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There's much talk about China being the world's fastest-growing market for wine, but little analysis of how large it might become relative to other Asian markets, in what price segments, and supplied by whom.

The growth in Asian wine export opportunities in the past few years coincided with an appreciation of Australia's currency, which weakened our competitiveness abroad and reduced foreign interest in investing in Australian wineries. Certainly the 10+% fall in the AUD in recent months (see Figure 1), if sustained, could reverse that decline in competitiveness – but it is coinciding with a slowdown in Asian income growth and a rapid expansion in domestic wine production in China.

To get a clearer idea of the relative importance of these various and sometimes offsetting forces, Anderson and Wittwer (2013) have revised and updated their model of the world's wine markets (see Wittwer, Berger and Anderson 2003) to project China's demand for imports from Australia and elsewhere over the period 2011 to 2018. In doing so we pay particular attention to all major bilateral real exchange rate (RER) movements globally, not just the nominal US$, Euro and UK pound rates for the AUD. Our Base scenario assumes no change from 2011 RERs, which we compare with an alternative scenario in which RERs for all but China and India return half-way back to 2009 rates. While the latter seems the more likely scenario, given the fall in the value of the AUD over the past few months, a comparison with the no-change scenario gives a sense of the importance of future exchange rate movements.

Exchange rates are not the only pertinent things that will change by 2018 of course. There will be changes in national consumption levels as populations and incomes grow, and also in national preferences, technologies, and capital investments in grape and wine production. For example, we assume the long trend preference swing globally away from non-premium wines is assumed to continue.

In this article the main focus within Asia is on China because, as Figure 2 shows, it is by far the biggest consumer of wine in Asia. In fact its aggregate wine consumption is around 100 times that of equally populous India, and already seven times that of far-wealthier Japan. We assume there will continue to be a considerable taste swing in China towards all wine types as more Chinese earn middle-class incomes, bearing in mind that the number of middle class people in China is currently around 250 million and is growing at 10 million per year (Kharas 2010; Barton, Chen and Jin 2013), and that grape wine still accounts for less than 5% of Chinese alcohol consumption. As well, grape and wine industry capital, net of depreciation, is assumed to grow at 1.5% per year in China but zero elsewhere.

Given the uncertainty associated with several dimensions of developments in China's wine markets, we also compare the more likely of our two main scenarios to 2018 (in which RERs revert half-way back from 2011 to 2009 rates, call it Alternative 1) with another scenario (call it Alternative 2) in which three dimensions are altered: China's expenditure growth during 2011-18 is reduced by one-quarter (from 7.5% to 5.6% per year), its RER is lowered 15%t, and its grape and wine industry capital is assumed to grow at 3% instead of 1.5% per year. All three changes ensure a much smaller increase in China's wine imports by 2018 in this second alternative scenario.

The differences between the three scenarios in the projected impacts on Australian production and real AUD producer prices are evident in Table 1. For the period to 2018, Australia's non-premium grape and wine prices are projected to fall further if real exchange rates don't change from their 2011 levels, while super-premium and iconic still wine prices rise by more than 40% (Table 1a). If, on the other hand, RERs were to return half-way toward what they were in 2009, real prices in Australia would rise above 2011 levels for most grape and wine types, especially for super+ premium wines (Table 1b). The extent of those rises would be somewhat but not substantially less if China's import growth were slower as in the Alternative 2 scenario (Table 1c).

Even if there were no changes in exchange rates, Australia is projected to expand its output by 2018 for all wine types except non-premium. For commercial premium and super-premium, the increases are 8% and 15% (Table 1a). But, with the reversal in RER trends, those output increases would be 13% and 18%, respectively, unless China's import growth was much slower in which case they would be one percentage point less (Tables 1b and 1c).

The income, population and preference changes together mean that global consumption grows over the period to 2018 for all but non-premium wine, but least so for commercial premium. The percentage increases are very similar in the three scenarios for the Old World and Japan, but are somewhat more in the United Kingdom, China and especially the United States in the altered currencies' scenarios versus the scenario with no changes in real exchange rates. What is more striking is the concentration of consumption growth and declines. As shown in Figure 3, in all scenarios the growth is concentrated in the US, Brazil and especially China, while there are substantial declines in consumption in the Old World (mostly of non-premium wines).

