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# **The Australian wine tax regime**

## **Assessing industry claims**

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## Summary

There has been much debate recently about the way that wine sold in Australia should be taxed. The proposal by the Henry Tax Review to move from the current ad valorem tax to a volumetric tax, bringing wine in line with other types of alcoholic drinks, has been fiercely challenged by some in the wine industry. To back up its opposition to the change, the Wine Federation of Australia (WFA) has produced estimates of the supposed job losses and financial impacts on low-income households that would result. This paper examines the veracity of these claims and the assumptions on which they are based.

Before discussing the likely impacts of a change in how wine is taxed, it is worth highlighting some key facts about the Australian wine industry. The sector is often portrayed as a collection of small, family-owned vineyards producing award-winning wines, but these kinds of enterprises actually produce very little of the wine sold in Australia. Instead, a great deal of grape production occurs in dry inland regions using irrigation from the Murray Darling River system; these regions are also responsible for producing cheap wines, often sold in casks. Cheap wine is often associated with antisocial or excessive drinking, presumably because it is the cheapest way for consumers to obtain the greatest amount of alcoholic content. One standard drink retails for as little as \$0.36 via a cask of red wine, compared with \$1.51 for cider, \$1.75 for beer and \$2.52 for ready-to-drink beverages (RTDs).

It is commonly agreed that Australia is in the middle of a wine glut. Unfortunately much Australian wine production is uneconomic, and a good deal of the grape crop is left on the vine since it is not worth harvesting. The main reasons for the current wine glut appear to be the high value of the Australian dollar as well as increased competition in overseas markets from relatively new producers in South Africa, New Zealand, the US and Latin America.

This paper argues that these various problems – the glut of supply, the use of precious irrigation water by grape growers in the Murray Darling Basin, and the level of demand for cheap cask wine among those who do not necessarily consume alcohol responsibly – can all be traced, at least in part, to the existence of the Wine Equalisation Tax (WET).

The WFA has claimed that tax rates on Australian wine are much higher than in other comparable wine-producing countries, and has produced figures purporting to show that taxes in Australia are substantially higher. These figures were misleading, because they included the Australian GST but ignored the equivalent value-added tax in European countries used for comparison, and failed to account for the fact that many small Australian producers effectively pay zero WET. If the figures are revised to take into account these oversights then it is apparent that the Australian taxation system conforms more closely to other wine-producing countries.

The WFA has also made what appear to be exaggerated claims about potential reductions in production and employment in the event of a switch to a volumetric tax and associated increases in the price of cheap wine. While the price increase is likely to be proportionately highest for cask wine, cask wine will remain the cheapest means of obtaining a given amount of alcohol; red wine would still be cheaper by 47 per cent compared with the next cheapest type of alcoholic beverage. This implies that any reduction in cask wine consumption is likely to translate into an equivalent reduction in total alcohol consumption.

The WFA has expressed concern about the financial welfare of pensioners, who tend to consume modest amounts of cask wine. However, because pensioners spend a smaller proportion of their incomes on wine than average, any increases in the cost of wine (through a new tax or otherwise) will be reflected in the official consumer price index and, via pension indexation, will result in higher pension payments. Indeed, if price increases lead to changes in spending patterns, then the average pensioner could be financially better off.

The final claim made by the WFA relates to the impact of tax changes on jobs, asserting that sales would fall by 34 per cent and that between 5,300 and 12,000 jobs would be lost. However, these figures are based on very unrealistic assumptions about the changes in consumption that could be expected following price increases. Using figures derived from recent empirical studies, we estimate that production could fall by 5.2 per cent and that there may be a loss of 599 jobs – 95 per cent fewer than the WFA claims. These figures include both direct and indirect impacts of lower production in the wine industry itself and in the industries which supply it.



## 1 Introduction

The Australian wine industry is often portrayed as an instructive example of local producers taking on the best in the world and thriving. Through hard work and creativity, we are told, a small band of visionary Australians adapted European grape vines and winemaking techniques to suit Australian circumstances, and, having done so, are now in a position to export high-quality wines back to the rest of the world. The stories of individual winemakers, and the skill and tenacity they have shown in transforming not just their vines but the palates of wine drinkers, feature as prominently in the folk history of Australian winemaking as they do on the labels of millions of bottles of wines.

There is much talk about the quality of shiraz from the Barossa and chardonnay from the Hunter region. Yet few if any wine drinkers would be aware that the bulk of Australian wine grapes are grown in dry inland regions using irrigation from the Murray Darling river system. And while most of the discussion of the Australian wine industry centres on the world class quality of Grange Hermitage or the 'great value' to be found in the \$20-\$30 per bottle range, there is little, if any, public attention paid to the substantial amounts of cheap, low-quality cask wine available to Australian consumers.

The disparity between much of the wine that is sold in Australia and the wine that the industry prefers to talk about is stark. Describing the Australian wine industry as a collection of a small number of family vineyards producing award-winning wines disregards those other parts of the industry which produce massive amounts of cheap wine, much of it sold in casks. And with the high quantity of production comes very low prices. Indeed, while someone could buy a bottle of the latest Grange Hermitage vintage on the market for around \$400 for a 750ml bottle, the same amount could purchase more than 30 litres of Sunnyvale Fruity Lexia cask wine.

The lack of public understanding of key facts about the Australian wine industry helps explain one of the more bizarre policy dilemmas in Australia: the simultaneous existence of a wine glut due to the excess production of wine grapes in the dry inland region and a water shortage in the Murray Darling Basin. To put this into perspective, grape growers along the Murray Darling use more than 1000 litres of water to produce one litre of wine of such low quality that it retails for less than the price of bottled water on a per-litre basis.

Australia has a world-class wine industry which provides a wide range of wines to consumers across Australia and around the world, but the increasing reliance on high-volume, low-value and water-intensive wine production is the source of several problems. First, low-price cask wine is commonly associated with antisocial and excessive drinking. Second, grape growers supplying the producers of low-price cask wine use large quantities of water in regions where water is increasingly scarce. Third, the glut of low- and middle-value wine is harming the ability of producers of higher-quality wine to maintain international demand for their product.

This paper argues that these various problems - the glut of supply, the use of precious irrigation water by grape growers in the Murray Darling Basin, and the level of demand for cheap cask wine among those who do not necessarily consume alcohol responsibly - can all be traced, at least in part, to the design of the wine tax regime in Australia, and in particular to the existence of the WET. The WET creates two forms of undesirable incentives: for wine grape growers to produce large quantities of low-value grapes, and for drinkers to consume excessive quantities of low-price, high-alcohol cask wine.

The paper is structured as follows. To set the context some of the basic data and trends on Australian wine consumption and production are examined. We then describe the structure of the industry, including the number of participants (both workers and companies) and their significance from grape growing to manufacturing, distribution and retail.

After setting out basic facts about the wine industry, the paper examines the tax arrangements on alcohol in Australia, their impact on the cost of various beverages and how this compares with other countries. We then consider the likely impact of any change to the present tax arrangements, in particular the suggestion that wine should be taxed according to the alcohol content via a so-called volumetric tax.<sup>1</sup> The paper concludes by observing that the wine industry has greatly exaggerated the likely impact on production and jobs of this kind of change in how wine is taxed.<sup>2</sup>

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<sup>1</sup> The 'volumetric tax' refers to the proposal by the Henry Tax Review to tax wine according to the alcohol content. As explained below, that proposal would tax the alcohol content of wine at the same rates as applies to beer.

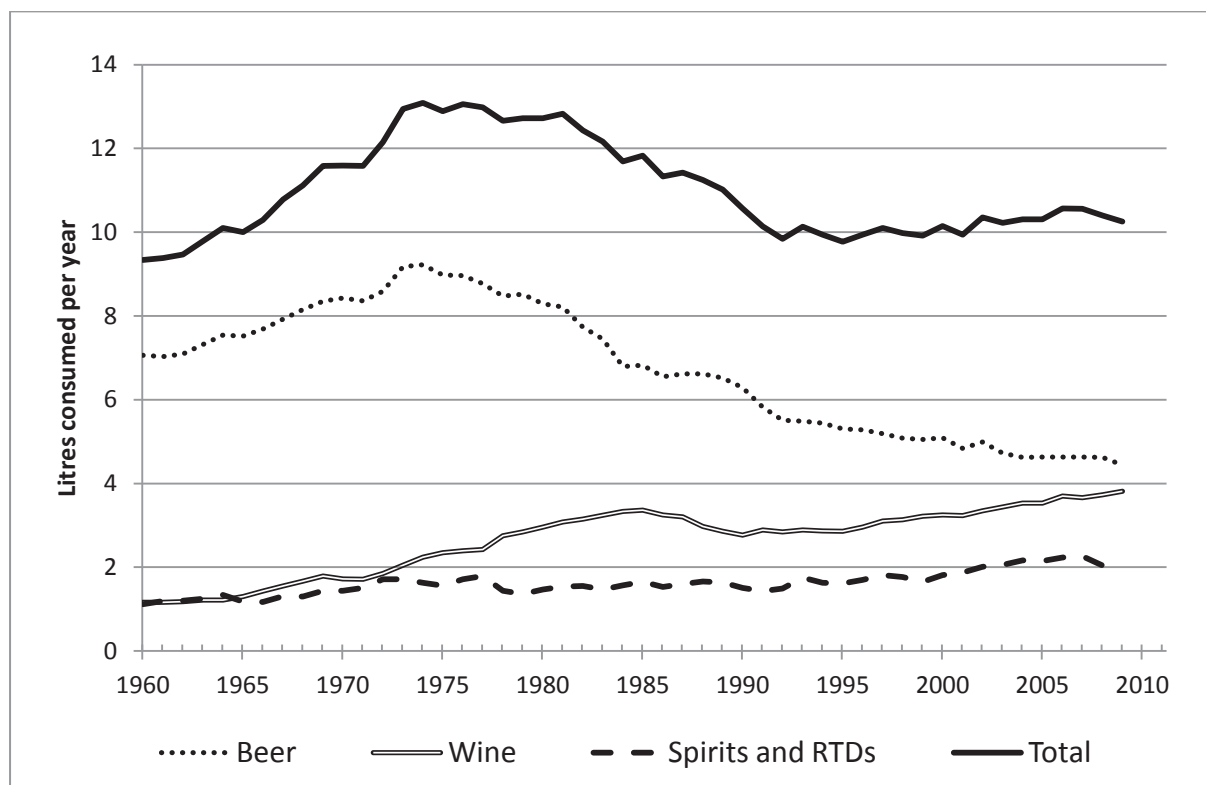
<sup>2</sup> There are several bodies which represent the wine industry, only some of which are active in lobbying on taxation and other policy matters. The industry assertions examined in this paper are mainly from the Winemakers' Federation of Australia (WFA) and Wine Grape Growers Australia (WGGA). When referring to industry claims, we do not wish to imply that all players in the wine industry, or all organisations that represent the different parts of the industry, have made such claims.

