentation are not keyed to the current market or flexible enough to respond to market changes.

Specific control mechanisms at play are described in the following section.

A8b. Control Mechanisms

To illustrate the complexity of the environment for wine producers, this section is organized by business operations start-up

Licensing. All activities in the wine and alcoholic products sector are licensed and those doing business in the wine sector must be licensed. Accordingly to the Law on Licensing Certain Types of Activity No. 451-XV of July 30, 2001, the following types of activities in wine sector are subject to licensing:

- Planning and design of vineyards; and production and/or sale of seeds, planting stocks
- Import of ethyl alcohol and import and/or wholesale of alcoholic products
- Production of ethyl alcohol and alcoholic products; storage and wholesale of ethyl alcohol and alcoholic products
- Retail sale of alcoholic drinks

Generally, wine sector firms are dissatisfied with licensing procedures, especially with regard to the compulsory licensing conditions, additional documents that need to be presented, and grounds for suspension and cancellation. The licensing conditions are material norms regulating the licensing and, as a result, any non-compliance is considered grounds for the refusal to issue the license or for suspension and cancellation of the license. Unfortunately, the complexity of licensing requirements leads to varying interpretations, which in turn can lead to abuse and lack of predictability in licensing and enterprise start-up. The content of licensing contains provisions that have fallen into disuse, are not necessary, obsolete, and/or inconsistent with the principles stipulated by other laws.

Exhibit IV-R: Overview of Wine Sector Laws and Regulations

Normative Acts (Laws and Regulations Only)	Production	Trade	Marketing, Advertising, Labelling	Controls Certification Taxes	State Authorities
Law No. 1100-XIV of 30.06.2000, Production and Circulation of Ethyl Alcohol and Alcoholic Products					
Vine and Wine Law No. 57-XVI of 10.03.2006					
Law No. 451-XV of 30.07.2001, Licensing of Certain Types of Activity					
Law No. 590 of 22.09.1995 on standardisation					
Law No. 186 of 24.04.2003 on products' conformity evaluation					
Tax Code Law No. 1163-XIII of 24.04.97					
Customs Code Law No.1149-XIV of 20.07.2000					
Law 588-XIII of 22.09.1995 on Trademarks and Appellations of Origin					
Law on Advertising No. 1227-XIII of 27.06.1997					
Government Decision No. 249 of April 11, 2001, Enforcement of the Law on Production and Circulation of Ethyl Alcohol and Alcoholic Products					
Government Decision No. 973 of 15.09.2005, Moldova-Vin Agroindustrial Agency					
The Code of practical activity of winemaker, Government Decision No. 22 of 10.01.2002					
Government Decision No. 360 of 27.03.2002, Regulation on seedling and plant import/export					
Government Decision No. 760 of 10.11.1995, Regulation on production of wines and wine products with an appellation of origin					
Government Decision No. 1056 of 13.10.2006, Measures for improving verification system of the alcoholic products' quality					
Government Decision on peasant wine regulation					
Government Decision No.1255 of 31.10.2006, State Register of circulation of ethylic alcohol and alcohol products					
Government Decision No. 1481 of 26.12.2006, alcoholic products marking					
Government Decision No. 996 of 20.08.2003, Norms of labelling the alimentary products					
Government Decision No. 809 of 11.12.1995, alcoholic products' export regulation					
Government Decision No. 212 of 4.04.1995, Rules of alcoholic products' retail sales					
Order of the Agroindustrial Agency "Moldova-Vin" No. 21 of 22.03.2005, Regulation of the Central Tasting Commission					
Order of the Agroindustrial Agency "Moldova-Vin" No.15 of 03.03.2005, Artistic Counsel's Regulation *(not yet published in Official Gazette)*					

Normative Acts (Laws and Regulations Only)	Production	Trade	Marketing, Advertising, Labelling	Controls Certification Taxes	State Authorities
Order of the Agroindustrial Agency "Moldova-Vin" No. 73 of 22.07.2005, Regulation on preliminary notice for ethylic alcohol import					
Order of the Agroindustrial Agency "Moldova-Vin" No. 16 of 10.03.2004, approval of minimum production capacities					
Order of the Agroindustrial Agency "Moldova-Vin" No. 20 of 22.03.2005, Regulations on development of technological and normative documents for production of wine and alcoholic products, beer, and non-alcoholic drinks					
Order of the Agroindustrial Agency "Moldova-Vin" No. 74 of 22.07.2005, Regulations on placement, equipment, and exploitation of specialized warehouse for storage and wholesale					
Order of the Agroindustrial Agency "Moldova-Vin" No. 60 of 21.08.2006, approval of some typified registers *(not yet published in Official Gazette)*					
Regulation on alcoholic products' certification and imported alcoholic products' quality verification *(not yet published in Official Gazette)*					

For example, plans for product range and production volume forecasts submitted as part of licensing is not justified in a market economy. These create constraints to adjusting production to market conditions. For tracking products and quality, other registers and declarations exist. Moreover, state instruments, such as the state commercial trademark, certification, and state inspection function easily achieve the same result—ensuring quality of products and controlling volumes of alcoholic products.

Other aspects of licensing laws that are unnecessary and inhibit growth include the compulsory license to own production facilities, which limits investment and funds for the acquisition of new production units and equipment, such as through leases; and Law 1100/2000 that stipulates that only a licensed company can rent a winery, which inhibits small and medium-sized wine production companies. Together, these normative restrictions form a vicious circle: to obtain the license a company must own production facilities, and to rent a winery the company must have the license. In sum, the obligation to own production facilities, machinery, and equipment limits innovation, winery development, and investment opportunities.

Generally, license fees are high and must be paid annually. High fees contribute to the consolidation of the wine business and barriers to development of small and medium wineries. License fees are adjusted to the production volume in other countries, so the small wineries pay less than the big ones. Another major constraint is the compulsory license to register trademarks of products and/or services contravenes the principles of the Law 588-XIII of September 22, 1995 on Trademarks and Appellations of Origin, international treaties to which Moldova is party, as well as the voluntary and optional nature of the trademark. The obligation to register trademarks and products creates financial and time losses for the wine producers. As a final example, the list of documents required to apply for a license contravenes the "one window" principle.

Viticulture. Moldavan legislation has fewer restrictions for viticulture than it does for winemaking. Owning a vineyard doesn't require a license but there is a requirement for planting vineyards over 0.5 hectares. Notably, an important factor is the law that all owners of agricultural land, including vineyards, must be Moldovans. Important legal and regulatory features that bear review are:

- Only varieties listed in the Registry of Plant Varieties can be used in production.
- Vine plantations for commercial production on areas over 0.5 hectares must be created on basis of a project developed by licensed specialists.
- Vineyards must be used for a minimum of 25 years from the first crop.
- Grapes must be processed for winemaking a maximum of four hours from the moment of harvest.

General winemaking. Winemaking is an overregulated activity ruled by the numerous laws and regulations on different levels. The winemaking regulatory framework includes laws, government decisions, orders of Moldova-Vin and other ministries, regulations, and normative and technical documents, estimated at approximately 150,000 pages. The normative and technical documents are enforced by state authorities and the producer is bound to respect them. The failure to observe any detail of this multitude of documents leads to the application of significant sanctions, such as license withdrawal, application of fines, etc.

Beyond the obligation to have a valid license and respect licensing conditions, upon

Technological Instruction: Why Mandatory?

After Moldova joined WTO, reform of technical barriers to trade began. The previously mandatory standards (GOST, SM) became optional starting January 2007. Technical regulations are the only normative-technical documents that have remained mandatory. Yet current legislation stipulates that wine companies are required to edit and register technological instructions that describe in details the entire production process for each type of product and for each brand with Moldova-Vin. The failure to observe any detail can lead to significant sanctions, such as license withdrawal and fines. Normative-technical documents are intended to set mandatory minimums to meet the requirements of consumer health integrity and other priority objectives of state policy. Consequently, the existence of this multitude of normative-technological documents creates the grounds for the interference of control bodies in the production activity.

receiving licenses, wineries must register with the State Registry on Circulation of Ethylic Alcohol and Alcoholic Products. Being a licensed wine producer means owning a winery, a warehouse, and storage facilities. To be allowed to produce wine requires complying with a lengthy list of equipment and conditions. These regulations are restrictive, limiting innovation and access to the winemaking by small and medium wineries. Even for industrial wineries the minimal production capacities imposed are too burdensome. This interference in winery activities is unnecessary given that the state has the opportunity to certify the conformity of production.

The wineries aren't allowed to lease their facilities, equipment, or specialized warehouses to others who do not possess respective licenses. This restriction limits the wineries from profiting from their unused property by renting it. Usually large wineries have excess production capacity at some point. This could be used by smaller producers, which could bring more dynamism and growth in the wine sector. Equipment must have the preliminary permission of the state ecological expertise authority, as well as authorization from the metrological inspection, the SIVAP, tax inspectorate, etc. These controls are numerous, disturb winery activity, and can foster illegal activity. Annual equipment inspection and SIVAP winery observations may be sufficient.

Production requirements. Wine must be produced under the terms of more than 4,000 normative-technical documents. There is no list indicating which are still in force and which aren't. This lack of transparency leads wine producers to ignore them. Only technical regulations are free; the others need to be purchased. A specific technological instruction for a wine name/brand costs about 15,000 lei. Most normative and technological documents are obsolete and too detailed regarding the technology of wine production. Most of them aren't useful, because winemakers have winemaking knowledge and these regulations only serve to limit innovation and restrict the pursuit of wine styles that conform to world market demand. The indicators prescribed by these documents aren't harmonized with international standards, which create export barriers to Western and European Union countries. Even the "Oenologist Code," the single technical regulation that prescribes basic procedures and the materials used at wine production is contradictory to the new Law on Vine and Wine and should be adjusted.

Technological Instructions: What about Other Countries?

Only in the CIS countries is there a system of normative-technical documents. The EU countries, the United States, Australia, New Zealand, and all others have a general document containing provisions on winemaking practices, the basic chemical and physical indicators, restrictions concerning the technological product, and the instruments to protect consumer rights. The current argument for keeping the system is that it is required for export to Russia and the CIS market. Yet many other countries export wine there without having technological instructions for every wine name and brand. A good model for Moldova could be Georgia, who has abandoned this Soviet system. Georgia has a law on vine and wine prescribing the normative and technological provisions. For certain names of products, recognized as controlled appellations, specific documents has been approved, regulating the process of production for those names (e.g. Mukuzani, Napareuli, Tsindali, etc). All the other wines do not have any pre-registered or approved technological instructions, as long as they meet the requirements set by the law, general good standards, and export requirements.

Record keeping and control. Wine production statistics and tracking are necessary as wine is subject to excise tax, carries certain risks for people's health, and brings significant added value and profit, and therefore, attention of the state. The record and control of production volumes and trade is managed through burdensome recordkeeping in multiple registers. It is organized at two levels: the control "in amonte" (upstream) and "in aval" (downstream) of the production. Moreover, during the grape harvesting campaign, producers processing grapes must submit weekly statements on everything from the quantity of grapes harvested by variety, specifying the grape producers and address of the enterprise where the grapes have been processed to the average sugar concentration by variety. These statements must be sent by e-mail to Moldova-Vin.

Although some adjustments have been made, most wine producers use a record and control system inherited from the plan-oriented, command economy of the past and not appropriate under market-based conditions. Moreover, the system is hardly working in part because of the absence of Internet connections at wineries. The failure of the system is ensured by the lack of evidence on grapes – grape producers aren't obliged to submit any harvest declarations – so data concerning the raw materials can be falsified. A system of evidence should be based on a viticultural cadastre of all vineyards. The current system is outdated and needs to be reformed through simplification and the adoption of an EU-type model. The state authorities could simplify the evidence process by developing guidelines or comprehensive recommendations regarding the filling out of registers and statements, containing explanations of terms and control bodies to foster understanding and transparency.

Labelling. Labelling regulations are overlapping and there is no coherent and complete list of the compulsory labelling requirements. In addition, the restrictions on labelling are confusing and may be interpreted in different ways. Moreover, the labels are linked to the obsolete technological instructions described above. Collectively, these restrictions limit developing new brands and adjusting brands and labels to the importing market. Considering that labelling is also an instrument of consumer protection, Moldova should amend Law 1100/2000 and Law 57/2006 by inserting clear, mandatory labelling provisions that are harmonized with the European Union labelling regulation (the Regulation 1493/1999 and the Regulation 753/2002). In addition, the regulation on optional label information concerning vintage, variety, age of the wine, medals, etc. could be dealt with under the principle of "what isn't regulated is permitted." Adopting "the 85 percent rule" for labelling, which is internationally recognized would be a good move for Moldova. As labelling is considered an instrument regulating access to markets, it would be best to regulate labelling only in the law and avoid prescriptions in lower legal documents.

Label approval. Wine labels must be approved by the Council for the Approval of the Exterior Aspect of Wine and Alcoholic Products, constituted by Moldova-Vin. The competencies of this authority aren't regulated by the law or by a government act. This makes for a lack of objectivity in the council's activities and does not guarantee the applicant's rights to contest its decision in court. Law 1100/2000 should regulate the council's functions and ensure that its members aren't involved in other control activities to avoid the conflict of interest. There are no written guidelines for applicants and no information on labelling requirements of importer countries.

Excise tax and the state trademark. Wine is subject to excise tax regulated by the Tax Code. This is a consumption tax paid by the wineries before commercializing the alcoholic products. This excise tax is due only for the domestic market; while exported products are exempt and must be paid before product distribution. Those wine producers based in free zones are not exempt. A state trademark was introduced at the beginning of the 2007 as an instrument of quality guarantee in response to the Russian ban. The aim is to improve evidence of wine volumes and to communicate product information on a Web site. SIVAP provides the trademarks and controls their application to the bottle. The procedure to obtain trademarks takes two days and each costs 0.2 lei.

Certification. The certification process was changed after the ban, becoming more complicated and strict. A unique certification authority, National Centre for Alcoholic Product Quality Control, was established in September 2006, and has the authority to test products and deliver the certificate of conformity. The Law allows the existence of other certification bodies, but it contains a provision that leaves the authority to Moldova-Vin to recommend such institutions for accreditation as certification bodies. Considering the provision of other laws and WTO agreements, and that competition among laboratories fosters competence, Moldova would benefit from allowing other certification bodies.

The certification process is not regulated by any official legal document. Procedures are prescribed by the National Centre's internal regulations that haven't been published in the Official Gazette. Considering the principles of the Law No. 235-XVI of 20.07.2006 on Basic Principles Regulating Entrepreneurship Activity (the Guillotine II), the certification procedure has to be regulated by Law. In order to avoid confusion among wine producers and government staff, written guidelines for procedures should be prepared.

There are two types of certification procedures: batch certification and lot certification. Most wine producers choose batch certification (bulk wine certification) because it allows testing a large volume for less money. After certifying the batch, lot certification must be done for bottled wine. The certification procedure includes seven steps. It requires numerous supporting documents and may take more than 10 days.

Trade. To have the right to buy or sell alcoholic products, businesses must be licensed. Bottled wine must be labelled and marked with an excise stamp and the state trademark. Each lot must be accompanied by an invoice, quality certificate, and certificate of conformity.

Wholesale. Bottled alcoholic products, both those produced in Moldova and imported, can be commercialized in the wholesale network only through specialized warehouses equipped and registered in a specified manner. The businesses that have the right to sell wholesale are wineries or their licensed intermediaries. These specialized warehouses must be roofed, fenced, and equipped with a computerized record keeping system, must have a capacity of at least 500 m^2, and may only store alcoholic products can be stored in specialized warehouses. These requirements are onerous considering that 500 m^2 represents a large facility and obligatory warehouse ownership is irrelevant in the current business environment context. Smaller wineries cannot afford such a large warehouse. In addition, the requirements for obtaining a license to sell wholesale and to buy and stock wine are strict and exclusive. Therefore, there are few intermediaries in Moldova.

Retail. Retail sales are governed by the Law 1100/2000 and the Government Decision No.212 from 4.04.1995 on the Rules of alcoholic products' retail sales. The last document is obsolete and contradictory to international agreements ratified by Moldova. Retail sale is permitted by specialized stores owned by wineries or by stores licensed by the local administration. Wine producers can sell wine directly through retail outlets only via businesses that possess a license and commercial spaces with an area of at least 20 m^2.

Environmental protection. The creation and maintenance of vineyards, as well as winemaking activities must be carried out in compliance with the legislation on environment protection. Secondary wine products that include grape marc, vinasse, distiller's wash, diffusion juice, bunch pressing, and wine yeast, are subject to further processing in wine enterprises or other specialized facilities. Waste resulting from wine production of secondary wine products must be processed only by authorized enterprises according to requirements for environment protection. Waste must be delivered to specialized units for energy recovery and irrecoverable waste must be stored at arranged sites.

A9. State Support Mechanisms

The wine sector is vulnerable to numerous factors, including weather conditions, market trends, economic shocks, as well as political factors that have the potential to affect the entire national economy as demonstrated by the Russian ban. The government is responsible for the sector's development, protection, and support generally and during crises through different legal instruments and schemes, e.g. vineyard subsidy schemes, insurance, and other support mechanisms. Moldova-Vin is charged with these responsibilities. Given the current crisis, the role of Moldova-Vin is particularly important and it should provide adapted support mechanisms and insurance schemes for the entire wine sector, not only viticulture.

A9a. Grape and Wine Production

Currently there are no state support mechanisms for wine production. As described above, the only existing state subsidies concern vineyard planting. The fund for the planting and replanting schemes is created from the tax for viticulture revitalization, which is paid by wine producers, exporters, and importers. These resources are used to partially compensate new vine plantation if created on a contiguous area of at least five hectares. A further initiative since June 2007 involves the plantation of new vineyards financed by mortgage loans on producers' own lands.

Further support for wine production can be considered in the area of subsidies and other support schemes for insurance, investor guarantees, and credit. Such support methods could facilitate quality improvement of wine products. Wine producers and key stakeholders indicate that access to finance remains one of the largest constraints to development of the sector. Although the largest wine producers have had significant investment from foreign firms, mainly Russian capital, they need to obtain working capital through local capital markets.

Naturally, for the smaller wineries this is an even greater issue. However, even if the large wine producers restructured and improved their production methods and wine styles, small and medium-sized wine producers have few incentives and little financing. Many have gone bankrupt and/or have been purchased by larger wine producers. Some incentives for small and medium-sized enterprises are established in Article 49 of the Tax Code, but there are no specific provisions concerning the wine sector. Moreover, the article stipulates that these incentives are not applicable to producers of products subject to excise tax, wine being one of those products. In addition, existing requirements for obtaining a license do not differentiate between small and large producers with a set licensing fee for all sizes of companies. It would be more appropriate to develop an equitable system that would require payment based on produced quantities or volume of grapes purchased. In sum, the requirements that are set for an industrial wine producer may be extremely difficult for a small wine producer to meet, creating serious barriers to market entry for entrepreneurs. International best practices prove the importance of these smaller wine producers, as they bring passion and innovation with tourists and international consumers attracted by the hand-crafted wine image. In addition, their development is an important factor for development of the rural areas and employment.

A9b. Marketing and Export Promotion

Several state and independent bodies are involved in the promotion of Moldovan export goods and services. These are:

- Moldova-Vin
- Moldovan Investment and Export Promotion Organization (MIEPO), Ministry of Economy
- Ministry of Foreign Affairs
- The state-owned exhibition center Moldexpo
- Cultural and tourism promotion provided by the Ministry of Culture and Tourism
- Chamber of Commerce and Industry

There is no consolidated, consistent promotion policy or program for Moldovan goods, particularly wines, which are so critical to the economy. MIEPO follows the national export and investment development strategy, while other ministries and bodies follow their own action plans. All collaborate at the operational level to organize different wine-related country promotion events, such as participation in trade missions, economic forums, exhibitions, seminars, country presentations, and festivals, but none of these agencies can be characterized as the strategic leader for wine export promotion. The lack of a wine export promotion strategy creates confusion and inefficiency. Therefore, there is a strong need to consolidate wine promotion activities within one agency and then develop a consistent long-term promotion plan for Moldovan wines.

Free export zones. There are the following five free export zones in Moldova: Zona Antreprenoriatului Expo-Business Chisinau, Zona Antreprenoriatului Liber Tvardita, Zona Antreprenoriatului Liber-Parcul de Productie Valkanes, and Zona Antreprenoriatului Liber - Parcul de Productie Taraclia, Zona Antreprenoriatului Liber - Parcul de Productie Otaci-Business. Being a resident of a free export zone provides some advantages for export-oriented companies in terms of freeing working capital. For example, raw materials and inputs are

The wine producers based in free zones are:

- Lion-Gri
- Colus-Vin
- DK-Intertrade
- Zolotoi Aist SRL
- Moldavskiy standard SRL
- DTD-Nistru SA

free of VAT or excise tax. However, participation creates obstacles in selling products on the local market.

International trade shows and competitions. Traditionally Moldovan wine producers participate in two major annual European wine fairs, London International Wine and Spirit Fair and ProWein in Dusseldorf. In the past, the Moscow food and drink exhibition PRODEXPO was one of the most important events for wine producers before the ban. An important exhibition, gaining popularity with wine producers is the annual Food and Drink Fair in Bucharest, Romania. In order to afford participation and raise Moldova's profile, wine producers often participate using a common exhibition stand. In addition, funding is often subsidized either by the state through the Export Promotion Fund administered by MIEPO or donor funding. Besides participation in international shows, wine producers regularly send samples to international contests, such as the contests at the Bordeaux Wine Fair, VinItaly, and Chardonnay du Monde.

Country image promotion. A clear understanding and articulation of a country brand is needed in order to identify the strategy and the steps for country image promotion. Recent efforts by MIEPO and the EU TACIS Program to develop a brand for Moldova aimed to increase positive international awareness of Moldova and improve trade and foreign direct investment. A brand is the translation of Moldova's identity and direction into visual and written communication that can be immediately understood by locals and foreigners. In 2006, with TACIS support, a country logo was developed as shown below. It is a three dimensional cube that aims to symbolize energy, value, independence, nature, warmth, and dynamism. The key elements of it are a wine leaf, warm color tones, intersected forms, gem-like qualities, and embroidery.

The slogan "discover us" underlines that Moldova is small, precious, unknown, and merits discovery. The proposed background colors are red for wines, green for tourism, and blue for business and investment. The logo was accepted by the Ministry of Economy and the government. It is being used on promotional printing materials for state organizations, such as the Ministry of Economy, MIEPO, and Moldexpo. However, no program for the brand promotion was elaborated, thus currently the logo is in minimal use. This is partially explained by a lack of funds and by the fact that there is not a clear understanding that a logo is not enough—there is a need to actively promote a branding strategy at all levels.

A specific wine industry brand, well known in the post-Soviet countries, is the flying White Stork holding a bunch of grapes. This logo, shown below, is based on the legend that storks helped Moldovans to hold the Soroca fortress during the war with the Turks by bringing them grapes when they had no food or drink. This symbol is required on wine and Divin bottle labels. However the size tends to be small as most wine producers are focused on their labels' private brand elements.

Moldovan wine events. The annual Fall Wine Festival is in mid-October in Chisinau. It is the largest wine-related event in the country. During the period of the festival, tourist visas are issued for free. Forty to fifty wine producers usually participate and a large celebration lasting two days is held in Chisinau's central square. The festival is under the patronage of the President of Moldova. The organizers are the Moldexpo, Poliproject Exhibitions Ltd., the Ministry of Culture and Tourism, Moldova-Vin, and Primaria Chisinau. The other major event is the Expovin Moldova fair held annually in mid-February. Local and foreign wine producers participate along with service providers, transportation companies, and suppliers of equipment, accessories, and planting material. In 2007, there were 150 participants from 15 countries and visitors exceeded 6,000. Organizers are Moldexpo, Poliproject Exhibitions Ltd., and Moldova-Vin.

Wine Road tourism program and wine city complex. The two most famous Moldovan wine cellars, Cricova and Milestii Mici, are designated as state heritage and belong to the state. They are two key sites under the Wine Road tourism program developed by the Ministry of Culture and Tourism. Cricova is well known for the biggest wine cellar of the world, with visitors able to drive through the underground "streets" corresponding to the wine varieties stored there. The length of the Milestii Micii cellars is over 50 km, much smaller than in Cricova. However, Milestii Mici is mentioned in the Guinness Book of World Records as having the largest stock of collection wines. Other wine producers participating in the Wine Road program are Purcari, Ciumai, Romanesti, and Cojusna.

Some private wine producers have their own separate tourism activities, not necessarily linked to the Wine Road program. The Wine City complex is under development. It will be a permanent, wine-oriented center on an 11 hectare plot. Tourist-oriented, the goal is for wine producers to have representation at the complex for wine tasting and purchases. A hotel, restaurants, and shops will also be housed there.

