Evolving Consumption Patterns and Free Trade Agreements: Impacts on Global Wine Markets by 2020

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Abstract:

Purpose - Over the past decade Asia has become far more important in global wine consumption, while in traditional wine-producing countries consumption has continued to fall and consumers are moving to higher-quality wines. Bilateral trade patterns are being affected also by changes in real exchange rates and the signing of new free trade agreements (FTAs). This paper examines empirically the impacts of these recent developments, and also of prospective FTAs, in key markets.

Design/methodology/approach - We draw on our model of global wine markets to project all key markets over the next five years under various assumptions that reflect current views on prospective macroeconomic developments.

Findings - We conclude that (1) China looks set to continue to dominate growth in global wine consumption and imports over the remainder of this decade and thus to become a far more dominant player in Asian wine markets, and (2) recent changes in real exchange rates and (to a lesser extent) the signing of new free trade agreements will change current bilateral trade patterns, particularly for New World wine-exporting countries.

Keywords: Changes in tastes, global grape and wine model projections, real exchange rate changes, free trade agreements

1. INTRODUCTION

Wine consumption patterns have changed a lot in recent years. Consumption has continued to fall in traditional wine-producing countries, and consumers there and in other high-income countries are moving gradually to higher-quality wines. Meanwhile, East Asia has become far more important in global wine consumption, and China is expanding rapidly as a wine producer as well. Consumption, production, and hence bilateral trade patterns are being affected too by changes in real exchange rates and the signing of new free trade agreements (FTAs).

The purpose of this paper is to examine empirically the impacts of these recent developments, and also of prospective FTAs, in key markets. We begin by summarizing market growth in the Asian region. We then outline our model of global wine markets, before describing our scenarios for projecting those markets to 2020 under various assumptions that reflect current views on prospective macroeconomic developments. The model results generated from those scenarios are then discussed in some detail. The final section draws out implications and concludes.

2. RECENT DEVELOPMENTS IN ASIA'S WINE MARKETS

There are now seven Asian economies where per capita grape wine consumption exceeds 0.2 litres per year. In each of those countries the level in 2012 was well above that of 2000, but the most dramatic increase has been in China (Figure 1). Since that is also the world's most populous country, its growth has overwhelmingly dominated Asia's overall increase in wine consumption, which has quadrupled since 2000. China accounted for barely half of Asia's wine consumption in 2000, but now it accounts for all but one-fifth. Populous India, by contrast, has a wine market one-fiftieth the size of China's, notwithstanding its double-digit growth over the past decade.

Figure 1: Consumption of grape wine in Asia, 2000 to 2014 (millions of litres)
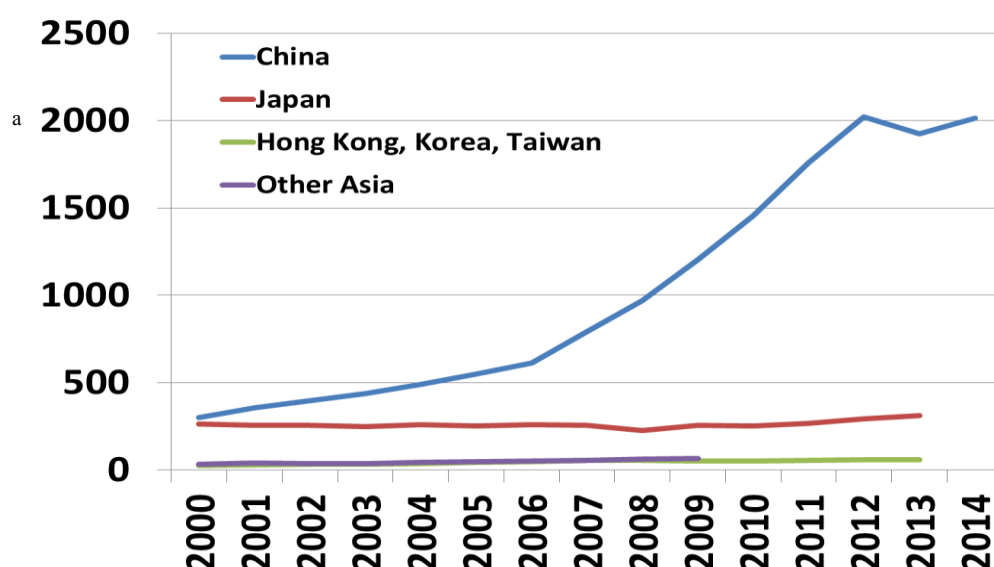
Source: Updated from Anderson and Nelgen (2011).