## 2 Consumption

### What do Australians drink?

Figure 1 shows the average consumption of alcohol per person aged 15 years and over. The figures are broken down into beer, wine and spirits (with the latter including RTDs).

**Figure 1: Consumption of pure alcohol, per capita by type of beverage (litres)**



Source: ABS 2011. *Apparent consumption of alcohol: Extended time series, 1944-45 to 2008-09*.

From 1960, alcohol consumption per capita increased until the mid-1970s and then moderated towards the early/mid 1990s. Since then consumption has increased marginally towards a present level of 10.4 litres of pure alcohol per annum. One standard drink is 12.5ml of pure alcohol, so the average Australian consumes 2.3 standard drinks per day. This is 21 per cent less than the 2.9 standard drinks consumed per day in 1974-75.

In 1960, beer accounted for 76 per cent of all alcohol consumed; this fell to 44 per cent by 2009. Meanwhile, consumption of wine rose from 12 per cent to 36 per cent (a threefold increase) and spirits rose from 12 per cent to 20 per cent of all alcohol consumption. While these figures are based on domestic sales, the ABS claims all these figures also 'contain an estimated component for home production'.<sup>3</sup>

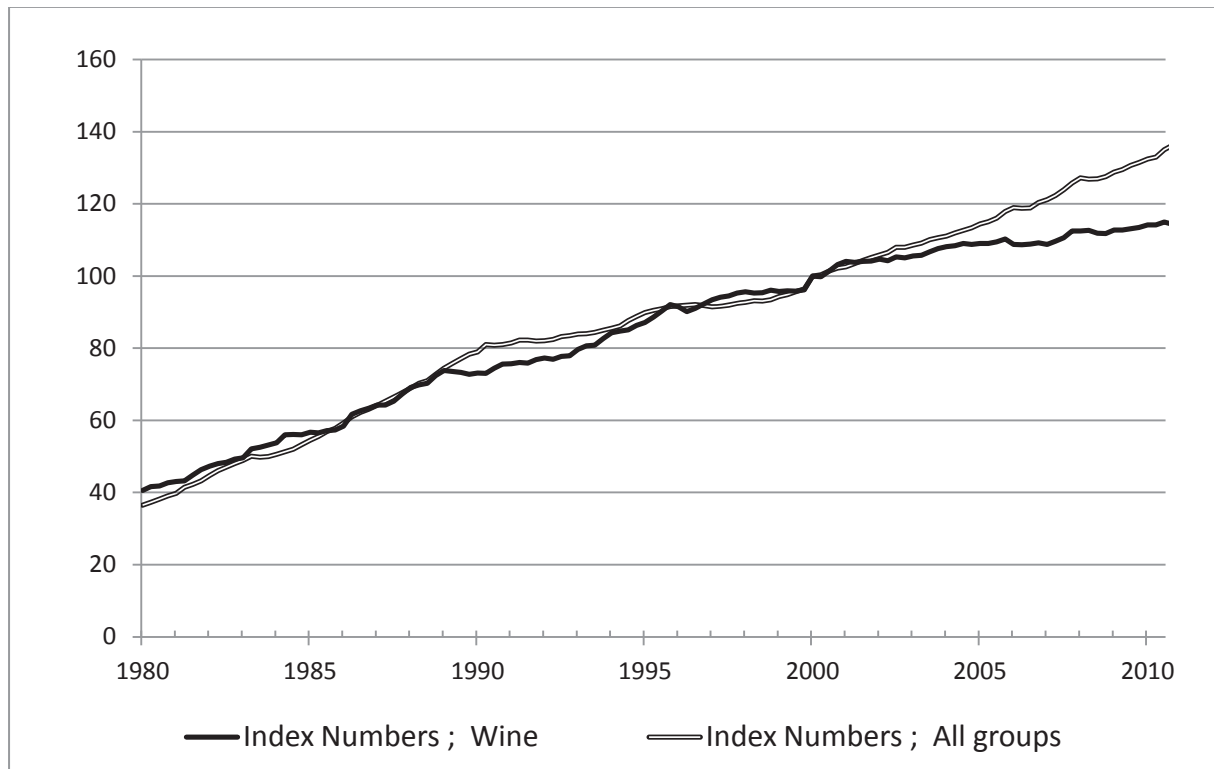
There has been a shift in preferences away from 'soft packs' (mainly casks). ABS data show that of all sales in 1997-98 of Australian table wine by winemakers (as distinct from sales through restaurants and bars), 60 per cent were casks and 38 per cent were glass sales of

<sup>3</sup> ABS 2011. *Apparent consumption of alcohol: Extended time series, 1944-45 to 2008-09*, Cat no 4307.0.55.002, 18 January.

less than 2 litres, while 2 per cent were in some other form.<sup>4</sup> By 2009-10, just 39 per cent of sales were in cask form, 52 per cent were in glass bottles and 9 per cent in another form.<sup>5</sup>

ABS consumer price data allows us to observe how wine prices have changed in Australia over the past three decades and how this compares with overall movements in consumer prices. The data in Figure 2 have been reweighted so that September quarter 2000 equals 100. This corresponds to the first quarter in which GST was collected, and also (more relevant for the purposes of this paper) the time when wholesale sales tax on wine was replaced with the WET.

**Figure 2: Wine prices and CPI compared (index: September 2000 = 100)**



Source: ABS 2011. *Consumer Price Index, Australia, Jun 2011*.

From 1980 until 2000, wine prices changed roughly in line with other consumer prices. From around 2000, however, wine prices began to lag behind other CPI items. This period corresponds to the structural changes brought on by the introduction of the WET. By June 2011, wine prices were some 16 per cent below where they would have been had previous price trends persisted beyond 2000.

<sup>4</sup> The 'other' category includes 'tankers, cans and rigid containers including glass two litres and over.' ABS 2011. *Apparent consumption of alcohol: Extended time series, 1944-45 to 2008-09*.

<sup>5</sup> ABS 2010. *Australian wine and grape industry*, Cat no 1329.0, 7 December.

## Comparing the cost of different drinks

Some consumers of alcohol are interested in drinking a high-quality product, while others seek to purchase the largest amount of alcohol at the lowest possible price. In what follows, we examine the question of how to get the most ‘value for money’ for consumers who are interested solely in the alcoholic content of the various beverages on offer.

Table 1 summarises information about the cheapest specials available on Woolworths’s home shopping internet site on 19 August 2011.<sup>6</sup> Each product listed is the cheapest available per unit for each category of alcoholic drink. Information about alcoholic content has been taken from the website of Dan Murphy’s.<sup>7</sup>

**Table 1: Cost of alcohol by type of beverage**

Products	Litres	Price	Alcohol content	Price per standard drink (\$)
Sail and Anchor Cast Away Cider 6x330 ml	1.98	\$11.99	5.0%	\$1.51
Sonata Estate Shiraz Cabernet Cask 4lt	4.00	\$15.51	13.5%	\$0.36
Sunnyvale Fruity Lexia Cask 4L	4.00	\$12.93	9.5%	\$0.43
Smirnoff Ice Double Black Cans 4x375ml	1.50	\$19.67	6.5%	\$2.52
Carlton Draught bottle 3x750ml	2.25	\$14.47	4.6%	\$1.75

Sources: Dan Murphy’s 2011.; Woolworths 2011.

These figures provide a dramatic illustration of how cheap it is to buy alcohol in the form of cask wine. A standard drink costs less than 40 cents via cheap red wine and 43 cents for white wine. The same quantity of alcohol costs around three times as much if consumed as cider or beer and around seven times as much through a ready-to-drink spirit beverage.

<sup>6</sup> Woolworths 2011. Woolworths home shop website. <<https://www.homeshop.com.au/website/index.jsp>> accessed 19 August 2011.

<sup>7</sup> Dan Murphy’s 2011. *Buy Wine, Champagne, Beer & Spirits Online | Dan Murphy’s* <<http://danmurphys.com.au/>> accessed 19 August.

### 3 Facts about the wine industry

#### Wine production

The Australian wine and grape industry is the subject of an annual census of grape and wine production.<sup>8</sup> In 2009-10 grape-bearing vines covered an area of 152,000 hectares, producing an average yield of 10.1 tonnes per hectare. In that year, 1.6 million tonnes of grape were crushed, producing 1.14 billion litres of wine; 788 million litres (or 69 per cent) were exported. By contrast, just 64 million litres of wine were imported. Total domestic sales of wine were 470.8 million litres, worth some \$2,123 million or \$4.51 per litre.<sup>9</sup> Those figures are set out in Table 2.