B. Overview of Wine Producers

The structure of Moldova's wine sector is undergoing deep change. Overall consolidation and vertical integration are common traits of the industry. Generally, wine producers are dealing with the following issues:

Sector structure and ownership. There is a trend toward a dominant market position by large wine producers, some of them with Russian capital, while the majority of the investors represent Moldovan wine distributors with good connections in Russia. In particular these wine distributors have acquired controlling stakes in former state- or collective-owned wineries in the central and southern regions of the country. Now they are beginning to play an increasingly influential role in the transformation of the wine industry.

Vertical integration. Large wine companies have been intensively investing in planting new vineyards vertically integrating grape production. In the past, the only way to acquire raw material was through the spot market, which consisted of small producers and agricultural cooperatives. Now the situation is slowly changing. Also, there are smaller grape producers who recently invested in the plantation of new vineyards. Taking into consideration the importance of viticulture production to the sector, the state developed a vineyard planting program aimed at stimulating the planting of new vineyards, which is described earlier in this assessment. Beneficiaries of the program are farmers or wine producers that planted at least 5 hectares of vineyards. The area under new vineyards increased from 500 hectares in 1999 to around 17,480 hectares in 2006. But this is not enough, taking into consideration that the area under new vineyards is roughly 15 percent of the total vineyard area.

Contracting with Farmers and Cooperatives

In the past, this was the common practice for obtaining grapes but guaranteed only a certain degree of fruit quality. The wineries usually offered credit by advancing inputs such as fuel, fertilizers, and chemicals. Most of the wineries also provide agronomic services, such as crop protection and vineyard management advice. Despite the efforts made during the last three to four years and despite the availability of the agricultural extension services, the level of agricultural skills is still insufficient to guarantee requisite grape quality for the wine producers.

Vineyard rehabilitation and consolidation. Some wine producers have adopted vineyard rehabilitation and consolidation strategy, which is a less expensive way to get quicker results with fewer investments. Vineyard rehabilitation and consolidation is backed by long-term leasing agreements with farmers and cooperatives.

Wine production processing improvements. Investors have been active in upgrading wine processing equipment, storage, and bottling facilities. Although the new equipment is designed with the exigencies of modern winemaking techniques in mind, unfortunately there is, in some cases, a lack of knowledge or unwillingness to use it properly. In addition, some wineries upgraded only partially, which is not enough to guarantee a certain level of wine quality. Some companies use only outdated equipment, which in some cases may be 30 years old.

Finance constraints. Most wine companies secure commercial bank loans though the cost of money is quite high in Moldova and there is less interest in commercial bank lending to the sector since the Russian ban. Loans are used for short-term financing (working capital), as well as for longer-term projects (e.g. equipment purchase, plantation of vineyards). Also, some of the wine producers receive loans from their main shareholders. Leasing is less common, but has a high potential for development.

Wine quality. Moldova produces a wide range of grape alcoholic products, including still and sparkling wines and spirits. The wine range is quite wide and includes dry, semidry, semisweet, dessert, and fortified. Though the degree of differentiation of wine products is high, the majority of wine producers use similar technology and skills. Notably, sweetened wines represent the majority of wines produced, about 76 percent. This is a consequence of market demand in Russia and the CIS countries: the cheap end of the market wines with poor quality disguised by sweetness. As a result, Moldovan wine producers have become used to producing wines that don't require advanced winemaking skills. The lack of winemaking skills needed to produce high quality dry wines sought by Western customers is widespread. However, wines from most of the newer wine producers are generally of a higher quality, well made and clean, although most, particularly the whites, exhibit subdued bouquets. Both reds and whites usually have lighter palates than wines preferred in premium markets. It is clear that part of the difference is about mentality: newer entrants are usually receptive to new ideas and the need to change styles. On the other hand, the older wineries, even though they may now be privatized, usually retain the same personnel at the middle management level. Accordingly, the same habits persists, and there is a preference for the classical Eastern European wine styles over the wine styles preferred in premium markets.

Limited linkages with Western markets. Most of Moldovan wine producers have been ineffective in establishing long-lasting relationships with Western wine traders. The lack of success is caused by several factors, including wine style that doesn't correspond to Western preferences, the lack of perception that Moldova is a wine-producing country, and the limited understanding of the wine distribution system in most European countries and the United States. Also, there is little understanding of wine brand management by the majority of Moldovan wine producers. Currently the portfolio of nearly all of the wine producers includes hundreds of brands. Sometimes the same wine is sold under three or four names, making it difficult and expensive to manage the brand portfolio and promote certain brands, while customers are confused with the abundance of names and labels.

B1. Viticulture

Production models. Until the Russian embargo in 2006, dwindling grape supplies were insufficient to match demand. Wine producers were forced to invest in new vineyards. However, until the embargo, the average winery was still purchasing two-thirds of the grapes it needed from small private grape producers. The remaining third was sourced from newly planted or rehabilitated vineyards, which were either jointly or wholly owned or leased by the wine companies, or exclusively contracted to the wine companies. Since the embargo, this situation has been reversed. Most wine companies expect that production from their owned or controlled vineyards will be sufficient for most of their needs, for the foreseeable future. Some do not anticipate the need to purchase any grapes at all in 2007.

Until the embargo, according to news in the press and direct discussions with winery staff, the wine producers most active in establishing new vineyards were: Aurvin, Basvinex, Lion-Gri, Tomai-Vinex, Acorex Wine, Vinarii-Rascaeteni, Ciumai-Agro, Vinuri de Comrat, Leovin, Purcari, Vinaria Bostavan, and Vitis-Hincesti. Since the embargo, planting programs have been less ambitious, but nevertheless, they have continued. This is largely due to the subsidy scheme for new planting and perhaps due to excessive optimism about future exports to Russia. The June 2007 revelations about how exports will resume should dash this optimism.

Vineyard management practices, fruit quality, yields. Generally, vineyards are still managed according to the Soviet paradigm: only yield matters, quality is incidental. This applies through the whole range of activities, including site selection (usually too fertile), design of vineyards (too sparsely planted, spacing to accommodate tractors), and canopy management (to maximize yields). Since the effects of the Russian embargo have reversed the supply/demand imbalance, the necessary refocusing on quality should now be easier to achieve. As described above in A3, production in VDO/VDOC designated areas is becoming less important. Of the larger wine producers, only Hincesti still uses VDOC as a marketing asset.

Use/availability of modern equipment. Most company owned or controlled vineyards have adequate tractors and spray units. However, smaller grape producers usually do not. Mostly homemade spraying equipment limits the effectiveness of spraying, and presents difficulties for instruction in correct spray techniques. Global best practices for controlling fungal diseases in grapes and grapevines requires automated weather stations, so that weather conditions that trigger disease outbreaks are recognized and communicated quickly enough to permit a spray response. In the absence of automated weather stations and associated communication systems, Moldovan vignerons must resort to reacting to outbreaks, which is less effective, and requires more fungicide.

Use/availability of other viticultural inputs. Growers have ready access to vine stock, both locally propagated and imported, at competitive prices. Other imported inputs, such as fertilizer, pesticides, herbicides, and micronutrients are also readily available however prices are inflated due to restrictive licensing requirements for importers. Most wine producer owned or controlled vineyards use the required inputs and many provided them to smaller grape producers as a form of pre-payment for grapes. However, since the embargo, pre-payment in any form has virtually disappeared. Small-scale grape producers will be less inclined to spend on inputs when the outlook for grapes is negative, especially considering that most growers have not been paid for 2006 deliveries, and many have not been paid for 2007 deliveries.

B2. Winemaking

The two big impediments to commercial success for Moldovan wines in premium markets: style and quality. Current winery equipment is generally adequate to achieve quality and style demanded by Moldova's current and potential markets. What appears to be lacking is knowledge about markets, international best practices in winemaking, international quality standards, and hygiene related to winemaking, equipment maintenance, and bottling. As an example, a winery will have new or fully adequate equipment but its full potential can not be realized due to poor quality, dirty hoses.

B2a. Wine Style

Many wines produced in Moldova have inadequate quality for presentation in premium markets. On the other hand, some producers are offering quality wines that could be acceptable in premium markets. However, most wines tasted are not suitable for Western markets due to inappropriate *style*, irrespective of their quality. The wine styles usual to Moldova were appreciated in Moldova's main export markets, i.e. Russia and other CIS countries, mainly due to their price advantage. However, generally speaking, wines popular in the Western markets tend to be fruitier: the taste of the grape is more evident, the bouquets are more intense, and the mouth feel is fuller. Even Moldova's traditional wine markets in Russia and the CIS are gradually moving towards styles favored in the West.

Notable examples of wine style incompatibilities, with respect to higher value markets are:

- *Old, large oak barrels*. Unfortunately, many older wineries still cling to the tradition of "maturing" red and white wine in old, large oak barrels. This is a sure way to lose fruit flavor and aroma, and if barrels are not cleaned thoroughly, they are a source of off-flavors and volatility. There is no place in modern winemaking for large oak barrels. They are a habit inherited from a time when there was no better material available for fabrication of wine storage vessels. There is no point in adopting modern techniques to retain maximum fruit flavor and aroma, and then to throw it away by storing wine in large oak barrels. Even if the barrel is new, the surface area to volume ratio of a 10,000 liter barrel is too small for significant migration of oak flavor into the wine. A 225 liter barrique is ideal, but anything up to about 600 liters is acceptable. As for a 10,000 liter barrel that is more than 40 years old, as many of them are, any oak flavor is gone.

- *White wine fermentation temperature*. Today's premium wine markets demand wines made according to techniques that maximize the retention of fruit flavor and aroma. Controlled temperature fermentation is absolutely essential for maximum retention of fruit flavor and aroma in white wine. If no cooling is used, ferments will progress naturally at temperatures of at least 28° C, and could even be as high as 35° C, depending on the weather, size, and shape of the fermentation tank and the yeast strain. Even if the weather is cold, the heat generated by fermentation will push temperatures too high. During hot ferments, most of the desirable fruit flavors and aromas are burned off, leaving the wine insipid. Most Moldovan wineries have refrigeration plants and/or in-tank heat exchangers to control fermentation temperatures. However, there often prevails a belief that control of fermentation to a maximum temperature of 18° C is adequate to maximize retention of fruit flavor and aroma. This is incorrect; a temperature of 12 to 15° C will deliver substantially better results. This may entail acquisition of additional refrigeration capacity. Additional fermentation capacity may also be required, since cooler ferments progress more slowly, thus allowing less fermenter turn-arounds during the harvest period. However, there is generally an excess of capacity in Moldova due to the decline in fruit supply that has occurred over the past ten years.

- *Red wine fermentation temperature*. Some Moldovan winemakers believe that red wine fermentation should be controlled to a maximum of 24°-26° C. Many newer wineries even have fermenters fitted with cooling bands, in order to maintain this regime. However, ideally, a spike of ~ 30°C should be reached during red fermentation, for optimum extraction of color and tannin. Once this is achieved, cooling can be applied. For a fermenter of 30,000 liters, 30° C should be reached spontaneously. This is a general rule-of-thumb that may require fine-tuning for some varieties and for style nuances. Pinot Noir, for example, may require "pre-soak" at low temperature for some time prior to onset of fermentation to optimize color and extract. Smaller fermenters may require must warming, larger fermenters will require must cooling.

- *Inert gases*. There appears to be inadequate appreciation of the damaging effects of oxidation with respect to fruit flavor and aroma retention. At almost all Moldovan wineries, inert gases must be used more pervasively, to avoid contact of must and wine with air. Most wine companies need to install or upgrade equipment to apply inert gases during bottling.

- *Hot filling*. Many Moldovan wine packaging companies fill hot, or pasteurize bottles after filling, to avoid microbial spoilage in the bottle after packaging. This practice largely destroys the fruit flavor and aroma of the wine. With wines that are comparatively lacking in fruit flavor and aroma intensity, this is not a big disadvantage, compared to the risk of bottled wine becoming undrinkable due to microbial spoilage. However, there is obviously no point in working to maximize retention of fruit flavor and aroma, and then to throw it away by hot filling. Standards of hygiene and wine filtering techniques must be upgraded to facilitate "cold-filling" or sterile filling even for sweet wines.

- *Small, new oak barrels*. Another important style difference is oak. Moldova's "western" style red wines are usually matured for a time in small oak barrels, so that the bouquet and flavor include components derived from new oak, which is usually "toasted" to a degree. The popularity of heavily oaked white wine styles, especially Chardonnay, is declining in premium markets. This style usually incorporates oak by fermenting in new barrels. Of course, oak is expensive and to use it increases production costs, but Eastern European oak (e.g. Hungarian, Russian) is just as useful as French or American oak and it is a lot cheaper. However, Moldovan oak tends to be too fast growing and so not dense enough for wine maturation. That is, the oak flavor components are not as concentrated as in slower growing American, Hungarian, French, and Russian oak. Some Romanian oak is sufficiently dense and has been used successfully for wine maturation. In addition, a maturation of Moldovan oak staves prior to cooperage may be insufficient leading to green sappy flavor extraction. The tradition of maturation in small oak barrels is not widely practiced in Moldova and so few wines exhibit the added complexity derived from oak. However, some of the most progressive Moldovan companies are experimenting with French and American oak. For example, Bas Vinex has about 1,000 barrels at their Romanesti winery. They bought French oak staves that were assembled by local coopers. Interestingly, small-scale wine trade, including homemade production, often uses indigenous oak barrels as the packaging medium.

- *Tannins*. For red wines, the preference is for more tannins and a fuller mouth feel. But the tannins must be soft and well integrated—not the green tannins typical of grapes picker under-ripe. This is another area of challenge to Moldovan winemakers.

B2b. Wine Quality

Moldovan wine producers can be broadly characterized in two quality categories:

New privately-owned companies. The wines produced by the newer wine companies are generally of a higher quality, although most, particularly the white wines, have rather subdued bouquets. Both reds and whites usually have lighter palates than wines preferred in premium markets. It is rare to find wines made from grapes harvested at optimum maturity. This is mostly due to the scramble for grapes in years prior to the Russian ban, when supply was inadequate to satisfy demand. However, habits carrying over from the "command economy" approach to wine production may also be at fault. Optimum maturity was not important when wine was regarded as an industrial commodity, rather than as a "fashion" item, as should be the case now. Now that supply of grapes exceeds demand, and many companies control or own grape growing operations, it will be interesting to see if wines made from optimally mature fruit become the standard.

Soviet style non-privatized and private companies. The wines produced by many of the larger state-owned or recently privatized wineries generally suffer a full range of quality problems. These problems are summarized in Exhibit IV-S.

Exhibit IV-S: Quality Problems Observed in Moldovan Wines

Causes	Effects
Pre-Vinification	
Grapes harvested too soon	Thin, low alcohol, high acid
Grapes crushed together with stalks	Bitter phenolic after taste from stalks, absorption of flavor by stalks
Crusher rollers set too close	Bitter phenolic after taste from crushed grape seed
Vinification	
White wine fermented too hot	Lack of fruit flavor and aroma
Red wine fermented too cool	Light color, thin body
Incomplete malo-lactic fermentation in red wines	High acid, lack of complexity, unstable in bottle
General: Before, During, and After Vinification	
Must or wine contact with inappropriate surfaces	Off flavors and aromas, iron casse
Oxidation	Lack of fruit flavors and aroma, oxidized color
Inadequate sanitation	Off flavors and aromas, microbial spoilage including volatility
Wash water left in bottle, insufficient air space between wine and cork	Off flavors and aromas, microbial spoilage, cork expelled from bottleneck when temperature rises

Obviously, this dichotomy is largely due to the fact that the newer wine companies have newer equipment and storage facilities, designed with the exigencies of modern winemaking techniques in mind, whereas the state-owned and ex-state-owned wineries are mostly at least 30 years old, and equipment upgrades have usually been piecemeal: their equipment was designed according to the “commodity” mindset. However, it is clear that part of the difference is due to mentality: the new entrants are more receptive to new ideas and to the need to raise quality and change styles. On the other hand, the older wineries, even though they may now be privatized, usually still retain the same personnel at middle and upper management level. In many cases, there is little or no communication between the winemakers and viticulture and marketing staff and therefore wines are not driven by preferred grape quality and market style.

Both newer and older wineries often have standards of hygiene inadequate for the production of premium wines. Standards for sanitizing equipment and storage vessels are often not documented, and are usually applied haphazardly. Tartrate scale within “cleaned” tanks is the rule rather than the exception. This is even so for one-year-old stainless steel tanks. Tartrate scale is a haven for wine spoilage microbes.

Both older and newer wineries must deal with the costly, complex, and bureaucratic technological instruction requirements for current and new winemaking—including any blending, stifling creativity and flexibility.

B3. Marketing, Branding, and Sales

Over time, Moldovan wineries have become significantly experienced in selling and marketing their wines in Russia. This is evident by the wide array of packaging that was tailored for the Russian market and proven successful by wine sales in Russia. However, marketing mostly to Russia proved to be a strategic error in terms of risk management. It has also led to a lack of desperately needed insight on consumer expectations and trade practices in other markets.

The main ingredient in any marketing mix is the “product.” The low level of sophistication of Russian wine consumers, in addition to cultural and regional proximity benefited Moldova wine producers. As a result, these companies were able to deliver highly competitive products at the lower end of the price scale. As wine producers look for commercial opportunities elsewhere, product quality must be re-evaluated. And, while there may be many sales and marketing challenges ahead for Moldovan wineries to overcome, there is none greater than to adapt its thinking to a market that views success as the ability to offer the best quality product for the money in a consumer-driven wine style.

Getting the wine style right. From interviews with a number of Moldovan wine producers it is apparent that they are competitively disadvantaged. The “product” as it stands today is not suitable for western markets because it fails to match wine styles in demand. Moldovan wine producers and marketers are not conscious of the importance of producing a particular product to the taste of the market and the importance of controlling the entire grape growing and winemaking processes to deliver the absolute best product for the money. In addition, varietal wines may provide both opportunities and pitfalls. While most noble French grape varieties produced in Moldova are recognizable by name, the wine style may not be aligned with a consumer expectations based on their preconceived notions of taste for that grape variety. Other local varieties may not be known at all. Depending on how the grapes are produced, they may not showcase the product cues in terms of color, aromas, and flavors that consumers expect.

Knowing the product and the buyer. Product knowledge is an absolute integral part of selling that has been elevated to the highest levels in an effort for wine producers worldwide to differentiate their products. Fact-based selling using features and benefits is not employed by Moldovan winery commercial managers to present their product in the best possible light. There also seems to be little awareness for standard commercial practices on how to approach a buyer, whether importer or distributor, what communication tools to use, how to conduct a professional tasting, how to approach a trade show, how to acquire competitive intelligence, and how to do market research. In today's environment, it is not enough to simply forward samples and a price list. Buyers are inundated with samples and what is important is to develop a high confidence that the product will sell. This requires high levels of financial support in terms of brand investment, developing strong consumer promotion activities, and "working" the market.

Importance of English language skills. As English is spoken in many world class markets and is perhaps the predominant language of the wine industry, there should be special emphasis placed on hiring sales and marketing people for export roles that have strong command of the English language. Today, there seems to be only a handful of wine producers that have English speaking employees. Before approaching a buyer, there needs to be significant understanding of the buyer's motivations, the company's objectives, and how the company is organized. Time management is critical for buyers in major markets and they are not interested in wasting time meeting with sales people that have not done any research in advance. Conducting research on an individual or a company is relatively easy by viewing the company's Web site and/or using a number of search engines on the Internet to gather further background information. Again, command of English is often necessary to navigate Web sites.

Wine packaging. Having done a wonderful job developing label designs for the Russian market, Moldova wine marketers are not aware of important design preferences for other markets. In major Western export markets, this includes the importance of heavy glass, simple uncluttered design devoid of unnecessary mandatory language that can best be applied to back labels, simple brand names that are easy to read and understand, and a graphical association with the brand name that is credible and memorable. A simple, elegant, and clean package is important and any type of tax or brand stamp that covers the lip of the bottle is frowned upon and not considered hygienic. Creative packaging is extremely important and needs to be couched in a way that is well received by the local market. Moldovan wineries seem to take customer input into consideration and this is a good starting point for approaching markets of interest.

Promoting wines. This is increasingly more important because of the competitive nature of world class markets. Like packaging, creative promotion is important to differentiate a product from its competitors. Multi-pack or special packaged ("on-pack") promotions offer value-added incentives and can easily create an impulse sale. Product sampling can mitigate the risks associated with trying a new product. In selective, high cost of living markets, local promotion can be very expensive particularly if local promotional services are employed. Visits to export markets are also important, but can be expensive depending on the distance to travel to the market and other travel-related expense once there. In selling wines on the world market, often a good price is only the starting point of negotiations. In many world markets, an advertising and promotional allowance is necessary and in selective markets other investments may also be required, such as a sampling allowance and other brand development/building expenses. While trade partners customarily commit some funds toward the promotion of the brand, such spending levels in general are decreasing, founded on the expectation that the brand development should be the responsibility of the brand owners. Some Moldovan wineries now faced with a different set of circumstances recognize the importance of portfolio rationalization and that simplified portfolios are easier to manage. This also allows them to appropriately channel investment for greater impact. But the concept of branding and its importance, while perhaps acknowledged, does not automatically translate to recognition of its value and the need for engaging on brand equity building activity.

Market identification. Most wineries do not have a strategic marketing plan and appear to have placed little effort on determining what export markets to pursue. There is a general sense that the government should be driving this initiative, breaking down international barriers of trade and do more to secure international distribution partners. Many have expressed that what has been done to date is yielding few results and they freely admit that they don't have the knowledge nor the resources to effectively target export markets outside CIS countries. There is also a sense of optimism that if given some breathing room, in just a couple of years, a few will be able to change their business model and redirect their attention.

Skills for marketing strategy development and implementation. Lastly, any strategic considerations appear to rest solely on the shoulders of the company principal or general manager. Moldovan marketers generally hold a basic college degree but no advanced studies. And they seem to be employed mainly to deliver some promotional tools in order to drive sales in the short term and deliver some promotional tools. Higher academic education would give marketers exposure on how to construct a profit and loss statement and manage the brand's financials. It would also enhance specific marketing skills in areas like marketing research, targeted marketing, and provide insight into organizational structure and effective management principles.

B4. Quality Control and Certifications

Certification obtained. Some wineries have obtained ISO 9001 certification. However, for most wineries, current hygiene practices, average quality of their products, management practices, and the accounting system would be inadequate to meet certification requirements. Even for some of the certified wineries, the accreditation's value is questionable given their practices. If European standards were applied to many of the wineries, many would fail to meet requirements.

On- site control laboratories and testing capabilities. According to government regulations each winery must have a well-equipped laboratory, with three qualified chemists and a microbiologist. A few wineries are impressively well equipped, but most have the minimum equipment required by the regulation and are able to perform only the most basic analyses. However, even for some basic analyses, such as organic acid testing, and for less standard analyses, they use other more specialized laboratories in Chisinau.

Use of traceability systems. Government regulations require that wine producers have traceability systems. In practice, this stipulation is far from satisfied. Due to grape delivery procedures, wine producers cannot establish a functioning, reliable traceability system. The records that they are obliged to keep are completed for compliance purposes and not used as a tool. Moldova desperately needs a functioning wine traceability system, which first entails development of a national vineyard cadastre by the government.

Extent of self regulation. It is difficult for wine producers to operate strictly according to the myriad of government laws and regulations; therefore, there are often procedures in place to circumvent requirements.

Production according to VDO/VDOC standards. In principle, wine producers must respect a considerable number of regulations and standards in order to be able to use the VDO/VDOC designation. In practice, this is almost impossible. With a traceability system and national vineyard cadastre, compliance will be within reach.

B5. Human Resources

Viticulture. Wine producer technical directors responsible for vineyards usually have a degree in agriculture or viticulture from the Agrarian University or National College of Viticulture and Winemaking. These graduates were trained in old-style viticulture techniques based on the Soviet approach to grape production and have inadequate knowledge of modern international practices.

Because extension services are limited and inefficient, technical directors and vineyard managers have little opportunity to update their knowledge and skills. Moreover, reference books on viticulture published in Romanian or Russian are outdated; most of the publications on modern international practices applied in viticulture are usually in English or French. If wine producers have their own vineyards, planted with Italian or French rootstock, it is common for representatives of the nurseries providing the plant material to visit Moldova to provide training in viticultural practices. In some cases the rootstock suppliers assist the wineries during planting and provide consultancy on viticulture practices during the first few years.

