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**Excise Taxes on Wines, Beers and Spirits:
An Updated International Comparison**

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Excise Taxes on Wines, Beers and Spirits: An Updated International Comparison

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Executive Summary

This note seeks to compare across countries the various excise taxes that are applied to wholesale prices for wines and other alcohols. Many of those taxes are volumetric (x dollars per litre of product or of the alcohol therein) while only a few are ad valorem, such as Australia's 29%. To make the specific taxes comparable with the ad valorem ones, it is necessary to nominate wholesale price points in a common currency (AUD) and average alcohol contents (12.5% for wines, 5% for beers, 40% for spirits).

We present two types of comparisons of what we call the **consumer tax equivalent** (both of which ignore the GST or VAT that might then also be added at the retail level). One is the percentage by which the tax raises the wholesale price at particular price points. The other is the number of cents by which the tax raises the wholesale price per standard drink (=0.0125 litres of pure alcohol).

The **key messages** to emerge from these comparisons are as follows:

- For commercial premium wines (the sort that would retail at AUD12), Australia's 29% is the highest tax rate among the significant wine-exporting countries: the majority have zero taxes on such wines, France has 0.7%, South Africa 4%, the United States 6% and Canada 8%.
- At higher price points such as for super premium wines, only Korea and Norway among OECD countries have a higher tax rate than Australia's 29%.
- When expressed in Australian cents per standard drink of alcohol, Australia's wholesale tax for commercial premium wines (22 cents) is the same as New Zealand's, but at any higher price point Australia's tax exceeds New Zealand's. That 22 cents in Australia compares with zero in Argentina, 3 cents in South Africa, 5 cents in the United States, and 6 cents in Canada – and just 1 cent in France and zero in the other Old World wine-exporting countries.
- That indicator for wines, when expressed as a percentage of those for other beverages, shows wines are taxed less than spirits in all but Japan, and are taxed at a similar or lower rate than beer in all but a handful of countries. Again, Australia is taxing wine relative to other alcoholic beverages more than most wine-exporting countries, the main exception being Chile where beer is very lightly taxed.

Excise Taxes on Wines, Beers and Spirits: An Updated International Comparison

Australia's rate of wine consumer taxation was shown by Berger and Anderson (1999) to be high by OECD standards at that time, and especially by the standards of significant wine producing/exporting countries. That was also true when those numbers were updated to 2008 by Anderson (2010). Australia's type of wine tax is unusual in being ad valorem (a percentage of the wholesale price) rather than specific (in cents per litre of alcohol), however, so the comparison depends on what price level is the focus of attention.

The Australian Government considered undertaking major tax reform following a 2009 review of the overall Australian tax system (Henry 2009). As part of that new review, the question of wine and other alcohol tax rates and instruments came into focus – encouraged somewhat by the call by the World Health Organization (2009) for stronger measures to reduce the harmful use of alcohol, and the recent adoption of tougher measures in such countries as France and the United Kingdom.

It has been argued that the rate of taxation of wine should not be raised because (a) it is still high by international standards and (b) wine is drunk mainly by adults in moderation with food rather than being the main beverage of choice for young binge drinkers such that it has fewer social costs than other forms of alcohol (WFA 2010). This paper examines that first claim by comparing recent tax measures for Australia with those of other countries, as a contribution to the debate. In doing so, tax rates for other alcoholic beverages are also compiled, since the optimal wine tax is not independent of the tax rates affecting consumption of substitute beverages.

The present paper reviews the data available and the methodology for comparing rates of taxation across countries. Estimates are then presented of the domestic alcohol taxes in Australia and the other high-income plus key developing countries that together account for more than 90 per cent of global wine consumption. The tax rates are expressed both as ad valorem equivalents and as volumetric rates per standard drink of alcohol,¹ and at a selection of still wine price points. The latter is helpful for considering the impact these taxes are having on different types of consumers; but it is also helpful for analysts seeking to use these estimates in economic models of wine markets in which the distinction is made between, say, non-premium, commercial premium and super-premium wines (as in Wittwer and Anderson 2003 and Anderson and Wittwer 2013).

