australian wine industry

challenges for the future

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foreword

The Australian wine and wine grape growing industries have grown remarkably since the early 1990s as a result of a successful strategy to develop export markets for Australian wine. More than half of Australia's wine production is now exported. As a result of the industry's growing exposure to the global wine market, continued success hinges on the Australian wine industry maintaining a keen awareness of global market developments.

Currently, in the global wine market, supply is expanding faster than demand, a situation that is causing prices for wine, and hence wine grapes, to decline. Low prices and the current wine supply–demand situation present a critical challenge to the future viability of both Australian wine makers and wine grape growers.

This report contains an assessment of global and domestic wine and wine grape supply and demand trends, and an assessment of possible policy responses by the European Union to changes in the dynamics of the EU wine sector. It also provides an assessment of the implications of global developments and expected future challenges facing Australian winemakers and wine grape growers.

The information contained in this report is expected to contribute to improved decision making relating to the current wine market situation that may affect the future viability and competitiveness of the Australian wine and wine grape growing industries.

Karen Schneider
Acting Executive Director

October 2006

acknowledgments

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summary

- The Australian wine industry is facing the challenge of maintaining profitability in a market environment of relatively flat demand, increasing supplies and declining prices.
- The export focus of the Australian industry, with over half of Australian sales being to overseas markets, means that in taking up the challenge the industry must be well versed in global market developments and their implications.
- The broader, longer term trends in the world market discussed in this report and Australia's position within that market provide some important pointers to the challenges confronting the industry and how the domestic industry may position itself to meet those challenges.

global consumption is stagnant ...

- Despite rising incomes in both traditional and nontraditional wine consuming countries, global demand for wine is not responding as more wine drinkers move into retirement (with attendant lower income) and younger age groups exhibit a preference for other alcoholic and nonalcoholic beverages.
- Between 1985–89 and 2000–04, global wine consumption grew at an average rate of only 0.1 per cent a year.
- Consumption per person in the world's major wine drinking countries – France, Italy and Spain – is falling and has done so for at least a couple of decades.
- Sales of wine to the growing UK and US markets, the principal destinations for Australian exports, have been rising strongly but most of the growth in sales of Australian wines appears now to be at the lower priced end of both markets.
- Recent increases in Australian exports to the UK market have been concentrated in the off-licence trade (such as liquor market chains) rather than in the potentially higher margin on-licence trade (such as restaurants).
- Competition in the UK market from 'new world' producers, particularly the United States and Chile, is growing rapidly, with imports from both countries rising faster than from Australia, albeit from a lower base.

> Wine consumption in the United States has been increasing, but falling per person consumption of alcohol and demographic changes are expected to constrain wine demand in the longer term.

... but production is rising

> Rising world supplies of wine, despite reductions in output from the largest two wine producers, France and Italy, are largely the result of increasing wine production in the main 'new world' producers of Australia, Argentina, Chile, South Africa and the United States. Increased production in the 'new world' countries has been driven by improving yields and large increases in the area planted to grapevines in the second half of the 1990s and early this decade. Australia has been at the forefront of the increased 'new world' production, trebling the area under vines between 1990 and 2004.

> Contributing to the low prices faced by Australian wine grape growers is the fact that 'new world' wines, with only small differences in wine style, are competing directly with each other in export markets. This is because most of the increases in 'new world' production have tended to be in the same grape varieties:

- cabernet sauvignon, merlot and shiraz being the main red varieties
- chardonnay, sauvignon blanc and colombard being the main white varieties.

> Policies in the main wine producing countries of the European Union will have an important bearing on the global wine market. The European Union currently subsidises the replacement of poorer performing wine grape varieties with improved vines and vineyard layouts. There is also the EU 'crisis distillation' program to extract industrial alcohol from surplus wine, effectively creating a price floor and encouraging production of wine in excess of market requirements.

> Proposed EU changes to grape growing, wine making, and labeling regulations, together with the scrapping of 'crisis distillation' and vine replacement programs would result in improved EU competitiveness in export markets and a short term increase in world wine supply. Based on past experience, it may be some years before reforms occur and those that do eventuate may well result in little real change of benefit to the EU or world markets.

implications for Australia

> As a relatively small wine producer with a growing dependence on exports, Australia will need to adapt to developments in the global market.

- Trends in UK and US consumer tastes and preferences and competition from other 'new world' suppliers will be critical to the future of the Australian wine sector over the medium to long term. In addition, as consumption falls and production stabilises in the core 'old world' producers (France, Italy and Spain), competition from these producers in export markets seems likely to grow.
- Wine grape growers in Australia are clearly responsive to market signals as evidenced by the expansion in plantings and output when there was strong export demand and associated relatively high prices for wine grapes in the mid to late 1990s. Between 1993 and 2004, vineyard expansion was also partly facilitated by a taxation arrangement that allowed accelerated depreciation for grapevine establishment costs.
- A relatively weak Australian dollar in the first few years of this decade contributed to the maintenance of export returns, and hence to prices that were attractive to growers. But with production expanding faster than demand, both globally and domestically, Australian growers are now faced with wine grape prices that are well below earlier levels. This has been exacerbated in recent times by a rising Australian dollar.
- In real (net of inflation) terms, wine grape prices in 2004-05 were only one third of their level in 1997-98.

stocks overhang will not be resolved quickly

- Apart from the drop in prices, the current supply–demand imbalance for wines is also manifested in rising stocks of wine as wineries find it increasingly difficult to make sales at preferred prices in an ever more crowded market place. Wine stocks have been increasing in most of the main wine producing countries, but most of all in Australia and France.
- Although there is some question about the exact size of the wine stocks in Australia, it is estimated that they were between 1.9 and 2.3 years of sales in 2005, significantly above industry's preferred amount of around 1.5 years of sales. Stocks can be expected to rise further this year.
- It appears that a combination of reduced inputs, such as fertiliser, water and less pruning, an increase in grapes 'left on the vine' at harvest, and wineries cutting back intake that is excess to requirements could result in global and Australian stocks of wine falling to more acceptable levels. How long it would take to achieve this in Australia and elsewhere will depend on a range of additional factors, including seasonal conditions and consumer responses to the lower prices of wine relative to substitute alcoholic and nonalcoholic beverages.

- If growers maintain production inputs close to current rates, yields stay close to their longer term average, and domestic and export sales continue to grow at the same pace as in the past couple of years, it is estimated that it would take around four years for Australian stocks to fall to the industry's preferred figure of about 1.5 times annual sales.
- If yields were 10 per cent lower than the longer term average for both the 2007 and 2008 vintages, stocks could fall to the industry's preferred size in around two years.

small scale producers fare worse

- ABARE's survey of McLaren Vale (cool climate) and Riverina (warm climate) wine grape growers reveals that grape growers in those regions had average farm cash incomes of around $103 000 and $79 000 respectively in 2004-05, and a return on capital invested (excluding capital appreciation) of 3.4 per cent and 2.4 per cent.
- The top 25 per cent of growers reported substantially better business performance than the average for producers as a whole. The top producers in the McLaren Vale had farm cash incomes of around $243 000 and an average return on capital invested of 6.4 per cent in 2004-05, while in the Riverina such producers averaged $287 000 and 7.0 per cent respectively. The top performers in both regions tend to have larger scale operations that enable greater economic efficiencies to be achieved as fixed costs are spread across more output.
- Assuming no change in input expenditures, it is estimated that the fall in wine grape prices that occurred with the 2006 vintage will have resulted in a significant deterioration in farm financial performance in 2005-06:
    - average farm cash incomes are estimated to be down by around 30 per cent in both regions
    - rates of return are estimated to be down by 30–50 per cent and
    - the proportion of growers making a loss is estimated to have increased by 4 percentage points to 21 per cent in McLaren Vale and by 9 percentage points to 44 per cent in the Riverina.

the way forward

- The principal issues for the Australian wine sector as it looks to the future are how to restore equilibrium between supply and demand in the short term, and how to continue to improve competitiveness – the ultimate key to a successful and sustainable industry in the longer term.

> Allowing the market to work, in Australia as well as the other 'new' and 'old' world producing countries, will provide the most efficient and effective solution to both the stocks overhang and low prices. Regulatory interventions to control Australian supply of wine grapes and reduce the stocks overhang are unlikely to be of economic benefit to the industry. Regulatory interventions will be costly, both financially and in terms of losses in economic efficiency; they will not result in improved prices to growers as Australia is too small to influence the world market; and other competing suppliers to the world market will benefit from less Australian competition.

> In an ever more competitive global environment, improving the Australian industry's competitiveness will be fundamental to successfully meeting the competition and remaining economically viable in the longer term. Strategies that can be expected to contribute to improved competitiveness include:

- increasing the average size of grower operations (partly through smaller operators leaving the industry) so as to realise scale efficiencies
- adjusting business models through more contracting, leasing, share farming and cooperative arrangements designed to achieve better financial performance for growers and the industry as a whole
- maintaining or increasing investment in research and development aimed at developing and adopting new technologies to increase on- and off-farm productivity
- developing improved relationships between wineries and grape growers to ensure that information flows will better equip industry participants to respond to new and emerging market trends
- maintaining an appreciation of global and domestic supply chain dynamics to allow growers and wineries to better position their businesses and products and
- developing value adding opportunities that satisfy changing consumer demands.

1

introduction

After a period of rapid expansion, the Australian wine industry is facing the challenge of maintaining profitability in a market environment of relatively flat demand, increasing supplies and declining prices. The global nature of the wine industry, with over half of Australian sales being to the export market, means that in taking up the challenge the industry must be fully cognisant of the global environment in which it operates.

A feature of the world wine market is an apparent excess of production over consumption. World stocks of wine have been increasing for a considerable time and current indications are that it may be some years before there is any significant easing of the downward pressure on prices. The situation reflects significant shifts in global production and consumption in key producing and consuming regions. It is these shifts that have presented the Australian wine industry with substantial opportunities for expansion, as well as posing significant threats to the longer term sustainability of many in the industry.

In managing their way through the current situation, Australian wine grape growers, processors and marketers must be prepared to adapt to changing market requirements at all points along the supply chain and in the markets that they seek to serve. In addressing the challenges that lie ahead, the industry is faced with a range of factors that are likely to be important to its short and longer term profitability – some of which are within its control and some of which are not.

In this report, some of the key developments contributing to the current situation and the potential implications for the Australian industry are examined. Consideration of the broader longer term trends in the global market and Australia's position within that market provide some important pointers to the challenges confronting the industry and how the domestic industry may evolve to meet these challenges.

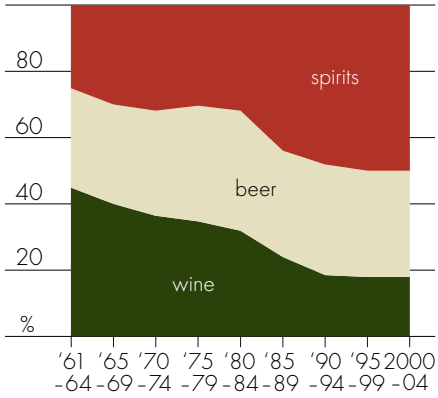
Longer term sustainability will require the industry to display flexibility, innovativeness and, above all, a willingness to seek and make changes in how it operates. Without doubt, the future of the industry will be determined by its ability to adapt to changing market conditions while remaining competitive in the global market.