Limitations are placed on following international best practices in vineyard planting and management because of the need for officially-approved plans for new vineyards, designed according to the Soviet style. Some viticultural specialists believe that vineyard planting schemes inherited from the Soviet era and still imposed by many wine producers and the government were calculated based on the width of tractors produced at the time to allow them to pass between rows. These tractors are of course no longer in use. Beyond this, there is often resistance to accepting techniques used in other countries, especially the number of plants per hectare as it is considered not applicable in Moldova due to differences in soil quality. For example, Moldovan viticultural specialists often say that in France or Argentina soils are poor and it is acceptable to have 8,000 to 10,000 plants per hectare, while in Moldova the soils are much more fertile and the optimal number of plants per hectare is 2,500. Increasing plant numbers is thought to lead to overgrowth of foliage.

Except for the few cases where vineyards are owned by wine producers, there is little connection between vineyard managers and winemakers. The vineyard managers are oriented to maximize production volumes and sell them at as high a profit as possible and as early in the harvest as possible. Winemakers have limited influence on the viticulture practices, where there is a tendency to harvest unripe fruit and mix varieties, including red with white and European with hybrid. Vineyard managers do not organize separate harvesting for different varieties, even though this is always requested by the wine producers. Vineyard workers themselves are full- and part-time employees (especially during the season). They usually live in the neighboring villages, have low education levels, but rather good experience working in the field. They execute the tasks set, but need careful control and supervision from either vineyard managers or advisors from the wine producers.

Winemaking. Most winemakers have university degrees and are graduates of the Technical University of Moldova (TUM)'s Faculty of Technology and Management in Food Industry with specializations in oenology. Others graduated from the National College of Viticulture and Winemaking or received training there before attending TUM. Very few winemakers have studied abroad, and those that have are familiar with popular New World wine styles. In general, Moldova's formal winemaking education provides inadequate training and skills in wine tasting and no understanding of international wine styles. With their training focused exclusively on Moldovan style wines, winemakers tend to prefer them to the others and to consider them "the best in the world."

Limited Access to Published Information

There is only one industry publication, *Viticulture and Winemaking in Moldova*, re-launched in the beginning of the year 2006 after a 15-year absence. It aims to address a combination of scientific topics, practical information, and topics concerning the sector. Because of financial limitations, the magazine is not yet an important source of up-to-date information on marketing or technology. As the best wine industry publications with comprehensive and up-to-date information are issued in foreign languages—English and French—most of the winemakers cannot use them as information source.

The Union of Oenologists of Moldova (UOM), organizer of the wine tasting competitions at ExpoVin-Moldova, took the initiative to create profiles of expert tasters and trained a number of local winemakers in wine tasting. From 2003 to 2005, UOM organized a series of advanced courses on wine tasting, using international methodologies and using specialized aids ("Le nez du vin"—synthetic aromas, descriptive aroma wheel adapted from the University of California-Davis, solutions for training sensitivity to taste), which was well received by participants who stated they received no such training through their formal education. In 2006, the Milestii Mici winery asked UOM to organize in-house training courses in wine tasting and related issues. Two separate groups attended, the technical staff including winemakers and the commercial staff.

Some of the winemakers, especially from the leading wine producers, are open-minded and tend to learn from international exposure. They are well trained, often visiting their markets and gathering input first hand from consumers and the trade. Many quality-oriented wine producers have procured the services of an international winemaking consultant and readily take advice on winemaking techniques. Some winemakers visit international trade fairs alongside the owners, winery managers, and commercial staff; however this is limited. In some cases, the winemakers obtain samples of foreign wines, brought by wine exhibition participants or visitors for comparative tasting. A few study tours have been organized for winemakers, for example, to South Africa in 2005 and Germany and New Zealand in 2006.

However, as mentioned above with respect to viticulture practices, there is still a certain resistance to the acceptance of international best practices. Some “old-school specialists” reject modern winemaking practices as not applicable in Moldova or too expensive and not worth the effort. On the other hand, the winemakers, especially the ones who have been abroad, who do want to adjust practices and styles, have limited flexibility as they are tied by government technological instructions that they are obliged to follow.

Since the Russian ban, as the wine producers began to feel the effects of lost income and could no longer pay wages, they started losing staff. Many winemakers have emigrated to other countries in search of jobs. It is estimated that several hundred professional winemakers now work at wineries in Russia, Romania, Bulgaria, Ukraine, and some even in Turkey, Greece, and Cyprus.

Marketing and sales. The commercial directors and the sales personnel usually are younger than the technical staff and have undergraduate university degrees in economics, and skills in at least one foreign language in addition to Russian. They often have training in marketing and sales, but mostly they gain this experience on the job. This is because it is considered important to have a good understanding of wine as a product and the wine business generally. Thus many wine producers and their managers consider a person with low sales skills but a degree or experience in winemaking as a much better sales resource than a person with good sales skills and no knowledge of wine. The commercial department staff tend to have the highest salaries and benefits in the sector.

The sales and marketing role is often combined, giving little opportunity to balance short-term sales and profitability needs against long-term brand equity building whereas in global wine companies both sales and marketing roles are differentiated. The elements of each are shown in the text box. Generally, the wine producers do not have adequate marketing plans or branding strategies. Some attempt to apply a brand management based structure to their marketing department. However, an understanding of brand building and management is limited, while sales strategies have only one objective: maximize sales volumes. Negotiation skills are therefore highly prized among marketing staff.

Differentiation of Sales and Marketing Roles

Sales
- Country management
- Key account management
- Sales and market analysis

Marketing
- Brand management
- Local marketing
- Global marketing
- Event marketing
- Advertising/public relations

Although they have marketing departments, the wine companies pay much more attention to sales activities than to marketing. They have a basic understanding of certain marketing aspects and customer needs, but this mostly refers to the price/quality ratio and label design, rather than to the wine style. If there is generally little understanding of wine style at the winemakers’ level, there is even less among the marketing and sales staff. It is therefore impossible for these staff to recommend that the appropriate styles for the target market be produced by the winemakers.

Moldovan wine producers use trade fairs and missions as one of their most important marketing and sales opportunities. Usually sales personnel participate in fairs and that is the best learning opportunity for them. But as many of them do not see the value of tasting competing products, they do not exploit their participation at fairs to taste wines preferred by targeted markets or to learn as much as possible in advance about the buyers and their competitors. Moreover, there are many cases where staff do not follow up with key contacts after the trade fairs or missions, an ineffective use of marketing and sales budgets. The commercial directors and marketing and sales staff use the Internet as their main information source, but there is little market research being conducted.

Senior management. The general directors, CEOs, and presidents of Moldova's wine producing companies are usually TUM graduates with a specialization in winemaking or they have a degree from another institution with specialization in economics. Most of them have a good understanding of the wine business and many are also owners or co-owners of the companies they manage. Most started working in the wine and alcohol trade in the early 1990s, accumulating capital and knowledge of the sector and eventually established their own production companies. The highest management level in the wineries is usually achieved after a number of years working in wine businesses, most of them being promoted from lower positions or moving to the firm from another company. There are a few rare cases of "outsiders" in senior positions. Senior management travels abroad extensively, attending trade fairs and missions and meeting potential and existing partners.

Unfortunately, senior managers tend to have limited understanding of market demand from the wine style point of view, often giving much more attention to the label than the wine style. This is because most of them have limited wine tasting skills and they consider the wine they make is top of the line and thus wonder why potential customers don't buy it. Members of senior management do not usually have long-term business and marketing strategies or a vision about the future of their businesses. They consider short-term profits their most important objective and there is little emphasis on capital investments for new product opportunities based on internal rates of return and net present value. Because of the focus on short-term profits, many in senior management tend to be in control of the financial/sales side of the business, giving little time to and having less interest in the winemaking side. They delegate the technical work to others and are not always aware of what's really going on in their wineries.

B6. Information Technology and Systems

Moldovan wine producers make limited use of information technology (IT), except for the seven Wine Guild companies, which are focused on new markets, and a few others. Few have Web sites and many, especially those with headquarters and marketing departments located outside Chisinau, lack Internet access. Information systems are used for accounting, some of which are simple, standard accounting systems, while large wine producers tailor the systems to the company needs to manage bookkeeping, assets, inventory, supply, wages, sales, etc.

IT Tools Supporting the Global Wine Industry

Global wine making is undergoing a big change with the help of modern technologies. Now computers often control the winemaking process while probes buried in the vineyard soil monitor the moisture levels and determine when to irrigate. At the wineries around the world, computers measure the air in the barrel room and automatically mist it to maintain the desired 80 percent humidity. Some high-tech vineyards are even managed via Global Positioning Satellites (GPS) by helping identify plots where vines are thriving, decide where to apply pesticides, and assess where to irrigate. Viticulturalists are using new tools such as DNA marking. In the past, they relied on a visual inspection to identify diseases, which can take years before they are visible to the human eye. Now DNA markers can flag infected plants within hours. And in the winery, the same techniques can also detect harmful yeasts and organisms much earlier, allowing winemakers to combat them before wine is ruined.

Most of the wine producers' commercial departments have their customers and suppliers lists in databases. However, sometimes it has a limited use, for instance just recording contact details. Forward-thinking marketing and sales staff use IT to record their activities, make sales analyses, build and maintain proper marketing databases, and conduct market research. Unfortunately this applies only to a small number of wine producers in Moldova. In general, IT has broader use in marketing and sales than in winemaking. Some winemakers keep internal traceability records in computer folders. The more modern laboratories use information systems for databases, analyses, and reports, but many wineries still extensively use paper record books for supply, winemaking, and quality control, as well as for the traceability records. Staff members are eager for IT systems that could store and generate all required forms and paperwork for wine production. At least three software companies sell software that addresses documentation needs, and it is used in some wineries, but there are cost implications.

B7. Product Cost Structure and Pricing

Large retailers fighting for market share and competing on thin margins have been driving down industry pricing by demanding better prices from their suppliers. As these retailers expand globally, their pricing methodology benefits more consumers but also generalizes wine styles. This is because in order to meet buyer expectations for lower prices, regrettably suppliers look for economies of scale from mergers and acquisitions and improved operating efficiencies from large-scale production to drive down costs. In a competitive market like the UK, where the grocery chains control 75 percent of all retail wine sales, suppliers have felt the squeeze from the large grocers and this has resulted in some large producer losses that in one case led to the merger of Southcorp with the Fosters Group.

In markets with a model of imperfect competition either controlled by state monopoly boards or due to regulations that restrict commerce, such as in the United States, there is less pressure. In the United States, producers can not sell and ship wine directly to retailers and by law must distribute through a wholesalers. Furthermore, regulations that vary by state require the expertise of these middlemen that provide a service and make about 25 percent gross profit for their distributing services. Extra margins and taxes paid at every sales level compound to make wines more expensive to the end consumer.

Cyclical grape markets seesawing between periods of excess and shortage, as well as fluctuating currency rates can also impact the price and the ability of a company offering a product from one part of the world to remain competitive on the shelf next to products from other parts of the world.

Moldova to date has been fairly insulated from the market gyrations impacting wine trade around the world. A restrictive wine import structure and little interest from Moldovan consumers for expensive wine imports present no threat to its domestic market. Proximity to Russia and other CIS countries, as well as favorable trading terms, had allowed Moldovan wine companies to operate in those markets with a significant advantage. The privatized segment of the Moldova wine industry is dominated by large distributing companies, many of them having Russian capital. It is estimated that the large distribution companies controlled about 80 percent of the wine market prior to the Russian ban. As Moldovan wine companies shift their attention to other export markets, they will come into more direct competition with global wine companies and local in-country powerhouses.

The following table provides an assessment of the cost structure facing the majority of Moldovan wineries and compared with estimates from a large California producer. These estimates are based on consultations in June 2007 with several wineries and industry experts. They are to provide a guide to the relative magnitude of costs incurred in producing wine in Moldova compared with California.

Exhibit IV-T: Direct Cost Structure in Moldova to Produce One Bottle of Quality Red Wine for Export to Western Markets (Prices in U.S. Dollars)

Item	Moldova Estimated Inputs	Share of Total	California Estimated Inputs	Share of Total
Purchase of grapes and transport to winery	.90	63 %	.70	53 %
Processing (fermenting and filtering)	.14	10 %	.12	9 %
Bottle	.15	10 %	.20	15 %
Cork	.08	6 %	.08	6 %
Capsule	.02	1 %	.02	2 %
Labels	.08	6 %	.08	6 %
Carton	.05	3 %	.12	9 %
Cost of certification	.02	1%	.00	0 %
Total Cost	**1.44**	100 %	**1.32**	100 %
Average ex-cellar price (based on 20% GP)	1.80		1.65	
Average retail price (UK/ME/U.S.)	£4.99/ €5.99/ $8.99		£4.99/ €5.99/ $6.99	

The direct costs for Moldovan producers shown in the exhibit are similar to those estimated for CIS countries, as well as Romania. Note that the ex-cellar price estimates don't include a significant marketing investment required to support promotional activity that is often factored into the price. The cost of grapes constitute the major cost of production and Moldova is at a disadvantage to New World producers where higher yields and a combination of wine producers' own vineyards and long-term leases hold down the price of comparable grapes. In comparison to Western Europe, grape production costs are also high and estimated at about twice as high as in Germany because many European wineries own their own vineyards. As to the costs of production, while labor is cheaper in Moldova, large-scale facilities operating near full capacity with modern equipment can draw significant savings.

Material costs for corks and other packaging material tend to be slightly higher in Moldova than in EU countries because some products are imported, such as natural corks. In the United States, these items tend to be even higher. One reason relates to glass suppliers in California selling bottles with a carton as a set and as such can make a small margin on the carton that they buy from carton suppliers. California wineries recognize this tactic but have long designed their bottling lines to handle the glass in the carton. It would require a significant capital investment to make changes to the bottling line. Perhaps more important is the perceived value of packaging enhancements as a point of differentiation and to increase image. Marketers of California wineries employ more expensive packaging such as heavier glass and cartons with UV coating. The heavier full, punted glass has wide consumer appeal, and cartons with strong visuals on display can make a positive impression with targeted consumers at the point of purchase.

B8. Potential for Small Wineries

Smaller wine producers exist in all winemaking countries and some of the world's most sought after wines are produced by small wineries. In neighboring countries like Bulgaria, Hungary, Macedonia, and Romania (see text boxes), most small wine producers have been recently established but already have been extremely successful. Small wine producers tend to bring passion and innovation to the sector. They often lead the way in quality wine production and stimulate the large producers to follow suit. From international experience, small wine producers are more attractive to tourists as they better fit the image of "handcrafted" wine. These small wine producers co-exist with large wine producers and make the wines of the country more diverse. They have their own market niche and do not compete with the large wine producers.

Small Winery Success I: Prince Ştirbey, Romania

Owner Baroness von Kripp and her husband took over her family's historical wine estate in 2001. The winery was completely renovated and the 20 hectares of vineyards were replanted and unique local varieties Negru de Dragasani and Novac were revived. The young German winemaker at the winery has been given freedom to improve quality and innovate with existing varieties Cramposie, Tamaioasa, and Feteasca. Several of the wines sell out quickly after their release in Romania, in spite of relatively high prices (7 to 8 euros) as they are of an exciting and distinctive quality. The wines are also exported to Germany, Austria, Switzerland, Denmark, and Luxembourg.

Small Winery Success II: Gere, Hungary

Gere is a joint venture between Hungarian winemaker Attila Gere and Austrian winemaker Franz Weninger. The 13 hectare vineyard in the Villany region was established in 1992 and planted exclusively with red wine varietals: Kékfrankos, Cabernet Sauvignon, Cabernet Franc, Merlot, and Portugieser. In 1993 a modern wine cellar was built. Since then the wine has been fermented in stainless steel, temperature-controlled tanks. The winery also had the first guesthouse for wine tourists in the region. In 1994 Attila Gere was voted Hungary's Winemaker of the Year. Now Gere is one of the most famous wine producers in Hungary and their wines are also exported to Austria, Germany, and Belgium.

The development of the small wineries or wine estates (both vineyard and winery) should be encouraged for several reasons. First, many entrepreneurs (some who took advantage of government subsidies) that planted new vineyards over the last couple of years, plan to continue their investment by creating wineries to make their own wine. As the market for wine grapes does not look promising, making their own wine might be the only solution for these growers in the short and medium terms.

Unfortunately, there are a number of factors that inhibit the development of small wine producers in Moldova:

- Many officials working in the wine sector believe that small wineries can not produce quality wines and they will corrupt Moldova's image. However, the experience of other countries proves the contrary.
- The existing requirements for obtaining a license are set for industrial wineries and are very difficult if not impossible for a small wine producer to meet.
- The "minimum production capacities" set for industrial wineries are very difficult if not impossible for a small wine producer to meet.
- The cost of preparing and submitting required technological instructions and other required documents is costly for a small wine producer; in the case of small production volumes these costs considerably raise the price of the finished wine.

C. Industry Support Services

This section provides basic information on wine sector support industries and services.

C1. Financial Services and Insurance

Commercial banking services and products. The banking sector in Moldova is quite developed with 15 commercial banks operating and the emergence of foreign banks in Moldova will no doubt expand the range of banking products and services. Moldovan commercial banks provide a large variety of financial products, which are able to service most needs of the wine sector. However, there is a shortage of long-term resources, which limits structuring of lending products for new vineyard planting; new vineyards require six to ten years to recoup investment. Banks tend to lend their own resources for a maximum of 60 months, while banks obtain funds for longer-term lending from international financial organizations such as the World Bank and EBRD. These funds help compensate for the deficit of long-term commercial financing but are insufficient to cover the sector's longer-term financing needs. Donor funds include credit lines channeled through local commercial banks available for new vineyard planting. Another issue is that loans for new vineyards carry market rates of 16 to 17 percent annually, well in excess of the profitability over the time of the vineyard investment. Government intervention to subsidize planting of new vineyards is addressing commercial financing limitations.

Leasing services. There are 14 companies providing domestic leasing services with seven of them holding about 95 percent of the total leasing market. The primary market focus is now vehicle leasing, but there has also been some development for commercial and industrial equipment, and sale/lease back real estate transactions. There is strong interest from local leasing companies to expand and better serve the market, including diversification into commercial equipment and machinery. However, one of the key challenges is access to increased finance and investment to expand their leasing portfolios, which is usually drawn from international financial organizations, as most leasing companies are at their credit limits with domestic commercial banks. From a risk standpoint, leasing companies will soon enter into the most profitable sectors of the economy, such as construction, and given the current uncertainty in wine sector there is little probability that it would benefit from a massive leasing flow. However, in the short term, there may be possibilities for one-off leasing transactions for certain wine producers that stand apart from most wine producers that are in crisis.

Foreign leasing. It must be underlined that most foreign equipment suppliers to the wine sector have installment sales programs, which would allow the Moldovan wineries to defer payment of purchased equipment typically up to two or three years. This allows the wine producers to finance smaller investment needs. Moreover, the interest rates are sometimes lower than those on the domestic market. Currently, there is little leasing of this kind.

Insurance services. There are about 15 active insurance companies in Moldova that have developed a range of services (auto insurance, property insurance, financial insurance, liability insurance, etc.) However, it is worth noting that the business culture in Moldova does not use insurance on a regular basis, therefore, business-specific insurance services (such as crop insurance and financial insurance) are available but limited in actual use.

C2. Marketing and Business Support Services

Design services. All wine producers outsource the design of bottles and labels, however, some elements of the design are initially conceptualized by in-house designers. The largest design agency that works with Moldovan wine producers is Vox Design. Vox Design provides brand development and visual identity services to about 50 percent of the leading wine exporters and also serves other large wine producers in CIS countries, possibly leading to a conflict of interest. Nevertheless, Vox Design has a high level of trust among the wine producers; therefore, this company can be considered a monopoly, applying fees that are much higher than its competitors.

Marketing services. Complex marketing services have not developed in Moldova and there are few market research or branding services. When discussing marketing most winery managers only consider advertising. This market is well developed and some wine producers hire advertising firms to produce advertising materials for television, radio, outdoor advertising, and other media.

Information and communications technology (ICT) services. ICT services intersect with the wine sector in the following areas:

- Telephone communications, where the suppliers are Moldtelecom for CDMA fixed and mobile telephones, Orange and Moldcell for GSM mobile communications, and a fourth mobile operator is expected later in 2007.
- Internet provision, with leading services providers Moldtelecom, Starnet, and Globnet.
- Web site development, led by Deeplace, DNT, and WebArt.

Accounting services. Wine companies have in-house accounting departments. For purposes of external audit they may use leading local firms such as Moldauditing or international audit companies such as PricewaterhouseCoopers, KPMG, and Ernst & Young, that have subsidiaries in Moldova.

Legal. There are numerous law firms able to assist wine producers. The oldest and most renowned is Brodsky Uskov Looper Reed and Partners.

Intellectual property services. With the scope to protect the intellectual property, the State Agency for Intellectual Property (AGEPI) has been created with the scope to protect intellectual property. This agency mainly deals with local and international registration of Moldovan trademarks. The protection of intellectual property of foreign suppliers on the local market is also in their realm, although there appears little activity in this area. The main focus is on protection of software and media production, where major problems exist.

C3. Quality Certification Services

State laboratories. The Center for Verification of the Quality of Raw Materials and Wine Products is an administrative agency created in response to a request by the Russian government. The center now has the monopoly on wine certification in Moldova. Russia claimed that it banned Moldovan wines because poor quality wines led to health problems. It was not entirely untrue as there are extensive hygienic issues in many of the Moldovan wineries. The Russian government felt that wine certification was not done seriously and, as such, certification should be of the responsibility of the state. The new center is located in inadequate premises and does not have the proper equipment to fulfill its mandate. As of June 2007, the center was planning to move to more appropriate premises in

November 2007 but lacked the financial means to buy the necessary equipment, needing roughly $250,000. They are searching for donor support.

Many criticize the decision to create one certification center but as this was a Russian request and there is a desire across the wine sector to reenter the market, there was little choice. In addition, it is logical that the state be involved in some part of the certification process, as in other wine producing countries, especially given that the certification system up until the ban had failed to guarantee that products were of sufficient quality.

According to the center staff, it plans to designate other laboratories to undertake analyses in order to guarantee the seven-day turnaround from request to final report. For wine being exported to markets other than Russia or markets that do not request that certification be made by an official administration, many in the sector believe that private laboratories should be allowed to provide certification services. The state could provide monitoring of these laboratories through some sort of annual inspection and certification.

Third-party certification bodies-private laboratories. There are four private laboratories in Chisinau. They carry out analyses that the wineries cannot due to their lack of equipment or staff training. In general, these laboratories provide a package of 10 basic analyses. The cost of the package is about 400 MDL. The laboratories offer annual contracts to wineries at a cost of about $2.50 per hectoliter. The wineries pay one third of the cost after the harvest, one third by the end of February, and the last third by the end of June. For this fee, a winemaker is placed in the winery's laboratory working two to three times a week during the winemaking period. Through such a service, the wine producer gets all-year support as needed, advice on winemaking and their own laboratory. In general, this service is very important to many wine producers because:

- Wine producers are required to perform analyses that they may not have the equipment and skills to do
- Wine producers do not need to buy the latest laboratory if using such services
- It is the laboratory's role to be aware of the latest analytical and winemaking techniques, while the winemakers can focus on day to day management.
- Laboratories and their winemakers can help the wine producers make wines in more "fashionable" styles

These same laboratories are fully equipped to undertake certification of wines sold to markets other than Russia.

C4. Education and Training

The professional education system in Moldova has three levels: vocational schools, colleges, and universities. In addition, there is the National Institute for Wine and Vine, which is the research arm of the industry. A number of limited professional training initiatives also exist.

Vocational education. There are about 80 vocational schools but none has specialized in winemaking or viticulture. Some schools have viticulture programs in combination with other programs. Graduates from vocational schools usually work as vineyard workers or tractor drivers. Among the biggest problems these schools face are poor state and local funding, a shortage of teachers, as well as staff close-to-retirement age, outdated curricula, and lack of modern teaching materials. There are some positives as well where foreign donors have supported vocational programs. For example, a donor-funded Austrian organization assisted two vocational schools in Leova and Nisporeni with re-orientation of the school and development of a viticulture training program. The Austrians provided teaching materials and equipment, organized a combined team of local and international lecturers to change the curricula, and funded the creation of small demonstration vineyard plots for learning purposes. Implementation of those innovative initiatives are far and few between and is complicated as the education system is very rigid and strictly regulated.

Colleges. There is only one college for viticulture and winemaking in the Chisinau suburb of Stauceni. Established in 1842, it is the oldest educational institution of that type. The college provides technical education and has several hectares of vineyards, a winery, agricultural equipment and machinery, and other educational support. However all the equipment is very old and therefore offers students very limited insight into modern applied viticulture and winemaking technologies. Students graduate with a diploma in viticulture and winemaking. The graduates work as vineyard managers, laboratory assistants, and assistant winemakers. The college faces the same problems that are common for most of the education institutions in Moldova: an ageing faculty, limited library resources, outdated equipment, and outdated educational programs and teaching materials.