During the first decade of this century wine doubled its share of Asia's recorded consumption of alcohol, but that brought it to just 3%, or only one-fifth of wine's global share of recorded alcohol consumption (Anderson and Nelgen 2011).

So despite the recent rapid growth in wine consumption in Asia, the potential for further expansion remains enormous, given the current very low level of per capita consumption and share of wine in total alcohol purchases. The rapid aging and educating of the populations in Asia's emerging economies also lends itself to a continuing expansion of demand for wine there. Certainly the Chinese Government's austerity drive from late 2012 discouraged consumption of expensive wines and other luxuries over the subsequent two years, but that influence was minimal on lower-quality wines which are by far the most voluminous (as shown in Table 1).

Table 1: China's wine production, consumption and trade, by quality categories, 2009 (ML)

	Production	Imports	Consumption	*Self-sufficiency (%)*
Non-premium	600	80	680	*88*
Commercial premium	344	86	430	*80*
Super premium	18	7	25	*72*
TOTAL	**962**	**173**	**1135**	*85*

Source: Anderson and Nelgen (2011, Section VI).

Few Asian countries are producing wine from grapes, and none has yet produced enough to export in noticeable quantities. However, China's volume of wine production has been growing rapidly. In fact it has grown more than twice as fast as its area under vines. This has been possible partly because the share of domestically grown grapes destined for wine rather than for the table has risen, but also because China imports a lot of wine in bulk and blends it with wine made from Chinese grapes. Such blending is legally possible because national labeling laws are such that a bottle marked 'Product of China' is required to have only 10% local content.

As for import dependence, it varied in 2009 from 15% in China (up from 8% in 2000-05) to 68% in Japan, 96% in Korea, and 100% for all other Asian countries (Anderson and Nelgen 2011). Thus China's share of Asian wine imports is much less than its share of consumption, especially when expressed in value terms because the unit value of China's imports during 2009-14 was only half the Asian average. Even so China together with Hong Kong now dominate Asia's wine imports, eclipsing even Japan -- whose share was more than 70% in 2000 (Figure 2).

Asian markets are important also because they are high-priced markets. Their average unit import value in 2014 was 2.5 times that of the rest of the world, and even China's was one-fifth above the global average (Figure 3). For small producers of super-premium wines,

especially in nearby Australia, they are therefore becoming very important and profitable markets.