2

characteristics of world wine demand

The Australian wine industry is selling increasing amounts of product into a global market that is showing little or no growth. The total volume of wine consumed globally has increased only slightly over the past four decades and, of particular concern for wine producers, per person wine consumption has dropped as wine has consistently lost ground to both beer and spirits since the early 1960s (table 1).

fig A **global alcohol consumption, by type**



In aggregate terms, global consumption of wine grew at just 0.1 per cent a year between the two five-year periods 1985–89 and 2000–04, compared with 2.2 per cent a year for all alcohol. Per person consumption of wine in alcohol equivalents has declined steadily – from an average of 7.1 litres in 1961–64 to an average of 4.0 litres in 2000-04. In the

table 1 **world alcohol and wine consumption trends**
average annual consumption

		1961–64	1985–89		2000–04	
				change **a** %		change **a** %
total alcohol **b**	ML	6 352	12 544	2.8	17 466	2.2
total alcohol per person **b**	L	2.0	2.5	0.9	2.8	0.8
total wine	ML	22 344	24 181	0.3	24 616	0.1
total wine per person	L	7.1	4.8	-1.6	4.0	-1.2
total beer per person	L	14.7	19.8	1.2	22.1	0.7
total spirits per person **b**	L	0.5	1.1	3.2	1.4	1.6

a Average annual percentage change from the previous time period. **b** Litres of alcohol content.
Source: Wittwer and Rothfield (2005).

period 2000–04, wine consumption is estimated to have accounted for only 18 per cent of total worldwide alcohol consumption, compared with an average of around 45 per cent in 1961–64 (figure A).

determinants of wine demand

The range of factors determining current and future consumption is quite complex. In essence, the main factors are the size and rate of growth in consumer incomes, the age structure of the population, social customs, and tastes. Although these all influence wine consumption to varying degrees, it is not always in predictable ways.

income and taste preferences

In the United States and the United Kingdom, rising incomes and changing preferences and lifestyles are generally regarded as the main drivers increasing demand. In the Russian Federation and China, neither regarded as traditional wine consuming countries, rising incomes and a developing middle class are the drivers of a rise in consumption of wine. Although higher wine consumption is often associated with increased consumer incomes, income levels alone are not good predictors of wine consumption. For example, French, Italian and Spanish consumers have been steadily cutting their wine consumption for several decades even though incomes have been rising.

In Australia, income and the price of wine significantly influence the consumption of alcohol; shifts in consumer preferences and age also play important roles (Selvanathan and Selvanathan 2004). Wine consumption per person is positively affected by rises in consumer incomes, negatively affected by price rises, and negatively affected by growth in the over 65 years age group in the population.

demographics and wine consumption

Demographic structures vary greatly between major wine consuming countries and can be expected to have a significant effect on consumption patterns. In most wine drinking populations, those aged 30–60 drink more per person than do younger or older people. Such patterns mean that knowing the number of people in different age groups (cohorts) in a market is useful in attempting to predict future trends in wine consumption.

By way of illustration, Nelson (1997) found the decline in the consumption of alcohol, on a per person basis, in the United States between 1974 and 1990 was attributable to an increase in the proportion of the population aged 65 and over, and a simultaneous decline in the proportion of the population aged 18–29. That is, an aging population and declining size of the young adults age group were identified as key influences in driving per person alcohol consumption down. Although Nelson found that both price and income effects acted to increase alcohol consumption in the United States, neither factor was sufficiently strong to counterbalance the negative effect of the demographic changes.

Given the findings of Nelson (1997) and Selvanathan and Selvanathan (2004), it is clear that from a longer term perspective, both the number of young people and the proportion that drink wine now will be critical to future consumption. Growth in the size of the over 65 years age group will be an important negative factor as these people cut consumption of wine following the reduction in income as they move out of the workforce and because of possible perceptions of adverse effects of alcohol on health.

demand in key markets

Regardless of the relative effects on demand of cultural, demographic or economic factors, the alcohol consumption trends revealed in figure A appear well established. With habit persistence, any changes to these trends may be slow, particularly if new fashions and tastes in alcohol beverage consumption come from the younger generations.

Data showing world wine consumption to be relatively stable fail to reveal the divergence between growing consumption in the main export markets for Australian wine (the United Kingdom and the United States) and falling consumption in the large traditional wine consuming countries (France, Italy and Spain). It is therefore useful to consider briefly some of the important features affecting consumption in the major consuming countries or regions of principal interest to Australia, as well as some of the emerging markets of possible future significance.

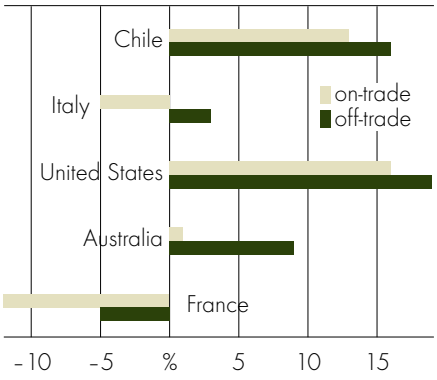
Based on the discussion in the remainder of this chapter, it seems that declining consumption in France and other traditional wine consuming countries is expected to be more than offset by increasing demand in newer consuming countries. From Australia's perspective, the United States and United Kingdom are expected to account for much of the increase in consumption over the next five years or so.

United Kingdom

Wine consumption in the United Kingdom has increased markedly, albeit from a relatively low base. Rising incomes and changing preferences and lifestyles are driving increased demand for wine, with the result that annual consumption has increased from 1.7 litres per person in the early 1960s to an average of 17 litres in the five years 2000–04.

Growing demand for wine has been substantially met through increased imports. Continuing the rapid growth of recent years, in 2004-05, the quantity of imported wine released from bond for domestic UK consumption increased by 6 per cent (Wine and Spirit Trade Association 2005).

fig B **change in wine sales in the United Kingdom, 2003-04 to 2004-05**



Recent increases in Australian exports to the United Kingdom have been concentrated largely in the off-trade (sales off licensed premises), rather than the potentially higher margin on-trade (figure B; Boothman 2005). Compared with growth in the off-trade, growth in sales of Australian wine in the on-trade was small. Wines from the United States and Chile recorded the greatest percentage increases, although each came from a lower base than that of Australian wine.

Over the medium term, capturing a greater share of the on-trade may become increasingly important for Australian exporters to the United Kingdom. There are two main reasons for this. First, continuing retail consolidation is expected to produce a further tightening of margins on wine sold to supermarket chains and increased competitive pressure on specialist wine retailers. Second, as incomes increase over time, opportunities for sales in restaurants and other on-trade outlets will increase. Increasing acceptance of wine as a drink for a range of social occasions, supported by increasing incomes, is expected to ensure continued growth in wine consumption.

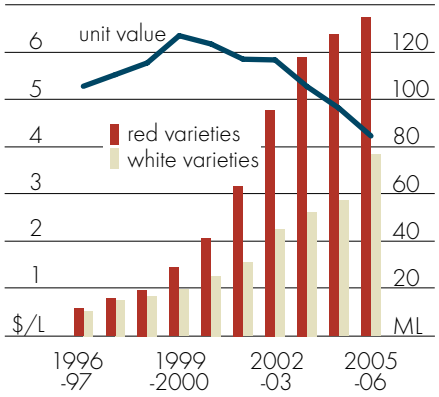
United States

Wine consumption in the United States has been increasing since the early 1980s – rising from 8 litres per person in 1980 to 10.4 litres per person in 2005. As total alcohol consumption per person has been falling, the rise in wine consumption over this period has largely been at the expense of beer and spirits.

The great diversity of quality and prices of wines in the United States mean that there is considerable potential for rising incomes and increasing familiarity with wine to encourage US consumers over time to spend more on buying higher priced wines rather than on buying greater quantities. That said, it must be noted that recent Australian experience has been that the growth in export volumes to the US market has been oriented toward lower priced wines (figure C).

Over the next five years or so, growth in the US wine consumer base, particularly in the number of regular drinkers, is expected to contribute to further increases in average per person consumption of wine. However, when US demographics are taken into consideration, there are some discouraging signs on the longer term horizon.

fig C **exports of Australian table wine to the United States**



Based on United Nations' population statistics, projected changes in the demography of the United States suggest that the trend toward an overall reduction in alcohol consumption per person identified by Nelson (1997) is likely to continue, if not accelerate. In the period to 2030, the proportion of the US population over 59 is projected to increase by 8 percentage points, to reach 25 per cent of the total population. In contrast, the proportion of people aged 30–59 years, the core wine drinking age group, is projected to decrease from 42 per cent to 38 per cent.

France, Italy and Spain – the core EU markets

The importance of demand conditions in France, Italy and Spain lies not in the potential of these countries as markets for Australian wine. Rather, it lies in the large size of consumption and production in those countries, with the three accounting for almost 30 per cent of world consumption and 50 per cent of world production. Changes in consumption and production in these countries, and the effect on their net export potential, will therefore be of major significance for Australia and other 'new world' wine producers. In contrast to the US and UK markets, there has been a substantial long term decline in wine consumption in the three main European producing countries.

Total alcohol consumption in France has been declining steadily since at least the early 1960s. This trend is mainly a reflection of a consistent decline in wine consumption, since consumption of beer and spirits has remained unchanged over the same period.

Average annual wine consumption per person 15 years and older in France declined from 160 litres in 1965 to 70 litres in 2005 (ONIVINS 2005). Fewer French people are drinking wine and those who drink it are drinking less often. In 1980, 81 per cent of people 15 years and older drank wine at some time (ONIVINS 2005), with 51 per cent being regular drinkers (ONIVINS-INRA 2002a). By 2005, only 62 per cent of adults drank wine at all, with less than 21 per cent being regular wine drinkers.

A substantial part of the decline in average per person wine consumption in France is linked to the aging population. Since 1990, well below 50 per cent of people aged 19–24 have been wine drinkers (ONIVINS-INRA 2002b). The proportion of that age group who were regular drinkers fell from 24 per cent in 1980, to 9 per cent in 1990 and just 4 per cent in 2000. All of the French population below the age of 40 are now from the lower drinking age groups.

Wine consumption patterns in Italy and Spain have been similar to those in France. Between 1995 and 2005, wine consumption per person fell by 17 per cent in Italy and 15 per cent in Spain (WARC 2005). In Italy, in an environment of declining per person alcohol consumption, consumption of both wine and spirits has fallen. Annual wine consumption fell from a high of 13.5 litres of alcohol per person in the late 1960s to an average of just 6.3 litres in 2000–04. Similarly, in Spain, wine is losing market share to beer and spirits. No growth is expected in the core adult age group in Italy and Spain over the next decade. As a result, per person consumption of wine as well as total consumption are expected to continue to decline.

China

China is important to the global market for alcohol because of its large population and rising consumer incomes. However, in the case of wine, consumption per person is very low, with spirits seemingly the alcoholic beverage of choice. In China, wine consumption per person has increased over the past twenty years, but average consumption is only around 0.3 litres per person.