When combined with the changes projected in production, it is possible to get a picture of what is projected to happen to wine trade. Table 2 provides projections for the main wine-trading regions. In terms of volumes, world trade grows 6% in the base scenario and 7% in the Alternative 1 scenario in which RERs change. Virtually all of that increase in those two scenarios is due to China's import growth. In the Alterative 2 scenario, in which China imports less, global trade also expands less (by only 4%). In terms of the real value of global trade, however, the upgrading of demand means that China accounts for only a fraction of the growth in the US$

value of global imports, namely 36%, 43%, and 30% in the Base, Alternative 1 and Alternative 2 scenarios, respectively. In all three scenarios the value of global wine trade rises by about one-sixth (last row of Table 2).

China has already become by far the most important wine-consuming country in Asia (Figure 2) and, with a projected extra 620-940 ML to be added by 2018 to its consumption of 1630 ML in 2011, that dominance is becoming even greater. Since China's domestic production is projected to increase by 'only' about 210-290 ML by 2018, its net imports are projected to rise by between 330 and 740 ML. The Southern Hemisphere supplies a little more than half of those extra imports in the Base scenario, and a little less than half in the alternative scenarios. The United States reduces its imports by 24ML and expands its exports to China by 50ML in the Base scenario, but in the alternative scenarios it increases its imports of premium wines.

Australia is projected to supply between 70 and 147 ML of China's extra imports, amounting to between US$350m and $650m per year (Table 3). That represents about one-fifth of China's total import *volume* increase, and – more importantly – between 22% and 30% of the *value* of China's extra imports.

What about Australia's exports to other countries? Again it depends very much on the scenario. If real exchange rates did not change from 2011 to 2018, Australia's exports to all destinations other than Asia would decline, and in aggregate volume would be no more than in 2011. By contrast, if exchange rates were to settle at half-way back to those of 2009 (Alternative 1), Australian total annual exports would increase by 90 ML to become about one-eighth more than in 2011; while in Alternative 2 (slower import growth by China) that increase is only two-thirds as large. The increase in the US$ value of total exports from Australia is much greater though, ranging from 18% to 49% over 2011 values (last row of Table 3).

There is little joy for Australian producers of non-premium wines (and thus grapes) in these projections, however: their exports are expected to fall in all but the most optimistic (Alternative 1) scenario. This is partly because only a small fraction (between one- and two-fifths) of the increased volume of imports by China is projected to be non-premium wines. For Australia those fractions are similar: between 25% and 42% of the projected increase in volume of its exports to China – and much less of the value of those sales – are non-premium.

The share of China in Australia's total value of wine exports is projected to grow from 6% in 2009 to between 20% and 28% by 2018, depending on how rapidly China's aggregate wine imports grow. The UK share, by contrast, is projected to stay flat or fall by 2 percentage points so as to be well below China's by 2018 in the Base and Alternative 1 scenarios, and to be barely above it even in the Alternative 2 scenario. Even the US share only just recovers from its low 2012 level and falls below China's if China keeps growing rapidly (Figure 4).

As for import competition in Australia's domestic market, the share of sales supplied from abroad is projected to rise between 2009 and 2011 by 1 percentage point in terms of value and 4 points in terms of volume if there is no change to real exchange rates, but to be one percentage point lower in both value and volume terms in the two Alternative scenarios in which exchange rates move half-way back to 2009 rates. By contrast, the share of production exported is projected to be 3-5 percentage points lower in the base scenario with no change to real exchange rates, but to be close to 2009 shares in the two Alternative scenarios (Table 4).

To conclude, this modeling exercise suggests exchange rates are capable of playing a major role in the years ahead, just as they have in past years. But on top of that, the above projections point to the enormous speed with which China may become a dominant market for Australian wine producers. While the recent and projected rates of increase in per capita wine consumption in China are no faster than what occurred in several West European wine-importing countries in earlier decades, it is the sheer size of China's population – and the fact that grape wine still accounts for less than 5% of Chinese alcohol consumption – that makes this import growth opportunity unprecedented. It would be somewhat less if China's own winegrape production increases faster, as in the Alternative 2 scenario, but certainly in as short a period as the next five years that is not able to reduce the growth in China's wine imports very much, especially at the premium end of the spectrum.