Needless to say, Asian wine imports would be considerably larger if import tariffs and excise taxes on wine were less. In numerous Asian countries they exceed those for beer and spirits on a per-litre-of-alcohol basis (Table 2). The decision by Hong Kong to eliminate its tariff on wine imports in early 2008 is partly why its imports in Figure 2 are so much higher in 2014 than in 2000. As for China, it reduced its MFN tariff on wine from more than 60% to 14% for bottled wine and 20% for bulk wine as part of its Protocol of Accession to join the World Trade Organization in December 2001.
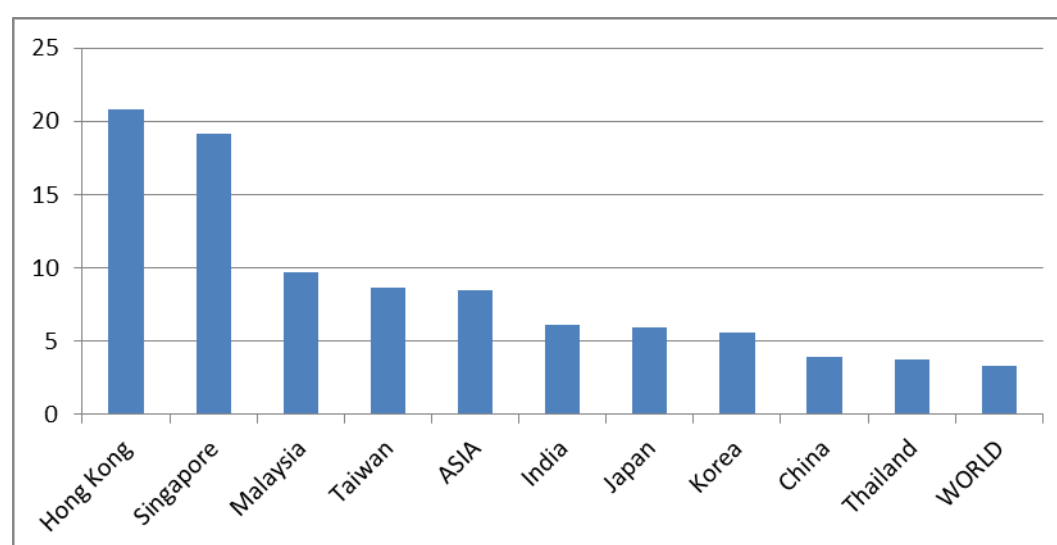
Figure 2: Shares in the value of global wine imports, Asia, 2000 and 2014 (%)
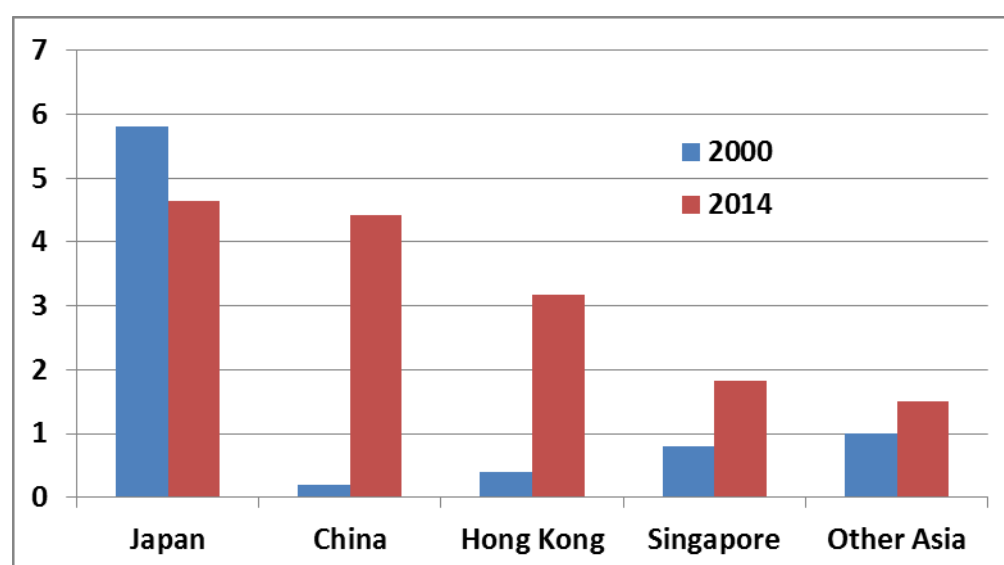
[a] Japan's volume (value) shares are 5.3% (5.8%) in 2000 and 2.1% (3.9%) in 2009.

Source: Updated from Anderson and Nelgen (2011).

Figure 3: Unit value of wine imports, Asia and the world, 2014 (US$/litre)

Source: Authors' compilation from Wine Australia and OIV data.

Table 2: Consumer tax equivalent[a] of excise plus import taxes on alcoholic beverages, 2008 (%)

	Non-premium wine ($2.50/litre)	Commercial premium wine ($7.50/litre)	Super premium wine ($20/litre)	Beer ($2 /litre)	Spirits ($15 /litre)
China	32	25	25	18	21
Japan	32	11	4	0	12
Hong Kong	0	0	0	0	100
India	165	155	152	100	151
Korea	46	46	46	124	114
Philippines	22	12	9	10	35
Taiwan	23	14	12	2	23
Thailand	232	117	81	51	52
Vietnam	88	88	88	96	115

[a] At the prices shown in the column headings, excluding VAT/GST. Vietnam rates refer to 2012.