Universities. There are two universities that teach winemaking and viticulture, Technical University of Moldova (TUM), and State Agrarian University. Until recently TUM was the only higher education institution with a major in oenology (winemaking), which also provides a good foundation in viticulture. The State Agrarian University now also provides studies in winemaking but with more of focus on viticulture. Both universities are able to provide high-level theoretical training in all the aspects of oenology including viticulture techniques, wine biochemistry, wine analysis, standards, production technology, and oenological practices. However both have a shortage of financial resources, professors, modern specialized literature, and laboratories for practical, applied training and skills development. The courses are taught mainly by “old-school” professors who learned under the Soviet approach, based on outdated methodologies and with limited relation to modern practices. European winemaking professors visit TUM to teach, but the courses are very short and as a result, failing to meet expectations.

Moldova State University also has a master’s degree program in wine law and wine sector management that was established in 2004 by a TEMPUS/TACIS project. This three-year program was developed with the educational support of the Montesquieu-Bordeaux IV University in France and Spain’s Public University of Navarre. The program curriculum developed and integrated new courses in wine law, wine economics, wine marketing, wine appellation of origin and intellectual property, international trade law, and European wine market organization. It is taught by French and Spanish professors. A new documentation center was established and contains a library specialized in wine law, economics, and management. Nearly 100 students have already graduated. The TEMPUS/TACIS-funded project also organized six-month internships and training for Moldovan professors in France and Spain specializing in wine law so that they could replace the European professors who established the program. The best students were also sponsored for internships in French or Spanish wineries or wine trading companies. In 2007, the TEMPUS/TACIS program ended. Moldova State University is deciding if the program can continue without the EU-funded resources and European professors.

Research institutions. The National Institute for Wine and Vine (INWV) is the research arm of the industry and is under the umbrella of the Academy of Sciences of Moldova. INWV employs researchers from different fields related to viticulture and winemaking. Currently the institute is going through difficult times. The main cause is a lack of funds. Technology transfer to the private sector is very low. Researchers don’t usually find commercial applications for their products and the research base that belongs to the institute is obsolete except for some laboratory equipment bought with donor financing, mostly used to provide services to private business and not for research. The scientific library doesn’t contain modern resources. The average age of the researchers is 55.

Professional and informal training. The only professional organization providing specialized training is the Union of Oenologists of Moldova (UOM). The organization was more active in providing training in the period 2001 through 2005, including a well-received series of advanced courses on wine tasting, an area not covered in the formal education system. UOM has also organized wine tasting courses and master classes for amateurs during wine festivals or on other occasions. Several companies held UOM organized wine tasting classes for their commercial staff. In 2001, UOM opened the Information Center for Winemakers and Grape Growers, with a large library and Internet access, but the center was not used extensively and it was discontinued mainly for financial reasons. Recently, with donor financial support combined with funds raised from local companies the UOM has organized several seminars and workshops, covering modern technologies and topics of high interest for the winemakers. Even though very positive, UOM's training and knowledge transfer initiatives reach only a limited number of professionals.

Internships and apprenticeships. Apart from theoretical and scientific knowledge, on-the-job training and study tours are essential to better understand the product quality and make correct decisions in the wine industry. Participation in internships in countries with advanced wine industries such as France, Italy, Spain, and Germany, but also in New World locations like California, Australia, Chile, Argentina, and New Zealand can be especially beneficial for young winemakers. These internships can teach young winemakers practical modern winery operation but also modern wine styles and ways to achieve them. Sometimes they can even change mindsets.

There are a number of exchange organizations that have winemaking programs: SESAME (France), Communicating for Agriculture (U.S.), International Rural Exchange (Australia), Bibber International (Australia), and Rural Exchange New Zealand. Only a limited number of winemakers working in Moldova have actually benefited from such programs.

C5. Private Sector Associations and Syndicates

Currently there are three active professional organizations that deal with grape and wine producers, the Union of Oenologists of Moldova (UOM), Union of Wine Producers and Exporters, and Association of Nurseries of Moldova. They cover a wide range of industry stakeholders and their role is to assist and protect the interests of the members. One of the main factors that influences the performance of these organizations is the commitment and approach of the leadership. There have been discussions lately about the efficiency of these organizations and about the advantages and disadvantages of merging them into one large association. The merger concept is hotly debated and is opposed by the majority of the three associations' members. Another option that has been discussed is the establishment of one coordination and consultation body, an apex wine sector association that would consist of representative from each association.

Union of Oenologists of Moldova (UOM). UOM was founded in 1999 by 199 winemakers. It now consists of 310 members. During the period between 2003 and 2007, 105 members left the organization. This was mainly due to the crisis that the industry faces as a result of the Russian ban. The structure of the organization is as follows: 65 percent winemaking professionals, 15 percent associated members, 12 percent collective members (wineries), and 8 percent students. UOM's mission is to strengthen the industry through assuring independence of oenologists, information exchanges, research support, and professional growth. UOM has a chairman, two deputies, secretary, and treasurer. In the past, UOM received financial support from international donor organizations. It is actively involved in promoting wine culture and consumption in Moldova. It has developed the methodology and is the main organizer of the national wine contest held in February. It has developed training courses and holds presentations on new winemaking technology for members. UOEM is not currently involved in certifying oenologists or in other activities related to quality certification. In 2007, it began reviewing its goals and objectives and is getting more involved in public-private dialogue. It has initiated a discussion among its members that would result in developing a private sector strategy to ensure the future of the Moldovan wine industry.

Union of Wine Producers and Exporters. The Union of Wine Producers and Exporters was founded in 2002 by 13 large wineries that were exporting most of their wines to Russia. Before the Russian ban, the organization was mainly involved in supporting member enterprises with their marketing efforts in Russia and in building a positive image for Moldovan wines. The main purpose of the organization is to represent the interests of large exporting companies. Also, the organization has served in an advocacy role, raising awareness on common problems faced by wine producers, such as the low excise duties on vodka. Lately, it has been involved in organizing seminars and presentations aimed at diversifying the export markets for member wine producers.

Association of Nurseries. The Association of Nurseries was founded in 2003 and consists of 14 members who are seedling producers. The association is actively involved in setting import/export standards for planting material, participates and advises on the homologation of plant protection chemicals, and fosters cooperation among members in order to get better prices for imported planted materials. Also, the organization is cooperating with the public sector on such subjects as the viticulture rehabilitation fund.

Moldovan Wine Guild. This group was established in April 2007 to represent seven leading wine producers that share similar outlooks in terms of wine quality. Member wine producers are: Acorex Wine Holding, DK Intertrade, Dionysos-Mereni, Chateau Vartely, Purcari, Bostavan, and Lion GriAll the members produce wine compatible with EU standards and can offer stable supplies and product consistency. There is a shared understanding of marketing strategies and a willingness to act together to build country awareness through joint activities such as wine fairs, tastings, and seminars in key markets. In 2007, they collectively participated in three international wine events, ProWein in Dusseldorf, the London Wine Trade Fair, and Vinexpo in Bordeaux. There are also plans to arrange trips for press and buyers and in the longer term possibly to plan for activities in major retailers. Funding is however limited and provided by the seven members.

C6. Input Supply

Below we cover production, winemaking, bottling, and labeling input use and availability.

C6a. Production

Vine stock supply. Several state and recently established private companies have begun to propagate vine seedlings (i.e. nurseries): Sauron, SPM Grup, Weiss, Mercier Centru Europa, Tomai, Salcuta, Sadaclia, and Taraclia. However, the nurseries generally cannot yet deliver a product with a significant price advantage, and so they are disadvantaged by a lack of faith in their virus-free accreditation compared with imported seedlings. Cost of certified imported plant materials from Italy, France, and Germany is about 16-19 MDL ($1.30 – 1.50) and for domestic seedlings, 13-15 MDL. Most suppliers of imported material are French (Pepinerie Arrive, Pepinerie Calmet, and Mercier), while Rauchedo is an Italian importer. The most popular seedling varieties are Cabernet Sauvignon, Merlot, Pinot Noir, Chardonnay, and Sauvignon Blanc. However, the potential of indigenous varieties with interesting flavor profiles should not be ignored. Moldovan wine companies must learn that the wine business is a fashion business, and sophisticated consumers often seek out something different, if it meets their quality and style expectations.

Use/availability of modern equipment and inputs. Growers have ready access to vine cuttings, both locally propagated and imported at competitive prices as described above. Other imported inputs, such as fertilizer, pesticides, herbicides, and micronutrients are also readily available however prices are inflated due to restrictive licensing requirements for importers. More liberal licensing requirements would increase competition between suppliers, and so should drive down prices. The main chemical suppliers are: Fertilitatea, Agrimatco-Service, Atai, Moldresurse, Bioprotect, and Ariagro Grup.

Irrigation equipment. Irrigation could enhance productivity by raising yields per hectare, and could also mitigate fruit loss and vine damage due to drought (drought occurs on average one year in five, and semi-drought another two years in five.) Western European and New World wine producers routinely achieve yields of at least 10 metric tons per hectare (e.g. 14 metric tons per hectare in Germany, 16 metric tons per hectare in Australia) compared to 3 to 4 metric tons per hectare in Moldova. However, these yields are achieved for relatively younger vineyards than those in Moldova with optimal application of modern viticultural practices. It is difficult to estimate the potential yield increases from drip irrigating new Moldovan vineyards. However, assuming an installation cost of $1,500 per hectare amortized over five years, a starting yield of 3.5 metric tons per hectare, an average grape selling price of $350 per ton, and an annual operating cost of $400 per hectare, a break-even yield increase of about 60 percent would be required. Such an increase would almost certainly be achievable.

C6b. Winemaking

Winery equipment is available from various European manufacturers. Local distributors exist in Moldova, but only keep small stocks of mostly inexpensive equipment such as pumps and hoses. Winemaking materials such as yeasts, stabilizing agents, and filtration materials also are available from a number of international manufacturers and are also stocked by local distributors. Bottles are produced by two companies in Moldova, limited quantities are imported. Corks are supplied by local distributors or imported directly by wineries from European suppliers.

C6c. Bottling and Labeling

Bottling. Before the Russian ban wine bottling was demanded by those wineries that didn’t have a bottling line. Sometimes the growing export volume of big producers forced them to outsource this from other wineries because their own bottling line was not able to meet demand. Generally, the majority of wineries would provide such services upon request to make additional profit and quicker bottling line amortization. The cost of bottling services varied between $ .08 to .15 cents per bottle (the most costly are the Chisinau based bottling facilities, and the further they are from the capital the lower is the cost). Nowadays the need for this service has practically been reduced to zero.

Labeling. There are two types of service providers that deal with wine labels. The first are the companies that deal only with product design. The leader in this industry is Vox Design, the most popular and expensive company in this field. An alternative designer is Magic Grafic Arts. Besides these specialized agencies, many of the multi-profile advertising agencies are involved in label development. The second type are companies in the printing business. With their own production facilities, they can be more competitive on price. These companies are Amprenta-Foil, Elan Poligraf, Bastina-Radog, Combinatul Poligrafic Chisinau, Prag 3 and some others.

C7. Donor Support

Donor commitment and support to the wine sector is not targeted, but reaches the sector within the broader initiatives. Although the USAID-financed CEED Project is the only project that directly targets the competitiveness of the wine sector as part of its broader agenda, several other projects touch upon the wine sector, providing access to long-term finance for planting of vineyards, ISO/HACCP certifications, and cost-sharing for tradeshows and business missions. Due to the fact that the donor assistance is not tied specifically to the wine sector, the extent to which such support is used depends solely on whether sector players are aware of such support and active in pursuing it.

Donor support is thin compared to the needs of the wine sector in terms of business environment improvement, essential skill upgrades, and market diversification away from Russia and the CIS countries. Targeted projects are required to increase the competitiveness of the sector and leverage the government efforts in this field. Moreover, such support is required not only at the private sector level, but also at the government level to help improve its monitoring capacity and practices, and the overall regulatory base.

Exhibit IV-U: Overview of Donor Projects Supporting Wine Sector

Project	Donor	Objective	Support to Sector
		Directly targeting the sector	
Competitiveness Enhancement and Enterprise Development (CEED) Project	USAID	Help Moldovan Enterprises compete in the global market.	Grow competitiveness in the wine sector through company- and industry-level interventions, such as training, know-how, strategic guidance, direct cost-sharing of market research, trade shows, etc.
		Indirectly reaching the sector	
Rural Finance and Small Enterprise Development Program [other programs include Village Revitalization Program]	IFAD	Stimulate growth of strategic farming and rural business activities in Moldova	Credit line through domestic commercial banks, whereby loans for planting vineyards can be accessed at longer terms (up to 15 years) and slightly lower interest rates. From 2000-2007, $4 million was allocated for perennial plantings from all IFAD-funded credit lines, including for new planting of vineyards. The exact figure for vineyards has not been accounted for.
Rural Investment and Services Project, Phase 1 2000-2005, Phase 2 2006-2010	World Bank	Foster post-privatization growth in the agricultural/rural sectors of Moldova by improving access of rural entrepreneurs to legal ownership status, know-how, knowledge and financial services.	Credit line through domestic commercial banks, whereby loans for planting vineyards can be accessed at longer terms (up to 15 years) and slightly lower interest rates. Through RISP phase I, 24 loans were granted in vine/wine sector, totaling more than 5.3 million MDL ($400,000), of which 4 loans for purchase of equipment (2.3 million MDL) and 20 (3 million MDL) for planting vineyards.
Competitiveness Enhancement Project	World Bank	Assist Moldova in enhancing competitiveness of enterprises through improvements in the business environment and making adequate standards, testing and quality improvement services available to enterprises.	Co-fund up to 50% of costs associated with ISO and/or HACCP certifications. As of June 2007, 25 applications from wine and spirits companies, whereas CEP cost-sharing estimated at $200,000.
Support to MEPO/MIDA Project	EU TACIS	Make MEPO a viable component of Moldova's trade- and investment-related infrastructure.	Cost-share for trade missions and tradeshows; provide training on wine markets and technology issues. Cost-shared participation at specialized wine tradeshows, such as Prowein 2007.
Support to Moldova State University	EU TACIS/ Montesquieu-Bordeaux IV University, France/Public University of Navarre, Spain	Establish master's degree program in wine law and management.	Master's program focuses on wine law, economics, marketing, appellation of origin and intellectual property, and international trade law. Courses were taught by French and Spanish professors, while Moldovan professors were trained in Europe. Library specialized in wine law, economics, and management established. Nearly 100 students have already graduated. In 2007, the TACIS program ended. Moldova State University is deciding if the program can continue existing without the EU-funded resources and European professors.

SECTION V

International Benchmarking

The emergence of new wine styles produced by countries that have a relatively recent winemaking history led the global wine trade to distinguish between New World wine (from non-European countries) and Old World wine (from European countries). Collectively, the top six producing countries make 29.5 billion liters of wine, about half of total global wine production. The top three producing countries, all considered Old World countries, share a winemaking tradition dating back before the Roman times. The next three top-producing countries are all from the New World and are rapidly gaining ground in the international scene.

While Eastern European countries share the Old World tradition and history of winemaking, their commercial wine fortunes have caused them to struggle at home and abroad and their production rankings have fallen consistently. Only Romania is in the top 10, ranked tenth. Nevertheless, these countries' regional proximity to Moldova is noteworthy; their ambitions and misfortunes over time have paralleled the Moldovan wine sector.

Following are profiles of the top six wine-producing countries. Unless otherwise noted, all data is from either the Synergis Market Analysis published on March 2006 or the U.S. Department of Agriculture country-specific Gain Reports. These profiles are followed by profiles on three wine-producing countries from Eastern Europe, Bulgaria, Hungary, and Romania. After presenting the features of the nine countries, lessons learned for Moldova are highlighted. Finally, information on Georgia's wine sector and its response to the Russian ban on Georgian wine is presented.

A. Major Producers: Western Europe

Western Europe is the cradle of the international wine trade. A long history of winemaking and intra-trade agreements facilitated the commercial development of an international wine business for specialized wines (sparkling wine from France, port from Portugal, sherry from Spain, etc) dating back to the first half of the second millennium. Today, Western European countries have a vast and economically critical wine sector that is being threatened by the rapid emergence and wide acceptance of New World wine.

EU Financial Support of the Sector

In December 2000, the European Council decided that the EU could assist in financing measures that provided information and/or promoted agricultural products. In 2005, a promotional budget of 45.8 million euros financed 25 programs that were selected from member states and included wine. The EU agreed to fund half of the cost of these measures with the other half being funded by the professional organizations that proposed them and/or by the respective member countries.

The top three producing countries, France, Italy and Spain, combined with Portugal account for 90 percent of all EU wine production. As EU members, these countries are also large benefactors of EU financial assistance programs and have been collaborating on the development of measures that insulate their national wine sectors. These protectionist counter measures, adopted by the European Council, generally fall into two over-arching areas, regulation and financial support, that constrain and also provide relief to their affected constituents.

Regulatory measures intend to protect the wine's origin as a symbol of quality. Intended to enhance selective premium winemaking origins, this has led to the adoption of complex and confusing rules of appellation control that have also had an adverse effect on the ability of wines from appellation regions to compete in world markets. Regulations to control winemaking have raised production costs and limits winemakers from producing wines that can more readily compete with New World wines.

The second set of measures relates to enhancing the wine sector competitiveness of EU member countries and includes providing financial relief to those most affected (growers and wineries).

Measures subsidizing vine uprooting and re-planting programs, removing excess supply of low quality wine by offering distillation incentives, and supporting the promotion of wine in export markets have often been met by mixed results. While vine uprooting and re-planting programs have improved grape quality, they have not significantly lowered the amount of wine grapes entering the market, the ultimate goal of the program. This is because growers using financial assistance are investing in modern practices and increasing yields. Paying for distillation in times of crisis can exacerbate the situation by in effect providing incentives for wineries to maintain status quo. Additionally, the success of export promotion programs can vary widely by country. Often under-funded and poorly executed by lifetime government bureaucrats with little incentive for raising the competitiveness of the sector, some export promotion programs can expose wide rifts between private sector interests and government actions that are supposed to be assisting their respective wine sector.

A1. France

Production. In France, there are 887,200 hectares of vineyard area cultivated by 144,000 wine growers. Ranked third in vineyard plantings, France yields an average of 8 metric tons or 580 decaliters per hectare; and with a production of 5.85 billion liters of wine in 2004, it's the world's leading wine producer.

Winemaking. French wines are classified as either quality wines or ordinary wines (Vin de Pays and Table Wine). Quality wines are regional wines that must adhere to strict regulation in order to belong to a category of Appellation d'Origine Contrôlée (AOC) wines. About two-thirds of the vineyards are dedicated to producing quality wines; the top three areas are Languedoc, Aquitaine and Provence. More prominent regions include Alsace, Bordeaux, Burgundy, Beaujolais, Champagne, Cote du Rhone, and Loire. Despite the popularity of varietal wines around the world, France has opted instead to classify wines based on the appellation specific to a wine region.

Consumption. In the domestic market, per capita wine consumption was nearly halved in the last 20 years to 56 liters in 2003. This is the result of a trend toward healthier lifestyles that are driving consumers to drink less but of better quality. Advertising restrictions on alcohol products and more particularly anti-drinking laws are having a significant impact on wine consumption. So are young adult preferences toward more exotic alcohol drinks. Meanwhile, a small import base of $541 million in value grew 6.7 percent in 2003. While main importers are Spain, Italy, and Portugal, wines from Chile, the United States, Morocco, and Australia are also making gains in the French market.

Exports. One-third of French wine is exported. The UK, Germany, and Belgium represent France's three largest clients and make up 50 percent of its total export value. The Netherlands, United States, Canada, Switzerland, and Japan are also strong buyers of French wine. In 2003, exports managed to gain 1.7 percent in value while declining 3.4 percent in volume. The decline was even more accentuated for quality wines from specified regions. Over six years, French exports have declined 12 percent, and by 2003, wine volume ranking dropped a notch to number three in the United States. In 2004, the French wine share of U.S. consumption had dropped to 14 percent while Australia accelerated to 26 percent, a trend that will further widen the difference in fortunes of these two wine producing giants. While there may be several factors for these declines, at the top of the list appears to be a determination to preserve traditional winemaking rather than respond to changes in consumption behavior and consumer demand. While French wines are well suited for food pairing, calls for consumer-driven fruit forward wines with soft tannins for easy drinking seem to go unanswered.

Promotion. The French government subsidizes the wine sector through the French Office for Wines and Vines (ONIVINS). Its budget in 2003 was $76 million of which $49 million went directly to support programs. This office also administers EU subsidies allocated to the wine sector for vineyard reconstruction, distillation, and export refunds. The French wine industry sees itself in crisis and is seeking government assistance at different levels including a restructure of its marketing strategies. The responsibility for promoting export food and wine products falls under Sopexa, a quasi-public company that operates under the auspices of the Ministry of Agriculture. Many Sopexa programs are region specific, partially funded by the provincial government and by the participating wineries. These programs tend to originate in France with export country market input from Sopexa's country offices. The programs are tailored to education, tasting events, and retail promotions.

Looking ahead. As to the future for French wines, the sector is expected to continue to experience some decline for the next five years before beginning to stabilize. Much of the future success of the French wine sector thereafter will depend on the ever changing wine styles preferred by consumers and the French wine sector's ability to produce to such expectations.

A2. Italy

Production. Wine grape plantings in Italy continue to decline and amounted to 764,000 hectares in 2005, half of the total in the mid-eighties. Current agricultural policy prohibits new planting until 2010; however it also supports the replanting of existing vineyards to improve wine quality. In the 2004/05 year, the European Union allocated $103 million euros to be applied to the replanting of approximately 15,000 hectares in southern Italy where quality enhancements are ongoing. Italian production is invariably affected by inclement weather, and its yields have varied significantly from year to year. Production in 2005 amounted to only 4.9 billion liters resulting from a light and poor harvest. However, a continued imbalance with excess supply is placing downward pressure on prices. In 2004, contracts from an EU distillation program were approved to support the withdrawal of 200 million liters of wine from the market. A similar amount was taken out the prior year. These short-term fixes don't seem to be raising the competitiveness of Italian wineries.

Winemaking. Quality wines represent an increasing share of total Italian production. These are categorized as DOC (Controlled Appellation) wines and DOCG wines (Guaranteed and Controlled Appellation of Origin). There are 311 DOC wine regions from carefully delineated areas with specific requirements on maximum grape yields per hectare, minimum alcohol content, and other quality characteristics subject to EU regulations. A smaller number of 30 DOCG wine regions follow even more strict requirements. The top three wine producing areas, Piedmont, Tuscany, and Veneto, produce 45 percent of the quality wines, although all twenty Italian regions produce wine.

Consumption. Despite the international appeal for Italian wines and the popularity of Pinot Grigio in recent years, three-quarters of Italian wine is made for domestic consumption. However the domestic market is under significant threat with per capita consumption in 2004 registering just under 50 liters, from more than 100 liters per capita 30 years ago. This is a result of consumers moving toward non-alcoholic choices (mineral water and soft drinks). Also, significant increases in prices of quality wines are encouraging consumers to trade down or select alcoholic beverage substitutes, such as beer. Furthermore, Italian wine consumption still remains one of the highest in modern times for wine producing countries, and likely to decline further. Imports have little impact on the domestic wine trends as Italian wine consumers prefer the local flavor, and imports generally comprise of prestige, specialty wine types like Champagne, Port, and Sherry.

Exports. In 2004, Italian wine exports grew by 7 percent, although much of the growth came from bulk wine exports to France to compete with cheap Spanish table wine. Quality wines (DOC and DOCG) managed to recover in 2004 with modest growth of 3 percent after a sharp decline in the prior year. The United States, having surpassed Germany as the leading export market in value for Italian wine, is also the largest market for DOC and DOCG wines. These wines now represent 30 percent of volume and 50 percent of dollar value of all Italian wines destined for the United States and are holding up well against New World competition and in the face of a strong euro. This is in part due to the popularity of Italian restaurants in the United States that favor Italian wine regardless of the price. Common agricultural policy was set for the wine sector in 2001 and is not likely to change substantially in coming years. Still, weaker domestic demand, lower exports, a strong euro and increasing competition from others countries are urging local authorities to adopt measures to support domestic wine consumption. These include consideration of a decrease in value added tax (IVA) from

20 to 10 percent in support of making Italian wine more attractive relative to other alcoholic beverages.