Of course these projections are not predictions. Where exchange rates move, and how fast Australian wine producers (as compared with their competitors abroad) take advantage of the projected market growth opportunities in Asia, will determine the actual changes in market shares over the coming years.

Acknowledgements

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Table 1: Projected AUD producer price and production volume changes, 2011 to 2018

(%)

(a) 2011 to 2018: **Base scenario** (assuming no RER changes from 2011)

	Price	**Production**
Non-premium wine	-15.3	-8.1
Commercial-premium	2.7	8.1
Super-premium	49.7	15.3
Iconic still wine	44.8	15.4
Sparkling wine	8.3	11.4
Premium grapes	20.1	9.6
Non-premium grapes	-6.1	6.1

(b) 2011 to 2018: **Alternative 1** (assuming RERs return half-way from 2011 to 2009 rates)

	Price	**Production**
Non-premium wine	-5.9	1.4
Commercial-premium	19.0	13.4
Super-premium	67.9	18.0
Iconic still wine	49.6	16.3
Sparkling wine	19.0	15.1
Premium grapes	34.6	11.4
Non-premium grapes	12.2	9.6

(c) 2011 to 2018: **Alternative 2** (assuming also slower Chinese import growth)

	Price	**Production**
Non-premium wine	-11.7	-4.4
Commercial-premium	12.2	11.7
Super-premium	59.0	17.3
Iconic still wine	49.5	16.4
Sparkling wine	18.5	15.3
Premium grapes	29.8	11.0
Non-premium grapes	4.4	8.2

Source: Authors' model results

Table 2: Projected change in global wine import and export volumes and values, 2011 to 2018

(a) Imports

	Volume (ML)			Value (US$m)		
	Base	**Alt. 1**	**Alt. 2**	**Base**	**Alt. 1**	**Alt. 2**
United Kingdom	-54	-36	-29	98	174	93
North America	-23	11	37	961	1097	1015
Other Europe	-122	-162	-140	1012	646	552
China	627	739	334	1948	2305	1178
Other Asia	20	14	16	877	788	769
Other developing	152	133	141	498	311	318
WORLD	**600**	**696**	**359**	**5394**	**5321**	**3925**

(b) Exports

	Volume (ML)			Value (US$m)		
	Base	**Alt. 1**	**Alt. 2**	**Base**	**Alt. 1**	**Alt. 2**
Australia	0	90	59	336	933	675
Other New World	78	219	75	469	954	597
Old World	538	412	263	4370	3489	2653
WORLD	**600**	**698**	**359**	**5394**	**5321**	**3925**
	(6%)	(7%)	(4%)	(17%)	(17%)	(15%)

Source: Authors' model results

Table 3: Projected change in Australian wine export volumes and values,, by destination, 2011 to 2018

	Volume (ML)			Value (US$m)		
	Base	**Alt. 1**	**Alt. 2**	**Base**	**Alt. 1**	**Alt. 2**
United Kingdom	-40	-25	-11	-59	42	48
Other Europe	-20	-13	-5	-26	28	36
United States	-36	-14	3	-22	115	130
China	108	147	70	428	649	356
Other	-12	-5	2	15	99	105
WORLD	**0**	**90**	**59**	**336**	**933**	**675**
	(0%)	(13%)	(8%)	(18%)	(49%)	(36%)

Source: Authors' model results

Table 4: Shares of Australia's wine production exported and wine consumption imported, by volume and value, actual 2009 and projected 2018