Source: Anderson (2010), expanded to include China and Vietnam.

Even without further reforms of current taxes, consumption and imports of wine in Asia are destined to rise over the years to come. How much they might rise, and how much China's wine production might expand to satisfy at least some of that demand increase, is not easy to guess. Hence the value of projecting the world's wine markets over the next five years using a formal model with explicit assumptions that can then be altered as more/better information becomes available. The next section describes such a model and the following section reports on its findings, both without and with some recent bilateral and prospective regional trade policy changes.

PROJECTING THE WORLD'S WINE MARKETS TO 2020

Anderson and Wittwer (2013, 2015) have revised and updated a model of the world's wine markets that was first published by Wittwer, Berger and Anderson (2003). In it, wine markets are disaggregated into non-premium (including bulk), commercial-premium, and super-premium, and two types of grapes also are specified (premium and non-premium).

The model's database is calibrated initially to 2009, based on the comprehensive volume and value data and trade and excise tax data provided in Anderson and Nelgen (2011, Sections V, VI and VII). It is projected forward in two steps. The first step involves using actual aggregate national consumption and population growth between 2009 and

2012 (the most-recent year for which data were available for all countries when this study began), together with changes in real exchange rates (RERs). The second step assumes aggregate national consumption and population grow from 2012 to 2020, and that RERs over that period either (a) remain at their 2012 levels (the Baseline Scenario) or (b) change to the extent observed between 2012 and May 2015 and remain unchanged thereafter (the Depreciation scenario, referring to the fact that most currencies depreciated against the US dollar over those 3 years).

Concerning preferences, there is assumed to be a considerable swing towards consumption in China as more Chinese earn middle-class incomes. We project a rise in per capita consumption from 1.2 to 1.6 litres per year. This may be too conservative, as the number of middle class in China is currently around 250 million and growing at 10 million per year, and grape wine account for less than 4% of alcohol consumption in China. As for the rest of the world, the long trend preference swing away from non-premium wines is assumed to continue. Aggregate consumption and population are assumed to grow as projected by the World Bank.

Both grape and wine industry total factor productivity is assumed to grow at 1% per year everywhere, while grape and wine industry capital is assumed to grow net of depreciation at 1.5% per year in China but zero elsewhere.

3. PROJECTION RESULTS

Given the above assumptions, the model's projected changes in global wine consumption continue the three key trends of the recent past, namely, the decline in the volume of sales in traditional wine countries of Europe, the rapid growth in sales in China, and the switch from lower to higher quality wines. Over our projection period the expansion of sales in China outweighs the shrinkage in Europe sufficiently for global wine consumption to be slightly high in 2020 than in 2012 (Figure 4); and the percentage increase in fine wine exports (defined as above US$7.50 per litre f.o.b.) is roughly four times that of commercial wines (Figure 5).

The changes in production and trade that allow this growth in consumption vary across countries depending on the modelled changes in real exchange rates (RERs) and in the mix of fine versus commercial quality wines, as do their impact on producer prices. In Table 3 the RER changes are shown in column 1 and the projected price changes are shown in the other columns in real local currency terms. Australia has had the largest devaluation, so it is not surprising that its grape and wine prices rise most. The decline in demand for lower-quality wines is sufficient to project a fall in prices for US and European commercial premium wines, while in all regions the producer prices of fine wines rise substantially.

Figure 4: Differences in wine consumption in 2020 compared with 2012 (millions of litres)