Promotion. Export market promotion is the responsibility of the Italian Trade Commission (ICE). This government agency under the Ministry of Production Activities currently has no wine-specific export promotion program. Buonitalia, an agency funded by the Ministry of Agriculture is expected to begin promoting Italian food and wine products. The Ministry of Agriculture has already allocated $5 million toward promotion of wine regions through provincial governments, and the private sector is estimated to contribute a similar amount to promote Italian wine. These funds will be channeled toward conducting workshops, wine tastings, and point of sale promotions. Still, these activities often at the regional level seem to be minimal in comparison with country-level activities from other producing countries, and historically have not been very effective in the key export markets, the United States or the United Kingdom.

Looking ahead. The Italian wine market predicts very low annual growth compounded to be less than half of a percent in value from 2003 to $13.7 billion in 2008, and a decline of less than half of one percent in volume in the same period to 2.7 million liters according to the market analysis firm Datamonitor.

A3. Spain

Production. Spain has the largest vineyard area estimated in 2004 at 1.2 million hectares, accounting for one-third of land under vine in the European Union. Despite its large vineyard area, Spain's production of 4.0 billion liters in 2003, by about 5,000 wineries, ranks below France and Italy. Limited rainfall and restricted irrigation resulted in lower yields. The size of the crop in Northern Spain is variable depending on each year's weather. Also, only 10 percent of the vineyards are irrigated in spite of the hot Spanish climate. There are 60 different Appellation of Origins (DO) throughout the country representing about half of total vineyard area.

Winemaking. Spain's three main growing regions are Jerez, internationally recognized for its fortified sherry wines; Catalonia, home of the sparkling wine Cava; and Rioja, recognized for producing some of the best Spanish reds. As an important winemaking region, Rioja has some of the most stringent winemaking requirements intended to preserve winemaking tradition and safeguard quality. This also raises costs and precludes winemakers from making more consumer-friendly wines. As an example, winemakers in Rioja can not blend the local grape, Tempranillo, with more recognizable international varieties like Cabernet Sauvignon. Additionally, for a Rioja wine to be classified as Crianza, it must adhere to minimum aging requirements in oak and in the bottle. The same applies for the more internationally recognized Reserva wines requiring longer aging requirements.

Aged Wine: Changing Preferences

Wines that have been aging for a number of years or required further aging after release are not in tune with commercial realities. Consumers in the more affluent markets today expect wines ready for immediate consumption and opt for fruity wines that are not heavily masked by the taste of oak used to mature tannins over time. As a result, some well recognized Spanish wine producers are opting to plant vineyards in less strict areas like La Mancha where traditional wine classification rules don't have to be followed and wine for more immediate consumption can be made without lengthy aging requirements.

Consumption. In the domestic market, per capita consumption has fallen from about 40 liters in the mid-eighties to 28 liters per capita in 2004. A decline spanning 15 years continues, as domestic consumption fell 3.5 percent from 2000 through 2003. An anti-alcohol campaign and changes in consumer habits are driving the decline. This is most evident in the larger table wine segment sold mostly in tetra-brik. Beer has also become the alcohol beverage of choice for young adults, and soft drinks are experiencing steady growth. Despite this, quality wines have shown modest growth of 6 percent in 2004. Imports have had little effect on the domestic market accounting for only $83.8

million in 2003 and consisting mainly of French champagne, Portuguese ports, and a few other narrow market segment offers.

Exports. Spanish wines exported in 2004 amounted to 1.42 billion liters and continued on a path of growth mainly driven by cheap and subsidized bulk wine. This bulk wine activity is not sustainable and is projected to lead to the decline of export volumes in 2005 when the market for Spanish bulk wine is projected to be less competitive. On a positive note, and more important for the future of Spanish wine, red quality wines are enjoying new found success in the United States. Wines from lesser known wine districts are presenting more attractive offerings in prestigious heavy glass and with contemporary labels. This has convinced a supportive U.S. trade that Spain is undergoing a renaissance period.

Promotion. The role of government support at the EU level and at country level is very pronounced. Since joining the EU, Spain's vineyard land has been a target of the EU's vineyard uprooting incentive plan. The EU also curbs surpluses by subsidizing bulk wine exports and providing support for alcohol distillation and wine storage. This has not, however, been effective in managing future growth. While wine grape area has shrunk from about 1.5 million hectares in 1985 to 1.2 million in 2004, wine production has not been significantly reduced. This is because government subsidies and grower returns from export sales have been reinvested in modernizing vineyard management with increased mechanization and irrigation. Funding is also available for wine promotion and export market development. The role of promoting Spanish wines in export markets falls on the Spanish Institute of Foreign Trade (ICEX). Under ICEX, Wines from Spain is the agency responsible for developing a wide range of promotional activities designed to inform foreign consumers about the qualities of Spanish wine. For wine professionals, Wines from Spain provides news, statistics, and other information about Spanish wines. This includes profiles of new wines, the wine companies, export figures and contact details. For wine consumers, it provides a great deal of background information on the history of Spanish winemaking, the regional characteristics that set apart Spanish wines and the type of wines produced.

Getting the Word Out

Wines from Spain have offices in several Spanish embassies. In the United States, the main office is located in New York and runs a promotional campaign "Great Matches" that has been somewhat institutionalized with the trade over time. A number of tastings are organized every year in a several major metropolitan centers with the assistance of a public relations and event marketing firm. These well organized and well received events are held at upscale venues like top hotels where Spanish wine and food is introduced to the wine trade and consumers alike in a very favorable environment.

Looking ahead. The future of Spanish wines is expected to brighten in the coming years. While domestic consumption follows global consumption patterns of drinking less but better, per capita consumption levels seem to have stabilized and the assistance provided to Spanish growers and wineries for replanting is at the forefront of continuous improvement in quality for years to come.

A4. Key Learning for the Moldova Wine Sector from Western Europe

There are a number of lessons for Moldova:

- *Vineyard subsidy programs*. Expensive vine uprooting and replanting are having success in improving the quality of future wine. While reducing the total amount of land dedicated to vineyards, vine uprooting takes out old and damaged vines, and ensures that land unfit to produce wine grapes is dedicated to other uses. Also, re-plantings are ensuring that that the right grape vines are being planted in the most suitable areas, conducive for those specific vines, and positioned to be cultivated in the most efficient and productive manner. This is recognized by all major producing countries as a fundamental necessity to improve wine quality and raise the competitiveness of each wine sector.

- *Distillation subsidy programs*. Intended to prop up prices by taking a significant amount of wine off of the market, distillation schemes that provide relief to wineries with excess production lose their benefit over time as wineries recognize that they can come to rely on them when it is repeatedly offered. It ultimately fails to address the oversupply problem when other measures are not put in place. Still, it can be a powerful and effective tool as part of a crisis management strategy to ensure that some economic value is drawn from an oversupply situation, while withdrawing poor quality wine from the market and giving affected wineries some breathing room to change their business model.

- *Appellation*. Regulatory actions designed to improve quality and elevate regional wine origins have constrained winemaking creativity and constricted commerce. A proper balance is necessary to ensure that commercial activity is not disadvantaged from a global commercial standpoint. This means validating regulatory measures for their commercial impact in advance, and exploring less intrusive alternatives that can minimize the commercial impact.

- *Competition vs. cooperation*. A business culture of individuality and finger pointing in Western Europe prevents wineries from collaborating as a group and from working effectively with government to adopt strategies that would benefit the entire sector. Likewise, the sheer size of the European Union creates bureaucracy that inhibits commercial advancement and policies that are not in line with the needs of the private sector.

- *Government promotion support*. Government efforts to promote exports have experienced varying degrees of success. While Wines from Spain has been somewhat successful in promoting Spanish food and wine, French and Italian promotional agencies have not been able to offset the declines in wine sales. In Portugal, frustration experienced by the top wine exporters of this fourth-ranking European wine producing country led its top seven producers to combine their export marketing budgets for the benefit of promoting the groups’ wines. Additionally, Vini-Portugal, an association of member associations representing various alcohol beverage related industry trade groups, was formed to re-double efforts of the ineffective Portuguese Trade Commission (ICEP).

- *Wine tourism*. Wine tourism has flourished in Western European countries and provides support for the tourism industry of each respective country. Generally featuring small, high-quality boutique and independent wineries, wine tourism through scenic agricultural lands has brought together these wineries with gourmet restaurants offering local fare, and resorts. Local arts and crafts also benefit from this new vacation trend.

B. Major Producers: New World Countries

New viticulture practices supported by technical innovation and winemaking styles uninhibited by winemaking regulations are developments that have been at the forefront of the success of New World wines. New World producers offer the market more consumer-friendly wines that are younger, easy to drink, and have a fruity style that expresses the full character of the grape. These are aromatic wines that often include some residual sugar to give body to the wine and deliver fruit sweetness. When produced by large, international wine companies, these wines are reinforced with powerful branding messages. The main producers are the United States, Argentina, and Australia, profiled below.

B1. United States

Production. Wine production began and flourished in the early 20th century, but had to be recreated after the prohibition era (1920 to 1932) left only 100 of the 2,500 commercial wineries in existence. Coming out of prohibition was a slow process. Even today, many measures at the state level still restrict commerce. It is no wonder that by 1960, the number of commercial wineries had only grown to 271. In 1970s, an aggressive movement began to take root in California towards making higher quality wine. Supported by the state and its educational institutions, new viticulture and winemaking technologies were pioneered while concurrently providing legitimacy to the view that California could make some of the best wine in the world.

Winemaking. In 2004, total wine grape bearing area was 266,600 hectares, yielding 3.6 million metric tons of grapes. In the same year, 3,726 wineries produced a total of 2.3 billion liters of wine. Although 48 of the 50 states produce wine, California accounts for 89 percent of total wine production. Wine is California's most valued agricultural product and has 89 American Viticultural Areas that classify higher quality wine. Other leading wine producing states include New York with 5 percent of total wine production, Washington with 3 percent, and Oregon with less than 1 percent.

Consumption. The U.S. wine market is highly sensitive to California grape production levels. As the grape market comes into balance after a period of excess surplus, price pressure and discounting has begun to ease only in the last couple of years. Despite an unprecedented weak dollar and the heavy discounting by California producers, imports managed to gain 5 share points between 1998 and 2005 to 25 percent share of total U.S. consumption. Much of this growth is from Australian wines.

Exports. U.S. sales in 2003 grew 17 percent in value to $643 million and 29 percent in volume to 370 million liters. This is a direct result of excess supply finding a home in export markets, a commitment by large wine companies to operate globally, and a weak dollar making U.S. wine more competitive abroad. The United Kingdom is the largest market with 41 percent share of sales, followed by Canada at 15 percent, the Netherlands at 12 percent, Japan at 7 percent, and Germany at 4 percent. California's success occurs mainly at the bottom end of bottled wine prices and at the very top. Lower cost of grapes from the excess supply and high operating efficiencies realized by large producers of inexpensive wines combined with a weak dollar, make California wines a good value. At the top end, some wineries are recognized for the highest quality, rivaling French wines and selling well on image. In the middle, California wines have struggled to compete with Australia, other New World wines, and some southern European wines. This is a crowded territory where the volume-to-profit ratio is compelling enough for small family artisan producers of quality boutique wines and other medium-size wineries to compete on style as much as on quality.

Promotion. The main responsibility for developing U.S. wines abroad falls on the California Wine Institute, the wine industry promotion agency and advocacy group. This is a membership association of more than 1,000 wineries and affiliated businesses, and is the only organization representing the industry at state, federal, and international level. The officers and the board of directors are comprised of member wine producer principals and industry senior executives who provide direction to the institute. A professional staff manages daily activity. The international arm is responsible for developing export strategy in coordination with 125 wineries that participate in a fee-based program. With commercial offices in 12 countries conducting promotional activities, it is the responsibility of the main office in San Francisco to coordinate activities, organize trade missions, conduct regular meetings to apprise winery member representatives, collect and publish data, and manage the image of California wines.

The California Wine Institute also administers funding from the U.S. Department of Agriculture (USDA), which, in 2005, allocated $5.4 million to the U.S. wine industry. The funds are designed to help run the California Wine Institute (which also collects annual fees from its members) and provide grants to wineries for the promotion of California wines abroad. These funds from USDA's Market Access Program (MAP) are given to wineries selected for the best export programs and go to partially offset the wineries' prior year expenses incurred in market research, consumer promotion, and the cost of materials for wine education. Information on export activities by the California Wine Institute are communicated on their website www.wineinstitute.org. The site also provides valuable information on world markets available to its members and the public.

Looking ahead. Winemaking in California is bound to continue supplying a growing appetite for quality wines in the U.S. market. A trend toward biodynamic farming and production of organic grapes for winemaking is also bound to continue leading the global wine industry in a push towards higher quality. Growers who represent 40 percent of table wine production adhere to a Code of Sustainable Wine Growing Practices, providing a point of difference for interested customers.

B2. Argentina

Production. In 2004, Argentina was the fifth largest wine-producing country. In terms of total land planted with grapes it ranked in tenth place totaling 210,000 hectares. Wine grapes account for 94 percent of all the grapes planted.

Winemaking. These grapes are grown for high yields that support production of average quality wines for the domestic market, known as “common wine” and packaged in tetra-brik. Bulk wine is also a significant output from this production with sales valued at $73.6 million in 2004 and directed at international markets making Argentina the largest seller of bulk wine.

Consumption and exports. Over the past 15 years, the Argentinean wine industry has undertaken a significant transformation while dealing with two major crises. In the early 1990s, per capita consumption in Argentina declined rapidly from about 90 liters to 45 liters, and has since continued to slide to 31 liters per capita by 2004. The drastic decline in domestic consumption of the last decade built up inventories of average “common” wine, and forced many producers to look at export markets to move inventories. Because these wines were not fit for international consumption, the industry had to quickly retool and upgrade with substantial investment and wide government support. Public and private investments totaling $1.3 billion transformed the industry’s reliance on fermenting wines in large cement vats, introduced stainless steel tanks and small oak barrels and, and built state-of-the-art bottling facilities with equipment that raised the operating efficiency of the larger wineries. In essence, the face of Argentinean winemaking had been changed by the late nineties.

The second crisis took place in 2002 with the devaluation of the peso. The impact on the wine sector was the result of higher input costs which lead to higher wine prices. Alternatively, alcohol beverage substitutes like beer became more attractive and domestic wine consumption declined further. The peso devaluation also drew foreign direct investment by making the cost of land for purchase more attractive to foreign buyers. Acquisitions and mergers with foreign wine companies introduced foreign winemaking expertise and brought foreign capital that supported costly innovation like drip irrigation. From 1999 to 2004, in the Mendoza province alone, investment channeled at wineries increased by $300 million, and investments channeled at vineyards increased by $230 million. In the same period, foreign capital mainly from Chile, the United States, France, and Spain amounted to $134 million and this is expected to grow an additional $200 million in the five subsequent years. These measures have had a sizable impact on the wine industry and ensure continuous improvement of wine quality conducive for both domestic and export markets. Throughout these times, there was a significant shift in plantings, from white and rosé grapes to red grape varieties. White and rosé grapes plantings each declined by about 4 percent annually since 2000. Meanwhile, planting area for red grape varieties grew 20 percent each year for same period. New plantings that have significantly increased include Malbec, Cabernet Sauvignon, Bonarda, Merlot, and Syrah.

Promotion. In 2002, the government passed a law that created the *Strategic Plan for Argentine Wine 2020* and established Corporación Vitivinícola Argentina (COVIAR), a non-governmental legal entity responsible for managing and coordinating the implementation of the plan. As a member winery association, funded primarily by the wineries with some provincial government support, COVIAR started operations in 2004 with a budget of $4.5 million. This agency has four general objectives:

- The promotion of high quality Argentine wine in the Northern Hemisphere
- The promotion of high quality Argentine wine within the Mercosur countries, and fostering the domestic consumption
- Assistance to small and medium grape producers to enhance their earnings
- Research and development

Separately, an export market promotion campaign with funding from the government and supported by the private sector is leading export market development. A quasi-public organization, Fundacion ExportAR, operates under the Ministry of Foreign Affairs. Co-funded by the federal and provincial governments and supported by the private sector, it works closely with provincial governments and different chambers, and private associations across various sectors. Most of its activities are focused on participating in international shows, organizing trade missions to export markets, inviting journalists and buyers to visit Argentina, and acquiring market research and intelligence.

Exports. These activities are leading export growth of 16 percent in 2005. The largest importer of Argentinean wines accounting for $45 million in purchases is the United States where volume growth doubled from 2003 to 2005. The second largest market in value is the United Kingdom with purchases valued in 2004 at $33 million. This market still managed growth of 16 percent in 2005 to 22.9 million liters despite a slowdown. Paraguay, with its low-priced Argentine imports is the third largest market by value but remains firmly in second place in the volume ranking with modest growth of 5 percent in 2005. Still, the title for meteoric growth goes to Canada where volume in 2005 grew 117 percent to 14.5 million liters and is now the fourth largest export market.

Looking ahead. Responding to strong international demand for good Argentinean wine quality, the country's export wine sales are expected to grow in North America where the trade and consumers alike are seeing Argentina and Spain as part of an overall movement of toward consumer friendly wines. Malbec and the lesser-known Bonarda and Torrontes varieties produce easy-to-drink, fruit forward wines, and provide consumers with opportunities to discover new taste profiles.

B3. Australia

Production. Australia's vineyard area in the last 10 years expanded from 60,000 hectares to 160,000 hectares. This has been fueled by the success of exports with consistent growth in double digits for the past 10 years. Increased grape production from aggressive planting is now unsustainable. An oversupply of wine is placing downward pressure on prices and will lead to a significant industry restructuring. Despite lower grape prices, new plantings continue although at a slower pace. With new vineyards still coming into play, it will take some years before volume losses taken out of the system by vine removal will offset new grape production. Ultimately, these new plantings will have a positive benefit by raising the overall quality of Australian wine but in the meantime, the excess supply is expected to create problems for grape growers and, to a lesser extent, wine producers. Grape production in 2005 amounted to 1.845 million metric tons and could have been higher if a projected 200,000 metric tons of grapes were not left on the vine to rot. The harvested grapes were estimated to produce 1.25 billion liters of wine in 2005 with 70 percent of total production from South Australia.

Winemaking. The success of Australian wines has been attributed to two critical factors: the wine style and the power of branding. Australian wines have been at the forefront of a movement toward less restrictive winemaking. Australian winemakers are well traveled and often visit the U.S. and UK markets to pitch their wines. In the market, they gather intelligence on consumer expectations and information on customer requirements that is then applied to the winemaking. Consumers have demanded softer, easier to drink, aromatic wines, and Australian winemakers have conformed to their tastes. Many Australian winemakers will indicate that good wine is grown in the vineyards by carefully nurturing the grapes and picking them when the flavors are at full maturity. Lesser oak influence allows the fruit aromas to be exhibited in a wine produced for immediate consumption.

Branding. Australian wine labels with English brand names are more recognizable by North America, UK, and other English-speaking countries and consumers around the world. The brand name on the label is often reinforced by an easily identifiable symbol or icon. Continued investment in advertising and promotion of the brand ensures that momentum advances the brand message and grows sales.

Consumption. Domestic consumption in 2005 totaled 470 million liters and is expected to grow by 3 percent in 2006. This is due partly from increased discounting lowering overall wine prices, a direct result from the excess wine supply. Like many other large wine producing countries, imports have made little headway into the Australian wine market, growing consistently with domestic consumption at 3 percent from its small base of 27 million liters.

Exports. Part of the success of Australian wines abroad has been attributed to an export culture with export sales exceeding domestic consumption. Australian wine exports in 2005 accounted for 60 percent of total wine sales and amounted to 707 million liters. Australian wines, early on were directed at the UK and U.S. markets with tremendous success. In 1990, Australian wines were not a factor in the United States sale of a meager 4.5 million liters. By 2005, Australia was the second largest U.S. import segment after Italy responsible for 173 million liters of imported wine. The United Kingdom, historically a larger market, grew comparably over the years, but was surpassed by the United States in 2006 as Australian wines in United Kingdom began to slowdown.

Promotion. Responsibility for the wine sector and its development falls on The Australian Wine and Brandy Corporation (AWBC) reporting to the Minister of Agriculture, Fisheries and Forestry. This government body is governed by a board of directors comprising of a chairperson, a government official, and six industry members elected by an industry committee. The chairperson and the industry board members representing various facets of the industry (viticulture, winemaking, wine commerce, etc.) all hold non-executive positions for specific terms of three years. The government official holds office at the pleasure of the minister. An advisory committee of board members, industry executives, and government officials plays a key role in the decision process. Separately, a management team comprised of industry professionals from the private sector manage the daily activities and are led by a chief executive responsible for translating board decisions into action. AWBC's mission is "to enhance the operating environment for the benefit of the wine industry by providing a leading role in quality and integrity, knowledge development and market development."

The Importance of a Sector Strategy

To fulfill its mission, AWBC published a very clear and concise strategy, popularly known as "2025." A novel concept then, it was received with some skepticism for its aggressive goals but has now been recognized for its contribution to Australian global success. This forward thinking document was recently updated to reflect new commercial realities of wine oversupply and to set a new direction.

The execution of AWBC's export market programs is a contributing factor to the success of Australian wine abroad. With offices in more than 10 countries, AWBC's promotions for paid members are unrivaled by any other private, quasi-public, or government organized body. This group is well organized and known for high level execution of promotional programs that should be the envy of other country-based export market development programs.

Austrade (Australian Trade Commission) has also made a significant contribution to the development of the Australian wine sector. Working across multiple sectors, Austrade provides financial assistance to small and medium size businesses, including wine companies that want to export. Export Market Development Grants (EMDG) reimburses up to 50 percent of expenses incurred on eligible export promotional activities above a $15,000 threshold. Up to seven grants are available to refund wineries on eligible and qualified promotional activities that include expenses for in-country marketing agents, travel to export markets, communication expenses, sample distribution expenses, export market promotion, and the cost of travel for buyers to travel to Australia.

Both AWBC www.wineaustralia.com and Austrade www.austrade.gov.au have detailed Web sites with clear information on their respective missions, objectives, plans, and ongoing activities. Other federal organizations dedicated to the wine industry include; the Grape and Wine Research and Development Corporation, the Winemakers' Federation of Australia, Wine Grape Growers Australia, and the Australian Wine Research Institute. All of these government institutions play a key role in the continued development of the Australian wine industry.

Looking ahead. Despite Australia's significant supply imbalance, the prospects are quite good. The grape market imbalance is unfettered by regulation and will undoubtedly resolve itself through market forces and in doing so it will improve overall quality of grape farming and winemaking. Consumer perceptions around the world about the quality of wine are strong and promotional efforts based on collaboration between government and private firms have proven that Australia holds a competitive advantage in advancing its cause as the global wine industry's best communicators.

A4. New World Countries: Key Learning for the Moldova Wine Sector

There are a number of lessons for Moldova:

- *The New World difference*. New World wine-producing countries, either by intent or default, have managed to establish a point of difference for their respective wine sector, generally anchored to a grape variety that is perceived to grow best in such country (i.e. Cabernet Sauvignon in the Napa Valley, Shiraz in South Australia, Sauvignon Blanc in New Zealand, Malbec in Argentina, Carmenere in Chile, Pinotage in South Africa). All (except Pinotage) happen to be French noble grape varieties but they offer each country a national wine identity and encourage consumers to experience a new wine taste closely tied to that specific country.

- *Public-private partnerships for export market development*. This is paramount, while recognizing that interests are best when led by the private sector. The private sector must be allowed to pursue its own commercial success. In all New World countries, the private sector has the primary role of advancing issues to the benefit of the industry. The Australian model is perhaps the best example of an industry operating with government support and involvement. All three New World countries leave the management of the daily export promotional activities to industry professionals hired from the private sector.

- *Quality export promotion strategies and programs*. A major advantage of successful export programs is clear communication of goals and objectives, the design of creative promotional activities, and flawless execution. This can also be exemplified by the success of Australian wines.

- *The power of the Internet*. The Internet is commonly used as a communication vehicle, and a well designed Web site can be a formidable tool. It not only shares the objectives of the export agency but can also be used to effectively communicate with intended audiences.

- *Government support of small and medium-sized wine producers*. The Australian government has provided financial assistance to many small businesses, including wineries interested in exporting for the first time, such as the Casella family winery that produced the popular Yellow Tail brand.

- *Cooperation and cross-fertilization across countries*. Technology transfer and winemaking expertise crossover has helped to share different winemaking practices and improve quality. Land acquisition has attracted foreign capital in Argentina while mergers of California and Australian wine companies support information sharing. In these large companies, many winemakers from one country become guest winemakers in the off-season at the company's winemaking facilities in other countries.