Methodology and data sources

In the many countries in which specific (volumetric, dollars per litre of beverage or of alcohol) tax rates are used without or with ad valorem (percentage) rates, the consumer tax equivalent (CTE) in percentage terms varies with the price of wine. This distinction is important because in recent years the world wine market has been characterised by a trend towards premium wine consumption, and in some traditional wine-consuming countries the volume of non-premium wine consumption has fallen greatly. We therefore identify the tax type (specific and/or ad valorem) and express

¹ One standard drink in Australia is 12.5 ml of pure alcohol (and so is equivalent to 250ml of beer at 5% alcohol or 12.5° Plato, or 100 ml of wine at 12.5% alcohol, or 31.25ml of spirits at 40% alcohol). Thus the specific tax rate becomes an A\$ tax per standard drink by multiplying by 0.000125 the regular-strength beer, wine and spirits tax rates per hectolitre per degree of alcohol. See www.alcohol.gov.au.

the CTE in terms of dollars per standard alcoholic drink as well as an ad valorem equivalent.

Specifically, CTEs are calculated for regular beer (5% alcohol, A\$2/litre wholesale pre-tax) and spirits (40% alcohol, A\$15/litre wholesale pre-tax) and for wines at four different wholesale pre-tax prices assuming all have an alcohol content of 12.5%: non-premium still wine (A\$2.50/litre at the wholesale pre-tax level), mid-range commercial premium still wine (A\$7.50/litre), super-premium still wine (A\$20/litre), and sparkling wine (A\$25/litre).

The chosen wholesale pre-tax price for non-premium wine such as sold in casks (A\$2.50/litre), with a 29% excise tax (WET), a 33% mark-up to retail, and the 10% GST, implies a retail price in Australia of \$18.90 for a 4-litre cask. For commercial premium wine, A\$7.50/litre wholesale implies, with a 29% excise tax (WET), a 50% mark-up to retail and 10% GST, a retail price of \$12 for a 750ml bottle; and for super-premium and sparkling wine (A\$20 and \$25 per litre, respectively) and the same mark-ups as commercial premium implies a retail price of around \$32 and \$40, respectively, for a 750ml bottle.

The ad valorem consumer tax equivalent (CTE) is defined as the percentage by which the pre-tax wholesale price has been raised by beverage taxes (but not including the GST or VAT).² To estimate it, numerous assumptions have to be made.

First, the CTE is assumed to apply also at the retail level, on the assumption that the wholesale-to-retail margin is ad valorem. If in fact those margins are

² Most countries also have a value-added or goods-and-services tax applying to beverages, but since those taxes apply at the retail level to most other goods as well we do not add them to the beverage-specific taxes. However, for completeness they are reported in Table 1. The foreign exchange rates used to convert specific tax rates expressed in national currencies to the Australian currency are reported in Tables 2 and 4, based on Reserve Bank of Australia rates on 3 January 2012 and 1 July 2014 (RBA 2014).

somewhat independent of the product price, then our CTE estimate will overstate the proportional impact of the tax on consumers at the retail level.

Second, neither the average pre-tax retail prices of a bottle of commercial or super-premium wine or a litre of non-premium wine, nor the shares of each of these types in national wine consumption, are reliably known for more than a handful of countries. Hence an average CTE for each country is not calculated for wine as a group. Instead we calculate the CTE at price levels that approximate the average prices in Australian dollars for the three chosen categories of still wine sold in Australia in 2014. For each of beer, spirits and sparkling wine we use, for simplicity of comparison, only one representative price for each of those products (A\$2, A\$15 and A\$25 per litre at the wholesale pre-tax level, respectively).

The primary source for domestic tax data are the OECD (2012) and the European Commission (2014), supplemented by national government websites for a few additional countries not included in those official publications.³ These sources express the specific taxes in national currency per hectolitre per degree of alcohol, if the tax instrument is not an ad valorem percentage.