Despite current preferences, a large and expanding middle class with rapidly rising incomes means that China has considerable potential as a growth market for wine. Imported wines account for a considerable proportion of Chinese wine consumption, with much of China's import demand in recent years being filled by bulk wine from Chile.

Demographic changes will also be important to future consumption of wine in China. In 1980, approximately 64 per cent of the total population was under 30 years old, with 46 per cent under 20 years old. In the twenty years to 2000, the proportion of people over 30 years old increased to around 50 per cent of the total. Importantly, the proportion of people in the key, relatively high earning 30–59 years age group now accounts for approximately 40 per cent of the population, which is largely consistent with the situation in markets such as the United States and the United Kingdom. This key age group is expected to remain at around 40 per cent of the Chinese population for at least the next 25 years.

other countries

The Russian Federation is one of the most rapidly growing markets for wine. For a significant section of the Russian population, increasing incomes provide an opportunity to substitute wine, beer and high quality vodka for low quality spirits (Andrienko and Nemtsov 2005).

Historically, as much as 70 per cent of Russia's demand for wine was satisfied by imports from Moldova (Beverage Daily 2004). Increasingly though, the Russian Federation is importing wine from EU countries (Vinitaly 2005) and from the United States and other new world producers (USDA Foreign Agricultural Service 2005a). With the Russian market for wine appearing to be largely focused on lower quality and priced product, it may not be attractive to Australian exporters in the foreseeable future.

Germany is the world's second largest importer of wines, importing slightly lower volumes than the United Kingdom. It is a mature market that has shown stable

consumption patterns and only very moderate growth in the past decade (Wittwer and Rothfield 2006). In addition to the moderate growth in German wine imports, the unit value of these imports is relatively low. Although Germany accounted for around 5 per cent (by volume) of Australian exports in the twelve months to May 2006 (AWBC 2006), it is unlikely to be viewed as a significant growth opportunity by Australian wine producers seeking to lift export returns through the shipment of higher value product.

Japan has long been viewed as a prospective wine market of significance because of its high incomes and a propensity for consumers to adopt western products. The reality of the situation, however, has been that of consumption fluctuating around a low level. Although a rise in consumption in recent years may be a positive sign for future import demand, Japan seems unlikely to be a market for substantial volumes of Australian product.

Both the potential for market growth and the marketing challenges experienced in Japan and China are exhibited more broadly in India and south east Asia. Growing populations and increasing consumer incomes will provide possible future growth markets for wine. Yet none of these populations has a tradition of wine consumption. For the near future, they seem more likely to provide limited markets for wine targeted at particular consumer groups and consumption occasions rather than to the general population.

3

world wine production

In developing an understanding of the challenges faced by the Australian wine industry in the evolving market situation, it is important to identify and consider the trends in production and the factors driving these, both globally and in key producing countries. In examining trends in world production of wine, the principal focus in this chapter is on the countries that are likely to be of the greatest significance to Australia in terms of global market developments.

world production increasing

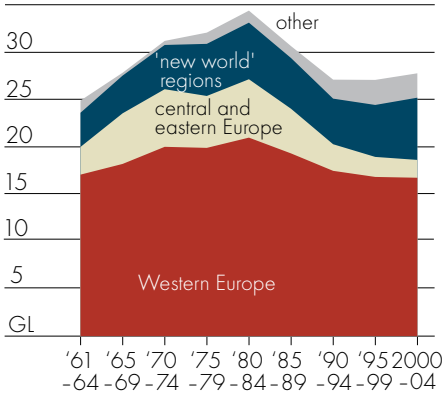
World production of wine has been rising since the early 1990s (figure D). While production in the world's two largest producing countries, France and Italy, has been falling, output has grown substantially in the group of so-called 'new world' producers – Australia, Argentina, the United States, Chile and South Africa. These changes have resulted in challenges for the export oriented Australian industry as it seeks to expand sales.

table 2 **wine production in selected countries**

								change	
	1990	1995	2000	2001	2002	2003	2004	1990 to 2000	2000 to 2004
	ML	ML	ML	ML	ML	ML	ML	%	%
France	6 553	5 560	5 977	5 538	5 202	4 750	5 850	-8.8	-2.1
Italy	5 487	5 620	5 409	5 229	4 430	4 400	5 300	-1.4	-2.0
Spain	3 866	2 104	4 179	3 094	3 642	4 040	4 000	8.1	-4.3
Argentina	1 404	1 644	1 254	1 584	1 215	1 546	1 410	-10.7	12.5
Australia	445	503	859	1 077	1 220	1 086	1 471	93.1	71.2
Chile	398	317	667	565	575	687	658	67.7	-1.4
South Africa	852	753	762	761	834	956	1 016	-10.6	33.3
United States	1 585	1 867	2 660	2 300	2 540	2 350	2 430	67.8	-8.6
World	28 077	25 571	28 976	27 175	26 756	26 753	29 125	3.2	0.5

Sources: Anderson and Norman (2003); Wittwer and Rothfield (2005).

fig D **world wine production**



Between 1990 and 2004 wine production in France and Italy declined by 890 million litres, equating to a reduction of a little over 10 per cent in France and 3 per cent in Italy (table 2). In Spain, Europe's third largest wine producer, production increased by approximately 3 per cent over the same period. More than offsetting these trends, production in the group of new world producers increased by almost 2.3 billion litres (50 per cent) from 1990 to 2004.

Although the share of global production accounted for by the 'old world' wine producers of France, Italy and Spain has been eroded, they remain by far the world's largest producers of wine. In 1990, the combined wine production of France, Italy and Spain amounted to nearly 16 billion litres or 57 per cent of the world total. In 2004, these three countries produced a little over 15 billion litres of wine, close to half the world total. In comparison, the contribution of the 'new world' producers increased from 17 per cent in 1990 to 24 per cent by 2004.

Among the 'new world' producers, the increase in production in Australia has been particularly large, rising by over 1 billion litres (230 per cent) between 1990 and 2004. At the same time, wine production in the United States increased by 845 million litres (53 per cent) and in Chile by 260 million litres (65 per cent).

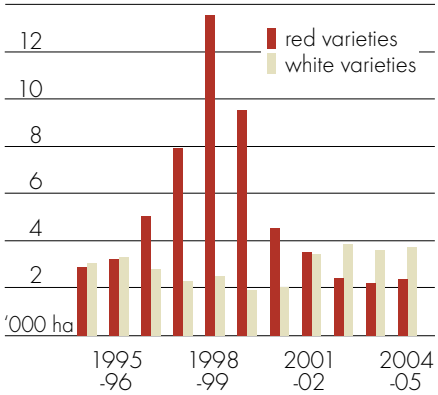
areas and yields increasing

The major increase in output from 'new world' producers reflects extensive investment in vineyard development over the past decade in Argentina, Australia, Chile, South Africa and the United States. This contrasts with the situation in the European Union where the area under wine grapes in the three main producing countries has fallen.

Between 1990 and 2004 the total grapevine area in France, Italy and Spain fell by an aggregate 16 per cent (table 3). During the same period, grapevine area in the United States, Australia, Argentina, South Africa and Chile increased (collectively) by 47 per cent.

Between 1990 and 2000 a sharp increase in the area under grape vines was particularly evident in Australia, where the area planted grew by 138 per cent from 56 000 hectares to 133 000 hectares. Significant increases were also recorded in Chile (59 per cent) and the United States (57 per cent). In Australia, significant new plantings occurred between 1996-97 and 1999-2000, with new plantings peaking at 16 000 hectares in 1998-99. Of the new plantings in this four year period, almost 80 per cent were red wine grape varieties (figure E).

fig E **grapevine plantings in Australia**



The rate of expansion in area under wine grapes in 'new world' producing countries has slowed since 2000. Once again, however, the increase has been greatest in Australia, where the area devoted to wine grapes rose by a further 17 per cent.

table 3 **grapevine area in major wine producing countries**

								change	
	1990	**1995**	**2000**	**2001**	**2002**	**2003**	**2004**	**1990 to 2000**	**2000 to 2004**
	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	%	%
France	936	903	889	886	853	843	844	-5	-5
Italy	971	851	836	818	798	719	715	-14	-14
Spain	1 393	1 154	1 186	1 175	1 160	1 142	1 200	-15	1
subtotal 'old world'	3 301	2 909	2 912	2 879	2 810	2 704	2 759	-12	-5
Argentina	197	197	176	190	194	196	196	-11	11
Australia	56	69	133	141	151	150	156	138	17
Chile	71	74	113	123	125	127	127	59	12
South Africa	85	88	93	96	102	106	106	9	14
United States	130	146	204	214	216	213	211	57	3
subtotal 'new world'	539	574	719	764	788	792	796	33	11

Sources: ABS (2005); Anderson and Norman (2003); Eurostat (2006); Wittwer and Rothfield (2006); Attaché Reports and National Agricultural Statistics Service, US Department of Agriculture.

In the United States, the largest of the 'new world' producers, vineyard area appears to have stabilised. In 2004, the bearing area of wine grapes fell by 1.3 per cent (California Agricultural Statistical Service 2005). Nonbearing area fell by 20 per cent, reflecting a cut in plantings started in 2002. Within the total area, however, there is a continuing reorientation toward quality red varieties, with cabernet sauvignon, shiraz, merlot and pinot noir areas expanding.

The Chilean industry has a similar orientation toward quality red grape varieties, but also has a substantial area of vineyards yet to come into production (USDA Foreign Agricultural Service 2005d). There has been only a small expansion in Argentina's vineyard area since 2000 (Instituto Nacional de Vitivinicultura 2005).

In France, red grape varieties account for around 70 per cent of the total grapevine area, while in Spain and Italy, red wine accounts for slightly more than half the volume of wine produced (ONIVINS 2004; ISMEA 2006; FAS 2006c).

Also contributing to a higher output of wine grapes have been substantial improvements in average yields. Since the early 1970s, these have risen approximately 40 per cent in the 'new world' group of countries and by around 20 per cent in western Europe. The average yields achieved by 'new world' producers have been consistently higher, by 30–70 per cent, than those achieved by producers in western Europe. In the United States in particular, grape yields have been typically twice those achieved in France and more than three times those in Spain.