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than 3%
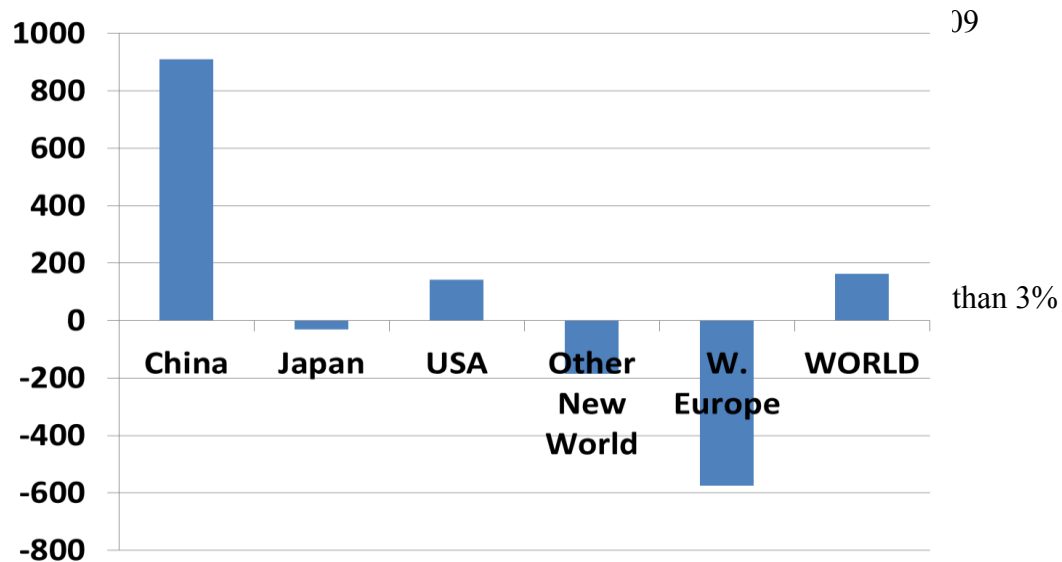
Source: Authors' model projections, Depreciation Scenario.

Figure 5: Growth in world international trade in commercial and fine wines,[a] 2012 to 2020 (%)
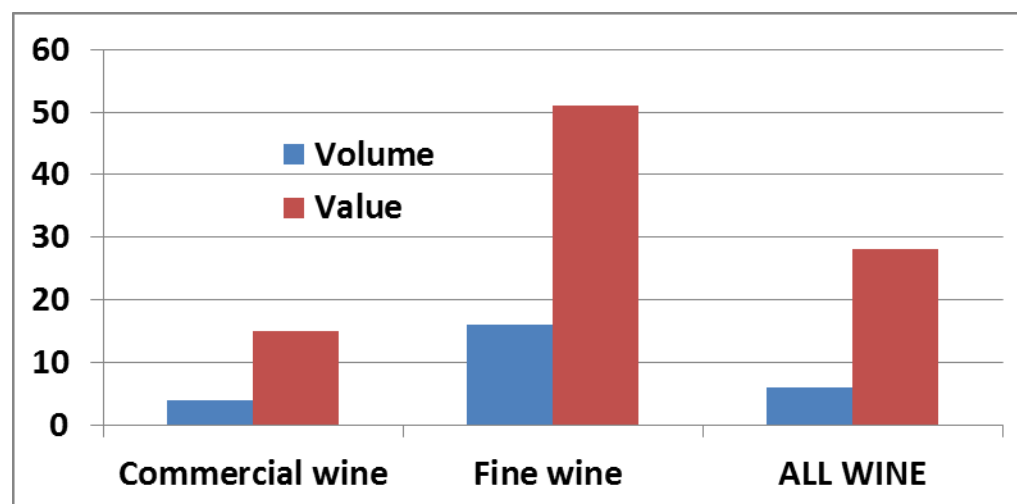
[a] The dividing line between the two types of exported wine is US$7.50 per litre f.o.b.

Source: Authors' model projections, Depreciation Scenario.

Table 3: Baseline Scenario compared with Depreciation Scenario: impact of real exchange rate (RER) changes between 2012 and mid-2015 on real prices of grapes and wines in key producing countries as of 2020 (%)

	Change in real exchange rate, %)	% change in real *local-currency* producer price of:		
		Premium grapes	*Comm. premium wine*	*Super premium wine*
Western Europe	-15	14	-2	39
United States	0	23	-9	39
New Zealand	-4	20	-8	35
Chile	-19	17	9	55
Australia	-27	30	17	59