**Table 2: Key facts about the Australian wine and grape industry, 2009-10**

Area of bearing vines (hectares)	151,789
Total wine grape production (tonnes)	1,533,246
Fresh grapes crushed (tonnes)	1,603,012
Beverage wine production (million litres)	1,142.3
Beverage wine inventories (million litres)	1,722.6
Domestic sales of Australian wine (million litres)	470.8
Domestic sales value of Australian wine (\$ million)	2,122.6
Exports of Australian wine (million litres)	788.5
Exports of Australian wine (\$ million)	2,168.3
Imports of wine (million litres)	64.3
Imports of wine (\$ million)	458.8

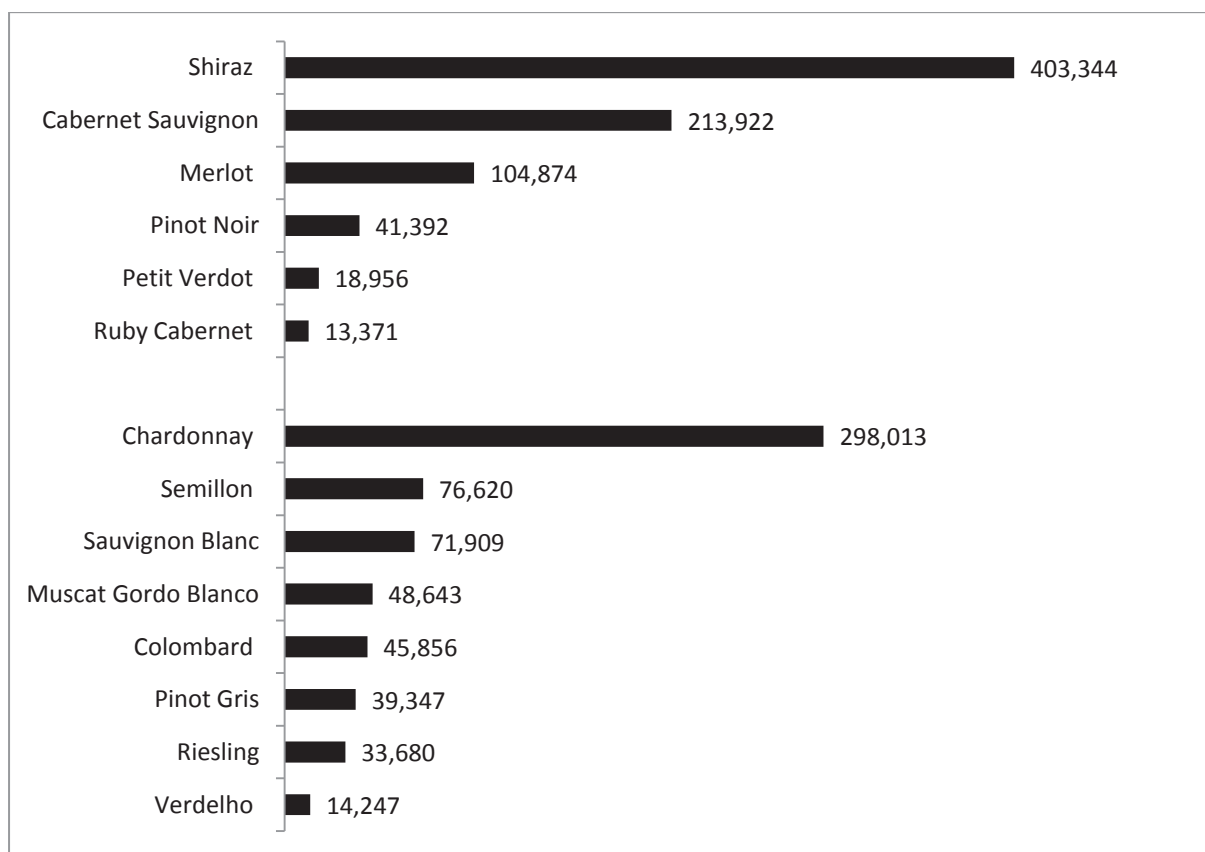
Source: ABS 2010. *Australian wine and grape industry*.

A breakdown of production volumes by variety of grape is presented in Figure 3.

<sup>8</sup> ABS 2010. *Australian wine and grape industry*

<sup>9</sup> This dollar figure may seem a little low compared with retail sales but refers to all wine sold by Australian producers, both wholesale and retail.

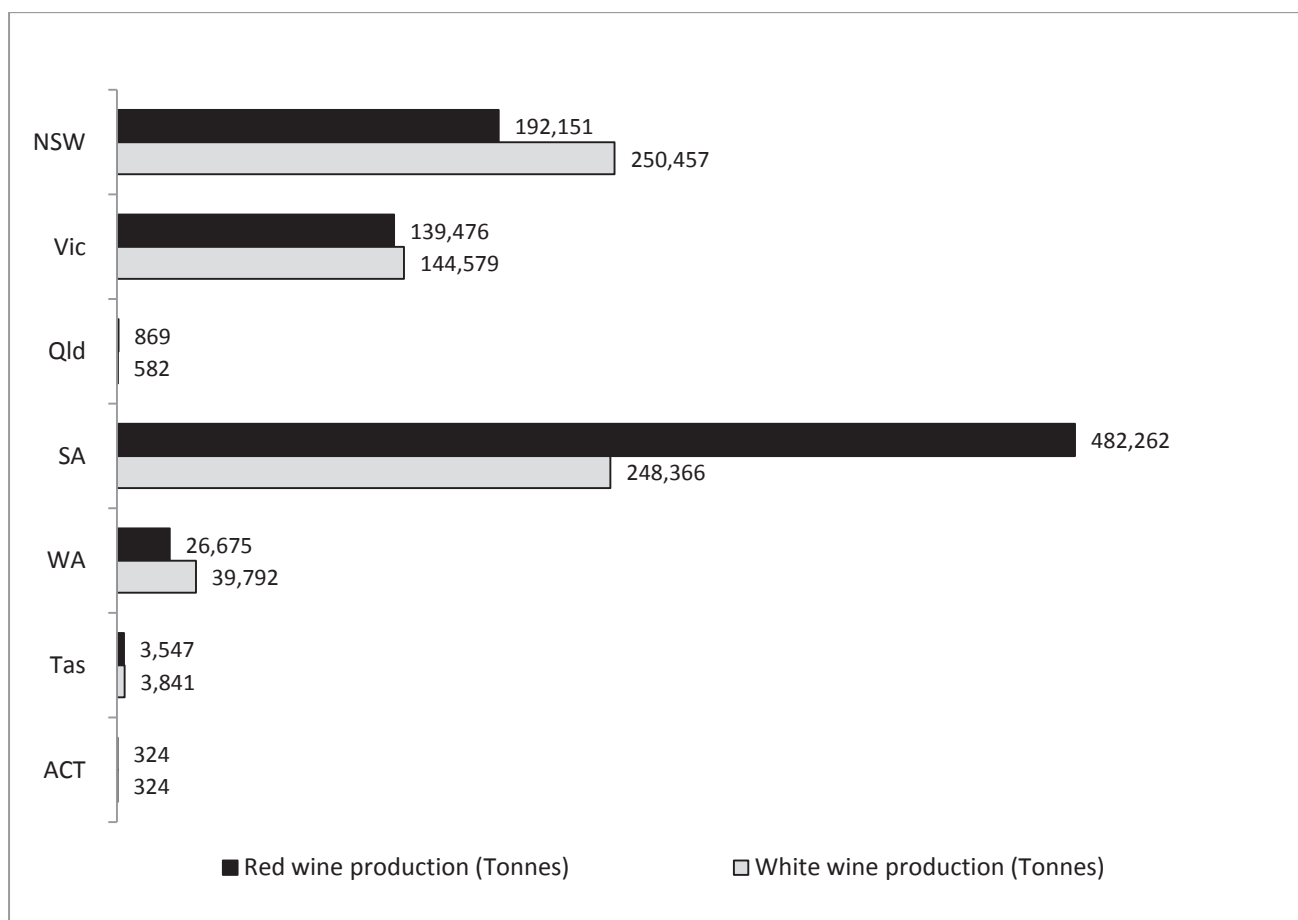
**Figure 3: Australian production by grape variety (litres)**



Source: ABS 2010. Australian wine and grape industry.

Red wine accounts for just over half of wine production in Australia (55 per cent), with white wine varieties representing 45 per cent. Production is dominated by a small number of varieties: in order of magnitude, shiraz, chardonnay and cabernet sauvignon. Shiraz represents 28 per cent of total production, chardonnay 21 per cent and cabernet sauvignon 15 per cent. Between them these varieties account for 64 per cent of all wine produced in Australia.

Figure 4 shows red and white wine production by state. South Australia is the biggest producer by far, especially in red wine production. NSW is the next largest producer, and actually produces more white wine than SA. Victoria is the third largest producer. Despite its strong reputation, WA appears as quite a small producer relative to other states.

**Figure 4: Wine production by state (litres)**

Source: ABS 2010. *Australian wine and grape industry*.

As explained below, the wine that will suffer most from a volumetric tax is the low-price end of the market. Warm inland areas of production in particular are at risk in the event of a tax change. Average figures for the value of grapes produced in 2011 are given in Table 3. The document these figures are drawn from, produced by Wine Australia, refers to the sourcing of wine from warm growing regions as being 'unbalanced relative to sales mix'.<sup>10</sup>

**Table 3: Average prices received by wine grape growers (\$/tonne)**

	Average value of grapes	White	Red
Warm inland zones	\$285	\$272	\$305
Cool/temperate zones	\$874	\$846	\$891
Australia	\$413	\$356	\$484

Source: Wine Australia 2011. *Winegrape purchases: Price Dispersion Report, Market Insight Report*.

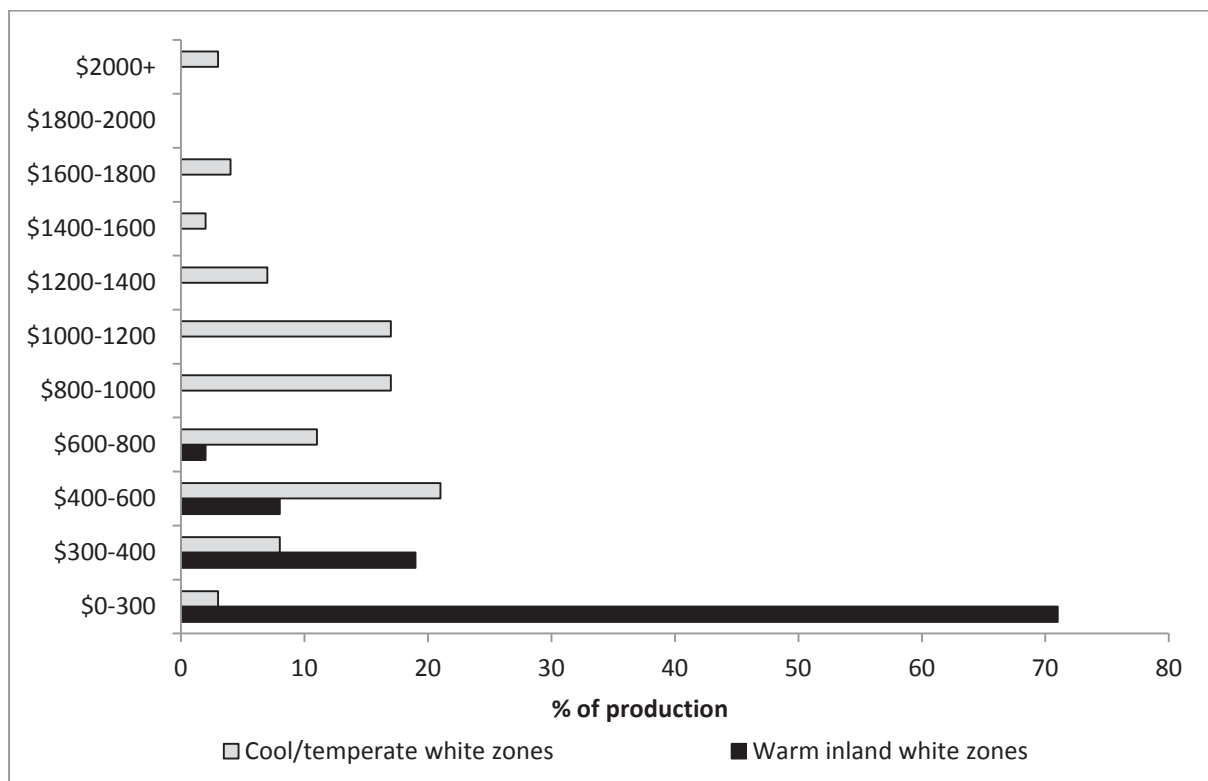
Figures 5 and 6 make it clear that for both white and red wines there is a clear gap in price (and therefore quality) between the grapes produced in warm inland areas and those

<sup>10</sup> Wine Australia 2007. *Directions to 2025: An industry strategy for sustainable success*, May.



produced in other parts of Australia. Both graphs show the distribution of wine production in these two kinds of regions according to the prices received per tonne of product.