As with consumption, production developments in China are sometimes regarded as being of possible future importance in the world wine market. From Australia's perspective, the potential for China to become a major competitor in world wine trade is of particular interest. However, there appears to be little chance of this happening in the near future. The area planted to wine grapes in China seems to have grown little over the past decade and the proportion of wine grape production relative to total grape production has declined from 35 per cent in 1994 to around 10 per cent in 2004.

focus on similar varieties

Red wine varieties predominate across all the new world producers except South Africa (table 4). Cabernet sauvignon tends to dominate the red varieties and chardonnay the whites. There are a number of exceptions to this – examples of which include the large area of shiraz grown in Australia, the focus on white wine in South Africa, and the large area of zinfandel in the United States.

table 4 **new world wine grape area, by variety, 2005**

	Australia '000 ha	United States '000 ha	South Africa '000 ha	Argentina '000 ha	Chile '000 ha
red					
cabernet sauvignon	29	26	29	11	47
merlot	11	19	15	5	15
shiraz	41	6	21	7	0
other	18 **a**	49 **c**	35 **e**	78 **f**	38 **a**
share of total area (%)	59	62	41	77	73
white					
chardonnay	44	53	12	10	29
sauvignon blanc	6	9	12	2	29
colombard	4	16	17	0	0
other	46 **b**	23 **d**	59 **d**	87 **g**	42
share of total area (%)	41	38	59	23	24

a Mainly pinot noir (Australia 23 per cent, Chile 4 per cent). **b** Mainly semillon (20 per cent). **c** Mainly zinfandel (36 per cent). **d** Mainly chenin blanc (United States 26 per cent, South Africa. 49 per cent). **e** Mainly pinotage (40 per cent). **f** Mainly malbec. **g** Mainly torrontes riojano (19 per cent).
Sources: ABS (2005); IVN (2004); NASS (2006a); SAWIS (2006).

Contributing to the current situation of low wine grape prices is the fact that recent production increases across the 'new world' wine producers have tended to be geared toward similar grape varieties. Importantly this means that Australia's export competitors are largely replicating the increase in supply coming from Australia. Thus, not only has there been a substantial increase in grape and wine production worldwide, but an increase in supplies of similar grape and wine varieties.

Despite the preponderance of similar varieties being produced in 'new world' countries, market forces can be expected to correct supply–demand imbalances over time. Growth in output from the 'new world' wine producers is expected to moderate as growers respond to lower wine grape prices and cut back the net rate of increase in plantings (new plantings less the area grubbed) of those varieties in apparent overabundance. However, the way forward may well be more complicated in the case of the European Union.

EU policies and their effects on global outcomes

The European Union has a long history of policy intervention that distorts the operation of agricultural markets, and the wine industry is no exception. Since around

box 1 **EU policy reforms**

In June 2006, the European Commission released a discussion paper, *Towards a Sustainable European Wine Sector,* to facilitate debate among growers, wine makers, retailers, exporters, importers, consumers and other stakeholders on the future of the EU wine sector.

The success of new world wine producers, particularly in taking sizable shares of traditional European wine markets as well as new and emerging markets, has focused the attention of the European wine industry on the competitiveness (and increasingly a lack of competitiveness) of EU wines in world export markets.

Another cause for concern is that Europe is being left with large quantities of surplus wine that require costly measures to manage (through disposal, storage or distillation into alcohol).

The stated objectives of the EU wine reforms are to:

- increase the competitiveness of the EU wine sector
- create a wine regime that operates through clear, simple and effective rules and
- create a wine regime that preserves the best traditions of EU wine production and reinforces the social and environmental fabric of rural areas.

Improving the competitiveness of the wine sector refers to strengthening the reputation of EU quality wine as the best in the world, recovering old markets and winning new ones in the European Union and worldwide.

While outlining four options for public debate, the European Commission has publicly supported a reform of the Wine Common Market Organisation (CMO) that has three main elements:

- reducing production through a ban on new plantings and permanent abandonment (uprooting) of vineyards
- the removal of measures such as crisis distillation, potable alcohol distillation and export refunds that provide price support and encourage over production of wine and
- a reduction in overcomplex rules associated with wine quality policy (production and labeling rules) and oenological practices.

half of the world's wine production comes from France, Italy and Spain, EU policies affecting the wine industry and the responses of its producers to those policies will be critical to future developments in the global wine market. Two key elements of current EU policy affecting wine grape production and the wine market are the subsidised restructuring of vineyards and the 'crisis distillation' program.

Wine Common Market Organisation measures for the restructuring and conversion of EU vineyards are aimed at replacing low quality vines with higher quality varieties and improving vineyard layout. Under the restructuring provisions, large areas of vines have been grubbed and replaced by new plantings, with the European Commission bearing half the cost of conversion. Between 2000-01 and 2004-05, 341 000 hectares (12 per cent of total average vine area) were restructured (USDA Foreign Agricultural Service 2004; European Commission 2005a). Most of these replantings have been in France, Spain and Italy, with red wine varieties being predominant.

The bulk of Spanish replantings have involved replacement of high yielding low quality varieties with tempranillo, Spain's classic red grape, and other high quality varieties such as cabernet sauvignon (USDA Foreign Agricultural Service 2004). Almost all of the vineyards replanted to date are either bearing now or will be bearing at some time in the next three to five years.

The 'crisis distillation' program involves the conversion of surplus EU wine into alcohol that can be used, for example, in blending with gasoline in motor vehicle fuels. The program is designed to provide an outlet for surplus wine, to create an effective floor price for wine grapes, and to raise the average returns to producers – thus keeping greater numbers of marginally profitable growers in business.

EU wine policies are currently under review in the European Commission, with a range of options for reform having been advanced (see box 1). The proposals encompass options such as vine grubbing (removal), the cessation of 'crisis distillation' and a ban on new plantings.

The European Commission's assessment of the immediate market impacts of the proposed reforms if implemented is for short term further increases in domestic supply and more downward pressure on prices. The removal of 'crisis distillation' (and other such direct supply measures) has potential to increase wine supplies and stocks on the world market, but these direct supply impacts could be reduced by the proposed measures (such as the ban on new plantings and vine grubbing schemes) to reduce production.

The Commission has indicated that it expects to formulate a final proposal for consideration by the European Council in the second half of 2007. Assuming a Council decision in late 2007, implementation of the wine reforms could be expected to commence in mid to late 2008.

longer term effects of proposed EU policies critical to others

Probably of greatest longer term importance to Australian wine makers (and wine grape growers) of EU policy reform is the potential effect on the competitiveness of the EU wine sector in world export markets. The EU Commission has argued that the EU wine industry has been 'hamstrung by overcomplex rules and confusing labeling' (European Commission 2006, p. 1).

Simplifying rules relating to quality, labeling and wine making practices, for example, has the potential to significantly improve the flexibility and effectiveness with which EU producers can compete with other suppliers (such as Australia) both within the European Union and in other world markets.

At this early stage in the policy discussion process, however, it is unclear how significant an effect such changes might have on markets. Although there is potential for improved EU competitiveness if the Commission's favored proposal is fully adopted, the extent to which the EU wine industry is able to respond to the opportunities in a less regulated market would remain to be seen.

4

implications for Australia

An excess supply of wine relative to demand, as reflected in relatively high stocks of wine in Australia and elsewhere, and manifested in declining returns to producers, is an issue of concern for Australian grape growers. An understanding of the Australian industry's place in this market environment can be gained by examining performance in several key export markets, the nature of the stock overhang, and possible trends in Australian wine grape and wine output.

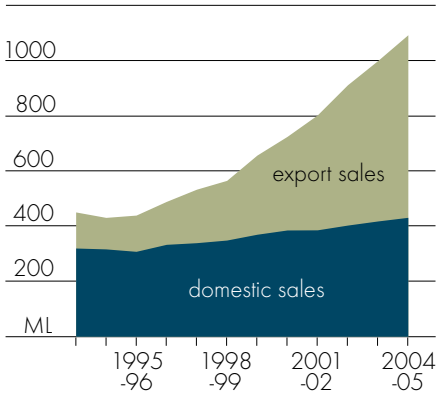
exports critical to industry future

At the same time as production has been expanding, the Australian wine industry has become heavily reliant on overseas markets for wine sales (figure F). In 1993-94, annual Australian wine exports were 131 000 litres; by 2004-05 this had grown to 661 000 litres. Export volumes surpassed domestic sales for the first time in 2000-01, and currently represent a little over 60 per cent of Australian wine sales.

Despite the Australian industry's success in expanding its exports of wine, it remains a relatively small producer on the world market and a price taker in export markets. In 2004, Australia accounted for 5 per cent of global wine production and 8 per cent of global exports. Among the other 'new world' exporters, Chile accounted for 6 per cent of the international trade, the United States 5 per cent and South Africa 4 per cent.

The combined effects of increasing supply and competition from other wine exporting countries mean that maintaining a strong presence in the international market is of immense importance to the continuing viability of the Australian industry. With little growth likely in the domestic market, the vast majority of future increases in Australian wine production will need to be marketed internationally.

fig F **market destination of Australian wine**

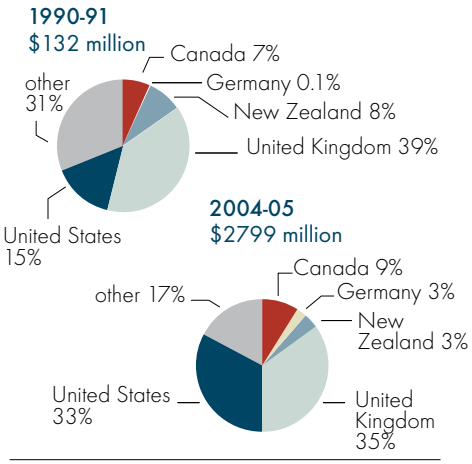


export performance in key markets

Australian wine export growth has been concentrated in a small number of key markets, particularly the United Kingdom and the United States, which have been central to the strong growth in shipments over the past decade (figure G). But prices achieved in these and most other markets, as reflected in export unit values, have been falling.

To a significant extent, the lower prices reflect the efforts of other 'new world' producers such as the United States, Chile and Argentina in stepping up their exports into much the same markets and segments of the market as Australia. To remain successful in such an environment the Australian industry will need to be able to meet the competition through continued innovation, product targeting, improving quality and, perhaps most importantly, through reducing costs.

fig G **destination of Australian wine exports** in 2004-5 A$



United Kingdom

In 2005, Australia was the leading supplier of wine to the United Kingdom, accounting for 20 per cent of all imports by volume. Other major suppliers were France (19 per cent), Italy (17 per cent), South Africa and the United States (8 per cent each), Spain (7 per cent) and Chile (6 per cent).

A large proportion of the increase in Australian wine exports to the United Kingdom has occurred in the popular premium market (under A$5 a litre, fob). In 2000-01, Australia exported 117 million litres of wine to the United Kingdom in this market segment. In the four years to 2004-05, this trade almost doubled, increasing to 223 million litres a year.

In the higher price bracket (wine priced at A$5 a litre or more, fob) the volume of Australian wine exports to the United Kingdom has been relatively steady, fluctuating in the range 41–58 million litres a year.

United States

The US market has long been considered a premium market for wine. In 2005, the average unit value of wines imported into the United States (from all sources) was almost twice that of wines imported into the United Kingdom.

As with the UK market, Australian exports to the United States have increased significantly over the past decade, and particularly since 1997. In 2005, Italy supplied 30 per cent of US wine imports by volume, followed by Australia with 28 per cent, France 14 per cent, Chile 8 per cent and Spain 5 per cent.

Australian exporters have captured a larger share of the popular premium market (under A$5 a litre) over the past three to four years. The volume of Australian wine exported to the United States in this price category increased from 22 million litres in 2000-01 to 135 million litres in 2004-05. In contrast, the volume of wine exported in the A$5 a litre and above price range increased only from 46 million litres to 51 million litres over the same period.