Consumer Tax Equivalent (CTE) calculations

Tables 1 and 3 show the excise taxes in 2012 and 2014 for wines, beers and spirits expressed as a percentage of the selected wholesale pre-tax prices shown at the top of each column. They do not include the VAT or GST (shown in the final column),

³ For example, United States rates for 2014 are obtained from www.taxadmin.org/fta/ and those for Argentina in 2010 and 2014 from <http://infoleg.mecon.gov.ar/infolegInternet/anexos/35000-39999/38621/texact.htm>

which would be added at the retail level. For commercial premium wines (the sort that would retail at AUD12 for a 750ml bottle in Australia inclusive of GST), those rates are depicted in Figure 1, where it is clear that in 2012 Australia's 29% was the highest tax rate among the significant wine-exporting countries: the majority have zero taxes on such wines, France has 0.7%, South Africa 4%, the United States 6% and Canada 8%. At higher price points, such as for super premium wine category in the middle of Table 1, only Korea and Norway among OECD countries had a higher tax rate than Australia's 29%.

Tables 2 and 4 show the excise taxes in 2012 and 2014 for wines, beers and spirits expressed in Australian cents per standard drink of alcohol. They are converted from the national currencies at the exchange rates shown in the final column. In 2012 Australia's wholesale tax per standard drink is the same as New Zealand's for commercial premium wines (22 cents) but is higher at any higher price point above AUD7.50/litre. It compares with zero in Argentina, 3 cents in South Africa, 5 cents in the United States, and 6 cents in Canada – and just 1 cent in France and zero in the other Old World wine-exporting countries. That indicator for wines can be expressed as a percentage of those for other beverages, as in Figures 2 and 3. Wine is taxed less than spirits in all but Japan, and it is taxed at a similar or lower rate than beer in all but a handful of countries. Again, Australia is taxing wine relative to other alcoholic beverages more than most wine-exporting countries, the main exception being Chile where beer is very lightly taxed.

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Figure 1: Ad valorem consumer tax equivalent of excise on commercial premium wines, 1 January 2012 and 1 July 2014

(percent)