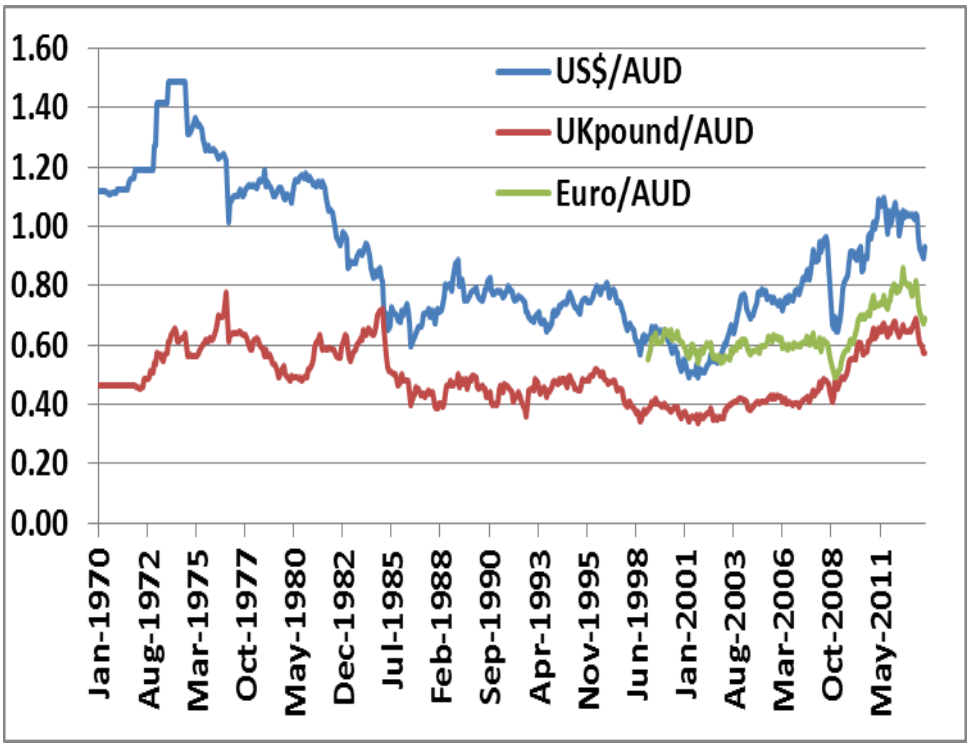
(%)

	Volume		Value	
	Exports/ domestic production	Imports/ domestic consumption	Exports/ domestic production	Imports/ domestic consumption
2009	64	13	46	14
2018:				
Base	61	17	40	15
Alt. 1	65	16	45	14
Alt. 2	63	16	43	14

Source: Authors' model results

Figure 1: Nominal value of the Australian dollar, January 1970 to September 2013

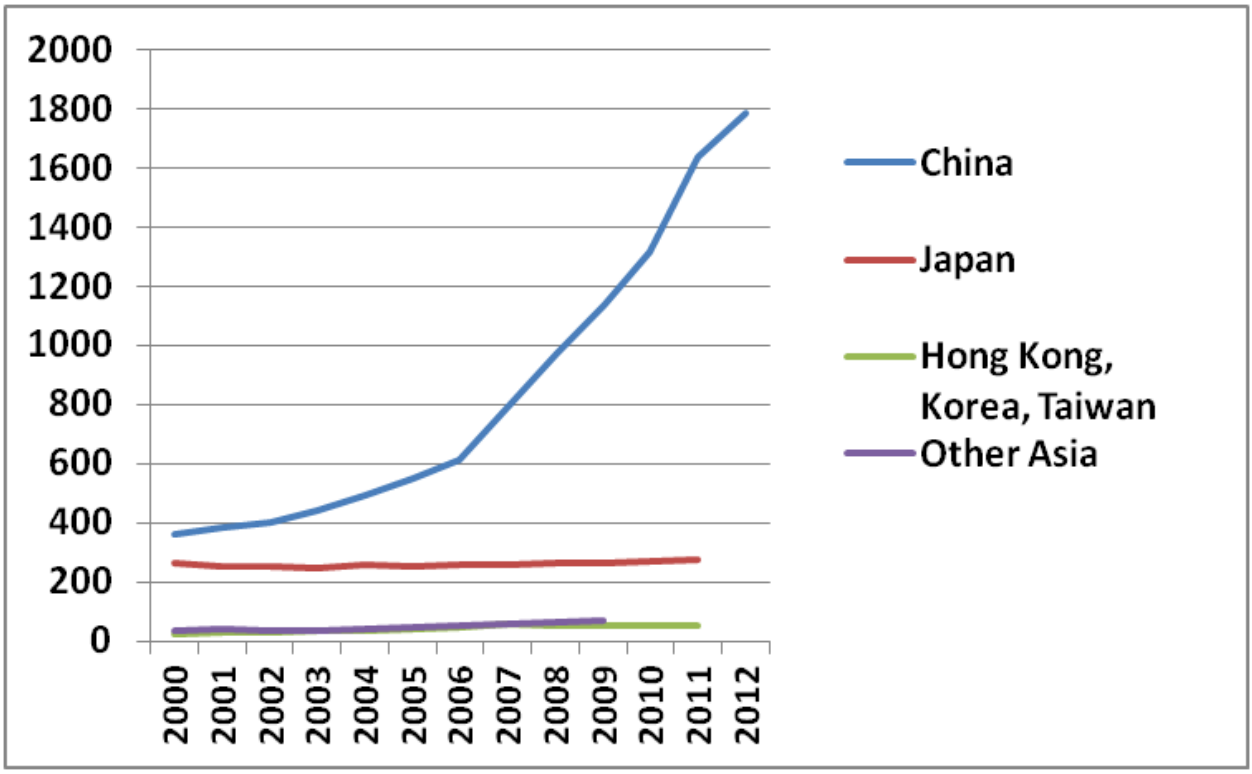
(US dollars, Euros and UK pounds per AUD)