A looming issue for Australian wine makers is whether price premiums for Australian product will continue to be achieved in the US market. A sharp reduction in the unit value of Australian wine exports to the United States since early in the present decade means there has to be some doubt about the extent and longevity of any premiums.

Despite the uncertainties, recent experience suggests that Australian wine grape producers and winemakers are adept at increasing production to meet a particular demand. For example, since the early 1990s the demand for low cost wines that appeal to the palates of US and UK consumers has driven expansion in the production of grapes, particularly cabernet sauvignon and chardonnay, in Australia's warm climate regions. In the future, as export markets develop and potentially change, particularly the US market, and as new markets around the world emerge, there is no reason to think Australian producers cannot respond in a similar manner, given sufficient time.

Australian supply

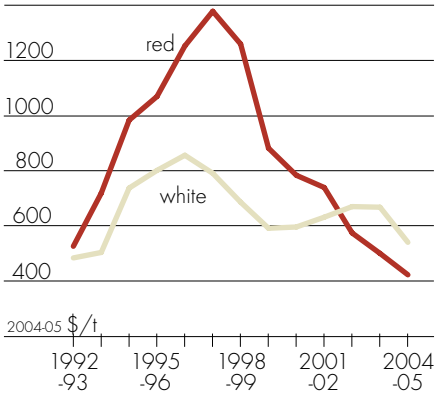
Significant factors that have contributed to the current supply situation in Australia include industry responses to record grape prices in the past, the existence for a time of tax incentives for new investment in wine grape growing, and relatively high vine yields in recent years.

growers' responsiveness to price signals

The very attractive prices that prevailed in the mid to late 1990s (figure H), especially for red wine grape varieties, provided a major impetus for the expansion in areas planted. The high prices reflected strong overseas demand in the mid-1990s and the effect of a declining Australian exchange rate in the latter part of the 1990s and early years of the present decade that helped keep returns from exports higher than they might otherwise have been.

Prices for wine grapes in Australia have declined substantially in recent years and seem likely to remain relatively low for some time. The current low prices for wine grapes reflect the global stock overhang, most notably in the European Union, and increased international competition in Australia's key wine export markets.

fig H **wine grape prices in Australia**



Australian red wine grape prices fell by 70 per cent between their peak in 1997-98 and 2004-05. After netting out the effects of inflation, prices received for red wine grapes in real terms in 2004-05 were less than a third their level in 1997-98. Prices of white wine grapes also declined, although the fall was neither as dramatic nor as relentless as for red grapes, as prices for white wine grapes recovered temporarily in 2001-02 and 2002-03.

Apart from the overall decline in prices received by Australian wine grape producers, there are also significant price differences between regions within Australia (see box 2). These regional differences have exacerbated the effects on some growers of the broader decline in prices. The differences typically relate to the types and quality of grapes being grown, changing demand for these and different production cost structures between regions.

Future market requirements, as reflected in wineries' preferred intakes of wine grapes, are likely to be highly specific in terms of flavor, style and price. That could mean, for example, prices of high quality, cool climate, premium variety grapes destined for higher value regional wines may be greater than for other grapes in plentiful supply that are grown in the same area.

box 2 **cool and warm climate producing regions in Australia**

The Australian Bureau of Statistics identifies the warm climate grape growing regions in Australia as the Big Rivers region in New South Wales, North West Victoria and Lower Murray in South Australia. Grapes from warm climate regions are increasingly being used in the production of red wine, particularly popular premium wines destined for export.

Vineyard gate prices for warm climate grapes are typically lower than for cool climate grapes (AWBC 2006). This may be attributed in part to lower wine grape quality associated with higher grape yields and hence lower costs of production in the warm climate regions. In 2004-05, yields across the warm climate regions ranged from 18 to 21 tonnes per hectare, whereas yields achieved across the cool climate regions (all other regions) were typically around half this or lower.

A large part of the increase in Australian exports to Australia's major export markets has been for wines with a style based on grapes produced predominately in the warmer regions. The growth in this segment of the market has increased demand for warm climate and lower priced grapes.

Despite growing export market demand for lower cost wines and wines with particular characteristics, and more grapes from warm climate regions being used in the production of Australian red wines to meet this demand, a large amount of the recent growth in grape production in Australia has been located in cool climate regions. Between 2000 and 2005, the largest production growth was in cool climate red grapes.

This expansion occurred at the same time as Australian exports were increasing, particularly to the United States. Feedback from industry indicates that the expansion in exports to the US market has been in the lower-mid price range wines rather than at the premium end of the market. This trend in sales is likely to continue.

The increase in wine grape production from the cool regions, combined with low growth in demand for high value wine, has provided increased opportunities to blend wine grapes from both cool and warm climate regions. The blending of wines from both regions improves the quality of the warm climate wines while continuing to allow them to be marketed in the mid to lower retail price brackets. However, the increase in availability of cool climate grapes for blending increases the supply in this segment of the wine grape market and places downward pressure on prices of wine grapes from both cool and warm regions.

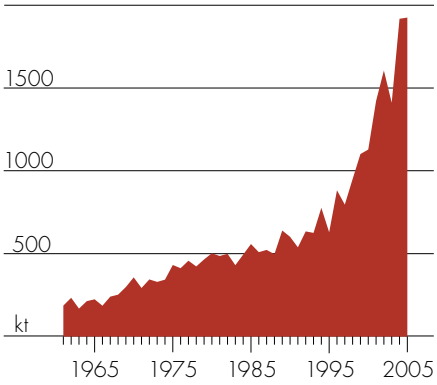
Without significant growth in demand for higher quality wines the pressure to use wine grapes from both cool and warm regions in the lower priced expanding segment of the market will remain.

tax incentives encouraged expansion

In 1993, the Australian Government introduced a relatively narrowly defined program of accelerated depreciation that allowed grapevine establishment costs to be depreciated over a four year period. This was to both offset an increase in wholesale sales tax on wine and to enable the wine industry to increase supply to meet growing export demand.

Grapevine establishment costs (costs associated with preparing land and planting) constitute approximately 15 per cent of vineyard establishment costs and are generally incurred in the year of planting. Accelerated depreciation enabled growers to claim tax deductions for nonbearing grapevines and would have encouraged investment to increase production.

fig 1 **production of wine grapes in Australia**



However, the limited amount of tax deductibility associated with the program means it is likely to have contributed in only a small way to the major expansion in wine grape production from the mid-1990s (figure 1). In response to requests from the wine industry, the Australian Government terminated the accelerated depreciation provisions as part of the 2004 Budget.

stocks overhang

Both international and Australian stocks of wine have been accumulating over much of the past decade. In 2002, wine stocks held by Australia, Chile, France, Italy, South Africa, Spain and the United States were equivalent to around 0.86 years of production (table 5). In 2005, stocks are estimated to have increased to approximately 1.02 years of production.

Although global stocks have risen, there is a wide disparity in stockholdings between major world wine suppliers. The majority of the total increase held by the above six producers was in France. Wine stocks in France increased by more than 70 per cent in the three years to 2005, to the equivalent of around 1.32 years of production. Much of the growth in French stocks occurred in 2003 and 2004, years in which 'crisis distillation' measures were not used.

Australian stocks are high

As Australian production of wine has risen, so have inventories – partly reflecting the need to carry more stock as sales have expanded. As a proportion of annual production, Australian stocks are higher than in any other major exporting country. At a ratio of 1.44 times annual production, Australia's stocks in 2005 were more than 3.5 times greater than in South Africa and more than 2 times greater than in Italy. These differences are likely in part to be a reflection of differences between these countries in wine styles and the different maturation times needed from production to sale.

Inventories of wine held by Australian wine makers as of 30 June 2005 stood at 2063 million litres (table 5). With estimated wine grape production of about 1.9 million tonnes in 2005-06, domestic wine sales of approximately 485 million litres and exports of around 750 million litres in prospect, wine inventories may have risen to around 2200 million litres by June 2006. Although Australian stocks are regarded by industry as being unacceptably high, there is some debate about their actual magnitude (see box 3).

When considered in the context of the wine market, Australian stocks were estimated to have been between 1.9 and 2.3 years of sales in 2005 (table 6). Both figures are significantly above the industry's preferred level of around 1.5 years of sales, and have the potential to depress wine grape prices for a number of years.

table 5 **wine stocks, selected countries**

	2002		2005	
	ML	years **a**	ML	years **a**
Australia	1 570	1.34	2 063	1.44
Chile	600	0.87	750	0.94
France	4 225	0.81	7 247	1.32
Italy	3 284	0.74	3 420	0.7
South Africa	337	0.35	344	0.38
Spain	3 220	0.89	3 435	1.03
United States	2 730	1.13	3 048	1.01
total	15 966	0.86	20 307	1.02

a Years of production equivalent.
Sources: ABS (2006); US Department of the Treasury Alcohol and Tobacco Tax and Trade Bureau (various); US Department of Agriculture Attaché reports (various).

box 3 **Australian wine stocks**

In discussions with representatives of the Australian wine industry, it has been suggested that the preferred stock holding is between 1.5 and 1.6 years of sales for red wines and between 1.2 and 1.3 years of sales for white wines. This reflects the standard industry practice of cellaring wines for between 15–18 months.

The Australian Bureau of Statistics (ABS) has estimated that Australian wine stocks at the end of June 2005 were approximately 1.87 years of sales (equivalent to 1.44 years of production), well in excess of the 'preferred' range suggested by industry. However, this figure may be an underestimate, as industry estimates are that wine stocks are currently closer to 2.3 years of sales.

As well as being substantially above industry's apparent preferred holdings of stocks, the estimated stock to sales ratio for Australia is significantly greater than the stock to sales ratios of Australia's major export competitors. This may be an issue in itself as Australian wine producers may need to focus on stock holdings to ensure they are not unnecessarily incurring costs in the highly competitive world wine market that could put them at a disadvantage relative to other major exporters.

The Australian wine stocks to sales ratio has risen considerably in the twelve years since 1994. The average of this ratio for the five years to 1998 was 1.6, rising to an average of 1.9 for the seven years to 2005. However, during the past ten to fifteen years, developments in wine making and the changing profile of wine exports have combined to reduce the average length of time wines, particularly red wines, are aged prior to release for sale. These developments mean the industry's preferred stock to sales ratio has been decreasing at the same time as the stock to sales ratio has been increasing.

table 6 **Australian wine stocks**
years of sales

	2001	2002	2003	2004	2005
ABS	1.91	1.95	1.72	1.85	1.87
wine industry	2.05	2.26	2.04	2.24	2.28

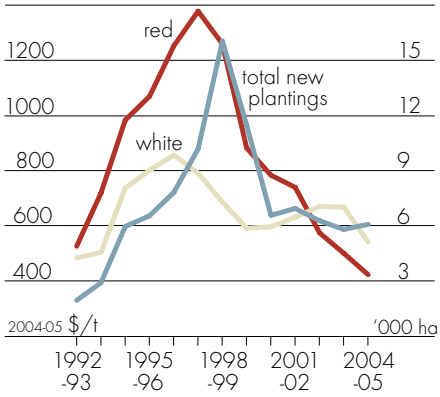
Source: ABS (2006).

projections of Australian production and stocks

Contributing to the current supply–demand concerns in the Australian industry have been the very large harvests of recent years. Harvests of around 1.9 million tonnes were recorded in 2004, 2005 and 2006. These large harvests can, in part, be attributed to grapevines planted in the early 2000s that are now full bearing, as well as to good yields reflecting favorable growing conditions.