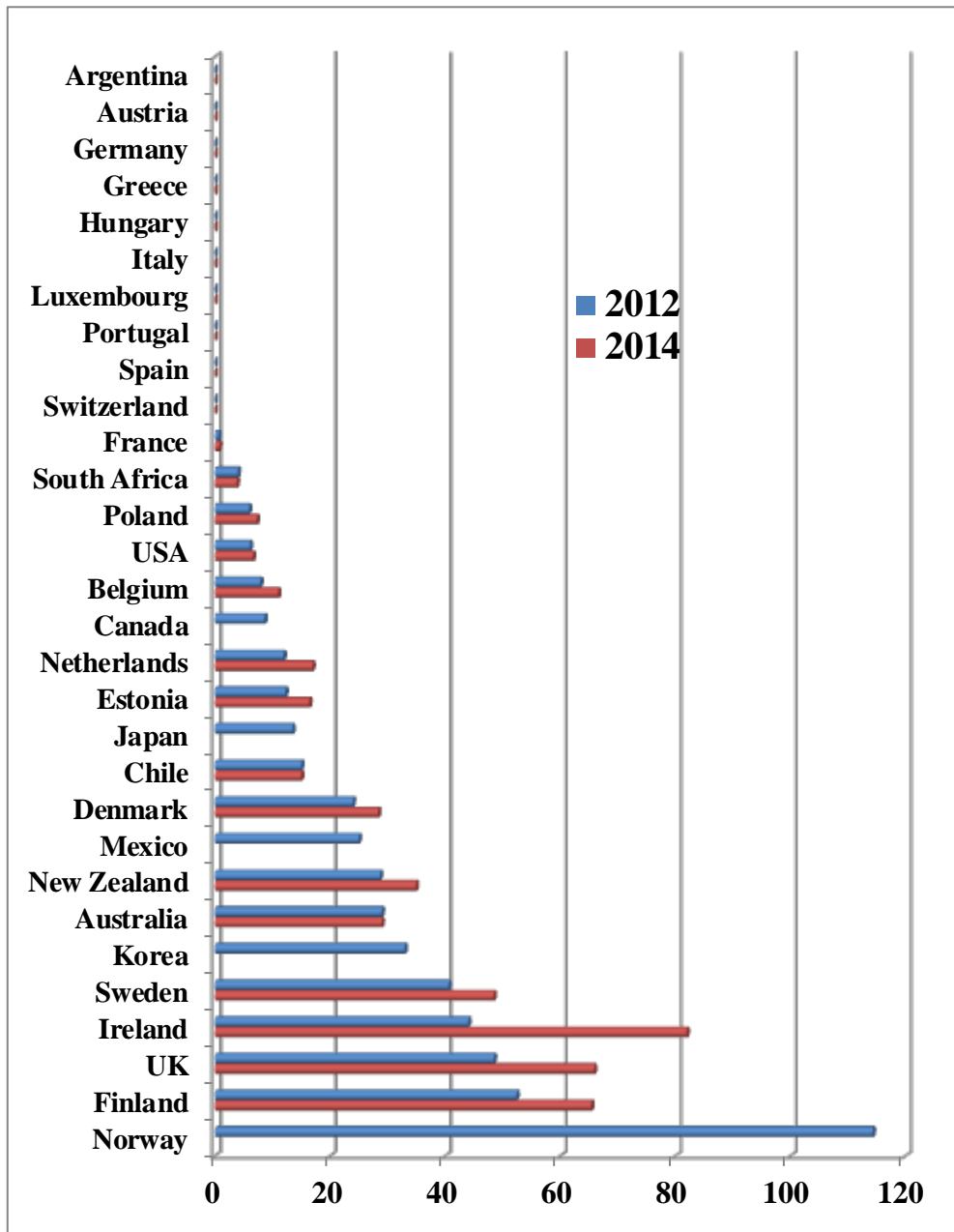


Figure 2: Specific consumer tax on commercial premium wines as a percentage of that on beers per standard drink, 1 January 2012 and 1 July 2014

(percent)

