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What's happened to the wine market in China?

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Abstract

China has been one of the most important sources of growth in global wine demand this century, accounting for 7% of the world's wine consumption and imports by 2017 or four times its 2005 shares. But China's per capita wine consumption peaked in 2012, has fallen every year since 2017 and in 2022 was one-third of its peak; and its imports have more than halved since 2017. Certainly the COVID-19 disruption and associated slowdown in China's income growth would account for some of that. However, the fall in China's alcohol consumption began three years earlier, and between 2019 and 2022 the fall was considerably larger for wine (47%) than for spirits (17%) and beer (3%). Thus wine's share of alcohol consumption in China fell by two-fifths over those three years. The article speculates on reasons behind the dramatic downturn in this globally important market, and finishes by imagining future trends and drawing implications for wine-exporting countries.

Keywords: Chinese alcohol consumption, Wine imports by China, Wine production in China

JEL Classifications: D12, F13, F14, Q17

What's happened to the wine market in China?

I. Introduction

China has been one of the most important sources of growth in global wine demand this century (Anderson and Wittwer 2015; Anderson 2020). It accounted in volume terms for 7.5% of the world's wine consumption by 2012 and 7-8% of global imports by 2017, four-plus times its 2005 shares (Anderson and Pinilla 2021). That market has since plummeted (Figure 1). This article brings together disparate data to explore the extent of that demise, and to speculate on the reasons behind it.

[insert Figure 1 around here]

All wine-exporting countries have an interest in this development, but especially Australia because (a) it was by far the most exposed to that market, accounting for two-fifths of the value of its wine exports in the late 2010s, and (b) it was hit in late 2020 by a set of punitive tariffs of up to 218% on China's imports of Australian wines.¹ That bilateral trade flow – worth around US\$750 million per year – virtually disappeared in 2021. Some Australian exporters found markets elsewhere as other countries expanded their wine exports to China, but global exports of wine were projected (using the Wittwer and Anderson (2020) model of global beverage markets) to fall by more than US\$200 million and Australia's average producer prices of grapes and wine to fall by 11-12% as a consequence of that tariff shock (Wittwer and Anderson 2021a), and more so for reds because China's wine imports are more than 80% red.

With ministerial meetings being renewed between Australia and China in mid-2023, there is speculation as to whether China might soon remove its high tariff on Australian wine. Many imagine that if it did, that would see an immediate reduction in the excessive stocks of red wine that are accumulating in Australia as a consequence of that tariff (see Wine Australia 2022), and an eventual rebuilding of the country's total wine exports. However, even if those punitive tariffs were to be removed this year, the trade with China is likely to become only a fraction of what it was in the late 2010s, thanks to the recent shrinkage in the overall wine market in China – something that was exacerbated by COVID-19 and the

¹ This was the beginning of a period of Chinese economic coercion against Australia for its Prime Minister having called for an international enquiry into the origin of the COVID-19 pandemic.

associated slowdown in China's income growth (Wittwer and Anderson 2021b) but which began several years before that pandemic. Furthermore, the shrinkage is continuing even though China's COVID lockdowns ceased in late 2022: according to official data, China's wine imports in Jan-April 2023 are down 31% by volume and 21% by US\$ value on the year before.

This article begins by explaining the uncertain nature of wine statistics in China. It then provides various estimates of key indicators of the Chinese wine market to show how much smaller that market has become. It briefly speculates on reasons behind the downturn, and finishes by drawing implications for wine-exporting countries.

II. Wine statistics for China

Compiling statistics on China's wine market is a fraught business. While official trade statistics may be reasonably reliable (apart from unmeasurable smuggling from Hong Kong), annual wine production and consumption estimates vary hugely across sources. Historically, the government's national production statistics relied on provincial government data, but they may well have been inflated for at least two reasons. One is because much of the wine that is imported by China in bulk containers is bottled as is or blended with domestic wine, and then sold in bottles labelled 'Product of China'. Another reason is that some wine is internally traded between provinces in bulk before being bottled but is counted as output in the source province as well as the destination province – a case of double-counting (Anderson and Harada 2018).