However, wine grape growers are beginning to adjust supply in response to the falling prices of recent years. As prices have fallen, so has the rate of planting and hence growth in the area of bearing grapes in Australia (figure J). From 2001 to 2005, wine grape bearing area increased at an average of only around 5 per cent a year, compared with around 13 per cent in each of the previous six years.

fig J **weighted indicator prices and new plantings in Australia**



In response to the same price pressures that have constrained wine grape planting in the past few years, there has been an increase in grubbings. Total grubbings in 2004-05 were 4270 hectares, up 18 per cent on the 2003-04 area grubbed. Relative to total planted area, grubbings were particularly high for cabernet sauvignon.

The future directions of Australian wine grape production will depend very much on grower expectations about the returns from wine grape production, market conditions and seasonal factors and their responses to those. Although it is beyond the scope of this report to map out future production trends, ABARE's most recent projections of wine grape production to 2007-08 (Gordon 2006) can be used as a base for considering some possible production scenarios and the potential implications for Australian stocks of wine.

possible production and stocks scenarios

ABARE's projections of wine grape production are based on the area of vines currently bearing plus new plantings that are expected to reach full bearing over

the projection period. In projecting wine grape production it is assumed that there will be average yields and minimal grubbings. As it takes a number of years for grape vines to reach full bearing, production is not projected beyond three years since any growth in output beyond that time will be significantly dependent on vines not yet planted.

A number of possible wine grape production scenarios and their potential implications for the ratio of Australian wine stocks to sales are presented in table 7. In producing these scenarios, it is assumed that growers make no significant changes to inputs affecting yields (such as water and fertiliser) in response to the relatively low grape prices currently being experienced. It is also assumed that no new plantings occur after 2005-06.

The current ABARE projections of wine grape production (Gordon 2006) are based on an assumption of average yields and no increase in grubbings in response to declining prices. Under the baseline scenario, in which trend rates of growth in domestic and export sales of wine are assumed to be maintained and grower inputs are unchanged, the wine stocks to sales ratio is estimated to remain above the industry's preferred stocks to sales ratio of around 1.5 until 2009-10.

Given that yields vary from year to year as a result of differences in growing conditions, it is relevant to also examine the situation if yields are below or above their longer term average. If it is assumed that yields are only 90 per cent of average over successive years, the Australian wine stocks to sales ratio is estimated to fall from 1.87 in 2005-06 to 1.5 in 2007-08. An alternative scenario tested was one where low yields were experienced in only one year (2006-07) and average yields assumed for the following years. In this case, the stock to sales ratio is estimated to decline to 1.48 in 2008-09.

table 7 **stocks to sales ratio under alternative production scenarios**

	2005-06 p	2006-07 s	2007-08 s	2008-09 s	2009-10 s
baseline average yields	1.87	1.79	1.70	1.58	1.40
all low yields **a**	1.87	1.68	1.50	1.29	1.05
all high yields **a**	1.87	1.89	1.90	1.86	1.76
one low then average yields **b**	1.87	1.68	1.60	1.48	1.32
one high then average yields **b**	1.87	1.89	1.80	1.67	1.49

a Low yields are 90 per cent of their longer term average; high yields are 110 per cent of average. **b** Low (high) yield applied to 2006-07 only. **p** Preliminary. **s** Estimate.

There is also a possibility that yields will be higher than average. If the next vintage were to have above average yields (say, 10 per cent above average because of favorable seasonal conditions) and yields then return to average, the stocks to sales ratio is estimated to increase from 1.87 to 1.89, before declining to 1.49 in 2009-10. In considering this scenario, however, low rainfall and low irrigation water availability in south eastern Australia make above average yields unlikely for 2006-07. In the unlikely event that growers experience successive years of high yields, the stocks to sales ratio is estimated to remain above the industry preferred level of 1.5 until beyond 2009-10.

If low prices persist, it is also possible that growers and wine makers would take some action to reduce the volume of wine produced in future vintages. For example, industry contacts have suggested that a significant volume of grapes was 'left on the vine' during the 2005-06 harvest. The Winemakers Federation of Australia (WFA 2006), for example, estimates that the 2005-06 crush was 1.846 million tonnes, around 75 000 tonnes less than that indicated in the ABARE supply projections (Gordon 2006). However, even if the lower 2005-06 production figure were used, it would take two successive years of low yields for the stocks to sales ratio to fall to around the industry preferred ratio by 2007-08. Testing the other scenarios with the lower harvest figure for 2005-06, shows there is no substantial shortening of the time needed to reduce stocks to preferred levels.

Based on the assessment outlined above, the stocks overhang, as measured by the stocks to sales ratio, could be expected to continue until around 2009-10, although one season of poor growing conditions would lead to stocks being run down more quickly. In the absence of any specific grower response to reduce output, low yields as a result of poor seasonal conditions in the next two vintages have the potential to result in the stocks overhang being reduced to a level preferred by industry by 2007-08. The low rainfall and low irrigation water availability currently being experienced in Australia's main grape growing areas may reduce yields for the next two vintages, but the magnitude of such a reduction is unclear.

While low water availability may reduce harvest volumes, it is also likely that a substantial reduction in the grape crush will come about as a result of growers and wineries responding to the price signals coming from the market. That is, from a combination of growers cutting inputs to production, leaving more fruit on vines at harvest, and wineries cutting back intake in excess of their requirements. Such an outcome is likely to result in a more economically efficient stocks outcome for the industry than any attempts to 'manage' the market through regulatory intervention.

5

financial performance of wine grape growers

With financial support from the industry, ABARE undertakes regular surveys of grape growers in selected regions in order to develop a better understanding of the physical and financial characteristics of the Australian wine grape industry. Reports derived from these surveys provide insights into the issues facing growers and can help provide strategic direction for increased competitiveness.

Wine grape producing regions surveyed in the past three years include Mudgee, Clare, Victorian Murray Valley, South Australian Riverland, McLaren Vale and the Riverina. The surveys of the latter two regions, covering the 2003-04 and 2004-05 financial years, provide the most recent detailed snapshot of the economic situation for wine grape growers.

McLaren Vale and Riverina regions

The McLaren Vale region is situated just south of Adelaide in South Australia and is considered to be a 'cool climate' wine region. The region has a reputation for producing premium and superpremium quality wines, particularly shiraz and chardonnay. McLaren Vale accounts for around 7 per cent of South Australia's total wine grape production and about 3 per cent of Australian output.

The Riverina region is located in southern New South Wales, with most of the production coming from around the towns of Griffith and Leeton in the Murrumbidgee Irrigation Area. The Riverina is a 'warm climate' wine region, producing largely for the popular-premium and premium segments of the market. The Riverina region accounts for about 60 per cent of total New South Wales' wine grape output and around 13 per cent of total Australian production.

Results from the McLaren Vale and Riverina surveys (tables 8, 9) provide a broad indication of the economic situation of wine grape growers in the major producing regions. Vineyards in the Riverina are substantially larger, on average, than those in the McLaren Vale region, and achieve higher yields. However, for the region as a whole, average farm cash incomes (cash receipts less cash costs) in 2004-05 were below those of McLaren Vale growers. This outcome is a reflection of the

much lower average prices received by growers in the Riverina, at around a third those paid to McLaren Vale producers.

The average area planted to vines in the McLaren Vale region was 19.5 hectares in 2004-05, yielding just over 10 tonnes per hectare. This compares with an average vine area of about 31 hectares in the Riverina and a yield of 16.4 tonnes per hectare. In 2004-05, the average farm gate price of $1300 a tonne received by

table 8 **key characteristics of wine grape growing farms – McLaren Vale region** average per farm

		all farms		top 25% a	
		2003-04	2004-05	2003-04	2004-05
number of farms		286	286	82	81
physical indicators					
area of vines	ha	19.5	19.5	34.7	34.7
area of nonbearing vines	ha	0.4	0.4	0	0
yield	t/ha	10.5	10.2	11.3	11.5
quantity produced	t	201	195	391	400
contracted to a winery					
– 2005 harvest	%	na	77.6	na	83.5
– 2006 harvest	%	na	73.0	na	78.6
farm gate price – all wine grapes	$/t	1 238	1 303	1 342	1 274
financial indicators					
wine grapes receipts	$'000	247.7	252.0	523.0	502.6
total cash receipts	$'000	251.4	254.1	528.3	503.4
total cash costs	$'000	160.8	151.0	284.4	260.4
farm cash income	$'000	90.6	103.2	243.9	242.9
farm business profit	$'000	53.1	64.6	200.0	200.3
total value of capital at 30 June	$m	2.5	2.4	3.6	3.6
rate of return					
– excl. capital appreciation	%	3.1	3.4	6.8	6.4
– incl. capital appreciation	%	3.1	3.3	6.8	6.3
total farm debt b	$'000	122.0	136.9	271.7	267.3
equity ratio b	%	91	90	85	86
off-farm income	$'000	17.4	16.2	20.1	21.5

a Based on the two year (2003-04 and 2004-05) average rate of return (excluding capital appreciation). **b** Only includes farms that provided information on debt. **na** Not available.
Source: Oliver, Hooper, Gordon and Galeano (2006).

growers in McLaren Vale was more than three times that in the Riverina region ($426 per tonne), reflecting the higher quality grapes produced in the McLaren Vale.

Growers in the Riverina have had some protection from the effects of lower wine grape prices through diversification, receiving additional income from off-farm contracting and sales of citrus and wheat. In the McLaren Vale region, close to

table 9 **key characteristics of wine grape growing farms – Riverina region**
average per farm

		all farms		top 25% a	
		2003-04	2004-05	2003-04	2004-05
number of farms		391	405	103	105
physical indicators					
area of vines	ha	31.5	31.1	68.3	66.5
area of nonbearing vines	ha	1.4	1.1	2.0	2.5
yield	t/ha	16.3	16.4	16.4	17.0
quantity produced	t	491	493	1 090	1 089
contracted to a winery					
– 2005 harvest	%	na	66.3	na	95.4
– 2006 harvest	%	na	67.7	na	90.4
farm gate price – all wine grapes	$/t	432	426	442	423
financial indicators					
wine grapes receipts	$'000	212.0	206.6	482.4	460.7
total cash receipts	$'000	250.7	243.3	580.1	564.7
total cash costs	$'000	160.9	164.1	283.0	277.5
farm cash income	$'000	89.8	79.2	297.1	287.2
farm business profit	$'000	39.6	29.2	226.6	216.6
total value of capital at 30 June	$m	1.9	1.9	3.6	3.6
rate of return					
– excl. capital appreciation	%	3.2	2.4	7.4	7.0
– incl. capital appreciation	%	4.9	3.8	10.4	8.1
total farm debt b	$'000	389.6	393.7	459.1	466.6
equity ratio b	%	86	86	87	86
off-farm income	$'000	27.6	27.5	32.3	31.2

a Based on the two year (2003-04 and 2004-05) average rate of return (excluding capital appreciation). **b** Only includes farms that provided information on debt. **na** Not available.
Source: Oliver, Hooper, Gordon and Galeano (2006).