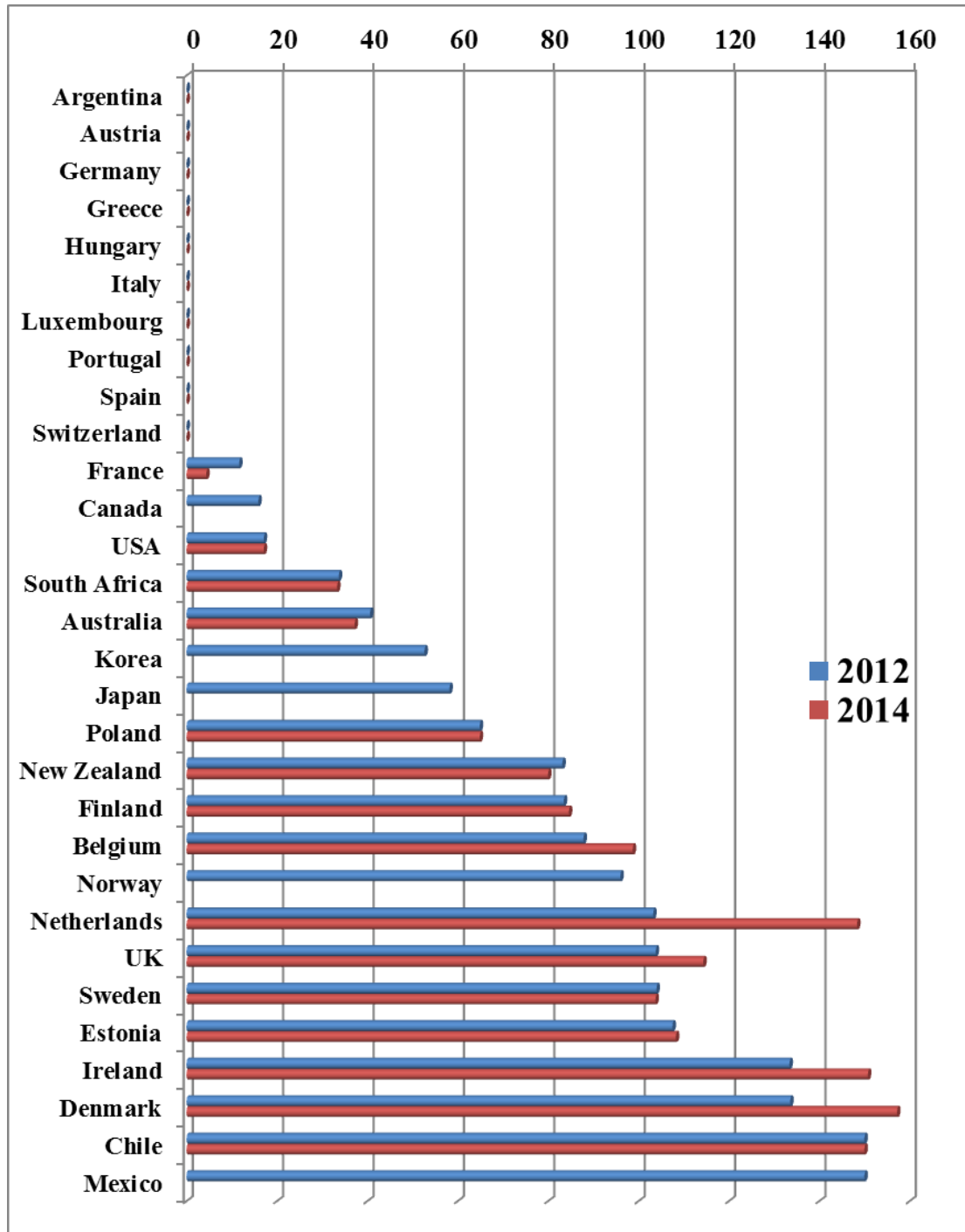


Figure 3: Specific consumer tax on commercial premium wines as a percentage of that on spirits per standard drink, 1 January 2012 and 1 July 2014

(percent)