The UN's Food and Agriculture Organization (FAO) provided official government wine production statistics up to 1990 but thereafter only its own rounded estimates, the most recent being exactly 2 million tonnes for 2020 which is several times the likely number (FAO 2023). The International Organization of Vine and Wine (OIV) used to adopt FAO numbers but now generates its own much lower estimates (OIV 2023). Meanwhile the National Bureau of Statistics of China (NBSC), which periodically alters its series, now has data for recent years that are considerably lower than even OIV's latest numbers. However, if the OIV production numbers are discounted by the extent of China's bulk wine imports, for the reason mentioned in the previous paragraph and by Anderson and Harada (2018), they come close to the NBSC data (see this article's Appendix Table). Hence the latest NBSC production data are adopted here and, together with UN COMTRADE-based international trade data, are used to estimate China's wine consumption as production plus imports net of exports. That does

not take account of changes in stocks, but there are no reliable data on wine stocks in China. Nor are smuggled wine imports from Hong Kong or Macao able to be included in the estimate of China's wine consumption.²

III. Wine market shrinkage in China

Based on the above data considerations used to generate this article's Appendix Table, we estimate that China's per capita wine consumption has fallen almost every year since its peak in 2012 and in 2022 was one-third of that peak. Import volumes also peaked that year, but they have dropped by 55% since 2017. Imports from Australia (the lead supplier) kept rising until 2018, then dropped along with China's total wine imports in 2019 and 2020 before collapsing in 2021. China's local wine production, which began declining after 2013 according to NBSC, continued – and its pace of decline slowed only slightly following the imposition of higher tariffs on Australian wine from late 2020 (Figure 1).

Thus China's shares of world wine consumption volume and of import volumes and values peaked in 2016-17, and they have more than halved since then (Table 1). Even so, the share of the value of Australia's wine exports going to China continued to rise and averaged 36% during 2018-20, or nearly six times China's value share of global wine imports. Other suppliers, by contrast, were much less exposed, including the two next-largest: the share of France's exports going to China remained similar to China's share of world imports, and Chile's remained about twice China's share of world imports, until both exporters' shares rose in 2021 and 2022 when the punitive tariffs shrunk Australian exports (Figure 2).

[insert Table 1 and Figure 2 around here]

Within China, wine's share of total alcohol consumption by 2022 was one-third of its peak in 2012. The COVID-19 disruption accounts for some of that since 2019, with China's overall alcohol consumption in 2022 being 12% below that in 2019. But the fall in consumption between 2019 and 2022 was considerably larger for wine (47%) than for spirits (17%) and beer (3%). As a result, wine's share of alcohol consumption in China fell by two-fifths over those three COVID years, according to the data in Table 2.

[insert Table 2 around here]

² The final consumption estimates in the Appendix Table are thus underestimated to the extent of that smuggling. The underestimation would be quite small though, because the volume of net imports of wine by Hong Kong plus Macao have averaged only 7% of the net imports of mainland China since 2000, according to UN COMTRADE-based data available at FAO (2023).

IV. Why the decline?

The decline in China's wine market is due to a combination of short-run/temporary shocks and longer-run structural changes. The two important short-run shocks are COVID and (at least for Australia) the imposition of tariffs on China's wine imports from Australia. The longer-run structural phenomena are possible changes in domestic vignerons' profitability expectations, and consumer preferences in China.

A. Short-run shocks

The severe lockdowns in China aimed at limiting the spread of COVID slowed economic growth and limited socializing and hence spending on beverages. It also altered the mix of spending on beverages because in China wine is more-commonly consumed away from home than are beer and spirits. China did not go into recession, but income growth dipped severely in both 2020 and 2022 (Figure 3). Wittwer and Anderson (2021b) projected global wine consumption volume might decline by around one-tenth because of COVID. Hence that may explain some of the decline in China in 2020-22 – but not prior to 2020, and not after 2022 when incomes in China are projected to grow at around 5% through the mid-2020s (World Bank 2023b).

[insert Figure 3 around here]

Coinciding with COVID has been the imposition of punitive tariffs on China's wine imports from Australia since the end of 2020. While that has had a large impact on Australian producers, on its own it is estimated to have reduced China's total wine imports by less than 1% because China was able to, and did, source more wine from other wine-exporting countries (Wittwer and Anderson 2021a, 2021b).