100 per cent of farm cash receipts were from wine grape sales, compared with 85 per cent in the Riverina.

While the average size of farms in the Riverina is larger than those in McLaren Vale the size of debt being serviced by Riverina farms is also larger. On average, in 2004-05, wine grape farms in the Riverina had a total farm debt of $394 000 with an average equity ratio of 86 per cent. This compares with average farm debt in McLaren Vale of $137 000 and equity of 90 per cent.

Off-farm income is important to the earnings of families engaged in growing wine grapes. Average off-farm income per farm in McLaren Vale was around $16 200 in 2004-05, while in the Riverina it was significantly higher at $27 500 per farm.

top performing farms well ahead

The top performing farms in each region significantly outperformed their respective region averages on key financial performance measures. In absolute dollar terms, top performing farms achieved significantly larger cash surpluses and business profits, primarily because of their much larger vine areas and therefore higher total production. In contrast to the averages across all farms, the best performing farms in the Riverina region outperformed those in the McLaren Vale region in terms of farm cash incomes and farm business profits in both years surveyed.

The higher performance achieved by the top 25 per cent of growers compared with the average for each region highlights the importance of size in enabling producers to cope with declining prices for wine grapes. The top 25 per cent of vineyards surveyed in each region had considerably larger areas under vines than the average size (78 per cent larger in McLaren Vale and 114 per cent larger in the Riverina). Excluding capital appreciation, in 2004-05 these farms were able to achieve a rate of return of 6.4 per cent in McLaren Vale and 7.0 per cent in the Riverina. This compares with average rates of return of 3.4 per cent and 2.4 per cent across all farms in their respective regions.

The best performing farms in both regions also had a greater proportion of their output contracted to wineries. The difference was greatest in the Riverina where over 90 per cent was contracted in 2003-04 and 2004-05, compared with an average of two-thirds across all farms in that region. As with other performance measures, the higher performing farm businesses also earned more off-farm income.

size is important

As with the ABARE survey results for McLaren Vale and the Riverina, the economic performance of small farms in other wine producing regions is likely to be poor relative to larger farm businesses. Of the 1300 vineyards in the Riverland region of South Australia in 2004-05, around 60 per cent were of less than 10 hectares in size (PIRSA 2005). The average size of vineyard in this group was 5 hectares. Only 4 per cent of vineyards in the Riverland region had in excess of 50 hectares.

Growers in the Riverland with 10 hectares or less had much higher production costs per tonne of output than the largest farms. Total operating costs in 2004-05 were estimated to be $533 a tonne of wine grapes produced, around double the costs of the larger farms (PIRSA 2005). Production costs for the small farms in 2005 were around $80 a tonne higher than the estimated average price received per tonne. Clearly, an inability to cover direct operating costs on an ongoing basis means such businesses are unlikely to be economically viable in the longer term.

contributions to better performance

The results from ABARE's McLaren Vale and Riverina surveys make it clear that larger wine grape growing operations are associated with higher farm cash incomes, business profits and returns on investment. Some pointers as to what contributes to this superior performance can be gained by examining the survey results using a common base for comparison.

On a per hectare basis, the top performing farms achieved above average results on most criteria, although the relative differences were not necessarily large. In the Riverina region, the top group of farms outperformed the average largely through achieving lower costs per hectare of wine grapes grown, whereas in McLaren Vale the top group's better performance was achieved mainly through higher gross income per hectare (tables 10, 11).

In terms of production costs, part of the difference between the top 25 per cent of farms and the average in each region is likely to reflect the efficiencies that can be achieved in the larger vineyards as fixed costs are spread over more output.

In 2004-05, cash receipts per hectare for McLaren Vale vineyards averaged 66 per cent more than for Riverina vineyards. Higher prices for grapes produced in the McLaren Vale region more than offset the effect on incomes of yields that were lower than in the Riverina. More important, however, was the fact that revenue per hectare of vines grown on the best performing farms in both regions was signifi-

table 10 **financial performance of wine grape growing farms – McLaren Vale region** average per hectare grown

		all farms		top 25% a	
		2003-04	2004-05	2003-04	2004-05
total cash receipts	$/ha	12 859	13 001	15 229	14 489
total cash costs	$/ha	8 224	7 723	8 198	7 496
hired labor	$/ha	1 318	1 227	1 250	1 124
fertiliser	$/ha	164	139	199	171
crop and pasture chemicals	$/ha	548	551	508	565
fuel, oil and grease	$/ha	267	297	212	248
repairs and maintenance	$/ha	747	710	804	779
administration	$/ha	229	200	228	193
contracts	$/ha	2 514	2 371	2 498	2 399
rates	$/ha	373	396	388	421
interest	$/ha	798	571	989	548
farm cash income	$/ha	4 635	5 278	7 031	6 993
farm business profit	$/ha	1 439	1 756	4 961	4 952
farm debt b	$/ha	6 043	5 778	5 363	5 326

table 11 **financial performance of wine grape growing farms – Riverina region** average per hectare grown

		all farms		top 25% a	
		2003-04	2004-05	2003-04	2004-05
total cash receipts	$/ha	7 956	7 815	8 494	8 493
total cash costs	$/ha	5 107	5 270	4 144	4 174
hired labor	$/ha	530	533	422	364
fertiliser	$/ha	353	355	315	271
crop and pasture chemicals	$/ha	363	424	352	421
fuel, oil and grease	$/ha	267	315	202	271
repairs and maintenance	$/ha	603	654	551	544
administration	$/ha	285	270	262	220
contracts	$/ha	873	798	563	558
rates	$/ha	317	406	239	292
interest	$/ha	415	463	454	543
farm cash income	$/ha	2 849	2 545	4 350	4 319
farm business profit	$/ha	907	674	2 263	2 178
farm debt b	$/ha	6 400	6 927	6 206	6 482

a Based on the two year (2003-04 and 2004-05) average rate of return (excluding capital appreciation). **b** Only includes farms that provided information on debt.
Source: Oliver, Hooper, Gordon and Galeano (2006)

cantly above their respective regional averages – 11 per cent better in McLaren Vale and 9 per cent better in the Riverina.

Average total cash costs per hectare were also higher in McLaren Vale than in the Riverina. The costs of hired labor and contracted services, in particular, were significantly higher. In McLaren Vale, contracting costs accounted for 31 per cent of total cash costs per hectare in 2004-05, while in the Riverina they amounted to only 15 per cent. Labor hire amounted to 16 per cent and 10 per cent respectively of total cash costs per hectare in 2004-05. In both regions, the best performing farms spent less per hectare than the average on hired labor. In the Riverina, the top performers also spent less on fertiliser, fuel and contracted services.

current prices and grower incomes

ABARE farm survey results can be used to gain an idea of the potential effect on grower incomes of the fall in prices paid for wine grapes from the 2006 harvest. Preliminary information on prices received for the principal grape varieties in the McLaren Vale and Riverina regions is contained in table 12.

The 2006 harvest prices were combined with the survey results for 2004-05 to derive a 'notional' estimate of farm incomes in 2005-06. In making this estimate, it was assumed that, because of expectations of lower prices, growers will have managed their businesses in ways that enabled them to have largely contained production costs to around the same as in 2004-05.

Assuming no change in expenditures on inputs, average farm cash incomes in 2005-06 are estimated to have fallen by 30 per cent in both the McLaren Vale and Riverina regions to around $72 000 and $55 000 respectively. Rates of return (excluding capital appreciation)

table 12 **prices received for wine grapes**

	2004-05	2005-06 p	change
	$/t	$/t	%
McLaren Vale			
chardonnay	1 245	903	-27
sauvignon blanc	1 166	1 292	11
cabernet sauvignon	1 216	1 033	-15
merlot	975	911	-7
shiraz	1 376	1 204	-13
Riverina			
chardonnay	653	425	-35
sauvignon blanc	504	470	-7
cabernet sauvignon	402	384	-4
merlot	408	372	-9
shiraz	439	386	-12

p Preliminary.
Source: Australian Wine and Brandy Corporation (personal communication, September 2006).

are estimated to have fallen to 2.1 per cent in McLaren Vale and 1.2 per cent in the Riverina.

The distribution of incomes, especially the proportions of businesses making a positive income and those making losses, is of particular importance when considering the economic situation of wine grape growers. Although average farm cash incomes were positive in the McLaren Vale and Riverina regions in 2004-05, a closer examination of the farm survey data reveals that around 17 per cent of farms in the former region and 35 per cent in the latter made a loss. With lower wine grape prices in 2005-06, the number of farms recording a loss is estimated to rise to 21 per cent in McLaren Vale and 44 per cent in the Riverina.

opportunities for reducing costs

In situations of declining output prices, wine grape growers can be expected to pursue a range of options for reducing production costs. The farm survey data for the McLaren Vale and Riverina regions show that there may be opportunities for substantial cuts to grape growing costs. Costs amenable to reduction may include labor hire, sprays and chemicals, fertilisers and contracted operations (mainly pruning and harvesting).

The extent of the cost reductions that can be realised in these areas is likely to be at least partly dependent on the size of operation. The largest 20 per cent of growers in the Riverina (ranked by area under vines) had production costs per hectare that were around half those of the smallest 40 per cent. Contracted services were the main cost item for which larger growers had relatively smaller costs. In the McLaren Vale region, the largest 20 per cent of growers had production costs per hectare that were around three quarters of those reported by the smallest 40 per cent of growers, with contracted operations being significant areas of cost saving for the larger producers.

One expenditure item for which there may be potential for significant cost saving is that of vine pruning. The cost differential between mechanical and hand pruning is considerable. Depending on the sales objective of the grower, increasing the level of mechanical pruning may be one way of significantly reducing costs.

Additional opportunities for cost savings may be in the areas of technological advancement and new business techniques. Improved irrigation methods and soil analysis to better manage fertiliser applications and watering strategies may be one area of potential gain. Continued industry and government support of

research and development programs will be vital to achieving better outcomes in these and other areas.

While reducing costs is one avenue for a business to improve financial performance, there are also possibilities that may involve adding to costs in order to achieve a better financial result. For example, if increasing vine canopy management costs resulted in a significant improvement in the marketability and value of grapes from those vines and associated improved contract arrangements with buyers of wine grapes, then it is possible that farm profits may be improved.

6

responding to the challenges

After a decade of rapid expansion, the Australian wine industry now finds itself confronted with growing stocks of wine and relatively low prices. As is clear from the discussion in the preceding chapters, world demand for wine per person is declining, overall consumption is flat, and supplies are growing – especially in the 'new world' wine producers but also in major 'old world' producer, Spain.

With incomes of Australian wine grape growers under downward pressure, the industry will need to work hard on improving its performance at all levels in order to be economically profitable and sustainable over the longer term. Although detailed options for the industry as it develops its responses to the current situation are not canvassed here, the analysis undertaken for this report provides some clear pointers to the overall directions the industry will most likely need to pursue.

competition will continue to grow

The Australian wine industry has an impressive record of operating successfully in the domestic market and the intensely competitive international market. It has achieved this success by adapting to unrelenting change, through technical and managerial innovation, strong leadership and clear strategies for achieving growth in the industry.