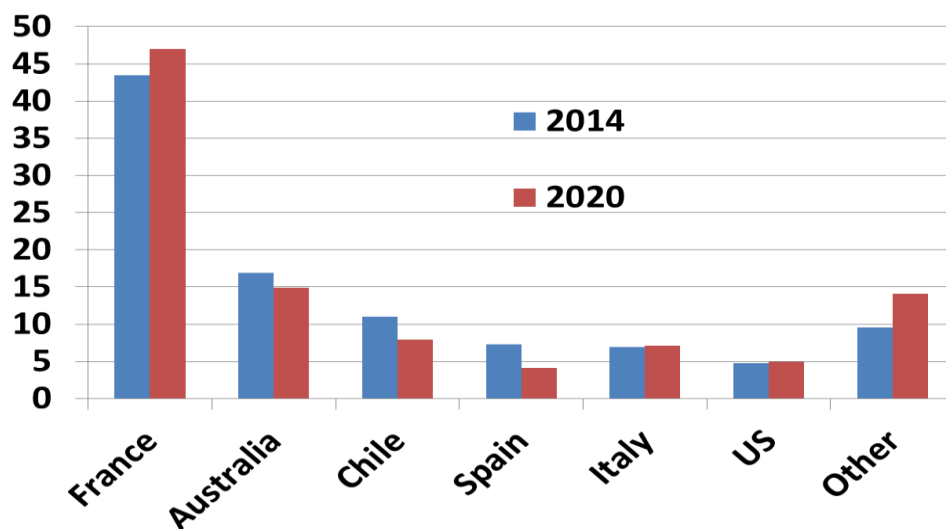Source: Authors' model results.

Imports into China, which are projected to continue to grow more than into any other country, are projected to come slightly more from France, Italy and the United States, slightly less from Australia, and considerably less from Chile and Spain (Figure 6).

The above projections have ignored recent and prospective free trade agreements (FTAs). To examine their impact, we re-ran the Depreciation scenario several times, progressively removing by 2020 the tariffs on imports between countries joining particular FTAs. Specifically:

- *FTA1*: Chile's FTAs with China, Japan and Korea and New Zealand's FTAS with China;
- *FTA2*: *FTA1* plus Australia's new FTAs with China, Japan and Korea and New Zealand's expected one with Korea;
  - *FTA3*: *FTA2* plus the proposed Trans-Pacific Partnership that includes US and Canada.

Figure 6: Origins of China's wine imports (% by value), actual 2014 and projected 2020, assuming real exchange rate changes to 2015 hold to 2020 and ignoring new FTAs

Source: Wine Australia data for 2014 and authors´ model projection, Depreciation Scenario.

The results (which are detailed in the longer Working Paper version of this note) reveal that these FTAs will have relatively little impact on grape and wine production or on wine consumption in China compared with the market's growth between 2012 and 2020 projected in the Depreciation scenario. The FTAs' impacts on wine-exporting countries are non-trivial, however. For example, *FTA1* causes Chile and New Zealand to gain market share in China (especially in volume terms for Chile), but partly at Australia's expense.

FTA2, by contrast, provides an export gain for Australia that will much more than offset the reduction it otherwise would have suffered from those two earlier-signed FTAs. China's imports from its new FTA partners in the Southern Hemisphere will grow at the expense of its imports from the United States and Europe, and the FTA partners' wine exports to countries other than China will shrink – although by less than the increase in their exports to China. That is, global wine trade creation outweighs trade diversion from these FTAs, according to these results.

FTA3 (the proposed Trans-Pacific Partnership) adds little extra to global wine trade, since the bilateral FTAs already signed will have freed up most wine trade in that region by 2020.

4. SUMMARY AND IMPLICATIONS

China has already become by far the most important wine-consuming country in Asia, and the above projections point to the speed with which China may become an even more dominant market for wine exporters by 2020. Since China's domestic production is projected to increase by 'only' about 300 ML by 2020, its net imports are projected to rise substantially, and slightly more once the full impact of the FTAs with Southern Hemisphere countries are felt.

Of course these projections are not predictions. How exchange rates move, and how fast various countries' wine producers adjust, will be key determinants of the actual market changes.

5. REFERENCES

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