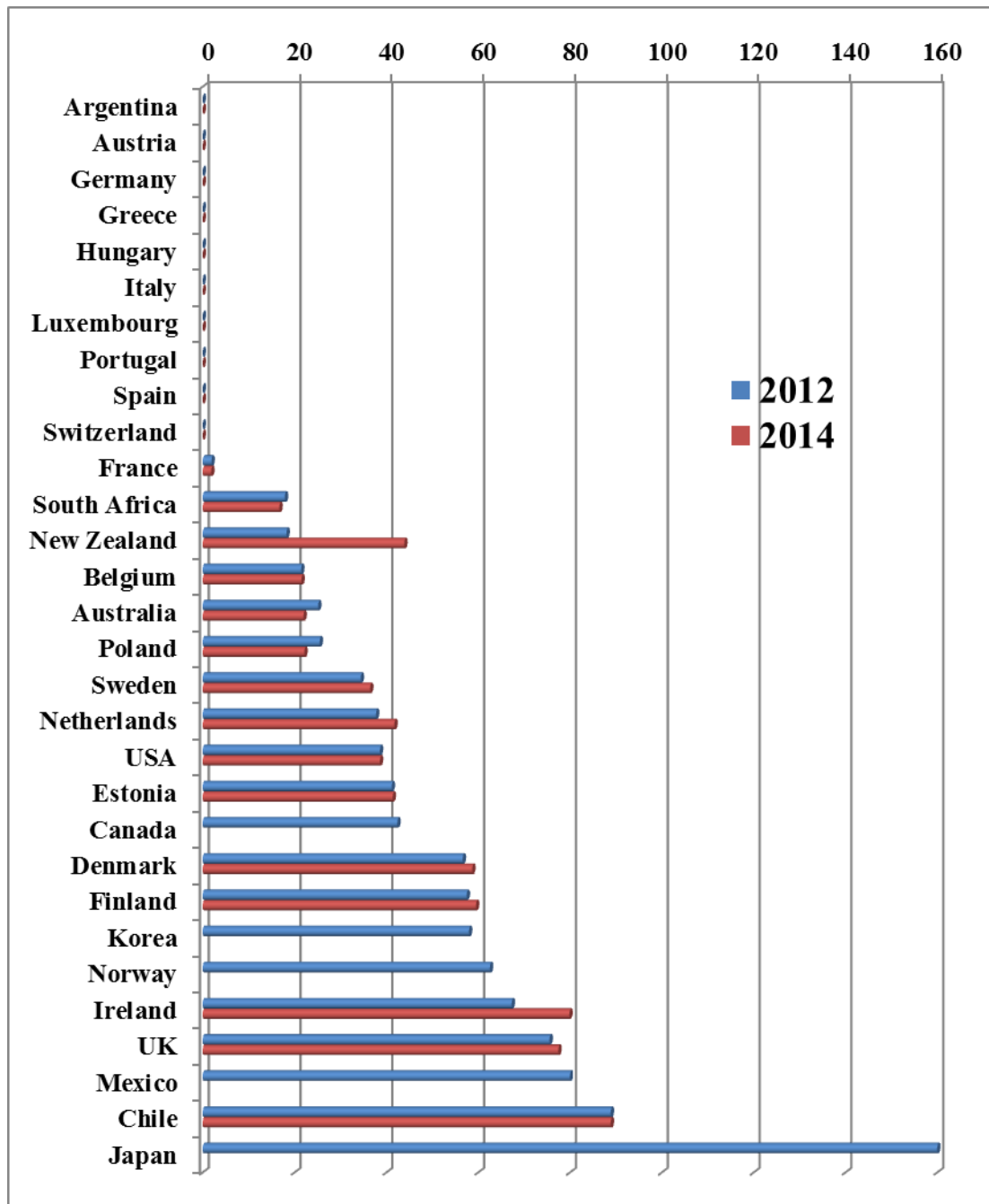


Table 1: Ad valorem consumer tax equivalent of excise taxes on wines, beers and spirits,^b 1 January 2012

(as % of the wholesale wholesale pre-tax prices per litre shown in column heads)

		Ad valorem equivalent rates at the quoted wholesale pre-tax price						VAT/ GST (%)
		Non- premium wine	Commercial premium wine	Super premium wine	Sparkling wine	Beer	Spirits	
		\$2.50	\$7.50	\$20	\$25	\$2	\$15	
Argentina	AR	0.0	0.0	0.0	0.0	8.0	20.0	21
Australia	AU	29.0	29.0	29.0	29.0	107.1	184.4	10
Austria	AT	0.0	0.0	0.0	0.0	15.8	33.6	20
Belgium	BE	23.7	7.9	3.0	8.1	13.5	58.9	21
Canada	CA	23.7	7.9	3.0	2.4	74.7	29.9	up to 15
Chile	CL	15.0	15.0	15.0	15.0	15.0	27.0	19
Czech Rep.	CZ	0.0	0.0	0.0	4.6	3.9	37.2	20
Denmark	DK	71.9	24.0	9.0	9.6	26.9	67.7	25
Estonia	EE	36.8	12.3	4.6	3.7	17.1	47.7	20
Finland	FI	157.4	52.5	19.7	15.7	94.3	145.9	23
France	FR	2.0	0.7	0.3	0.5	8.7	55.8	20
Germany	DE	0.0	0.0	0.0	6.9	6.2	43.8	19
Greece	EL	0.0	0.0	0.0	0.0	20.5	82.4	23
Hungary	HU	0.0	0.0	0.0	2.4	14.6	30.8	27
Ireland	IE	132.1	44.0	16.5	26.4	49.5	104.7	23
Israel	IL	0.0	0.0	0.0	0.0	137.4	110.3	16
Italy	IT	0.0	0.0	0.0	0.0	18.5	26.9	21
Japan	JP	40.5	13.5	5.1	4.0	34.8	13.5	5
Korea	KR	33.0	33.0	33.0	33.0	94.0	91.0	10
Luxembourg	LU	0.0	0.0	0.0	0.0	6.2	35.0	15
Mexico	MX	25.0	25.0	25.0	25.0	25.0	50.0	16
Netherlands	NL	35.8	11.9	4.5	12.2	17.3	50.6	19
New Zealand	NZ	86.1	28.7	10.8	8.6	51.8	251.5	15
Norway	NO	343.1	114.4	42.9	34.3	178.7	292.4	25
Poland	PL	17.8	5.9	2.2	1.8	13.7	37.3	23
Portugal	PT	0.0	0.0	0.0	0.0	58.09	37.3	23
Slovak Rep	SK	0.0	0.0	0.0	4.0	11.3	36.3	20
Slovenia	SI	0.0	0.0	0.0	0.0	31.5	33.6	20
South Africa	ZA	12.0	4.0	1.5	3.6	17.8	35.7	10
Spain	ES	0.0	0.0	0.0	0.0	31.4	27.9	18
Sweden	SE	122.0	40.7	15.3	12.2	58.7	189.0	25
Switzerland	CH	0.0	0.0	0.0	0.0	43.7	80.0	8
Turkey ^a	TR	40.3	13.4	5.0	25.5	63.0	90.6	18
UK	UK	145.5	48.5	18.2	18.7	70.1	102.7	20
USA	US	18.3	6.1	2.3	4.5	53.4	25.2	0

^a Turkey still wine data are for 2010^b Wine and beer degree alcohol contents are assumed to be 12% and 4%, respectively; the absolute alcohol content for spirits is assumed to be 40%.