Change can be expected to remain a long term constant for the wine industry. There is likely to be a range of options for the Australian wine industry in seeking to address the current situation of low returns from wine grape production. These may involve short term measures to reduce the rate of supply increase or further efforts to increase both the physical and financial performance of the industry.

short term fixes will not be effective

Attempts at supply control, other than that which comes about through the normal market price mechanism, would not be of economic benefit to the industry. Regulatory actions in Australia to reduce output will result in revenues forgone, will not increase global wine prices and, by lessening competition from Australian exporters in world markets, would represent a 'free kick' to competitors in other countries.

Although involving some adjustment pain it is clear that the most efficient solution to the current situation is to allow the market to work. That is, as producers and consumers in Australia and elsewhere respond to lower prices, by cutting output and possibly substituting more wine for other (now relatively more expensive) alcoholic beverages, supply and demand will move back toward equilibrium. That is, output will fall (or grow less rapidly) and consumption will rise sufficiently to induce a rise in prices to longer term sustainable levels.

change is inevitable

Changing tastes, largely associated with demographic trends, mean further expansion in global consumption will be limited. Although rising incomes and population in rapidly growing economies such as China and India may be regarded as offering longer term opportunities, these will not help in the near term. At the same time, competition will intensify as exports increase from low cost 'new world' producers such as Chile, South Africa and the United States.

Even with an improvement in prices over the next few years, there is no reason to expect or suggest that the industry should return to the way it was prior to the recent downturn. The industry will continue to operate in an intensely competitive environment in which it will need to adjust what it does to be able to profitably compete at the various product price points. In this respect, the Australian industry's future development, competitiveness and profitability lie very much in its own hands.

The challenge for the Australian wine industry will be to identify and embrace new market opportunities and to drive competitiveness through innovation in production and processing, enhanced efficiency, improved economies of scale, attracting greater returns through better understanding of markets and changing consumer needs, and through differentiating and developing specialised products.

To maintain and increase their exports, many of Australia's larger and medium sized wine producers will need to continue to build on their already successful engagement in international markets, including by investing in joint venture distribution operations and dedicated in-market representation. Since Australian wines will ultimately be competing on delivered product costs and quality, new investment will be required to introduce the technological changes needed to drive down costs and increase processing scale.

improved competitiveness the key to success

The wine industry will need to be globally competitive if it is to grow and prosper in the years ahead. Competitiveness means making sure that all parts of the industry are operating as efficiently as possible to keep overall production and marketing costs low in an environment in which product prices (net of inflation) can be expected to continue trending down.

The sector and its individual businesses must continue to innovate, evolve and adapt. Not to do so would mean a rapid decline in profitability and threaten the continued viability of the sector. Expectations of a continuing longer term decline in prices in real terms reflect the effects of technological change that enables more output to be produced at a given price. Global competitors with access to similar technologies and wine making expertise as the Australian wine industry will continue to lift their performance.

As wine grape growing and wine making businesses strive to boost their competitiveness, they will need to continue to deal with the vagaries of Australia's uncertain climate, sometimes volatile commodity prices, fluctuating exchange rates, and export markets distorted to some extent by the regulatory and market interventions of competitors such as the European 'old world' producers.

Because of the effects on returns of wineries and hence for wine grape growers, managing the risks associated with fluctuations in the exchange rate will be vital. Movements in the Australian dollar affect the competitiveness of Australian wines in the global market, the industry's ability to compete against imports, and the revenues flowing from export sales.

Wine grape growers and wineries will need strong productivity growth to keep up with their competitors in the global market. Australian producers will be forced to make further efficiency and productivity gains as cost–price pressures increase.

vineyard scale needs to increase

Across Australia, a fall in the number of farm businesses has been accompanied by a rise in average farm size, both in actual land used and the value of operations (Productivity Commission 2005). This trend can be expected to increasingly take hold in the wine grape industry as cost price pressures remain intense, and should not be resisted.

Vineyard businesses will vary between regions, with size not necessarily indicative of performance or profitability. Success in wine grape growing is determined by many factors, including business structure, market fluctuations, the quality of financial management and agronomic practices.

However, as the ABARE farm survey results reveal, small wine grape growing businesses are likely to find it increasingly difficult to remain economically viable as prices decline. This means that Australia's wine grape production will come increasingly from a relatively smaller number of ever larger vineyard businesses. Such changes will be essential to driving down costs at the farm level at a rate that allows producers to remain profitable over the long term.

An important part of the response to meeting the competition is likely to involve some restructuring of the industry as higher cost operators (growers and wineries) leave the industry or merge to form larger businesses. At the farm level, the better performers in the industry are typically the larger operators who are able to spread their fixed operating costs over larger output and take advantage of scale in other parts of their businesses such as management.

The dynamics of the wine market, where competition continues to grow, require the least efficient businesses to leave the industry. It is this process that allows the most efficient and forward looking businesses (wineries and vineyards) to keep up with the pace of change.

In addition, efficient producers caught with product that is no longer in high demand (such as particular grape varieties) will be affected and in the short term the volume of wine grapes produced will be reduced, bringing supply back into balance with demand.

Another aspect of wine grape growing is that off-farm income is likely to make an increasing contribution to the total income of family owned farm businesses. Multiple income streams are a useful risk management tool for farmers dealing with the vagaries of climate and markets.

alternative forms of farm business activity

As with other agricultural industries, wine grape growers are likely to be able to adopt a range of business structures that can help them to adjust to the changing market environment and also allow owners at varying stages in their lives to better pursue personal aspirations. Business structures and approaches may include:

- contract farming – where the landowners pay a fixed price for production services
- share farming – that involves sharing some nonland inputs in return for an agreed portion of the physical output
- cooperative pooling of resources and equipment and
- leasing of land and equipment – reducing the demands on farm business capital.

relationships with wineries may change

Significant proportions of growers in each region are on contract to supply wineries at specified prices. These prices may be considered high in the current price environment. If these contracts expire in the near future, the potential exists for these to be renegotiated at a lower price or left to the spot market where lower prices prevail. Under either scenario, farm incomes would be expected to fall.

Future market requirements, as reflected in wineries' preferred intakes of wine grapes, are likely to be highly specific in terms of flavor, style and price. Grapes from some vineyards in areas falling into the 'cool climate' aggregate may remain in stronger demand than others. Nevertheless, the differences between broadly defined preferences and availability indicate a marked demand to reorient grape supplies away from some cool climate supplies and toward some warm climate varieties, such as shiraz, merlot, cabernet sauvignon and riesling.

Grape growers are likely to need to increasingly hedge their exposure to market risks through a combination of fixed term supply contracts and spot market sales. An efficient and effective contract market for wine grapes would provide wine grape producers with an effective means to help manage market risks and hence support appropriate investment decisions. Although it is likely to be preferable that the spot market not be relied on entirely by producers, it may allow growers to improve their revenue in times of relative shortage for some types of grapes.

research and development vital

The development and adoption of new technologies will be crucial to maintaining wine industry profitability. Research and development – whether undertaken by individual businesses or funded through a levy on all businesses in an industry and coupled with government support – will be crucial to remaining globally competitive. As part of this process, capital investment in productivity enhancing innova-

tions will need to increase, and new wine products will emerge in response to market opportunities and changing consumer demands.

Innovation – including in processes – will be critical in responding to changing preferences and meeting competition. Continued productivity growth, driven significantly by research and development and innovation, is the most effective way to offset a continuing long term downward trend in wine grape prices.

The industry will need a workforce with the right skills and training to allow growth and improved productivity. As businesses become more sophisticated, wine grape growers and processors need skills in a range of disciplines, such as information technology, financial and risk management, and market awareness, to supplement their traditional skills. Farmers who participate in training and education are more likely to be more successful in changing their practices to improve profitability.

supply chains will evolve

Wine production will involve more direct linkages between suppliers and major retailers as the latter increasingly require a whole of supply chain approach. This will encompass more use of direct contracting and strategic partnerships with wholesalers, distributors and retailers. There may well be fewer businesses in mainstream wine grape supply and wine making, but opportunities for niche market operators will remain. The growth in niche markets catering for tastes and preferences outside the mainstream will continue to provide important opportunities for some growers and wineries.

Demand for wines will continue to evolve as consumer tastes and preferences change. To respond to market signals, many value adding activities will need to be coordinated along the supply chain, from the retail shelf back to the vineyard gate. Effective supply chains and market structures that can adapt to meet these and other changes will be important to the success of Australian wine grape growing and winery businesses. Good market information and entrepreneurial skills will be of paramount importance.

The world's wine industries, including those in Australia, are increasingly dominated by multinational manufacturers and retail chains. Companies are growing in size and reach through mergers, acquisitions and aggressive growth strategies and restructuring, to achieve greater economies of scale. In a highly competitive environment, such companies can source wines from around the world to meet quality, quantity and timeliness requirements, while seeking to reduce costs wherever possible.

The changing nature of retail practices in Australia and in major export markets is something that the wine industry will increasingly need to factor into its marketing strategies and activities. Major retailers are likely to move more toward reducing the number of different wines stocked in an attempt to increase throughput and reduce costs. Such actions may limit opportunities for small producers and exporters to access shelf space and market their wine.

vineyard prices reflect market realities

Value adding to satisfy consumer demands is becoming more important for wine grape producers, wineries, wholesalers and retailers. Retail prices include the cost of incorporating the various attributes demanded by consumers and what they are prepared to pay for those attributes in a market where there are plenty of close substitutes in the form of other wines and beverages. Farm gate prices are a reflection of the prices that can be achieved at the consumer level, less the cost of transforming, packaging, marketing and transporting the wine grape raw material from vineyards to the retail point of sale.

The highly competitive nature of the main markets for Australian wines is requiring wine makers to source increasingly large volumes of grapes within tighter quality and price dimensions. This process will continue as the cost competitiveness of the market demands that wine makers and exporters pursue cost savings wherever possible.

At the same time, the practice of using contracts to secure a large proportion of winemakers' needs seems likely to decline further as the depth of the Australian spot market increases (depth referring to both the quality and volume of grapes available across various price points). In a market with falling spot prices, wine makers can more quickly capture input cost reductions, which flow through to their export competitiveness.

The speed and extent to which growers respond to low prices will be affected by their expectations about future returns and their own particular economic circumstances. One factor slowing change in output is the high degree of 'asset fixity' in the industry. That is, once the large upfront costs of establishing or expanding a long lived investment such as a vineyard have occurred, managers are restricted in their willingness to scale back because the investment has little or no salvage value. In general, it pays to keep operating for as long as the direct costs of production (such as labor, fertiliser and harvesting) are covered by the returns on offer.

policies elsewhere will affect Australia

Policies in other countries are beyond the local industry to influence, but they will affect what happens locally. The European Union, in particular, has the potential to affect the global market. The EU wine industry appears to have been hamstrung in the past by overcomplex rules and regulations. Simplifying these may allow EU producers and exporters to significantly improve their competitiveness over the medium to longer term.

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