Source: Reserve Bank of Australia (www.rba.gov.au, accessed 11 October 2013)

Figure 2: China's increasing dominance in Asian wine consumption, 2000 to 2012

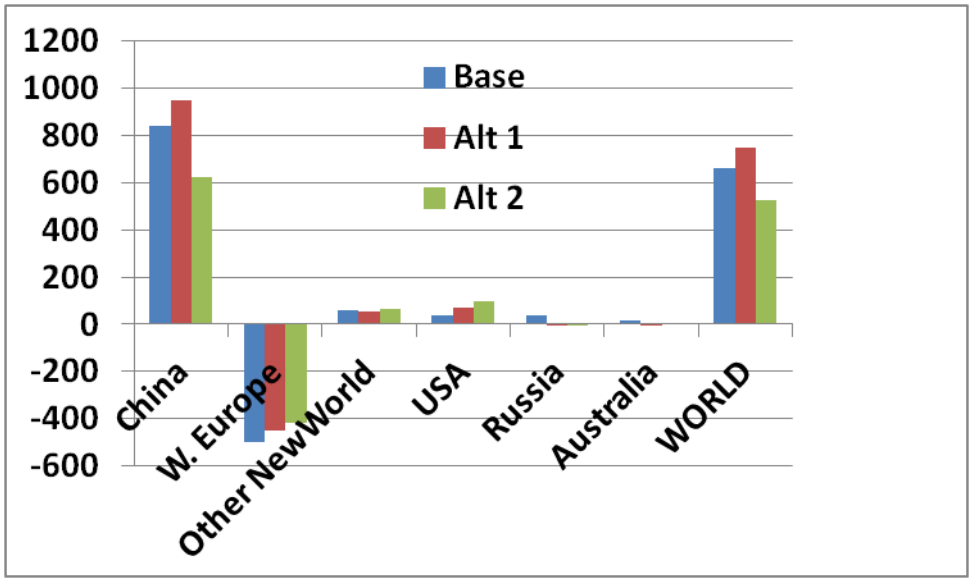
(ML per year)



Source: Anderson and Nelgen (2011, Table 16), updated for China from OIV (2013) and for other countries from Euromonitor International.