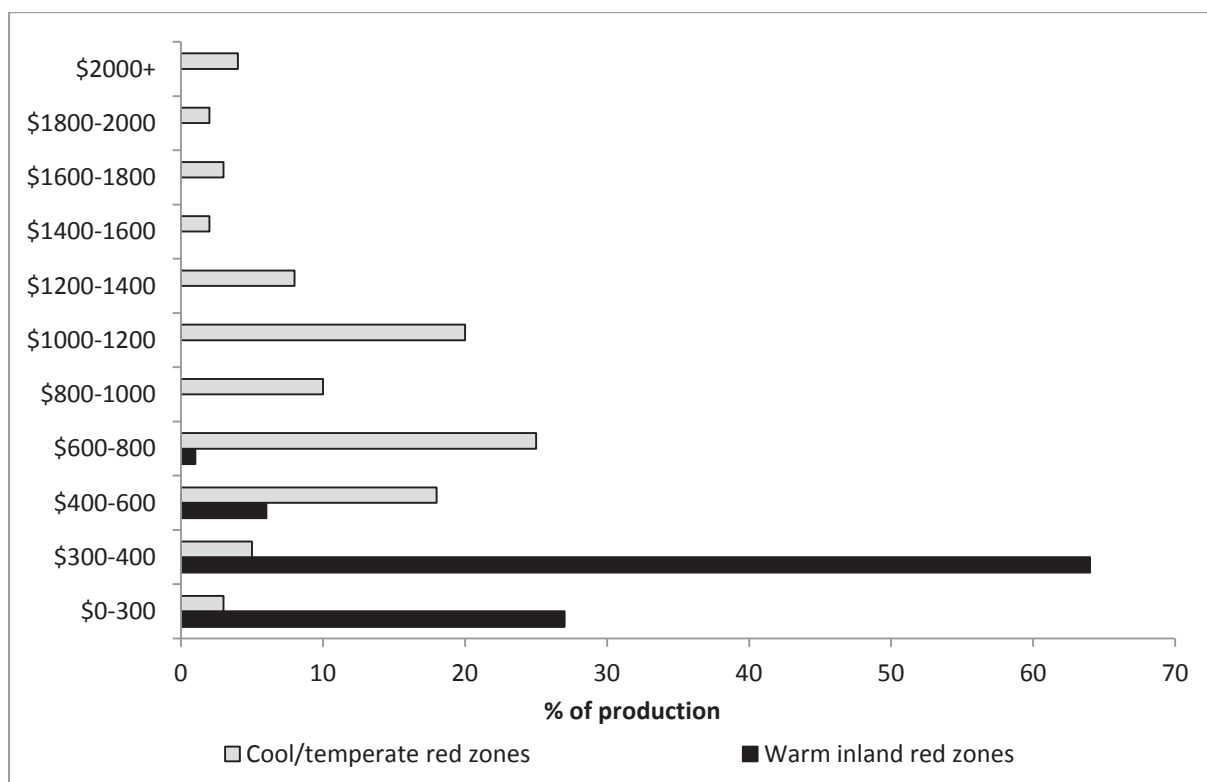
**Figure 5: White wine production by price category, 2011 (\$/tonne)**



Source: Wine Australia 2011. *Winegrape purchases: Price Dispersion Report, Market Insight Report.*

Figure 5 shows that warm inland areas concentrate their white wine production in the \$0-300/tonne range, with 71 per cent of production in that price range. In other parts of Australia white wine production is much more valuable on average.

Figure 6: Red wine production by price range, 2011 (\$/tonne)



Source: Wine Australia 2011. *Winegrape purchases: Price Dispersion Report, Market Insight Report.*

Figure 6 shows that red wine production from the warm inland areas is concentrated towards the bottom of the market, with a cumulative total of 91 per cent of all grapes being sold for \$400/tonne or less. Production from other areas is distributed mainly about the middle of the graph within the \$400 to \$1400 price range.

### Quality and cost

A study undertaken for the WFA breaks down Australian production into different categories according to quality, and includes information on the viability of wine producers. The wine categories shown in Table 4 are based on a five-class classification, with the top class being 'A Specialty'; wine in this class would normally retail for more than \$25 per litre. At the bottom of the scale is E Basic', with an indicative retail price of less than \$5 per litre. Table 4 also shows the percentage of wine production enterprises in each category which are assessed as uneconomic.

**Table 4: Wine industry costs of production and prices by grape grade in 2008.**

	Tonnes	Proportion of production (%)	Indicative retail price \$/litre	Wholesale price \$/Litre packaged	Direct cost \$/tonne	Uneconomic %
A Specialty	(Included with B)	(Included with B)	>25	>10	1900	n/a
B Super premium	180,850	9.9	15 to 25	7.50 to 9.99	1143	n/a
C Premium	409,552	22.4	8 to 15	5.00 to 7.50	563	36
D Popular premium	553,211	30.2	5 to 8	2.50 to 4.99	391	24.3
E Basic	652,116	35.6	<5	<2.50	230	3.9
not classified	35,794	2.0				

Source: Grant, B. Gow, G. and Dollery, B. 2010. 'The proposed 'wine restructuring action agenda' and alternative policy options for the Australian wine industry'

Table 4 shows that most of the wine grown in Australia is 'basic' or 'popular premium' the types of wine that sell retail for less than \$8 a litre. Interestingly, the highest proportion of grape-growing enterprises that were uneconomic in 2008 were in the premium and popular premium categories. For this reason, it has been alleged that some parts of the industry have called for rationalisation in order to get rid of small producers in favour of large players, describing the problem as 'too much middle-grade fruit with too high a cost structure'.<sup>11</sup>

## The wine glut

Reports of a glut of Australian wine are widespread. Wines Australia believes it is a victim of its own successful approach to production and marketing:

*Australian wine producers initiated and fostered a growing worldwide consumer market for wine in the 1980s and 1990s, particularly in the UK, the US and Canada. In doing so, exports rose sharply to almost \$3 billion in 2006, supported by a doubling of the national vineyard area to about 160,000 hectares.*

*The factors that drove Australia's success between 1985 and 2005 are no longer dominant nor exclusive. Indeed, many other wine producing countries are now producing consumer-friendly labelling and marketing, promoting the approachability of their winemakers and developing techniques to produce high volumes of affordable, good-quality, fruit-forward wines.<sup>12</sup>*

Having paved the way for a distinctive style of marketing, the Australian wine industry was not able to prevent overseas competitors from doing likewise. This is unsurprising, since a marketing strategy partly based on clearer labelling is relatively easy to emulate.

<sup>11</sup> Grant, B. Gow, G. and Dollery, B. 2010. 'The proposed 'wine restructuring action agenda' and alternative policy options for the Australian wine industry' *University of New England Business, Economics and Public Policy Working Papers*, No 2010-2.

<sup>12</sup> Wine Australia (2007) *Directions to 2025: An industry strategy for sustainable success*, May p. 10.

According to the WFA, 'the industry needs to remove at least 25 per cent of bearing vineyards to balance supply with existing demand'.<sup>13</sup> Its submission to the Henry Tax Review appears to imply that in 2009-10 there was an excess of 170 million cases of wine, which would amount to 1,530 million litres.<sup>14</sup> That is higher than the ABS figure for annual sales of wine (domestic and exported), which came to 1,259 million litres in 2009-10.<sup>15</sup> By these figures, the amount of wine that remains unconsumed in Australia exceeds total sales. Some of this wine (particularly higher-quality wine) would be stockpiled for future sale, but a substantial proportion of unsold wine would ultimately be sold at or below cost.

ABS figures on inventories held by winemakers show a downward trend since 2006. Inventories were 2.1 billion litres in 2006 and fell to 1.7 billion litres in 2009-10, the latest figures available.<sup>16</sup> The exact proportion of all wine that is surplus to demand is unclear. However, the strongest evidence for the glut is the amount of vines that remain unpicked. Growers are unlikely to pick and process surplus fruit which they cannot sell at a viable price.

In 2009 in particular there were a large number of reports about abandoned vineyards in southern states of Australia. For example, according to one report, the fallout from the crash of Great Southern (which was placed in receivership in May 2009) had a large impact on South Australia as well as its home state of Western Australia. The company's receivers had 750ha of vineyards at Langhorne Creek, the Riverland, Barossa Valley, Adelaide Hills and Coonawarra on the market for many months. From October 2009, production at these vineyards ceased completely due to lack of funding.<sup>17</sup> ABS figures show that in 2009-10 there were 151,789 hectares bearing wine grapes. In the same year 8,164 hectares, or 5.4 per cent of the total, were 'lost' (by which the ABS means the vines were 'removed by grubbing, grafting off or abandoning to die').<sup>18</sup> The net amount of lost production was somewhat smaller because 1,406 hectares were planted that year, giving a net reduction of 4.5 per cent. That seems a relatively small reduction compared with the WFA's claim (cited above) that 25 per cent of vineyards need to cease production.

## The wine industry supply chain

The wine industry resembles various other industries that transform agricultural commodities into refined manufactured goods sold in large volumes through retail channels. The model tends to conform to a common pattern.

At the bottom of the value-adding process are the actual growers of the commodity in question. There are typically a large number of small growers supplying a fairly homogeneous product, ensuring that each grower has little bargaining power with those further up the production chain.