Table 2: Excise taxes on alcoholic beverages per standard drink of alcohol^c for wines, beers and spirits, 1 January 2012

(Australian cents at the wholesale pre-tax prices per litre shown in column heads)

	AUD in cents						Exchange rate (local currency per AUD)
	Non-premium wine	Commercial premium wine	Super premium wine	Sparkling wine	Beer	Spirits	
	\$2.50	\$7.50	\$20	\$25	\$2	\$15	
Argentina ^b	0	0	0	0	8	10	4.47
Australia ^b	7	22	58	73	54	86	1.00
Austria	0	0	0	0	8	16	0.79
Belgium	6	6	6	20	7	28	0.79
Canada	6	6	6	6	37	14	1.04
Chile ^b	4	11	30	38	8	13	533.62
Czech Rep.	0	0	0	11	2	17	20.44
Denmark	18	18	18	24	13	32	5.91
Estonia	9	9	9	9	9	22	0.79
Finland	39	39	39	39	47	68	0.79
France	1	1	1	1	4	26	0.79
Germany	0	0	0	17	3	21	0.79
Greece	0	0	0	0	10	39	0.79
Hungary	0	0	0	6	7	14	250.94
Ireland	33	33	33	66	25	49	0.79
Israel	0	0	0	0	69	17	3.97
Italy	0	0	0	0	9	13	0.79
Japan	10	10	10	10	17	6	79.09
Korea ^b	8	25	66	83	47	43	1184.17
Luxembourg	0	0	0	0	3	16	0.79
Mexico ^b	6	19	50	63	13	23	14.19
Netherlands	9	9	9	30	9	24	0.79
NewZealand	22	22	22	22	26	118	1.31
Norway	86	86	86	86	89	137	6.13
Poland	4	4	4	4	7	17	3.54
Portugal	0	0	0	0	29	17	0.79
Slovak Rep	0	0	0	10	6	17	0.79
Slovenia	0	0	0	0	16	16	0.79
South Africa	3	3	3	9	9	17	8.33
Spain	0	0	0	0	16	13	0.79
Sweden	31	31	31	31	29	89	7.07
Switzerland	0	0	0	0	22	38	0.97
Turkey	10	10	10	64	32	42	1.94
UK	36	36	36	47	35	48	0.66
USA	5	5	5	12	28	13	1.03

^a Turkey still wine data are for 2010^b Argentina, Australia, Chile, Korea and Mexico have an ad valorem tax on Non-premium, Commercial premium and Super premium wines^c One standard drink in Australia is 12.5 ml of pure alcohol, and so is equivalent to 250ml of beer at 5% alcohol or 12.5° Plato, or 100 ml of wine at 12.5% alcohol, or 31.25ml of spirits at 40% alcohol.

Table 3: Ad valorem consumer tax equivalent of excise taxes on wines, beers and spirits,^b 1 July 2014

(as % of the wholesale wholesale pre-tax prices per litre shown in column heads)

Table 3: Excise taxes and VAT/GST on wine, beer and spirits, 2014, %
Ad valorem equivalent rates at the quoted wholesale pre-tax price