C. Eastern Europe: Comparison to Regional Competitors

This section reviews recent experiences in the region's three major wine-producing countries, Bulgaria, Hungary, and Romania. All three are now members of the European Union but have undergone major changes in adapting their industries to meet regulatory requirements and have had to face the challenges of the global wine market. The process of privatization and the resulting fragmentation of land holdings has been major issue for all three countries. This has caused tension between wineries and growers, issues with poor fruit quality, and inconsistent supplies as a result of lack of professional viticulture. Wine quality has suffered at a time when New World wines arrived on the scene and could offer better and more consistent quality. In addition, failure to produce economically competitive yields has meant that Eastern European countries have lost their previous advantage of being the lowest cost supplier into many markets.

C1. Bulgaria

Bulgaria joined the European Union along with Romania in January 2007 and has been transformed in recent years, making progress in overcoming the legacy of communism followed by a disastrous land reform process. The situation has changed rapidly in last three to four years with massive investments in consolidated vineyards and winery equipment. This is mostly due to the 115 million euros from EU funds through the Special Accession Program for Agriculture and Rural Development (SAPARD) and by outside investment, either by Bulgarians from outside the wine industry or foreign investors seeking to be in Eastern Europe before it joined the European Union. A number of new producers have also appeared, most with a passion for wine in its own right, rather than as cash flow.

Production. The problems brought about by land reform and the resulting fragmentation of vineyards is still a major issue. As part of preparation for EU membership, the National Vine and Wine Chamber (NVWC) had to produce a complete registry of growers and producers and by December 31, 2006 just fewer than 27,000 growers had signed up with a land area of nearly 136,000 hectares. It's still unclear as to how much of this is in current commercial production as Ministry of Agriculture figures in 2005 showed approximately 90,000 hectares in active wine production. This implies a large number of landowners hedging their bets that abandoned or un-cultivated land may be in demand or perhaps that EU grants may become available in future. Either way, without registration, owners would have had no option to either sell land for vineyards or grow grapes for wine.

Winemaking. There has long been a huge gulf between grape growers and producers, possibly a legacy of the separation of agricultural from industrial activities under communism. Today, the better producers have grasped that a close link between vines and winemaking is essential. It was largely the failure of this link that led to the quality problems caused by inconsistent and under-ripe wines in the 1990s. Wineries have now realized that they need full control over viticulture and harvest time in a way that is often taken for granted in Western Europe. To achieve this, Bulgaria has recently seen substantial vineyard plantings by a number of major wineries. However it should be noted that this is expensive, even with a 50 percent rebate from SAPARD. The other disadvantage, at least in the short term, is that many producers have vineyards with young vines, many planted in the last three to four years and it will take several more years for these to start producing high quality fruit.

Bulgaria's legislative framework has been brought into line with EU, and includes two designations for Table Wines with Geographical Indication, and 47 specified regions for quality wines. The former category is certainly in commercial use and large geographical areas allow considerable flexibility in fruit sourcing, but the marketing value of the specified regions is limited and not widely used. Branding of Bulgarian wine is limited though recently large wineries are attempting to develop genuine brands (e.g. Belvedere's Tcherga, Vinprom Iambol's Persona). The generic Sophia "brand" is important in Poland, but this can be used by several producers so quality varies considerably.

Consumption. With Rakia taking pride of place on the nation's tables and most of the country's wine heading abroad, there is massive challenge as well as opportunity in switching from a spirits culture to a wine culture. Accurate figures are hard to come by due to the significant volume of homemade wine—as much as 12 million decaliters according to some estimates—and home distilled spirits, but sources indicate that wine sales are around 42 million bottles compared to 75 million for Rakia. Grape skins, especially of aromatic whites, are required for Rakia production and since July 2006 additional limits have been imposed on use of spirit. This has put pressure on grape prices for the 2006 harvest, with reports of several producers importing raw material from Macedonia at virtually half the Bulgarian price. Only around 20 percent of Bulgaria's official wine production of 17 million decaliters (2006) is sold within Bulgaria. The culture for wine drinking is still small but expected to grow over the next five years, largely in the cities and tourist areas. It is in the interest of the industry to eliminate homemade wine, which many consumers still believe to be more authentic, undermining the efforts of leading producers in improving quality. At the same time, widespread rumors of fake or so called secondary wine abound and this must be stamped out or Bulgaria risks finding itself with similar problems to Moldova and Georgia in its key export market of Russia. Joining the European Union should help ensure that control measures are enforced.

Exports. Export remains the key focus for most Bulgarian producers with overall growth of around 25 percent in total exports in 2005. However, Bulgaria's traditional customers of United Kingdom and Germany are still in steep decline and are being replaced by markets in central and Eastern Europe. Russia was up 75 percent by the end of 2005 with further increases in the first 10 months of 2006. Other major markets showing growth include Czech Republic and Sweden.

Promotion. The Bulgarian government has delegated responsibilities for the wine sector to the National Vine and Wine Chamber (NVWC), a non-governmental organization. It has a management board including a number of producers who can represent realistic views of the industry. Among the NVWC's aims are uniting the interests of the grape growers and wine producers and making efforts to achieve a common goal in developing viticulture and winemaking. NVWC was also involved in harmonizing national legislation with the EU and prepared the new *Strategy for Development of Viticulture and Enology in Bulgaria* for 2005 to 2025. Current concerns include protection and control of origin, quality and authenticity of wines, and seeking to develop a culture for wine consumption in Bulgaria, with better educated consumers taking a greater interest in Bulgarian quality wines.

Key learning points for Moldova from Bulgaria's recent experiences:

- Bulgaria now has a viticulture cadastre, a register of growers and land area under vineyards, so that buyers can identify owners. This high level of compliance has been achieved by obliging growers to register if they want the option of selling grapes for wine or land as vineyards. Schemes are in place to allow land exchanges so plots of vineyard can be consolidated.

- Bulgaria has benefited from foreign investment in the wine sector, raising standards and revitalising the industry. Money has come from EU subsidies but also from foreign ownership (French, Italian, British, German, and Russian most notably) in spite of the legal difficulties of achieving this (a Bulgarian holding company must be set up, though it can have 100 percent foreign ownership).

- NVWC has a management board including a number of producers who can represent realistic views of the industry and its needs.

- Bulgaria recognizes the need to address improvements and has outlined them in their national strategy from 2005 to 2025.

- The first "icon" wines in Bulgaria were released in 2000 by two Bulgarian winemakers who used rented space in wineries and purchased grapes to make their Maxxima Reserve wines. Other icon producers, including Santa Sarah and Valley Vintners, continue to work in this way, enjoying the freedom to buy the best grapes from older vineyards and rent space without major capital overheads at start-up. Small producers have led the way in raising standards and innovating, including the country's first icon wines, first terroir wines, and first true estate wines.

- Bulgaria has nearly two-thirds red varieties including substantial amounts of Cabernet and Merlot in line with international demand. It also has some unique local varieties including Mavrud, Rubin, and Melnik that can provide a sense of place and local identity.

- The presence of internationally renowned consultants like Michel Rolland adds credibility to Bulgaria's claims to be able to produce world class wines.

- The domestic market is growing, as is an interest in higher quality wines through restaurants. Increasing tourism should also benefit local wine sales.

Moldova can also learn from Bulgaria's difficulties as follows:

- Bulgaria lost its successful Western exports markets through a drastic fall in quality and consumer preference for New World wines. This was caused by problems of bad handling of land privatization, fragmented and unprofessional grape growing, and a gulf between wineries and growers. These lost markets will be difficult to regain as gatekeepers are prejudiced against the Eastern European wine sector. Wine quality does matter and consumers will not remain loyal to producers who don't deliver.

- Bulgaria has also failed to promote itself effectively as a wine country, support its producers, or present a united front, due to commercial rivalry and lack of understanding of the need to work together to protect Bulgaria as a wine category. Wine promotion is in the national strategy, but not until 2019 onwards, which may be too late. Lack of government funding or even generic support for press trips or tasting events in target markets remains a problem.

- Bulgaria exports around 80 percent of its wines and lacks a wine culture or strong domestic market. Rakia still continues to dominate and has pride of place in the domestic market.

- Bulgaria has failed to develop wine tourism in any major way. In view of booming tourism and purchasing of second homes by Westerners, this should be major opportunity to build on the "feel-good" holiday factor and gain sales in tourists' home countries.

- Some of Bulgaria's young vineyards appear to have been planted in locations where it was possible to buy significant areas of land, rather than for the quality of the terroir. Such vineyards will not give high quality fruit.

- Many winemakers have not understood the need for involvement in viticulture to ensure quality and have treated winemaking as industrial fruit processing, although this attitude is changing.

- Bulgaria needs to clamp down on fraudulent wines that greatly risk causing problems in key export markets such as Russia.

- Bulgarian producers need to be aware of the increasing presence of international supermarket chains that buy inexpensive wines from the European Union and use global sourcing power and deep discounting to fight for market share.

C2. Hungary

Hungary has been a full member of the European Union since May 2004 but underwent economic problems culminating in political protests and riots in Budapest last autumn after the government finally admitted the true depth of the country's economic difficulties.

Production. There are 22 wine regions which vary in size and importance, but it is Villány, Tokaj, Eger, Székszard, and Sopron which lead in developing smaller, high profile wineries. The only winery still in state hands is the Kereskedőház in Tokaj whose privatization fell through in part due to the burden of its social commitments to nearly 3,000 growers. Vineyard area has decreased considerably in recent years and is likely to continue to fall. Vineyards in commercial production now cover 85,260 hectares (Association of Wine Growing Communities), but industry sources estimate that this will fall to around 55,000 to 60,000 hectares once unprofitable vineyards in mass-production areas like the Great Plain fall out of production. It has been suggested that growers here may be waiting for EU grants to subsidize this process. There are also an estimated 130,000 growers represented by the Association of Wine Growing Communities that claim to be the biggest single voting lobby in Hungary and thus politically very significant.

Consumption. Hungary is one of the top three countries in Europe for per capita consumption of alcohol at 10 liters of pure alcohol. Statistics are not very robust: up to 30 percent of the spirit sector is estimated to be black market, and volumes of homemade wine and direct sales from wineries are unknown. The official wine market was 308 million liters in 2006 according to Euromonitor, showing 2 percent growth with rosé, the most dynamic sub sector (4 percent volume and 5 percent value growth). Imports are still very small (0.5 percent of the market) with either ultra-premium European wines or entry-level wine imported directly by chains like Tesco and Lidl. Italy and Spain are the major sources of these imports accounting for around 750,000 liters in 2005 (IWSR data). Per capita wine consumption is fairly stable at around 30 liters per head, while increasing affluence means that wines over 4 euros have gone up from 2.4 percent market share in 2002 to 5.7 percent today (IWSR data). This pattern is fairly typical of domestic consumption too with strengths at top and bottom but not too many producers offering consistent quality and value in the mid-market. There is a growing development of a premium boutique wine sector, especially in restaurants, and among the growing professional and middle class in the major cities. Wine is becoming increasingly trendy and aspirational, so that there are now a number of young, passionate, and knowledgeable sommeliers who can add value and increase profits through wine sales.

Winemaking. There are nearly 13,000 wineries, of which only 234 produce more than 10,000 decaliters per year. The main varieties include Kékfrankos (red), Olaszrizling, Furmint, and Chardonnay. About 70 percent of the wine produced is white. Hungary’s viticultural challenges have some similarities to Moldova’s in that soils tend to be fertile, resulting in vigorous canopies. This means that under-ripe fruit, high acidity and green flavors can be a problem, especially in reds, while fungal disease pressures can also be high. International consultants have been brought in by some wineries to help with canopy management trials and with improved results in delivering better fruit. Boutique producers seek out poorer soils and good “terroirs” to produce lower yields and better fruit. The harvest in 2006 was approximately 30 million decaliters, just below the size of the domestic wine market (308 million decaliters), putting upward pressure on prices, but previous vintages have seen harvest volumes reaching as much as 49 million decaliters, resulting in a supply excess.

Exports. Exports are in decline, especially in Hungary’s major markets of Germany, United Kingdom, Czech Republic, Poland, and Slovakia. Only Russia and Denmark have shown recent growth. Historically, until the Iron Curtain came down, Hungary shipped massive volumes to the Eastern Bloc, especially the Soviet Union, and a number of wineries had dedicated railway sidings to supply this market, much as is the case in Moldova. This market was lost in the late 1980s after Gorbachev’s anti-alcohol campaign, and then as a result of regime change. Hungary’s exports fell 70 percent between 1989 and 1992 forcing the industry to find ways to overcome this. Privatized wineries and co-operatives had considerable export success in the early to mid 1990s, exploiting a niche for good quality, low-priced white wines at a time when there was little competition from the New World. The competitive cost advantage Hungary enjoyed then has since disappeared.

Promotion. Lack of strategic wine marketing and promotion has been a significant problem for the country and has undoubtedly contributed to falling exports. Until recently, this was the responsibility of the Agricultural Marketing Centrum (AMC) that promoted a range of agricultural products but it was unable to plan long-term campaigns as its budgets were agreed annually. Wine marketing efforts have tended to be one-off, isolated events with little follow-up. A few smaller winery associations have been developed to represent certain groups of wineries under strict selection criteria. However, they have limited funds and could work more closely together to present a more united front. The government has recently recognized the strategic importance of wine and has put in place legislation to allow the 8 HUF per liter that was previously charged as excise to be switched to funding a new wine office. This will have marketing, promotion, and quality control responsibilities and a board of directors that includes members from both large and small producers. Unfortunately, delays in passing correct legislation have meant almost two years lost before start-up.

Moldova can learn from Hungary's experience in a number of ways, taking note of the following positive factors:

- Hungary successfully restructured its industry in early 1990s, developing new wine styles and markets after the loss of the Russian market. This laid the groundwork for a new generation of small, quality-orientated wineries to develop.

- Hungarians have a great sense of pride in their wine industry, which creates a strong domestic market that accounts for the vast majority of production within their own country.

- An aspirational wine culture is developing among professionals that supports development of niche and premium boutique wine producers. It is these producers who are leading the way in raising quality and innovating.

- Wine tourism is fairly well developed in several major regions, with wineries offering tastings, food, and accommodation, as well as direct sales.

- Hungary's wine quality has improved on all levels in recent years through better understanding of wine making and viticulture aided by international expertise.

- Foreign investment has revitalized certain areas, most notably Tokaj.

- Hungary has credibility as quality wine producer through the reputation of Tokaji (wine produced in Tokaj) as one of the world's great wines but it also has several other unique varieties and wine styles that can help create point of difference.

The Importance of Foreign Investment and Tourism

Foreign investment has been a key driver of revitalization in some areas, notably the Tokaj region with major financial commitments from France, Spain and Germany. Elsewhere Torley Cellars and Danubiana are both under German ownership. Tourism is also a contributory factor in Hungary with large numbers of visitors from Germany, Austria, and more recently the United Kingdom (360,000 in 2006). Hungarian wineries in several regions, including Buda, Tokaj, Villány, and the Lake Balaton area are already set up for receiving visitors, providing tastings, food and accommodation.

- Wine is a very important sector in Hungary due to the size of the voting community. Moldovan growers should recognize that they can be similarly powerful.

- Several wine producer groups, for example Tokaji Renaissance and Pannon Wine Guild, have been set up to promote their wines. They have been able to establish quality standards for membership, run shared activities such as press visits, and in the case of Pannon Wine Guild, access EU funds for joint promotional events (a series of targeted seminars in key markets such as United Kingdom and Poland).

- The Hungarian government has recognized the significance of the wine industry and introduced new funding measures that are intended to pay for quality control and wine marketing. It has done this through legislation, removing the 8 HUF per liter excise on wine and directing these funds to a new wine office. This will in due course allow long-term planning of a wine marketing and promotion strategy and assurance of quality standards. Board directors come from the wine industry, representing both large and small producers.

Moldova should also consider the negative factors of Hungary's experiences:

- Very large numbers of small growers mean a lack of professional scale viticulture. This remains a problem and quality has not improved as far as it should across large parts of the industry.

- Viticultural issues of excessive yields, under-ripe fruit, and disease remain. Low prices paid for poor quality fruit is a social issue in areas where there is little alternative employment. Large areas of such vineyards need to be taken out of production.

- Hungary has failed to use the boom in tourism to translate into greater awareness of their wines and culture and thus has increased sales of foreign wine in Hungary.

- Lack of long-term planning in wine marketing, and also lack of specific focus on wine as a priority, has meant wine has lost ground in most export markets. This should be rectified by the new wine office that will be able to plan a longer-term strategy. However, delays in putting correct legislation in place to collect funds have caused a loss of valuable ground.

- The development of several smaller producer groups also has negative aspects as these organizations have been taking individual routes in carrying out marketing and public relations activities, undermining the ability to present a united front. At times they have also not worked well with the government's promotional arm AMC. It is to be hoped that this will change with the establishment of the new wine office. Failure to communicate between large and smaller wineries has also been a problem.

- Short-term and reactive marketing through the previous wine agency was not effective and it was unable to focus on wine as this was competing for attention with other agricultural products.

- At the top end, overpricing of wines has made exporting many wines almost impossible.

- Hungary's regions and grape variety names are complex and difficult to understand. This makes marketing and developing global brands a challenge.

- Rise of international supermarket groups with global sourcing deals and deep discounting approaches to fight for market share may damage local sales.

- There is an increasing danger that as more boutique wineries appear, this segment will lose its special appeal and supply will exceed market demand. The market for such wines, while growing, remains small.

- Lack of strong export brands is an issue. Most exports are sold with pseudo Italian labels (e.g. Villa Floriana and Monte Capella) without any Hungarian identity. Leading export brands include Chapel Hill and Riverview and also lack country identity.

- Homemade and black market wine needs to be tackled as this undermines quality.

C3. Romania

Romania became a full member of the European Union in January 2007. During the accession period from 2002 to 2007, the wine industry benefited from an estimated 35 million euros from the European Union's pre-accession SAPARD fund. This has been invested into vineyard programmes and winery improvements. Romania expects to receive even higher levels of funding from the European Union, especially from the European Agricultural Fund for Rural Development.

Production. Vineyard area fell to an estimated 189,000 hectares by 2006 from almost 230,000 hectares in 1996 (OIV), although as yet the vineyard register is incomplete so data are not definitive. Industry sources estimate that only approx 89,000 hectares are *Vitis vinifera*, the remainder being hybrids that must be removed by 2014, of which 30,000 hectares can be replanted to *vinifera* varieties. Average harvest size over the past five years has been around 50 million decaliters, although this varies annually according to weather conditions. Industry data for 2005 show that the most planted varieties by far are two white varieties, Fetească Albă (9,800 hectares) and Fetească Regală (17,700 hectares), followed by Riesling Italico. Merlot is the most planted red variety at 9,800 hectares, then Cabernet Sauvignon at 8,500 hectares. Pinot Noir covered just 500 hectares while the country's signature red Fetească Neagră covered 1,300 hectares. A concern since joining the European Union is the issue of seasonal workers. Very little mechanization exists within the grape-growing sector so hand labor remains essential, but workers increasingly find wages more attractive in other European countries. In recent vintages, anecdotal reports indicate that sizeable vineyards have gone unpicked due to lack of workers. Forward-thinking producers are planting new vineyards with steel posts and trellising suitable for mechanization, should this be required in future.

Winemaking. Romania has brought its wine laws into line with EU, with three categories for still wines produced from authorized *V. vinifera* varieties: Table wines and Quality wines divided into VS (*vinuri de calitate superioara*), wines with recognized geographical description and DOC (*denumire de origine controlată*), quality wines from a controlled appellation. There are seven major wine regions and an agreed list of sub-regions although outside the local market these are not widely used as a selling tool.

Consumption. The Romanian wine industry is largely shaped by its strong domestic market, consuming well over 90 percent of its production. Per capita consumption is estimated by industry sources at 22 to 25 liters. This does not include homemade wines, which are still commonplace. Exports were just 7 percent in 2005 and the country became a net importer in 2006, unable to meet full demand from its own production. Imports in 2006 were 5,832,000 decaliters, of which 60 percent came from Moldova, but Italy (17 percent), France (10 percent), and Spain (7 percent) were also significant.

Overview of the Wine Producers

Four large companies dominate the domestic market but it is notable that a number of boutique wineries have appeared recently which drive quality and innovation, including SERVE, Prince Stirbey, and Casa Davino. Exports are limited but sales are very healthy in the local market HORECA sector. Several of the bigger wineries have followed suit with premium offerings from designated vineyards such as Murfatlar's Trei Hectari brand, Carl Reh's La Cetate, Halewood's Cherry Tree Hill and Byzantium ranges, and Recas's La Putere. The most dynamic wineries have also benefited from foreign investment and international winemaking expertise to help them to improve quality for domestic and export markets. It is rumored that a high-profile European wine producer will shortly announce commitment to a winery joint venture in Romania which will give credibility to the industry.

Exports. Exports totalled 1,380,000 decaliters in 2006 going to Germany (34 percent), the United States (11 percent), Russia (9 percent), the United Kingdom (7 percent), and Estonia (6 percent). EU membership is likely to continue to bring major challenges to the Romanian wine industry, which currently has a buoyant local market with relatively high prices. Many wineries have not prepared themselves for export, as export prices would need to be considerably lower than they are able to obtain domestically. Several wineries are now in the position of selling all their production and importing wines to make up for a shortfall in volume, and therefore see little reason to pursue export sales. However, Romanian producers should be aware of this potential challenge, as imported wines are being sold cheaply through international supermarkets (due to overproduction in European countries and from global sourcing deals from international retail groups). In the future, it may become fashionable to drink imported products, and, in the longer term, consumer tastes are likely to switch towards the style of such imported products, i.e. towards drier white wines and a higher proportion of reds. Unfortunately, on most export markets, Romania still retains its image of low-priced and low quality Eastern Bloc wine and this perception will take time to change.

Promotion. In 2002, an exporters' and producers' association (APEV) was established that is focusing on raising awareness though tastings and trade shows as well as lobbying on behalf of the industry. In 2007, the law on vine and wine was revised to allow for establishment of a Romanian Wine Institute to focus on wine marketing, including generic promotion of Romania's long established wine culture. In addition, it will carry out surveys on target wine markets, looking at trends, and wine consumer behavior. Its steering council will be composed of representatives from both the government (Ministries for Agriculture, Tourism and Commerce etc.) and the national associations (including producer associations). Financing will come from a Wine Promotion Fund through a levy placed on volume traded and may also include government funding if EU regulations permit.

Moldova can learn from Romania's experience in a number of areas, taking note of the following positive factors:

- The strong domestic market enables high value and profitable products be sold.

- Development of boutique wineries drives up quality and leads to innovation through use of unique varieties, new blends, lower yields, and single vineyard selections. No state or bureaucratic barriers to entry appear to be in the way of this type of development.

- Foreign investment has been encouraged by the government. This has helped raise standards. Foreign investors no longer need to set up a company to own property.

- Recognizing the essential nature of control over fruit quality and supply, all major wineries have invested in vineyards as well as methods for working more closely with growers (including influencing vineyard management and picking time).

- New vineyards are being planted on sloping sites with less vigorous soils and there are projects involving organic and sustainable viticulture.

- The need for the industry to present a united front in promotional activity has been recognized—it is hoped that the proposed Romanian Wine Institute will achieve this. The proposed set up will include industry representation as well as regulatory officials.

- Experts forecast continued growth for the domestic market. Spirit consumption is in decline showing a 28.4 percent fall since 2000 according to Euromonitor.

On the negative side Moldova can learn from some of the pitfalls and problems experienced by Romania, including:

- A strong domestic market means many producers have not responded or prepared themselves to face the need for new wine styles in export markets or more competitive pricing to fight the challenge of international supermarket chains importing wine and using deep discounts to attract customers. The industry should look longer-term than it currently does and become more customer driven, rather than production driven. International supermarkets only have limited presence in Moldova but are known to be expanding aggressively into the region.

- A real wine culture remains limited to the large cities with homemade wine still being widespread across the country. This issue should be tackled as it undermines efforts by commercial producers to raise quality. In part, local loyalty is a remnant of the protected market situation that existed until last year. Flexibility in production is also essential to react to changing consumer demands.

- The industry has realized the need for generic promotional activity but this is not often as effective as it should be. Events have been organized to use funds available rather than to achieve results. Moldova must ensure that it uses events like tastings, seminars, and trade shows properly:

selecting the right venue, using on-the-ground public relations expertise to ensure good attendance, and raising awareness of events well in advance.

- Romania lacks strong export brands, especially in the high volume segments that are able to compete globally and help create a category for the country in its own right rather than being listed as "Eastern European." The country also has a legacy from the communist era of wineries named after the region they were in now leaving private companies with geographical names, a cause of confusion and potentially undermining quality efforts made by individual wineries. There remains a widespread need for wineries to develop clear branding and unique identities.