The next step is the conversion of the bulk commodity into a processed output: bulk milk is pasteurised and bottled; grain is milled into flour and may be further processed. Grapes are crushed and allowed to ferment into wine, aged and then bottled or casked.

<sup>13</sup> WFA 2009. *Submission to Australia's future tax system review*, May. p.19.

<sup>14</sup> WFA 2009. *Submission to Australia's future tax system review*, p. 22. The figure of 170 million cases is derived from subtracting the required stock from the actual stock estimated at that date.

<sup>15</sup> ABS 2010. *Australian wine and grape industry*.

<sup>16</sup> ABS 2010. *Australian wine and grape industry*.

<sup>17</sup> Austin, N. 2009. 'Wine glut vineyards abandoned'.

<sup>18</sup> ABS 2010. *Australian wine and grape industry*.

In some cases the manufacturing stage is carried out by the same companies or operations which produce the commodity in question. Grape growers may manufacture wine using all or some of their crop, or they may sell all or some of their produce to a separate manufacturer. Importantly, as shown in Table 4 below, the number of wine-makers is much smaller than the number of grape-growers in Australia.

Once the wine is produced it then enters the wholesale trade, with the wholesale distributor acting as the intermediary between the producer and the retailer. The retailer is then responsible for sale to the final buyer. However, the retailer and wholesaler are often the same or related companies. Alternatively, the manufacturer may also perform the role of retailer through 'cellar door' sales or, increasingly, through online sales. Parallel to this process there is also a strong export trade on the part of some manufacturers and distributors.

Table 5 reproduces the estimates of the WFA and WGGGA for the various costs, margins and taxes associated with the production and sale of a \$15 bottle of wine. From these figures it is clear that margins are much higher at the retail end of the supply chain, with margins very low for growers.

**Table 5: Breakdown of costs in a \$15 bottle of wine**

	cost	Proportion
GST	1.35	9%
Wine equalisation tax	2.25	15%
Retail margin	3.45	23%
Distributor (wholesale) margin	1.95	13%
Winery costs	4.69	31%
Grape costs	0.86	6%
Winery margin	0.45	3%
Total	15.00	100%

Source: WFA and WGGGA 2008. *Submission to the Senate Community Affairs Committee Inquiry into Ready-to-Drink Alcohol Beverages.*

Table 6 shows the number of enterprises in various segments of the Australian wine industry as well as the control exercised by the top four and top two enterprises in the industry. The closer an enterprise is to the consumer, the more concentrated the industry is. This degree of market concentration clearly contributes to the much higher margins that retailers enjoy as compared with grape growers.

**Table 6: Structure of the Australian wine industry from grower to consumer**

	Number of establishments	Share controlled by top 4 enterprises	Share controlled by top 2 enterprises
Growers	7,052	N/A	N/A
Manufacturers	892	39%	21%
Wholesalers	310	46%	36%
Retailers	2,554	70%	58%

Source: IBISWorld 2011a; 2011b; 2011c; 2011d. Note: top four retailers here include two so-called banner groups.

## Retail

It is difficult to obtain exact figures on the sales of wine broken down into the share sold in retail as distinct from sales through bars and restaurants. However, it is possible to distinguish between sales made by wine-makers (through cellar door, online and mail-order sales) and sales made by other parties, including retailers, bars and restaurants. These figures are presented in Table 7.

**Table 7: Consumer purchases of wine in Australia**

	Share of domestic sales
Retail, bars and restaurants	85%
Cellar door	8%
Mail order	6%
On-line	1%
Total	100%

Source: IBISWorld 2011d. *Wine manufacturing in Australia*.

The retailing of wine is dominated by two companies: Woolworths and Coles. These companies sell alcohol in their own stores and through subsidiary retail companies including Dan Murphy's, BWS, Woolworths Liquor and Langton's (Woolworths), Liquorland, Vintage Cellars, 1<sup>st</sup> Choice Liquor Superstore and Coles Online brands (Coles/Wesfarmers).

In grocery retailing, a common strategy to increase market share is for retailers to promote and/or discount their own private labels and brands, thereby crowding out the offerings of independent producers. It is not always clear that such brands are linked to or owned by the retailer, meaning that consumers are offered choices that are less than transparent. These patterns can also now be observed in relation to alcohol retailing, and particularly to wine.

For example, the 'Golden Oak' and 'Sonata Estate' labels are owned by Woolworths, while 'Three Kings Estate' and 'Penola Estate' are brands owned by Coles.<sup>19</sup> Recent annual reports from Australian Vintage, a listed wine-producing company, show that an increasing

<sup>19</sup> 'Who makes my wine?' at <http://whomakesmywine.com.au/thelist.html>

share of sales are unbranded or ‘private label’ wine that is eventually sold to the consumer as a Coles or Woolworths brand.<sup>20</sup>

## Wholesale

While much less concentrated than retail, wholesale liquor is nevertheless a concentrated industry, with the five largest companies controlling 49 per cent of total revenue. As shown in Table 8, Metcash is the dominant player with a 28 per cent share. However, liquor sales constitute a relatively small proportion of Metcash’s operations, at 18 per cent of revenue and 8 per cent of profit.<sup>21</sup>

**Table 8: Market share in the wholesale liquor industry**

	Market Share
Metcash Limited	28.0%
Diageo Australia Limited	7.8%
Beam Global Australia Pty Ltd	6.1%
Brown-Forman Australia Pty Limited	3.6%
Independent Liquor Group (Suppliers) Co-operative Limited	3.3%
Other	51.2%

Source: IBISWorld 2011c. *Liquor wholesaling in Australia*.

Many winemakers bypass the wholesale trade, either by making cellar door online sales, or (more commonly) selling directly to retailers. However, wholesalers remain a major supplier to retailers and hotels, restaurants and similar outlets.

## Employment

The wine industry is a small but significant employer, with jobs concentrated in the wine growing regions of Australia. According to IBISWorld, in 2010 an estimated 9,178 people were employed in the grape growing industry, with most grapes destined for wine production. In addition 13,526 were employed in wine manufacturing. A further 3,900 were employed in liquor wholesale, of which wine accounts for 47.3 per cent; on a pro-rata basis that means employment in wine wholesaling was 1,845. Finally, 27,012 people were employed in liquor retailing, of which wine sales accounted for 23.8 per cent by value; on a pro-rata basis that means employment in wine retailing was 6,429 people. If these various figures are aggregated, this means that the wine industry was responsible for employing 30,978 people in 2010.<sup>22</sup>

<sup>20</sup> Australian Vintage Ltd 2008 and 2010 *Annual Reports*.

<sup>21</sup> IBISWorld 2011c. *Liquor wholesaling in Australia*.

<sup>22</sup> IBISWorld 2011a; 2011b; 2011c; 2011d. If we also adjusted for the proportion of imported wine in retail sales, the figures for retail and the aggregate employment would need to be revised downward.

**Table 9: Wine industry employment**

Segment of the wine industry	Employment (persons)
Wine growing	9,178
Wine manufacturing	13,526
Wine wholesale	1,845
Wine retail	6,429
<b>Total</b>	<b>30,978</b>

Source IBISWorld 2011a; 2011 b; 2011c; 2011d.



## 4 Taxing wine

### The Australian wine tax regime

Wine sold in Australia attracts the WET, which is levied at 29 per cent of the wholesale value of wine. However, there is a WET rebate of up to \$500,000 payable to an eligible wine producer.<sup>23</sup> The Productivity Commission observes that ‘the taxation of alcohol products is designed primarily to raise revenue and to help address the health impacts of alcohol consumption’.<sup>24</sup> However, the WET scheme was actually intended to preserve the concessional taxation treatment of cask wine that applied under the previous wholesale sales tax arrangements prior to 2000.<sup>25</sup>

The WET rebate was introduced in 2004 partially to replace the previous accelerated depreciation arrangements for grapevine plantings as well as to support small wine producers.<sup>26</sup> The wine producer rebate is estimated to have cost taxpayers \$230 million in 2009-10,<sup>27</sup> while total WET revenue was estimated at \$720 million in that year. Hence the average WET paid by the wine industry is 22.2 per cent rather than the nominal rate of 29 per cent.

### International comparison of wine tax

The WFA and WGGA have portrayed the Australian wine industry as being highly taxed in comparison with other countries around the world. In its submission to the Senate Community Affairs Committee Inquiry into Ready-to-Drink Alcohol Beverages, the WFA and WGGA presented a graph purporting to show the tax rates on a retail bottle of wine in Australia and other wine-producing countries.

France, Germany, Italy and Spain are represented by the WFA and WGGA as having very low or zero rates of taxation on wine; by comparison Australian wine is taxed at 24 per cent. However, the 24 per cent in Australia includes both the GST and the WET. Given the GST is included in the Australian figures it is quite surprising that the value-added tax (VAT) is not included in the case of the European countries cited by industry. For example, in France, the VAT rate on wine is 19.6 per cent, in Germany 19 per cent, in Italy 20 per cent and in Spain 16 per cent.<sup>28</sup> In addition to misrepresenting the European taxation regime, the WFA and WGGA figures do not take account of the fact that some Australian wine producers receive WET rebates at a level sufficient to offset their entire WET liability (in particular smaller operations).<sup>29</sup> If these various other factors affecting tax liabilities are taken into account, it becomes clear that the Australian wine industry is taxed relatively lightly.

Figure 7 illustrates the disparity between the tax rates claimed by the WFA and WGGA and the actual taxation arrangements that apply in each country. The figures for Australia are based on the WFA and WGGA’s claims and the authors’ estimate for a low-volume producer

<sup>23</sup> Alternative arrangements are made where the wine does not pass through the wholesale stage.

<sup>24</sup> Productivity Commission 2004. *Trade & Assistance review 2003-04*. 22 December <<http://www.pc.gov.au/annualreports/trade-assistance/tar0304>> Accessed 26 September 2011.

<sup>25</sup> Australian Government 1998. *Tax Reform: not a new tax, a new tax system*, August. p. 87

<sup>26</sup> Costello, P. 2004. *Budget Speech 2004-05*, 11 May.