B. Longer-run structural changes

The decline in China's local wine production may be a consequence of new domestic producers disinvesting because their earlier profit expectations were not realized. Given the rapid growth in China's wine production up until the mid-2010s, some of that would have been made from multi-purpose grapes that lead to low-quality wine. Some might also have been made from varieties of winegrapes being planted in regions not well suited to them. The production decline might have slowed once the tariff was imposed on imports from Australia,

had it (a) not coincided with the COVID-driven decline in wine demand and (b) not been possible for other wine-exporting countries to rapidly fill the void left by Australia.

Wine is a normal good in most settings, meaning its national consumption increases as a country's adult population and real income per capita increase unless its price relative to that of substitutes rises (Fogarty 2010). One might also expect its share of total alcohol consumption to converge on the global average (Stigler and Becker 1977), based on other countries' experiences (Holmes and Anderson 2015). Thus the growth to 2013 in China's wine consumption shown in Figure 1 is unsurprising given China's rapid rise in per capita income (Figure 3). But the plateauing and then dramatic decline in consumption since then while incomes continued to grow requires further explanation.

Part of that decline from 2013 (and of the fall in domestic wine production?) may be attributable to the austerity measures introduced by President Xi that frowned upon lavish official dinners and other conspicuous consumption and gift-giving, and more recently that also discouraged consumption of exotic/imported goods. However, the decline in sales volume was much faster for wine than for beer and spirits (Table 2). That suggests there has been either a preference swing against wine (because it is viewed politically as an exotic product?) and/or a greater premiumization of preferences for wine than for beer or spirits (a shift from quantity to quality). The latter is not consistent with the the plateauing in the average price of wine imports from 2011 though (Figure 1), shortly after which the share of bulk wine in total wine import volumes also plateaued (at around 25%, see column 4 of the Appendix Table).

V. Implications for wine-exporting countries

These downward trends in China's wine market may reverse a little as incomes recover somewhat following the abandoning in late 2022 of the country's draconian COVID lockdowns. The OECD (2023) and World Bank (2023b) expect China's real GDP growth rate to rise from 3% in 2022 to 5% in the mid-2020s, although more-recent forecasts are a little lower. Even if that were to lift consumption, the volume of China's wine imports in the short term is unlikely to become much more than half what it was at its peak.

So if Australia were to be able to claw back its 2018-20 *share* of China's wine imports (one-quarter by volume, a little over one-third by value), that would amount to an export increase of not 130ML or US\$750 million per year but perhaps only half those amounts. Even that may be too optimistic as a short-term forecast, because numerous

Australian wineries that have invested in developing new markets after 2020 may be reluctant to go back to what is now perceived to be a less-reliable Chinese market. Selling excess stocks of red wine in bulk to China would provide some relief to tanks in Australia, but both the volume and price may be low: in 2020 and 2021 China imported little more than 100 ML/year in bulk, and at an average price of just 88 US cents per litre. All this vindicates the move by Australian vignerons since 2020 to diversify their exports to other markets in Asia, North America and Europe – even though, over the longer term, China’s wine market will likely expand as incomes rise and the quality of local production improves and entices more consumers to include wine in their beverage consumption bundle.

A longer-run expectation of growth in wine demand in China, notwithstanding the projection of slower income growth than in the past two decades, is not unreasonable for two reasons: (a) overall alcohol consumption per capita in China is currently no higher than the rest of the world’s at its current per capita income (Figure 4), and (b) wine’s share of that consumption was only 4.6% at its peak in 2012 and is now 1.5% (Table 2), in contrast to the global average over the past decade of 13%. Bigger (unknowable) unknowns are how rapidly China might converge on that global average volume share, how much more it might premiumize its wine consumption, and from which countries its imported wine will come.