- The country has failed to attract Western tourists as effectively as its neighbors so that efforts towards developing a wine route have little value at present.

- Poorly managed and fragmented vineyard holdings are still widespread, undermining efforts to improve quality and consistency, especially in difficult weather conditions when professional viticulture makes a huge difference to the end result. Romania's failure to offer consistent quality and value is part of the reason behind its loss of export presence in many key markets, such as the United Kingdom and Scandinavia.

- Romania has been slow to set up a single wine promotional office and currently has too many organizations with interests in the wine sector.

- Beer consumption is at very high level (69 liters per head) and competes with wine consumption.

D. Georgian Wine Industry since March 2006: Response to the Ban

Georgia, like Moldova, has also been affected by a Russian ban on its wines causing problems related to cash flow, bank loan defaults and credit access. It caused widespread economic hardship as many wine producers sold only to Russia. For the 2006 harvest, few wineries bought grapes as they could service their requirements from their own vineyards or had high stock levels of unsold wine. Many wineries laid off employees to cut costs. NATO estimates that the value of wine expected to be exported to Russia in 2006 was $100 million, around 87 percent of wine export revenues. Sales to Russia in 2005 reached $63 million. Overall, in 2005, wine exports accounted for 9.2 percent of Georgia's export earnings. This has proved disastrous for both wineries and growers. Georgian sources indicate the industry is hoping for resumption of trade with Russia but this may take another 12 months at least. Terms and conditions are expected to be onerous and it is likely that vineyards will be lost if there is not some progress soon.

Key learning points on Georgia's response to the wine embargo:

- The Georgian Ministry of Agriculture is currently seeking tenders for development of a wine industry strategy and action plan as of July 2007. The effort aims to identify new markets, develop a marketing strategy, and ensure product quality.

- The Georgian government is reported to be "playing a huge and positive role" in helping to develop new markets for wine and is supporting activities like trade missions and events. For example, the Georgian Prime Minister attended a tasting event in London in person to lend support to export efforts shortly after the Russian ban.

- Georgian wine producers are no longer hampered by the requirement for technological instructions for each wine brand.

- Georgia is using the tag line "the birthplace of wine" to create interest in its winemaking history and has archaeological evidence dating back 8,000 years to support this.

- Georgia claims around 500 grape varieties, of which around 40 are in commercial production, including a number of high quality and unique varieties (both red and white) including Saperavi and Mtsvane, which can create a point of difference.

- Georgia has a unique cuisine with ethnic restaurants in major cities around the world that can help support a wine culture. Also Georgia has a well known culture of hospitality surrounding the practice of the “Tamada” or toast master.

- Georgia is trying to distance itself from being associated with the Eastern Bloc wine sector by emphasizing its position as a Black Sea nation in South Eastern Europe, marketing itself as an “off the beaten track” tourist destination and creating a positive impression for its scenery, architecture, and history.

- Projects based on wine tourism are being developed with foreign private equity investment, including chateau-type wineries with luxury accommodation. This will target booming numbers of wealthy tourists from oil rich nations such as Azerbaijan and Kazakhstan. However, there are still very few tourism facilities in Georgia, especially near wine regions. For instance, in Kakheti where 80 percent of the vineyards are, there are no hotels and very few restaurants. Roads and infrastructure are in very poor condition. Wine tourism and foreign private equity investment are for the much longer term.

- Georgia’s top wines have an established reputation and are widely perceived as being positioned at a higher quality level than Moldova’s. Georgia’s best known appellations are also famous in their major markets (unfortunately this has attracted problems with counterfeiting).

- Georgia continues to battle fraudulent wines produced within the country but the problem of counterfeits from other countries is enormous. The FAO reported an estimated 90 percent of Georgian wines on sale outside the country are counterfeit and reported that “many other countries are using well-known Georgian appellations to sell wines that are in fact not of Georgian origin.” FAO has been supporting measures to improve traceability within Georgia and establish a public-private regulatory body. It also plans to assist with training of government officials in multilateral and bilateral negotiations, improving traceability of bulk wine, and transferring international know-how on protection of appellations, as well as advising on the country’s laboratory system for issuing wine analysis certificates. However, there are accusations of fraud and corruption in the Georgian administration, which may reduce effectiveness.

- International winemaking consultancy has improved quality at certain wineries and produced wines that are uniquely Georgian but still acceptable to international markets, for example Orovela, GWS, and Telavi. Industry sources believe that Georgia’s recent development of new markets is based on this improved quality. However, much of Georgia’s production remains unsuitable in terms of style and quality for Western markets. International wine consultants report that changing mindset is a major challenge. Paying attention to detail such as replacing pipe work, tank connections, and proper cleaning has resulted in significant improvements for modest investment and in a relatively short time frame.

- Maintaining quality of unsold stocks at wineries, especially whites, is an industry concern and at least one winery is reported to be considering distillation rather than pay costs of refrigeration and long-term storage.

- Expatriate Georgians are passionate about their wines and making small-scale and individual efforts to find new markets for their wines. At least three new small-scale importers were present at the 2007 London wine fair or have since made contact for advice on importing Georgian wine to the United Kingdom.

- Similarly, other markets are being developed and the most promising ones appear to be Poland with a dramatic increase in sales, in part due to a political friendship in the face of a common problem in Russia, and the former Soviet Baltic countries for the same reasons.

- Georgia has foreign investment in one major winery: French ownership of leading producer GWS and the German aid programme GTZ has invested 1.4 million euros in a state-of-the-art laboratory up to EU standards.

- The government introduced short-term tax exemptions to help the wine industry after the ban, although the impact has been very small.

- Georgia rushed into setting up events overseas after the ban. Unfortunately, badly organized events like the one held in London in May 2006 can end up doing more harm than good and undermine efforts to raise interest. It is essential to use public relations expertise and follow advice given to ensure that arrangements and attendance are appropriate and allow key opinion formers and gatekeepers to form a positive impression.

SECTION VI

Conclusion: Challenges and Opportunities for Moldova

Having taken stock of the global wine industry and Moldova's wine sector in Sections III, IV, and V, what does all this mean for Moldova? The global wine market is clearly complex and constantly changing, but it is also accessible to those who respond to market demands and consumer preferences for wine quality and style. This is evidenced by New World wine producers who invented successful new approaches to production, marketing, and regulations that propelled them into the industry as major players, such as Australia, as well as by smaller, nascent wine producing countries like Hungary and Romania where entrepreneurial spirit among wine producers has flourished through attention to quality and wine styles and under supportive government regulations and programs. Even Old World producers have succeeded in adjusting their approaches in the face of change. What is clear is that it takes persistence and strategic choices driven by market realities at the sector and enterprise levels. And government has had an active, supporting role, especially in times of crisis. The Moldovan government can help by rationalizing their roles to that of a judicious regulator and facilitator of national promotion efforts. Government activities must be appropriate, informed by the private sector, and foster sector stability and growth. Specific wine sector challenges and opportunities for Moldova's government and private sector going forward are:

A. Challenges

- A mindset based on Soviet-style command economy and commodity approaches to grape and wine production and marketing, rather than a market economy based on responsiveness to consumer demand
- A multitude of government agencies playing overlapping and, in some cases, unnecessary roles
- Lack of organizational clarity and uncoordinated sector support activities
- Lack of understanding of global wine trade practices, potential new markets, and consumer preferences for certain wine styles
- Overregulation of government in vine cultivation and winemaking procedures; standards and guidance are not harmonized not understood, and in some cases, are obsolete or conflicting
- Recent overregulation related to testing and certification in reaction to Russian ban
- Low viticultural productivity and quality, due to age of vineyards, lack of irrigation, and poor practices leading to generally poor quality wine and inappropriate wine styles
- Small grape producers lack skills in proper production, harvest, and post-harvest techniques
- Failure to implement quality management methods (ISO 9000, HACCP, etc)
- Lack of a vineyard cadastre
- Lack of written labeling guidance leading to subjective and inconsistent application of regulations
- Poor environment for investment and lack of financing
- Poor viticulture, winemaking, and wine marketing training and education opportunities

B. Opportunities

- Partnerships between the public and private sectors for sector improvements through strategy development and implementation
- Clarification of government and private sector roles and responsibilities for sector support and improvements
- The need for improved communications between organizations and stakeholders to establish better linkages and enhance cooperation
- Interest by the private sector to advocate for a streamlined legal and regulatory framework for the sector using successful models from the region
- Approaches and activities built on the recognition by government and wine producers of the need for improved raw materials

- Stimulation of the domestic market for wine
- An export “learning period” for wine producers starting with nearby CIS countries
- Recent surge in demand for bulk wines in China offers an opportunity for reducing Moldova’s bulk wine stocks
- Interest among the private sector in improved educational and training opportunities

Recommendations to take advantage of Moldova’s opportunities, while also mitigating the challenges presented above, follow in Section VII.

SECTION VII

Making Moldovan Wine Competitive Globally: Recommendations for the Way Forward

Moldova must make urgent decisions and take corresponding actions to revitalize the wine sector. There is a role for the government and one for the private sector, and perhaps most importantly, this work must be driven by the commercial realities that wine producers are facing today. The first set of recommendations, below, are strategic and overarching. They are followed by short-, medium-, and long-term recommendations, and finally specific technical recommendations.

A. Strategic Recommendations

Strategic recommendations focus on six areas:

- Crisis management
- Public-private sector collaboration
- Rationalizing and streamlining the role of government
- Legal and regulatory reform
- Domestic market development
- Skills enhancement

Crisis management. No long-term strategy can be implemented when there are significant short-term challenges as a result of an unexpected and sudden event such as the Russian ban on Moldovan wine and the Russian stipulations upon lifting the ban in June 2007. Most wine producers are currently in crisis management mode and decisions for future investment are impossible while the focus is on taking immediate action for survival. The entire sector is at risk and requires immediate and significant assistance with a view toward balancing quality assurance with the need to commercialize wine. In particular, the government needs to provide support and leadership, developing a strategy in collaboration with the private sector in the second half of 2007, streamlining of legal and regulatory impediments, facilitating debt restructuring, fostering investment to bring innovation and increase quality, and assisting in export market research and country promotion. A strategy in partnership with the private sector must be developed immediately and include agreed-upon actions to mitigate the crisis. A crisis management committee formed by Moldova-Vin with active, thoughtful private sector representatives should be formed to identify the most pressing needs and ways to provide relief for a period of time that allows the private sector to shift its business model and re-direct is commercial focus. Potential actions and activities for this committee are contained in the section below on short-term recommendations.

Collective Public-Private Action as Part of Strategy Development

The government and private sector, as part of the sector strategy process, should map out a positioning strategy for the wine sector and define target export markets based on selective criteria (i.e. commodity markets, sophisticated markets, emerging markets, CIS markets). The strategy will require actions to bring about drastic change in viticultural practices to yield significant improvement of material inputs for improved winemaking and country sector marketing and promotional efforts.

Public-private sector collaboration. The wine producers and supporting enterprises must organize themselves and know when to compete and when to collaborate, while the private and public sectors must understand the synergy that comes from working together. And now is the time to collaborate. There is strength in numbers and the world market is too competitive to go it alone. An independent wine producer member association should be created (or identified) to work in tandem with Moldova-Vin. The association should be funded jointly by its members and with government funds. The association would voice issues, administer promotional funds and lead the marketing effort to promote Moldova wine in internal and external markets. The association should be governed by a rotating presidency occupied by one of its members and selected by a board of directors comprised of industry members voted into office by member wine producers. A government official appointed by Moldova-Vin would also have a seat on the board. The president and board would set objectives and policy and ensure that the association is serving the interests of the association rather than any specific stakeholder. The board would also hire an industry professional to lead a select number of staff to be responsible for implementing a country identity, collecting and disseminating export market intelligence, and leading the promotional effort in domestic and export markets. This recommended approach was selected based on public-private sector collaboration in a number of successful wine producing countries. It parallels the highly successful Australian models, has some commonalities with the California model, and is similar to nascent organizations in other Eastern European countries that are showing promise.

Rationalizing and streamlining the role of government. Beyond clarifying and rationalizing the role of government in terms of minimizing direct activities in the private sector, clear organizational structure is needed. The wine sector is too important to have multiple government agencies responsible for various aspects of appropriate government support. One agency, Moldova-Vin, should be tasked with all wine sector-related activities. This will reduce inter-agency friction and place full accountability in the hands of one agency to administer financial support, secure quality, negotiate inter-country agreements to overcome trade barriers, and facilitate wine commerce.

Legal and regulatory reform. Moldova's wine sector is bound by laws and regulations inherited from the Soviet system. They are obsolete and should, in many cases, be annulled. For example, the requirement that a wine producer provides annual production forecasts to the government for each wine type and its packaging limits flexibility to react to changing market demands and entails lost productivity due to the notification and approval process for inevitable divergences from submitted forecasts. In addition, many laws and regulations are overly complicated, duplicative, and/or contradictory. It is critical to simplify, streamline, and harmonize them to bring renewed energy and innovation to the sector. As an example, licensing requirements for wine and spirits producers require revision as many provisions have fallen into disuse, are not necessary, are obsolete, or are inconsistent with the principles stipulated by other laws.

Domestic market development. Moldova-Vin, in partnership with the private sector, must foster domestic wine consumption as part of a strategy to expand wine sales, but also to broaden the wine culture perception that is part of any good export promotion program. As part of a country brand and wine sub-brand, creation of a domestic advertising campaign that encourages commercial wine consumption as an alternative to beer and spirits can be developed. The campaign can take advantage of wine as a part of Moldova's national identity and pride. Taxes on alcoholic beverages should also be based on degrees of alcohol. Adjusting taxation by increasing taxes on high proof distilled beverages would foster development of the domestic market and support the wine sector's growth.

Skills enhancement. Improved education and training for skills enhancement is needed across the sector—from farmers and viticultural managers to winemakers, laboratory technicians, and restaurant staff. Formal, education system viticulture and winemaking programs at universities and colleges need overhauling, while professional and on-the-job training needs to be jumpstarted. This is a long-term effort but many shorter-term initiatives to help revitalize the industry through agricultural extension and professional, short-term courses can be put into place in the near future.

B. Short-term Recommendations

The wine sector crisis needs immediate action while concurrently setting out a long-term vision. Recommended short-term actions follow.

B1. Government

Moldova-Vin and the government should avoid creating any future export restrictions such as the bulk wine ban, the single export window for Belorussia, and any other restrictions that infringe on WTO requirements. Such restrictions hurt the sector's ability to compete in the world market and damage the sector and the Moldovan economy. When contemplating various new regulations or standards, Moldova-Vin should be more transparent and responsive to the private sector's needs.

The government should not restrict sale of must or grapes to Ukraine and Romania. In fact, the government should encourage such sales, to assist in maintaining the viability of independent growers in regions where such sales are practicable. Sales to Romania will be problematic due to new tariffs applicable to exports since Romania's accession to the European Union on January 1, 2007. However, there should be increased demand from Ukraine in regions near the southeastern border.

Moldova-Vin should consider actions that encourage wine producers to deplete surplus stocks and support distillation of unsaleable wine to free up processing space and generate cash flow for grape purchases.

Moldova-Vin must lobby the banking industry to provide debt restructuring with a relaxation of current interest payments, longer terms on loans, and/or low interest loans to provide relief to wine producers with a turnaround plan but who are burdened by debt related to the crisis. Donors could consider providing loan guarantee funds, loan restructuring support, and a sector credit fund program.

Moldova-Vin should continue to support the private sector's expansion of existing markets and securing of new markets through trade missions and samples. The government can play an intermediary role through diplomatic and commercial discussions with foreign governments related to facilitating timely payment on contracts between Moldovan wine companies and foreign buyers (e.g. China, where there have been payment issues; Moldova-Vin has placed a representative at the Moldovan Embassy in Beijing).

Moldova-Vin should foster domestic wine consumption as part of a strategy to expand wine sales and broaden the wine culture perception abroad. Moldova-Vin, working with the private sector should endeavor to create a domestic advertising campaign that encourages wine consumption. A campaign could play to national pride with an emphasis on the place wine holds in the national identity and culture, e.g. "Moldovan wine for Moldovans because quality never tasted so good."

The government must begin immediately to develop a viticulture cadastre. This is critical for a traceability system, which is a prerequisite for resumption of exports to Russia and will likely be required for exports to the European Union in the near future.

Design and planning of vineyards should not be regulated by the government. These regulations should be annulled.

It is imperative that the National Centre for Alcohol Product Quality Control be equipped with modern laboratory equipment.

Moldova-Vin should consider two parallel certification processes, one for Russia and CIS countries, and a second, more streamlined process for other countries based on the EU model. In the longer-term, Moldova should negotiate a "level playing field" in terms of wine exports to Russia and CIS countries, using models from Australia and other countries that export to Russia without such stringent requirements.

Moldova-Vin should reduce the number of technological instructions (currently more than 4,000) and replace them with six technological instructions based on types of wine: red, white, rose, sparkling, sweet, and fortified.

The government should foster small and medium-sized winery development that, through regulatory reform and incentives, provides smaller wineries the ability to bring passion, innovation, and rapid adaptation to a mature wine sector.

B2. Wine Producers

Wine producers must change their thinking and develop plans that allow them to capitalize on their strengths, ramping up efforts to expand existing markets and secure new markets.

The significant stock holdings of unsold wine are a major problem and they have limited capacity for many wineries to produce wine in 2006. Unless this is tackled through stock destruction, distillation, or bulk wine sales, this problem will persist in 2007. Already the fact that wineries are largely showing 2005 wines at trade shows is a potential problem. In the short-term, given current stocks, Moldova's wine style may be acceptable in some less sophisticated consumer markets like the Chinese market, and given China's purchase of bulk wine for repackaging under domestic brands, this may be a market for Moldovan bulk wine. Other short-term opportunities for wine companies may include: selling excess wine as bulk to Belorussia, Ukraine, and Kazakhstan (Romania and Bulgaria are also possibilities but are less attractive due to higher taxes); distillation of the excess as brandy for export to regional markets; and selling excess white wine as material for sparkling wine to Ukraine and Belorussia. Actual business decisions however must be up to individual wine producers.

A Strategic Alliance with "New World" Country?

Post-ban, it is clear that Moldovans' margins in Russia will be smaller, taxes will be greater, and Russians will keep more of the profits. The Russian wine market is predicted to continue to increase by about 25 percent by value for at least the next five years, so it is attractive to other exporters. Moldovans could use their Russian language skills and Russian wine market experience to their advantage. In fact, some enterprising Moldovan wine producers are already extracting value from their distribution network in Russia by distributing wine from Italy and France. New World wine producers recognize the attractiveness of the Russian market and are exploiting opportunities presented by Moldova's and Georgia's exclusion.

However, Australia has relatively low penetration of the Russian market—in 2004 less than $1.5 million, compared to almost $70 million for France and $25 million for Spain. Imports from Australia have accelerated recently but Australia still lags far behind other New World producers. Australia's exporting success has been spectacular in English-speaking markets where language is no barrier. However, when the playing field is level, as in Russia, Spanish-speaking countries are giving the Australians a beating. Before the ruble crash, Chile exported less wine to Russia than Australia, but in 2004 they exported more than $13 million.

Perhaps an opportunity exists for a mutually beneficial strategic alliance: Australian wine producers would gain easier access to Russia, and Moldovan companies would gain: 1) exposure to New World wine styles, quality standards, and modern technology, 2) "prestige by association" in markets where Australian wine is appreciated, i.e. a product range which includes New World wine styles would get much more attention from buyers, 3) transfer of personnel during the off-season because northern and southern hemisphere vintages are six months out of sync; Moldovan winemakers could be trained on-the-job in Australia, and Australian winemakers could train Moldovan winemakers in Moldova.

It is critical that wineries review grape handling and winemaking techniques, including effective and hygienic use of existing equipment, to improve quality for the coming 2007 harvest. Replacement of pumps and hoses, and their proper storage, is an essential short-term requirement in most wineries.

An independent wine producer member association should be created (or identified) to work in tandem with Moldova-Vin. The association would voice wine sector issues, administer government funds jointly with Moldova-Vin, and lead the marketing effort to promote Moldova wine inside and outside the country. The association should be funded by its members with government assistance, have a board of directors selected by its members, and a rotating presidency occupied by one of its members to ensure it serves the interests of the association rather than any specific stakeholder. The association would also hire a select number of industry professionals to be the promotional arm of the association responsible for developing and implementing a country identity and leading the promotional effort in domestic and export markets. In essence, this promotional arm would commercialize any government-led export initiative. This model has brought great success in Australia and California and there are similar nascent organizations in other Eastern European countries that are showing promise.

C. Medium-term Recommendations

Work on medium-term recommendations should begin in tandem with shorter-term crisis management actions. These recommendations, all for government, can be considered and further researched during the wine sector strategy development phase in the latter half of 2007.

The wine sector is too important to have different government agencies responsible for various aspects of the sector. One agency, Moldova-Vin, should be tasked with all wine sector-related activities. This will reduce inter-agency friction and place accountability within one agency that would be tasked with administering financial support, securing quality, negotiating trade agreements, and facilitating wine commerce.

An improved partnership with better communications between Moldova-Vin and the wine producers is vital. As part of sector strategy development in the latter half of 2007, Moldova-Vin's roles and responsibilities in marketing and promotion should be clarified with a focus on strengthened facilitation and promotion.

Moldova-Vin must work collaboratively with the Union of Wine Producers and Exporters and Union of Oenologists—or any new apex professional association in the wine sector—that advocates for change. Moldova-Vin must balance quality with the need to commercialize wine. Moldova-Vin must also work collaboratively with private sector alliance groups such as the Moldova Wine Guild that have been created and are directly or indirectly aiding the effort to promote Moldova wine abroad.

Moldova-Vin must work closely with the Ministry of Culture and Tourism ensuring that strategies are aligned and mutually beneficial initiatives are put in place to initiate wine tourism and develop wine routes. Any wine tourism must involve the wineries at their respective locations where wine is made, not at a centralized location. Visiting wineries allows wine producers to host guests in their own environment. A centralized location will not provide the same effect and tends to be overly commercial and does not provide a personalized experience. Collaboration with Romania and Ukraine to develop and promote a wine route that benefits both countries should be strongly considered. Moldova-Vin must encourage the sector to facilitate tourism; for example, wineries that have wine tastings, tours, and restaurants must be open on weekends. Moldova-Vin and the state-owned wineries can lead by example by making their wineries accessible on weekends for wine tastings and tours and go out of their way to host high-profile industry guests.

Moldova-Vin should require the Council for the Approval of the Exterior Aspects of the Wine and the Alcoholic Products to write labeling guidelines, taking into account requirements of Moldova's main export markets, especially EU and CIS countries. Moldova-Vin should also consider alternative models for label approval such as the UK's Wine Standards Board. This body, now part of the government Food Standards Agency is the authority for enforcement of EU wine laws in the UK and provides clear written guidelines that are available on the agency's Web site. It also provides a reference service that importers and producers can access for definitive guidance on the legality of a label design or wine descriptions before going to print. A small staff, currently eight, then carries out random spot checks to ensure conformity and can impose the appropriate penalties if required.

D. Long-term Recommendations

Longer-term recommendations, all for government, revolve around revitalization of viticulture, supporting serious, up-to-date research and development; stimulation of technical innovation; revamping of viticulture, winemaking, and wine marketing educational programs; and general encouragement of a modern, vibrant culture of grape-growing and winemaking knowledge.

The Moldovan government should consider the feasibility of applying a portion of government revenue from all wine sector excise and other taxes to help fund the promotional budget of the member association and administration and government promotional grants—as done in New World countries and now in Hungary as well.

The Moldovan government should consider increasing excise taxes from other alcoholic beverages to provide funding for wine sector activities. The tax regime could be based on alcoholic proof as done in many countries and justified by the need for strategic support to the wine sector, which has far reaching impacts on the Moldovan economy and society.

Extensive improvements are needed in extension training and viticulture and wine training at the college and university level with a focus on updating the curriculum and equipment based on international best practices.

E. Technical Recommendations

Below we provide specific technical recommendations for actions related to viticulture, winemaking, legal and regulatory procedures, marketing, and education.

E1. Viticulture

E1a. Government

The government vineyard rehabilitation scheme should continue and be extended to cover rehabilitation of existing vineyards. However, incentives will not be attractive until there is a stable, alternative market for Moldovan wines and growers have confidence that they will be paid for their grapes. Although many wine producers are planting their own vineyards, there will still be room for small growers and their grapes, especially if of a high quality, will be required by various new entrants, including small and medium-sized wine producers, to the market.