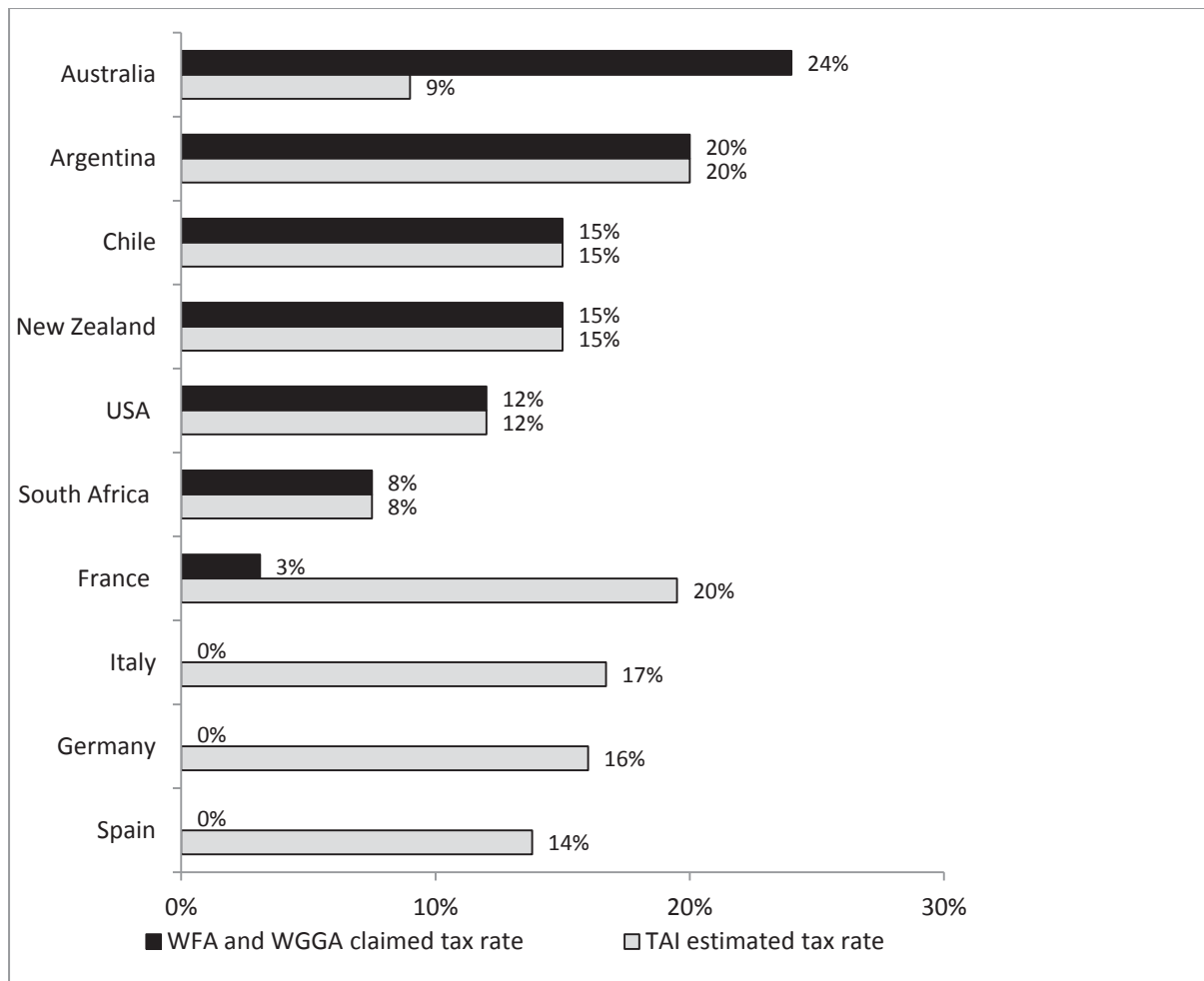
<sup>27</sup> Australian Government 2011. *Tax Expenditure Statement, 2009-10*, January.

<sup>28</sup> VAT rates can be found in OECD 2007. *Taxation of wine*. <<http://www.oecd.org/dataoecd/53/22/40302757.xls>> Accessed 26 September 2011. In order to express the European VAT rates as a percentage of retail prices they have to be ‘converted’. For example, the ten per cent GST in Australia is in fact one eleventh of retail prices. The tax rates illustrated in Figure xx have been converted to enable proper comparison..

<sup>29</sup> Australian Government 2011. ‘Statement 5: Revenue’, *2011-12 Budget Paper No 1*, May.

(whose WET rebates fully offset the WET liability).<sup>30</sup> The WFA and WGGGA estimates do not appear to include any WET rebate. By including the VAT on wine in European countries the impression is much different to the one portrayed by the WFA and WGGGA.<sup>31</sup>

**Figure 7: International tax rates on wine as reported by WFA and WGGGA and TAI calculations (%)**



Sources: WFA and WGGGA 2008. *Submission to the Senate Community Affairs Committee Inquiry into Ready-to-Drink Alcohol Beverages.*; OECD 2007. *Taxation of wine*; and authors' calculations.

The more meaningful comparison of tax rates presented in Figure 7 indicate that while Australia's retail wine tax rate is somewhat higher than in other countries for producers of large volumes of wine, the position of low-volume producers is substantially different. For low-volume producers, the actual tax paid is the second lowest among the countries that the wine industry has chosen to compare with Australia.

<sup>30</sup> 'Low-volume' refers to any operation with tax liabilities under the WET scheme less than \$500,000 per annum.

<sup>31</sup> The tax rates specified in Figure 7 assume that the WFA and WGGGA managed to accurately report the other figures and that only European VAT rates need to be included.

## 5 The likely impacts of reforming the WET

The WET is an ad valorem tax based on the value of the wine sold at the wholesale stage. The Henry Tax Review argued that wine and beer should be taxed equally according to their alcohol content, since the WET taxes cheap wine at much lower rates than beer. Taxing according to alcohol content has been referred to as a ‘volumetric’ tax.<sup>32</sup>

### Impact of reform on the consumption of alcohol

The WFA and WGGGA claim that taxation is likely to be ineffective against consumers who abuse alcohol because they ‘are more likely to either switch products or switch substances’.<sup>33</sup> In what follows, we assess this claim against available evidence regarding what can be expected following an increase in prices associated with a switch to volumetric taxation.

The WFA and WGGGA have voiced concerns that an additional tax might increase the value of a \$12.5 cask to \$28.<sup>34</sup> If this is the case (and using the figures in Table 1 as a guide), then the cost of a standard drink would rise from around \$0.36 to around \$0.80 (in the case of red wine) and from around \$0.43 to around \$0.95 (for white wine). By these figures, red wine is still by far the cheapest way of purchasing maximum alcohol content, with the next best being cider at \$1.51 for one standard drink. Even with a volumetric tax as proposed, cheap wine is still cheaper than other forms of alcohol by 37 to 47 per cent.

An important implication is that for those motivated to obtain alcohol in the cheapest form, wine still ‘wins’ with a volumetric tax. Hence there will be limited substitution from wine to alternative types of alcohol. Instead, any fall in the consumption of cheap wine would also tend to be a reduction in total alcohol consumption.

A major objection by WFA to the increase in taxation on wine is the ‘substantial welfare loss to the majority of consumers’.<sup>35</sup> By ‘welfare loss’ the WFA appears to mean that consumers are worse off with a tax than without one. But taxes are not collected in isolation: higher taxes on wine (or on anything else) will mean that Australians are better off in some other way, either through lower taxes in other areas or through increased government spending for public benefit (or some combination of the two).<sup>36</sup> Some of the revenue could be used to encourage behaviour change in relation to the consumption of alcohol. Even if the additional revenue from a higher tax on alcohol is added to surplus, that is likely to mean additional expenditure or tax reductions in later years, which would tend to increase overall welfare.

In discussing ‘welfare loss’ (i.e. the immediate and direct financial impact on individuals), the WFA and WGGGA suggest the worst affected would be pensioners that drink modest amounts of cask wine.<sup>37</sup> Using the prices for Sunnyvale Fruity Lexia cask reported in Table 1, the cost of a standard glass of wine would increase from 42.5 cents to 92 cents, roughly 50 cents per

<sup>32</sup> Australian government Treasury 2010. *Australia’s future tax system: Report to the Treasurer*, December 2009. Other kinds of alcoholic beverages are taxed at even higher rates.

<sup>33</sup> WFA and WGGGA 2008. *Submission to the Senate Community Affairs Committee Inquiry into Ready-to-Drink Alcohol Beverages*.

<sup>34</sup> WFA and WGGGA 2008. *Submission to the Senate Community Affairs Committee Inquiry into Ready-to-Drink Alcohol Beverages*.

<sup>35</sup> WFA 2009. *Submission to Australia’s future tax system review*, May. p 4.

<sup>36</sup> In the case that all of the revenue is spent on the victims of alcohol abuse, raising alcohol taxes would still free means other resources for use on other spending programs or on tax cuts.

<sup>37</sup> WFA and WGGGA 2008. *Submission to the Senate Community Affairs Committee Inquiry into Ready-to-Drink Alcohol Beverages*.; and WFA 2011. *Response to the Alcohol Health & Rehabilitation Foundation’s call for changes to wine taxation*, Media Release, 6 September.

glass. That seems a modest change when compared with the single pension of \$670.90 a fortnight (without rental assistance and other add-ons).<sup>38</sup> Importantly, any increase in wine prices would be reflected in the consumer price index, and since the age pension is indexed pensioners will be compensated accordingly.

To show that pensioners will genuinely suffer, it would need to be clear that the spending patterns of pensioners relating to wine differ substantially from those of the general population. By the same token, if pensioners consume wine in the same proportion of their spending as the rest of the population, then they should be protected from price rises by automatic indexation.<sup>39</sup> As it happens recent figures show that pensioners actually tend to consume wine in much lower proportions than the rest of society. The household expenditure survey shows that in 2009-10 households whose main source of income was the age pension spent \$4.26 per week, or 0.75 per cent of their total spending of \$564.82 per week.<sup>40</sup> Meanwhile, the ABS has determined that wine will constitute 1.64 per cent of the consumer price index for the next five years.<sup>41</sup> This suggests that pensioner households which spend the average amount on wine should be no worse off after indexation, even if cask wine accounts for all of their spending.

The WFA has expressed concern that wine will be taxed at the same rate as full-strength beer, which is taxed at \$42.78 per litre of alcohol in excess of 1.15 per cent (equivalent to \$32.44 per litre). In a recent submission the WFA claimed that such a change would cause 95 per cent of wine to increase in price.<sup>42</sup> However, this would be the case only if there were no rebates or concessions for small producers to replace the present WET rebate.

If a volumetric tax as proposed were introduced, it would have different effects depending on the wholesale price of the wine in question. Using WFA figures, the wholesale price on which the WET is levied is equivalent to 53 per cent of the retail price for a \$15 bottle of wine;<sup>43</sup> in the absence of better information it is assumed that this applies to all wine.