		Non- premiu m wine \$2.50	Commercial premium wine \$7.50	Super premium wine \$20	Sparkling wine \$25	Beer \$2	Spirits \$15	VAT/ GST (%)
Argentina	AR	0.0	0.0	0.0	0.0	8.0	20.0	21
Australia	AU	29.0	29.0	29.0	29.0	116.9	211.3	10
Austria	AT	0.0	0.0	0.0	5.8	18.1	46.3	20
Belgium	BE	33.0	11.0	4.1	11.3	16.7	81.8	21
Chile	CL	15.0	15.0	15.0	15.0	15.0	27.0	19
Czech Rep.	CZ	0.0	0.0	0.0	4.9	4.2	39.9	21
Denmark	DK	85.2	28.4	10.6	11.0	27.1	77.4	25
Estonia	EE	49.2	16.4	6.2	4.9	22.7	63.4	20
Finland	FI	196.3	65.4	24.5	19.6	116.0	175.8	24
France	FR	2.3	0.8	0.3	0.5	26.5	66.4	20
Germany	DE	0.0	0.0	0.0	7.9	7.1	50.3	19
Greece	EL	0.0	0.0	0.0	0.0	23.5	94.6	23
Hungary	HU	0.0	0.0	0.0	3.0	18.7	41.1	27
Ireland	IE	246.1	82.0	30.8	49.2	81.6	164.3	21
Italy	IT	0.0	0.0	0.0	0.0	24.4	36.4	22
Luxembourg	LU	0.0	0.0	0.0	0.0	7.2	40.2	15
Netherlands	NL	51.0	17.0	6.4	14.7	17.2	65.1	21
New Zealand	NZ	104.8	34.9	13.1	10.5	65.5	127.3	15
Poland	PL	21.9	7.3	2.7	2.2	16.9	52.7	23
Portugal	PT	0.0	0.0	0.0	0.0	68.3	48.3	23
Slovak Rep	SK	0.0	0.0	0.0	4.6	13.0	41.7	20
Slovenia	SI	0.0	0.0	0.0	0.0	43.8	51.0	22
South Africa	ZA	11.4	3.8	1.4	3.6	17.1	36.5	14
Spain	ES	0.0	0.0	0.0	0.0	36.0	35.2	21
Sweden	SE	145.4	48.5	18.2	14.5	70.1	212.6	25
UK	UK	197.8	65.9	24.7	25.3	86.5	136.2	20
USA ^a	US	19.9	6.6	2.5	4.9	58.2	27.5	0

^a USA data are for 2012^b Wine and beer degree alcohol contents are assumed to be 12% and 4%, respectively; the absolute alcohol content for spirits is assumed to be 40%.

Table 4: Excise taxes on alcoholic beverages per standard drink of alcohol^c for wines, beers and spirits, 1 July 2014

(Australian cents at the wholesale pre-tax prices per litre shown in column heads)

	AUD in cents						Exchange rate (local currency per AUD)
	Non- premium wine	Commercial premium wine	Super premium wine	Sparkling wine	Beer	Spirits	
	\$2.50	\$7.50	\$20	\$25	\$2	\$15	
Argentina ^b	0	0	0	0	8	10	7.72
Australia ^b	7	22	58	73	58	99	1.00
Austria	0	0	0	14	9	22	0.69
Belgium	8	8	8	28	8	38	0.69
Chile ^b	4	11	30	38	8	13	523.83
Czech Rep.	0	0	0	12	2	19	19.03
Denmark	21	21	21	27	14	36	5.17
Estonia	12	12	12	12	11	30	0.69
Finland	49	49	49	49	58	82	0.69
France	1	1	1	1	13	31	0.69
Germany	0	0	0	20	4	24	0.69
Greece	0	0	0	0	12	44	0.69
Hungary	0	0	0	8	9	19	216.17
Ireland	62	62	62	123	41	77	0.69
Italy	0	0	0	0	12	17	0.69
Luxembourg	0	0	0	0	4	19	0.69
Netherlands	13	13	13	37	9	31	0.69
New Zealand	26	26	26	26	33	60	1.08
Poland	5	5	5	5	8	25	2.88
Portugal	0	0	0	0	34	23	0.69
Slovak Rep	0	0	0	12	6	20	0.69
Slovenia	0	0	0	0	22	24	0.69
South Africa	3	3	3	9	9	17	10.06
Spain	0	0	0	0	18	17	0.69
Sweden	36	36	36	36	35	100	6.35
UK	49	49	49	63	43	64	0.55
USA ^a	5	5	5	12	29	13	0.95

^a USA data are for 2012^bArgentina, Australia and Chile have an ad valorem tax on wines^c One standard drink in Australia is 12.5 ml of pure alcohol, and so is equivalent to 250ml of beer at 5% alcohol or 12.5° Plato, or 100 ml of wine at 12.5% alcohol, or 31.25ml of spirits at 40% alcohol.