The government should transform the Institute for Vine and Wine into an agricultural research institute that is focused on applied research and information dissemination, modeled on government agricultural research centers worldwide. Links should be forged between the Institute, Moldova’s educational institutions, and extension services. In addition, the government should support improved linkages and information exchange with OIV. The Institute should not be involved in the regulatory aspects of the sector.

ACSA and other extension services should revamp their programs to focus on production and harvesting techniques that support quality product not just high yields. Therefore, extension services must focus on educating grape growers in modern viticultural techniques, with emphasis on efficient pest and disease control. Education is also needed for vine training, canopy management, and soil nutrient and mineral composition. However, because growers are currently paid only for quantity, with no premium for quality, this emphasis may not yet be effective. For example, vine pruning techniques are now oriented towards increasing yields, not quality. ACSA and others involved in government and donor-funded extension services should update their extension messages, demonstration plots, and bulletins to focus on modern viticultural techniques that emphasize quality. Irrigation initiatives could also be considered as the sector is revitalized.

E1b. Wine Producers

Wine producers must ensure that viticultural, winemaking, and marketing department staff members are educated on consumer wine styles sought in key markets. Current wine quality and style is not appropriate for most markets. In addition, regular communications between production and commercial departments is critical. This must start with the understanding that improving viticulture practices is fundamental because without quality fruit, the wine industry cannot tackle its issues of poor wine quality. Changing the mindset of growers and viticultural managers and securing the appropriate advisors is essential and efforts are required for later harvest, better canopy management, and healthy ripe fruit.

Wine producers should expand incentive payment schemes for growers that reward quality. As in other countries, wine producers can develop closer relationships with growers at the beginning of the season and use written contracts for grape supply, with target sugar levels, and give bonuses for overachieving and penalties for underachieving. Written contracts would also serve as a precursor to better cooperation and coordination between growers and wine producers. The wine producers are also the preferred providers of extension services to growers, due to mutual interest. The general harvesting of grapes before they reach optimal maturity causes the most serious wine quality problem and this is a wine quality factor that growers can influence, apart from grape damage due to disease. By working more closely with growers through contracting, extension services, and input supply credit, wine producers can help ensure that grape quality will increase.

Schemes that encourage cooperative vine management on a larger, more professional scale would be useful. However, there is a changing environment regarding land leasing and cooperatives and therefore it is difficult to make recommendations. In addition, there is cultural resistance to collectivism. Any work in this area will require a major effort. If the government extends the incentive scheme for rehabilitation of existing vineyards this will encourage cooperative vine management. In addition, wine producers and ACSA can educate growers on the benefits of cooperation.

Strategies that involve growers more closely in the end product, promoting a partnership in the winemaking effort, have shown positive results around the world. The aim is to help growers understand the links between grape quality and wine quality. In Italy and California growers are brought to wineries for wine education and wine tasting. Such approaches have resulted in improved production management techniques and fruit quality.

E2. Winemaking

E2a. Government

Moldova-Vin should reconsider its approach to designating one laboratory for certification of product conformity testing. The current law does not support this, nor does WTO or general economic principles. In other countries competition among laboratories fosters competence. Of course, for the Russian market, requirements by the Russian government concerning testing will need to be followed.

E2b. Wine Producers

Wine producers need to change their approach and become customer-focused and make wines that the market and the end consumer desire. Staff must educate themselves about target markets and consumer preferences through industry literature, market research, wine tasting, market visits, events and conferences, and discussions with importers. Communications and information exchange between winemaking, viticultural, and marketing departments must be strengthened.

Successful exporters to markets such as Italy, Bulgaria, Chile, and Spain, have facilitated the transition to New World wine styles and to improved overall wine quality through extensive use of New World winemaking consultants, particularly those from Australia and New Zealand. Donors and/or government-wine trade association collaboration should support this critical training. Topics for training should include:

- Wine styles popular in premium markets and how to achieve them
- Winemaking methods to maximize retention of fruit flavor and aroma

- Basic winemaking microbiology, e.g. avoiding stuck primary ferments and ensuring expeditious completion of Malo-lactic fermentation in red wines
- The impact of oxidation on retention of fruit flavor and aroma, and how to avoid it
- The importance and effective implementation of sanitation procedures
- Laboratory techniques; training is required in use of pH meters, oxygen meters, and analysis for Malic and Lactic acids

It is important that winemakers be empowered to determine harvest timing in collaboration with the viticultural department so as to avoid intake of immature grapes.

Over the long term and in tandem with proper training, priority equipment upgrades are vital for some wineries, which require additional refrigeration capacities to facilitate temperature-controlled fermentation. The older wineries should replace older style crusher/destemmers with new style destemmer/crushers. Most wineries need to install or upgrade systems for distribution of inert gases. All wine companies also need to install or upgrade equipment to apply inert gases during bottling. Most wineries need to acquire additional laboratory equipment. Wineries should replace inappropriate non-stainless steel wine storage with food-grade stainless steel tanks. Use of large oak barrels should be abandoned altogether; there is no place in modern winemaking for these—their only use should be for decoration in wine tasting rooms.

Small oak barrels are required for maturation of premium reds and limited fermentation of some whites; however all small oak barrels three years of age or older should be discarded. French, American, or Eastern European oak can be experimented with and medium toasted oak is recommended to the wine producers as a starting point for experimentation.

Wine producers should consider renting space and equipment to smaller wine producers who do not have wineries, allowing for increased operational efficiency at wineries, additional revenues for the larger wine producers, and lower start-up costs for the small wine producers. This approach has been used successfully at some of Bulgaria's large wineries. It is also prevalent in California where large wine producers have "co-packing" agreements with small producers to increase operating efficiency.

Wine producers should pursue standard quality certifications, such as ISO and HACCP.

Wine producers should designate as "Moldovan Wine" only. The VDOC/DOC system designation adds little commercial value in the global marketplace.

E3. Legal and Regulatory

The government needs to develop an environment that will attract foreign investment to the wine sector. Moldova should move to relax laws related to foreign investment, including the ownership of agricultural land. The wine sectors of Bulgaria, Romania, and Hungary have been revitalized by investment from Western countries, although in the case of Bulgaria it remains impossible for foreigners to hold land directly.

The Moldovan government must streamline and simplify the entire legal/regulatory framework for the sector, similar to the TACIS effort in Moldova's food production sector. In particular, review and adoption of EU regulations are needed as part of this process with an opportunity to learn from Romania's experience. As part of this process, we recommend the following priorities:

- Ease laws and regulations related to winery licensing, rental of wineries, and the sales of wine produced in rented wineries to help promote small and medium wine producers and attract foreign and domestic investment (see text box on following page).

Promoting Small and Medium-Sized Wine Producers

- Simplify licensing and minimal requirements to foster establishment and development.
- Wine producers producing less than 250,000 bottles should have minimal licensing requirements, such as those for the existing *Vin țărănesc* classification.
- Small and medium-sized wineries should be allowed to target both the domestic and export markets.
- Winery construction adjacent to vineyards should be permitted, allowing transformation of agricultural lands into land for building in the case of wineries.
- Foreign investors should be allowed to buy or rent land and plant vineyards.

- Review and streamline standards, technical standards, general rules, and technical instructions and instead develop higher-level technical regulations, e.g. an updated winemakers' code of standards. The more than 4,000 technological instructions are unnecessary and should be voluntary according to the WTO Technical Barriers to Trade Agreement. Technological instructions should be used only when needed—for the Russian and CIS markets. In the long term, Moldova should focus on negotiating with the CIS countries to abandon these instructions and adopt the approach taken by other countries exporting to Russia (i.e. France, Bulgaria, Australia, etc.)

- Simplify the classification system of wine. The current system is unnecessarily detailed with little or no difference between various types (young, usual, table) and is confusing to the consumer.

- Consider implementing the "five registry" approach to control and evidence in wineries that is used in EU countries and part of traceability requirements.

- Remove wine producer annual product mix forecasting requirements to allow for production flexibility.

- Remove the minimal production capacities order (no. 16/2004) given that it is redundant with the higher level Law on Vine and Wine and Law on Alcoholic Production and Circulation.

- Simply the certification system. Potential adjustments include reduction in the number of documents submitted as part of the application (e.g. contract with importer). Once the certification system is finalized, written guidelines for procedures should be prepared. Currently these do not exist and there is great confusion among both government and wine producer staff.

- Provide written guidelines for labels linked to requirements under Moldovan law and the EU CE regulation 753/2002 on designation and labeling, and support modifications to Moldovan Law 1100 on alcoholic production related to the Council for Approval of Exterior Aspects of Wine and Alcoholic Products. Once guidelines are prepared, they should be clearly communicated to wineries and available on a Web site. Guidelines should be objective and be applied consistently.

- Move forward with modifying regulations for placement of the state trademark stamp with a focus on simplifying operations and offering a better looking package. Wine producers should consider designing labels that provide specific placement for the stamp.

- Streamline traceability requirements using EU practices and ensure that required processes and documentation is developed.

E4. Marketing and Promotion

To develop a country image of quality and effectively exporting this image, Moldova-Vin with private sector participation, should formulate and implement a country brand strategy focusing on the positive attributes of Moldova as a country and a wine sub-brand based on Moldova's long tradition of winemaking combined with its modernization of winemaking techniques. The EU-funded country and related sub-brand branding work prepared by MIEPO provides an excellent foundation for this.

As part of the wine sub-brand, Moldova-Vin and the private sector should consider identifying a grape variety, indigenous but of noble variety such as Rara Neagra, that grows well in Moldova and can become a national symbol. Other countries have successfully taken such an approach (see text box) to establish a commercial point of difference.

"National" Grapes

Argentina: Malbec
Australia: Shiraz
Germany: Riesling
New Zealand: Sauvignon Blanc
Italy: Pinot Grigio
Portugal: Touriga Nacional
Romania: Feteasca Neagra
South Africa: Pinotage
Spain: Tempranillo

Government grants should be offered to the private sector for promotional purposes and that benefit the overall Moldova wine strategy. Grants must be monitored through verifiable expenses incurred by wine producers to market their wines abroad and would include the following categories of expenses:

- Marketing agents or consultants
- Travel to and in export markets
- Collateral material development
- Public relations and other wine presentation activity (i.e. winemaker dinners)
- Visits by journalists and buyers to Moldova

The following activities should be undertaken by a new trade member association, discussed above, with support from Moldova-Vin:

- Country market research.
- Trade missions, including wine events for importers and distributors in comfortable business environments outside of the embassy.
- Sample shipments to potential buyers.
- Visits by wine trade journalists and leading wine critics to Moldova and ensuring they have the best possible experience of Moldova
- Become a center of knowledge for export marketing, intensively monitoring competitive producer country activities, regularly conducting presentations on target country market dynamics, and inviting guest speakers to speak about buyer expectations and consumer trends. This might usefully include a database with import information by country, such as legal requirements, documentation, etc.

E5. Education

E5a. Government

Begin to overhaul viticulture and wine university and college education programs, updating curriculum and linking the system with strong wine-oriented university programs in Europe.

E5b. Wine Producers

To stimulate sales in the domestic market, distributors, and restaurant staff should be encouraged to undergo training in Moldovan wine styles, including training on opportunities for increased sales and profit, wine service and storage, food and wine matching, and common wine faults.

F. Donors and Other Sources

Donor support may be appropriate in the following areas:

- Loan guarantee funds, loan restructuring support, and a sector credit fund program
- Development of a viticulture cadastre

- International exposure through international training, internships abroad, and study tours, driven by the wine companies' targeted markets and their required wine styles
- Harmonization and streamlining of the sector's legal and regulatory framework
- Funding of EU-accredited testing laboratories
- Overhaul of the viticulture and wine education system
- Support of country brand and wine sub-brand development
- Support productivity improvements and market demand research and market opportunities for wine producers

The wine sector is of such strategic and economic importance to Moldova, it is strongly hoped that the sector and relevant government agencies will take action based on this report.

ANNEX I

Emerging Markets

In this annex, we cover the emerging wine markets of China and India.

A. China: Wine Producer, Exporter, and Importer

Grape growing. Grapes have been grown in China for at least 6,000 years and grapes were being fermented to wine more than 2,000 years ago. Grapes specific for wine were mostly introduced from Europe in the 1980s. Since 1987, the government has promoted beer and wine, rather than traditional grain-based spirits, in an effort to reduce reliance on grain imports. Since 1997, the government has endorsed the health benefits of red wine and has planned to increase production by 50,000 metric tons per year. This plan includes training farmers and controlling grape and wine quality.

Most wine grape production is concentrated in northeast China, where maritime influences moderate winter cold. These regions are prone to more rain and higher humidity during critical periods of the season than is ideal for viticulture (summer/autumn). Therefore, decreased quality and yields, due to increased frequency of fungal diseases can be expected if fungicides are not applied correctly. The need to apply relatively higher levels of fungicides adds to costs. Irrigation is used routinely. It is difficult to estimate the area devoted specifically to wine grapes because much wine is made from table grapes. There is no clear distinction between grapes for wine and table grapes. However, the total area planted to grapes specific for wine production is around 100,000 hectares. Productivity of wine-grape vineyards is very low, comparable with yields in Moldova. The reasons are the same as those in Moldova: excessive average age of vines and relatively low inputs of fertilizer and pesticides.

Because of cheap rural labor, it is profitable to grow grapes and sell them at much lower prices than in most wine producing countries. Breakeven prices are comparable to those in wine producing countries with similar GDP per capita, such as Romania, Georgia, and Moldova. It is also relatively less expensive to establish vineyards.

Winemaking. The discipline demanded by quality-discerning consumers has been largely absent during the infancy of the Chinese wine industry. Moreover, regulations governing winemaking and consumer protection laws have also been lax. Consequently, a range of dubious practices has proliferated in winemaking methods. Until June 2003, it was permissible to make ‘wine’ using only 50 percent grape juice, stretched with apple juice or even cane sugar. These practices are now illegal but there appears to be tacit acceptance of a “phasing-in” period of proper processes. Consistency is also a serious problem. Until recently there was no requirement for truth in labeling with respect to vintage, variety, or origin. However, in 2002, China joined the Office International de la Vigne et du Vin; consequently the State Economic and Trade Commission released new National Technical Specifications for Vinification, which will eventually align China’s wine industry with those in traditionally wine-producing countries. However, it will be several years before Chinese winemakers can compete in the international wine market especially because of the general lack of appreciation for how viticultural practices affect wine quality.

The labor component in wine production and packaging is much less significant compared to other overhead costs, which tend to be comparable with other wine-producing countries. Therefore, China’s cost advantage derives essentially from raw materials. This advantage is negated by inferior quality of raw materials. Price trends in the short term are difficult to predict. However, it is likely that supply and demand will continue to increase with a possible moderate shortfall of premium red varieties as the market adjusts to stricter legal definitions of wine.

Chinese wine market. Domestic wine production has increased from 1997 to 2006 to more than 500 million liters, representing a compound growth of roughly 26 percent per year. Meanwhile, per capital annual consumption has risen by 24 percent per year, from about 0.06 liters per capita to about 0.4. That's still much lower than per capita annual consumption in traditional wine consuming countries (e.g. France, 59 liters, United Kingdom, 22 litters, the United States, 12 liters). Accordingly, potential for growth in consumption is enormous. It should be noted that growth in the value of the Chinese wine market has lagged behind volume growth, because average selling prices have decreased steadily. From 1997 to 2003 the average selling price for wine decreased by 56 percent.

Branded wine imports represent less than 10 percent of the market by value. However, during the last 30 years, imports of packaged wine have grown at double the rate of domestic production. Since China's admission to the WTO in 2000, the import tax has been reduced from more than 50 percent to 14 percent for bottled wine and 20 percent for bulk wine, and so it is likely that imports will continue to increase. Packaged wine imports are disproportionately represented in the premium segment. However, a significant proportion of domestic product is made using a percentage of imported bulk wine. This offers opportunities for bulk wine exports to China without affecting the image of Moldovan wines because they will be marketed as domestic Chinese wines.

Predicting the Future of China's Wine Market

The dynamics of China's wine market now are remarkably similar to those of the former USSR in 1998. If the market develops in a similar way, it is expected during the next five years that:

- The total market will approximately double
- Domestic producers will increase sales, but will lose market share to imports
- Imports will increase from less than 10% by value, to about one quarter
- The best performers in the expanded market will be New World producers and other producers who have reacted quickly to changing global preferences for wine styles, quality, and consistency

The culture of alcohol consumption. The culture of alcohol consumption in China differs from that in traditional wine-consuming countries. Chinese traditionally prefer distilled beverages with higher proportions of alcohol and alcohol consumption is almost exclusively by men. The emergence of relatively wealthier middle and upper classes has created a consumer base that strives toward Western style living and its wine preferences. This consumer base lives mostly in the larger coastal cities.

Culturally, the mode of consumption generally remains the same as other alcoholic drinks. Rounds of toasts are made during the meal, in which the wine glass is filled to the brim and it is considered rude not to consume the entire glass in one swig during the toast. This mode of consumption is not conducive to appreciation of the wine quality, and so, not surprisingly, the average consumer is not very knowledgeable about the finer points of wine appreciation. Accordingly, it is not wine quality that is the paramount factor that determines a particular wine's marketability, but rather its image. It is therefore more compelling to invest in branding, packaging, and advertising than in wine quality.

B. India

A tradition of wine. Wine has been made in India since perhaps as long as 5,000 years ago and has been part of religious festivals for more than 1,000 years. This is evidenced in tribal populations with social and religious drinking as part of their customs. While Islamic rulers forbade drinking, consumption for the most part remained taboo for society at large. During the medieval period, rulers allowed wine in court during ceremonies and celebrations. In the 16th and 17th centuries, the country's Mughal emperors drank Shiraz imported from Iran and also kept vineyards. When the Portuguese settlers arrived in Goa, they soon began improving on local winemaking. Then came the British influence in the mid-19th century and more vineyards were planted because the cost of shipping wine to India was high. By the late 19th century, the quality of Indian wines was beginning to be recognized, but then unfortunately the phylloxera epidemic affected even India's vineyards.

Grape production. At present, more than 60,000 hectares are dedicated to grape growing in India, and with very good yields it can achieve annual production of 1.6 million metric tons. Commercial winemaking there began in the 1980s; and the country uses a mere fraction of the total grapes harvested. Although exact figures about the current area of commercial wine grape production are not

available, there are estimated to be close to 1,000 hectares in Maharashtra State and 200 hectares near Bangalore in Karnataka. About 70 percent of the vineyards yield grapes and 30 percent are in a development stage. Thirty eight private wineries were in operation in 2005 producing wine from noble grape varieties with all but two wineries in Maharashtra State. The most popular varieties cultivated are Shiraz, Cabernet Sauvignon, Pinot Noir and Merlot, Chenin Blanc, Sauvignon Blanc, and Chardonnay. These private wineries were initially established under joint ventures with European collaboration, or venture capital and international winemaking expertise.
Wine production. In 2005, the total annual wine production in India was 6.2 million liters with 87 percent from Maharashtra state and whites (2.69 million liters) and reds (2.45 million liters) nearly balanced. Some Indian wine makers have also started importing foreign wine to bottle and sell locally. India imported bulk wine equivalent to 40,000 cases (9 liters per case) and an additional 32,000 cases of bottled wine. Another 12,000 to15,000 cases of wine are estimated to be sold in the gray market.

Consumption. Wine consumption is confined to the major cities with 80 percent consumed in Mumbai (39 percent), Delhi (23 percent), Bangalore (9 percent) and the foreign tourist dominated state of Goa (9 percent) with per capita consumption in India at less than a tenth of a liter per year. Interestingly the wine segment is dwarfed by consumption of other alcoholic beverages. About half of a million nine-liter cases of wine are sold every year in comparison to 37 million cases of whisky, 11 million cases of brandy, and 9 million cases of rum.

Exhibit III-W: Comparison of Indian Wine Market Segments, 2003 and 2004

Segment	Domestic production, Thousand Cases*		Imports, Thousand Cases		Total, Thousand Cases		Retail Value, Million Rupis	
	2003	2004	2003	2004	2003	2004	2003	2004
Sparkling wines	35	35	5	11	40	46	258	297
Still wines, premium	117	143	53	63	170	206	779	944
Still wines, inexpensive	234	240	---	---	234	240	281	288
Fortified wines/Others	4	5	1	1	5	6	13	16
Total	**390**	**423**	**59**	**75**	**449**	**498**	**1331**	**1545**

*A case is a unit of 9 liters capacity and equivalent to 12 (750 ml) bottles; Source: www.indianwine.com

One of the reasons why wine drinking has not caught on is that quality wines are priced relatively high. Since volumes of quality domestic wines are low, production costs are high. Imported wines are also taxed with duties that can go as high as 550 percent. Taxes can vary significantly from state to state because each of India's 29 states and six union territories has their own rules and regulations, and charges their own duties and taxes. Some of these taxes are protectionist measures currently being challenged in WTO. Even the pattern of wine distribution and control varies widely from state to state as the Indian constitution mandates that the alcohol beverage industry be regulated at the state level with no involvement from the central government. Poor storage facilities and transport capabilities compound the challenges for selling more wine in a country that has relatively no wine knowledge and employs restrictive measures on wine promotion.

India's potential as a consumer. Some see India, with its population of 1.1 billion, as a market opportunity with colossal magnitude given recent trends. First indications of a change in wine consumption came from affluent professionals who began drinking wine while traveling abroad. At home, disposable income of young professionals has been rapidly increasing at a time of greater availability and visibility for wines. Many of these young people work in high-tech centers and are fluent in English and knowledgeable about Western lifestyles. This has led to a growing wine culture in the metropolitan areas fueled by a middle class, 200 million strong. As a result, wine clubs emerged, wine magazines appeared, and newspapers began devoting columns to this aspirational drink. The wine industry is now growing nearly three times as fast as whisky and rum.

Public and private sector support. To ensure that this growth is sustainable, more needs to be done. Easing tariff barriers, developing awareness on the health benefits of wine, widening the availability of good quality wines at reasonable prices, and supporting a nascent home-grown industry is necessary to continue fueling demand. Seizing on the opportunity, the Maharashtra State is providing impetus to a blossoming winemaking industry. In 2001, it announced a comprehensive wine policy and under this plan, two wine parks were established, one each in Nashik and Sangli districts. Also, the Grape Processing and Research Institute (GPRI) was recently established at Bharati Vidyapeeth University. The institute's main objectives are to:

- Provide formal training to the farmers and other interested industry insiders through various courses in wine grape cultivation, quality winemaking, and wine marketing.
- Establish grape vine nurseries and provide authentic plant material to growers.
- Pilot program winemaking and put together demonstrations.
- Set up quality control laboratory for wines.
- Impart wine blending techniques.
- Explore domestic and international markets.
- Construct two "mother unit" structures where growers can use fully operational common facilities to make wine at a fraction of the cost.

The "mother units" will be outfitted with winemaking equipment, such as a pneumatic press, crusher, destemmer, and filtration unit. They will house a bottling area, a quality control laboratory, and a cold storage cellar, and will have the services of a wine master and wine tester available. For a fraction of the cost required to build their own wineries, small producers can make wine commercially.

The Maharashtra government has also engaged in liberalizing and promoting its home-grown wine cottage industry. For example, the state no longer collects excise tax on wine produced and sold within the state and prices have come down despite its 20 percent VAT on both wine and liquor regardless of alcohol degree by volume. In 2005, the state also mandated that licensed retail outlets labeled "wine shops" that were selling mainly liquor be named "liquor shops." This leaves the door open to legislate "wine shop" licenses for budding wine bars and other wine-only retail operations.

In the same month, the state established the Maharashtra Grape Board with the aim of developing wine marketing channels for a domestic market. A Web site, www.indianwine.com, promoting Indian wines was launched. It provides information about Indian wine markets, top Indian wineries, and promotes its wines. It also encourages dialogue in web blogs and nurtures a culture of wine enthusiasts.

Tourism. Popular interest in wine is fueling the creation of wine tourism. Not far from Mumbai, Maharashtra wineries are located in close proximity. This allows urban dwellers to visit on weekends, and restaurants are popping up on the Pune to Nasik highway. Chateau Indage took the early initiative and started offering tours of its vineyards. A restaurant with a tasting room was opened and more recently a resort in Nasik that may be the first in India where guests can indulge in champagne showers and a few other wine related spa treatments.

Going global. Despite its recent success locally, Indian wine has a long way to go before gaining international recognition. Indian wineries are having some success in exporting their wines but mainly as a novelty. Yet, the industry is optimistic. Some see tremendous potential in tapping Indian restaurants in major wine markets like the United States and United Kingdom for sales. But first, consumers in these markets need to be convinced that wine and curry can go well together, a notion India needs to adopt as well.