Figure 3: Changes in wine consumption, China and elsewhere, 2011 to 2018

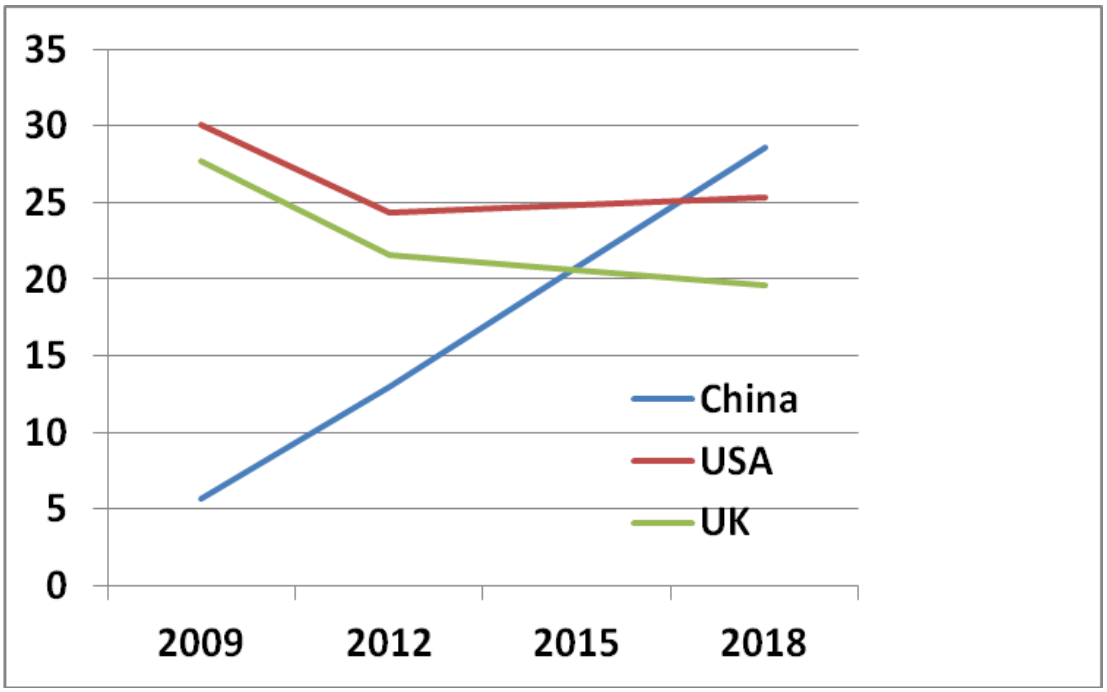
(ML)



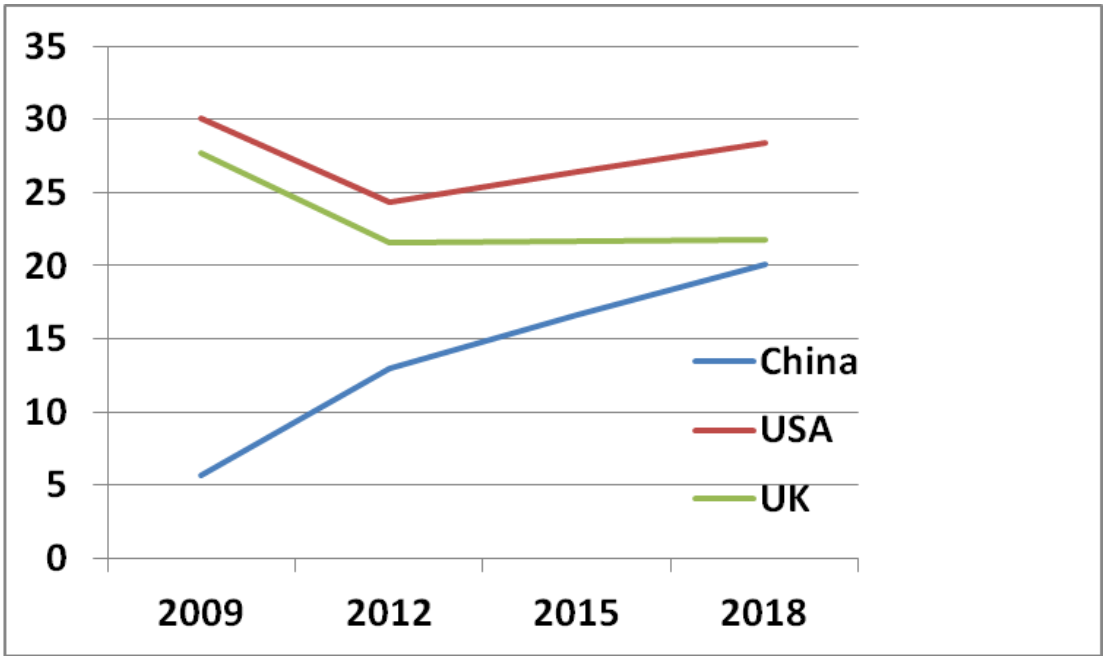
Source: Authors' model results

Figure 4: Shares of value of Australian wine exports to US, UK and China, 2009 to 2018 (%)

(a) **Alternative 1** (assuming RERs return half-way from 2011 to 2009 rates)



(b) **Alternative 2** (assuming also slower Chinese import growth)



Source: Historical data from www.wineaustralia.com and projections from authors' model results