The authors' calculations indicate that the 'break-even point' (that is, the point at which the proposed change in tax will have no impact on price) is a bottle of white wine with a retail price of exactly \$15 (assuming any change in costs is fully passed on to consumers).<sup>44</sup> White wine that currently costs less than \$15 per bottle is likely to cost more, while white wine that costs more than \$15 is likely to cost less. For a \$10 bottle of white wine, the extra impost on the consumer would be 77 cents. On a \$7 bottle, the impact would increase to \$1.24. By contrast, a \$20 bottle would fall in price to \$19.24.<sup>45</sup> Table 10 presents estimates of the likely changes in price under the new tax arrangements for both white and red wines. Red wine has a higher alcohol content and so the change in price will be greater for most price points. A \$20 bottle of red wine will increase slightly in price; the 'break-even point' for red wine containing 13.5 per cent alcohol would be \$20.55.

<sup>38</sup> Centrelink 2011. *Seniors Payment Rates 1 July – 19 September 2011*. <[http://www.centrelink.gov.au/internet/internet.nsf/filestores/co030\\_1107/\\$file/co030\\_1107en.pdf](http://www.centrelink.gov.au/internet/internet.nsf/filestores/co030_1107/$file/co030_1107en.pdf)> Accessed on 26 September 2011.

<sup>39</sup> Pensioners may nevertheless change their pattern of consumption.

<sup>40</sup> ABS 2011. *Household expenditure survey, Australia: Detailed expenditure items, 2009-10*, Cat no 6530.0, 6 Sept.

<sup>41</sup> ABS 2011. *Consumer Price Index, 16th series weighting pattern, 2011*, Cat no 6471.0, 22 September.

<sup>42</sup> WFA 2009. *Submission to Australia's future tax system review*.

<sup>43</sup> WFA 2009. *Submission to Australia's future tax system review*.

<sup>44</sup> This uses the current tax arrangements on full strength beer which is \$42.78 per litre of alcohol in excess of 1.15 per cent alcohol. In addition the average full strength beer is assumed to be 4.76 per cent alcohol, in line with Treasury's assumptions (Treasury 2010. *Australia's future tax system: Report to the Treasurer*. vol 2. P 440).

<sup>45</sup> The higher alcohol content of red wine means that price increases are likely to be higher for red wines.

**Table 10: Estimated changes in the retail price of wine with a volumetric tax**

	Current price	New price with volumetric tax	Change in price
<i>White wine</i>	\$7.00	\$8.24	\$1.24
	\$10.00	\$10.77	\$0.77
	\$15.00	\$15.01	\$0.01
	\$20.00	\$19.24	-\$0.76
<i>Red wine</i>	\$7.00	\$9.21	\$2.21
	\$10.00	\$11.75	\$1.75
	\$15.00	\$15.98	\$0.98
	\$20.00	\$20.21	\$0.21

Source: Authors' calculations

#### **What is the 'elasticity of demand' for wine?**

'Elasticity of demand' is a measure of the sensitivity of sales to changes in prices. It is often useful to know by how much sales would fall if prices increased by a certain amount. The elasticity of demand is designed to answer that question. Hence if the elasticity of demand is minus 2, for every one per cent increase in prices we would expect sales volumes to fall by two per cent. Note that the elasticity of demand is almost always negative because increases in prices almost always result in a fall in the volume purchased.

Technically the elasticity of demand can be expressed as the proportionate change in quantities divided by the proportionate change in price. Empirical estimates are based on econometric studies of the prices and quantities observed in practice.

Demand for wine is relatively inelastic, and the price changes as set out in Table 10 are relatively small. Hence the amount of wine sold is not likely to change by nearly as much as claimed by some in the industry following the introduction of a volumetric tax. Indeed, much of the price changes are likely to be hidden by the normal variation in prices from one retail outlet to another.

The figures in Table 10 assume that the full cost of the tax increase will be passed through to consumers. It is more likely that the industry will absorb some of the costs, at least in the short term. The main impact of the change in tax arrangements would appear in cask sales; which are presently the cheapest form of wine and therefore would attract the greatest proportionate price increases.

## **Production**

The WFA claims that in the event of a change to volumetric taxation, domestic sales volumes would fall by 34 per cent, between 5,300 and 12,000 jobs would be lost and there would be a 192,000-tonne reduction in grape supply requirements.<sup>46</sup> In what follows, we assess whether these claims are credible.

<sup>46</sup> WFA 2009. *Submission to Australia's future tax system review*, May.



IBISWorld data shows that retail alcohol sales were \$15,637 million in 2009-10 and \$15,970 million in 2010-11, of which wine constituted 23.8 per cent.<sup>47</sup> On that basis retail sales of wine would have been \$3,720 million in 2009-10 and \$3,800 million in 2010-11.

According to the ABS, there were 539 million litres of wine 'available for consumption' in 2009-10.<sup>48</sup> Assuming retail sales are 90 per cent of total sales, then the average retail price would be \$6.90 per litre. Converting WET-inclusive prices into volumetric-inclusive prices would give a new average price of \$9.00, a 30 per cent increase on average.<sup>49</sup> Of course, as noted, cask wine in particular will experience a larger price increase, more expensive wines will experience more moderate price increases, while above around \$20 prices should actually fall. Nevertheless, on average a 30 per cent average increase in prices is likely.

The WFA suggests sales volumes would fall by 34 per cent after the tax change, which implies an elasticity of demand of -1.13. However, elsewhere the WFA quotes studies suggesting that the demand elasticity for wine is quite low and that consumers are not very responsive to price.<sup>50</sup> An earlier study has shown that the average estimated elasticity of demand for wine in Australia was -0.69, and perhaps even smaller if outlier data is excluded.<sup>51</sup> Another more recent study by Econtech based on its own empirical research suggests the elasticity of demand for spirits is -1.0, for beer it is -0.3 and for wine it is -0.4.<sup>52</sup> A figure of -0.4 therefore seems a good estimate of the price elasticity of demand for wine, and very different from the WFA's implied estimate of -1.13.

An elasticity of -0.4 suggests a 30 per cent average increase in prices would result in a reduction in sales volumes of 12 per cent.<sup>53</sup> This is much lower than the WFA's estimate that there would be a 34 per cent fall in volume following a 30 per cent increase in price. Indeed, the WFA appears to overstate the impact of the tax on sales by a factor of three.

Other factors besides price changes also affect wine sales. For example, per capita wine sales by value are increasing over time (as shown in Figure 1). This is consistent with the notion that wine is an income-elastic good—meaning that people spend a larger proportion of their income on wine the higher their income. Population growth also guarantees that the market is likely to grow by around two per cent per annum. Income and population effects suggest that if there were to be a reduction in wine demand as a result of price increases, it would be temporary at worst.

Most of the price effects associated with tax changes will be quite minor, with cask wine the most affected. In 2009-10 there were 155.6 million litres sold in casks.<sup>54</sup> That amounted to 13.6 per cent of total wine production (1,142.3 million tonnes) in that year. With price elasticity of -0.4 we might expect the amount sold in casks to fall by 40 per cent of the

<sup>47</sup> IBISWorld 2011b. *Liquor retailing in Australia*.

<sup>48</sup> ABS 2011. *Apparent consumption of alcohol: Extended time series, 1944-45 to 2008-09*, Cat no 4307.0.55.002, 18 January.

<sup>49</sup> We also get 30 per cent using an alternative means of estimating the price increase. Assuming average alcohol content of wine is 11.5 per cent and moving to a tax on wine equal to \$32.44 per litre of alcohol would raise tax of \$1,996 million compared with \$748 million raised by the WET in 2009-10. (\$32.44 is equivalent to the present tax on beer which is \$42.78 per litre of any alcohol over 1.15 per cent.) Applying 90 per cent of the additional tax over the retail sales worth \$3.9 billion gives a 30 per cent increase in retail prices.

<sup>50</sup> WFA 2009. *Submission to Australia's future tax system review*.

<sup>51</sup> Fogarty, J. 2006. 'The nature of the demand for alcohol: Understanding elasticity', *British Food Journal*, vol 108 (4), pp. 316-332.

<sup>52</sup> Econtech 2004. *Modelling health-related reforms to taxation of alcoholic beverages, Report for the Alcohol and Other Drugs Council of Australia*, 26 November. Econtech's estimate was not included in the Fogarty meta analysis

<sup>53</sup> 30 per cent divided by -0.4 equals -12 per cent.

<sup>54</sup> ABS 2010. *Australian wine and grape industry*.

proportionate increase in price, which would equate to a fall in sales of 52.9 million litres, or 4.6 per cent of total Australian production. The WFA and WGGA claim that with the tax on wine there would be '250,000 tonnes less grapes in three inland communities, the Riverland (SA), Murray Valley (Vic/NSW) and Riverina (NSW)'.<sup>55</sup> These are the very regions that grow grapes for low-quality wines. Using ABS figures for total production,<sup>56</sup> a fall of 250,000 tonnes would imply a 15.6 per cent reduction in production in these inland regions - three times higher than our estimate of 4.6 per cent lower production due to lower sales of cask wine.

## Employment

In its submission to the Henry Review, the WFA claimed that a move towards 'a volumetric tax at the packaged beer rate of \$40.82 per Litre of Alcohol' would result in 'job losses nationally estimated through economic modelling to be 5,300'.

*In addition large numbers, of the order of 700, small wine producers (WFA estimate), with Victoria most affected, forced out of business due to loss of WET rebate. Consequential job loss is estimated at 2,700.*<sup>57</sup>

If these figures are intended to be additive (that is, in addition to the 5,300 job losses claimed in the submission), then the WFA appear to give a intriguingly round number of 8,000 job losses, with another 700 forced out of business and perhaps also unemployed. In May 2010, the WFA had increased its estimate to 12,000 job losses, saying the following:

*Our modelling shows that taxing wine in the same way as packaged beer, and removing the WET Rebate, would see 95% of wine increase in price, sales volumes fall by 34%, 29,000 hectares of vineyard become redundant and about 12,000 jobs lost.*<sup>58</sup>

Between May 2009 and May 2010, the WFA's estimates of job losses arising from a switch to volumetric tax more than doubled from 5,300 to 12,000.

If jobs in the wine industry were under threat, then these are more likely to be in the growing and manufacturing parts of the industry, rather than in retail or wholesale where any downturn in wine sales is likely to be offset with increases in other sales.<sup>59</sup> Given the figures in Table 9, some 22,704 jobs in those parts of the industry would be at risk in the event of a threat to the wine industry. WFA figures suggest a 34 per cent fall in domestic sales volumes which, given that only domestic sales would attract taxes, would translate into a fall of 13 per cent of domestic production. If this occurred, losses of 2,952 jobs could be expected if the loss of jobs were proportionate to the fall in production volumes. However, as explained above, the WFA has used estimates of the elasticity of demand which are much higher than in various empirical studies. Using these other estimates of elasticity (-0.4), the loss of production volumes would actually be 5.2 per cent overall, which would translate into 1,181 jobs lost (again assuming a change in employment proportionate to changes in production volumes).

<sup>55</sup> WFA and WGGA (no date) Submission to the Senate Community Affairs Committee inquiry into ready-to-drink alcohol beverages.

<sup>56</sup> ABS (2011) Apparent consumption of alcohol: Extended time series, 1944-45 to 2008-09, Cat no 4307.0.55.002, 18 January.

<sup>57</sup> WFA (2009) *Submission to Australia's future tax system review*, May.

<sup>58</sup> WFA (2010) 'Government supports wine industry' Media Release, 2 May.

<sup>59</sup> If there is a temporary slowdown in overall liquor sales there may not be as many jobs created in that industry. However, it is doubtful there would be any job losses as such in an industry noted for its high turnover and where a certain minimum staff is required in a store at any one time.

Of course this assumption of proportionality is not necessarily valid. Table 2 shows that wine category E ('basic') has a much lower unit cost at \$230/tonne than the other classes, which average \$572/tonne. If labour inputs are proportionate to costs, then the labour lost from producing basic wine would be less than half the labour content of other, higher-quality classes of wine. In that case we estimate the labour loss to be 537 jobs.<sup>60</sup> We believe that this is a reasonable estimate of the total *direct* job losses that might be expected following the proposed change in the taxation of wine products.

A full estimate of the job losses involved should also include any *indirect* impacts on the industries that supply the wine industry. It is possible to examine the inputs into wine using ABS input-output tables. The relevant detail from the input-output tables is reproduced in Table 11. (Unfortunately the input-output classification puts wine, spirits and tobacco into the one category.)

There are many industry studies that claim a particular policy will cost so many jobs as well as a certain number of indirect jobs. When they trace through indirect effects it is often found that they are a large multiple of the direct jobs. Moreover, we find that these are not necessarily real workers losing jobs but instead jobs that are never created but were expected to be created.<sup>61</sup> The approach here is instead to estimate actual job losses, not a lack of hypothetical job creation.

**Table 11: Industry inputs into wine industry**

Industry inputs	Amount going to wine (\$million)	Total supply (\$million)	Proportion of industry used as input into wine (%)
Glass and Glass Product Manufacturing	216	2,269	9.5
Other Agriculture	1,059	15,404	6.9
Paper Stationery and Other Converted Paper Product Manufacturing	265	8,520	3.1
Soft Drinks, Cordials and Syrup Manufacturing	85	4,851	1.8
Sheep, Grains, Beef and Dairy Cattle	302	22,726	1.3

Source: ABS 2010. *Australian National Accounts: Input-Output Tables - Electronic Publication, Final release 2006-07 tables.*

There are only five industries for which at least one per cent of sales are used as inputs into the wine, spirits and tobacco industry; information on these industries is set out in Table 11. The first of these is *sheep, grains, beef and dairy cattle*, which is likely to involve the sale of grain to the spirits industry and therefore need not be considered in a discussion of the wine industry. Inputs from *soft drinks, cordials and syrup manufacturing* into wine, spirits and tobacco represent 1.8 per cent of that industry's output. The relevant parts of these sales for the wine industry presumably include sugary additives, but even if all sales from this category are allocated to wine (as opposed to other parts of the wine, spirits and tobacco sector), then some 136 full time equivalent workers in soft drinks, cordials and syrup manufacturing could be said to depend on the wine industry.<sup>62</sup> The *paper, stationery and other converted paper*

<sup>60</sup> In deriving this figure the cost of 'basic' wine was divided by the average cost of all wine and that ratio was used to derive the job losses in 'basic' wine.

<sup>61</sup> Studies purporting to show the job losses as a result of the proposed taxes on mining are a case in point.

<sup>62</sup> The figure of 136 full time equivalent workers is found by taking 1.8 per cent of the total employment in the 'soft drinks, cordials and syrup manufacturing' industry. That is the same proportion as the amount of output from



*product manufacturing* makes 3.1 per cent of sales to the wine, spirits and tobacco industry, while *glass and glass product manufacturing* makes 9.5 per cent of sales to the industry. While paper is clearly involved in the packaging of wine, it is the glass and glass product manufacturing industry that has the most substantial interest in the health of the wine industry.<sup>63</sup> If these figures are applied on a pro rata basis, then approximately 395 paper industry jobs and 652 glass industry jobs could be said to depend on the wine industry.

In summary, a maximum of 1,183 jobs outside the wine industry are dependent on the wine industry. If a reduction in wine volumes of 5.2 per cent caused a proportionate reduction in jobs dependent on the wine industry, then around 62 indirect jobs might be lost elsewhere.<sup>64</sup> Including the 537 direct job losses, this would bring the total job losses to 599 – well below the WFA’s various estimates of 5,300 and 12,000.<sup>65</sup>

To summarise, Table 12 sets out the main points of difference between the WFA’s claims and our analysis above.

**Table 12: Summary of impact of volumetric tax on consumption, production and employment**

	WFA	TAI
<i>Assumed elasticity of demand for wine consumption</i>	-1.13 (implied)	-0.4
<i>Production impact of changing to a volumetric tax on wine</i>	34 per cent reduction	5.2 per cent reduction
<i>Employment impact of changing to a volumetric tax on wine</i>	5,300 to 12,000 jobs lost	599 jobs lost

that industry that goes into the wine industry. Total employment in the soft drinks, cordials and syrup manufacturing industry is also given in the input output tables, ABS 2010. *Australian National Accounts: Input-Output Tables - Electronic Publication, Final release 2006-07 tables*, Cat No 5209.0.55.001, 23 December.

<sup>63</sup> *Other agriculture* is significant since it includes horticulture and fruit, but these inputs (and associated employment) are already included in the earlier discussion of jobs at risk in the case of changes to the taxation of wine.

<sup>64</sup> In principle one could do the same exercise for all of the supplying industries. However, it is the authors’ view that any industry that sells less than one per cent of its output to wine is unlikely to notice a fall in sales orders of 5.2 per cent from the wine industry.

<sup>65</sup> WFA 2009. *Submission to Australia’s future tax system review*.

## 6 Conclusions

This paper has provided an overview of the wine industry so as to permit an examination of concerns about the impact of a possible switch in taxation from the present wine equalisation tax to a volumetric tax on the alcohol content of wine.

Over the past half century total consumption of alcohol in Australia has fallen on a per capita basis. There has also been a major shift in preferences away from beer and towards spirits and wine. Moreover, in the last decade or so there has been a shift away from cask wine towards bottled wine. Some of that shift may be associated with an overall reduction in the relative price of wine over the last decade.

Unfortunately a lot of Australian producers are described as uneconomic (especially in the 'popular premium' and 'premium' classes), and a good deal of Australia's crop is left on the vine since it is not worth harvesting. The main reasons for the current wine glut appear to be the high value of the Australian dollar as well as increased competition in overseas markets from relatively new producers in South Africa, New Zealand, the US and Latin America.

The nature of the Australian retail market has also been changing. Increasingly the market is dominated by Coles and Woolworths or retailers owned by those two companies. The chain of wine production starts with many small independent growers and ends with a concentrated retail structure in which Coles and Woolworths control 58 per cent of retail sales. Between the grower and the retailer are manufacturers (some of whom may also be growers) and distributors/wholesalers. Distributors/wholesalers are increasingly being bypassed entirely by large retailers.

Market concentration in retail is exerting downward pressure on the profitability of others in the supply chain. According to WFA figures, on an average \$15 bottle of wine the winery margin is 3 per cent, while the retail margin is 23 per cent. Although large retailers can offer consumers lower prices due to economies of scale, they are also able to use their market power to offer lower prices to growers and manufacturers, thereby keeping the lion's share of profits to themselves.

The various claims from the WFA and WGGGA about the likely impacts of a change in the tax regime are worth examining. In a submission to the Australian Parliament it was claimed that tax rates on Australian wine are much higher than in other comparable wine-producing countries. WFA and WGGGA produced figures that show Australian tax rates as substantially higher than in those other countries. These figures were misleading, because they included the Australian GST but ignored the equivalent value-added tax in European countries and failed to account for the fact that many small Australian producers effectively pay zero WET. If the figures are revised to take into account these oversights then it is apparent that the Australian taxation system conforms more closely to overseas wine producing countries.

In order to examine other claims made by the WFA and WGGGA about the impact of a tax change, it should be emphasised that cask wine is by far the cheapest way to purchase alcohol on a volumetric basis. One standard drink retails for as little as \$0.36 via a cask of red wine, compared with \$1.51 for cider, \$1.75 for beer and \$2.52 for RTDs.

The WFA has also made what appear to be exaggerated claims about potential reductions in production and employment in the event of a switch to a volumetric tax and the associated increases in the price of cheap wine. While the price increase is likely to be proportionately highest for cask wine, cask wine will remain the cheapest means of obtaining a given amount of alcohol; red wine would still be cheaper by 47 per cent compared with the next cheapest source of alcohol content. This implies that any reduction in cask wine consumption is likely to translate into an equivalent reduction in total alcohol consumption.

The WFA has expressed concern about the welfare of pensioners, who in most cases consume modest amounts of cask wine. However, pensioners spend a smaller proportion of their incomes on wine than average. This means that any increases in the cost of wine (through a new tax or otherwise) will be reflected in the official consumer price index and, via pension indexation, will result in higher pension payments. Indeed, if price increases lead to changes in spending patterns, then the average pensioner may well be financially better off.

The final claim made by the WFA relates to the impact of tax changes on jobs, asserting that sales would fall by 34 per cent and that between 5,300 and 12,000 jobs would be lost. However, these figures are based on very unrealistic assumptions about the changes in consumption that could be expected following price increases. Using figures derived from recent empirical studies, we estimate that production could fall by 5.2 per cent and that there may be a loss of 599 jobs. These figures include both direct and indirect impacts of lower production in the wine industry itself and in the industries which supply it.

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