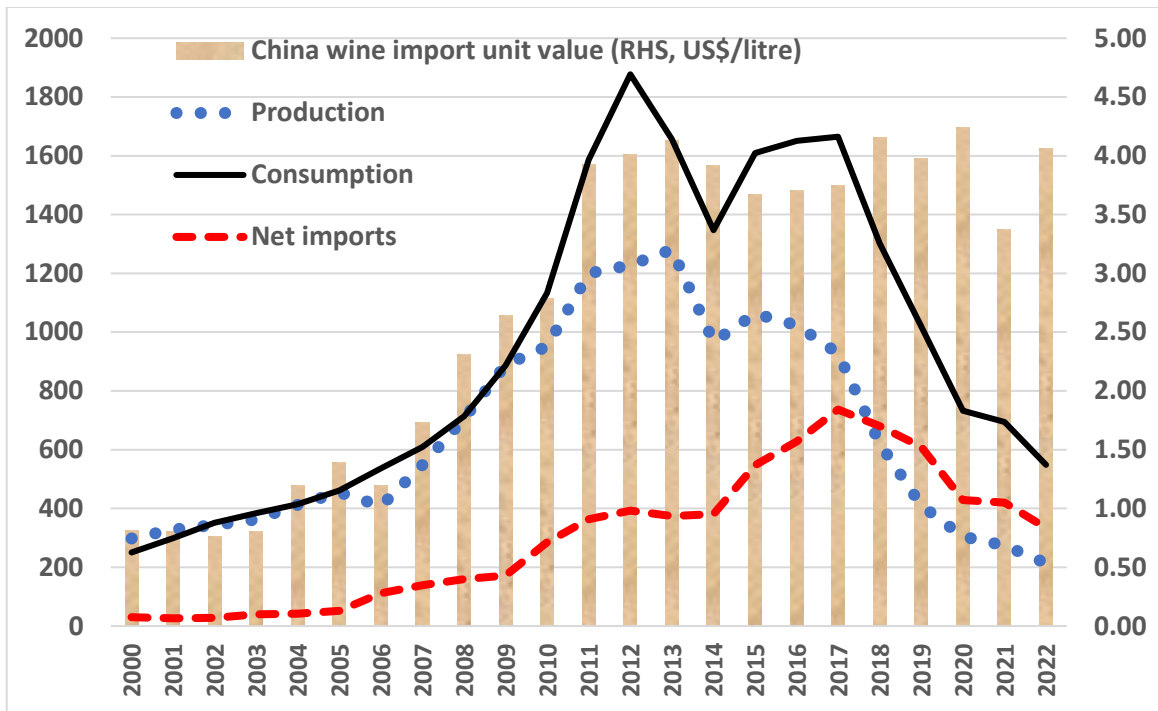
[insert Figure 4 around here]

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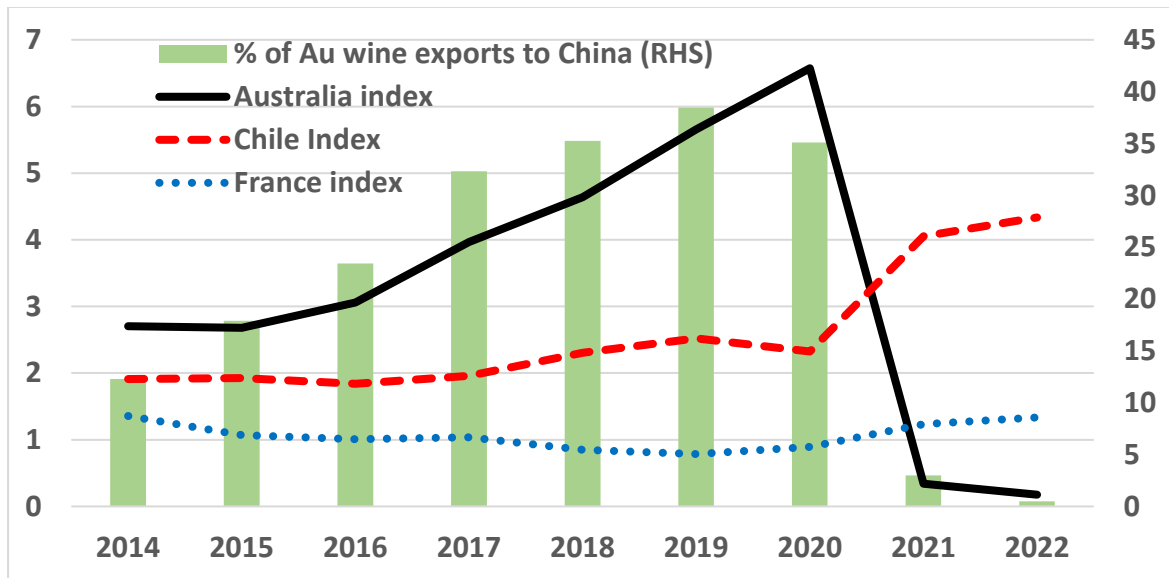
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Figure 1: China's wine production, consumption and net import volumes, and average price of imports, 2000 to 2022 (ML and current US\$/litre)



Sources: See the Appendix Table.

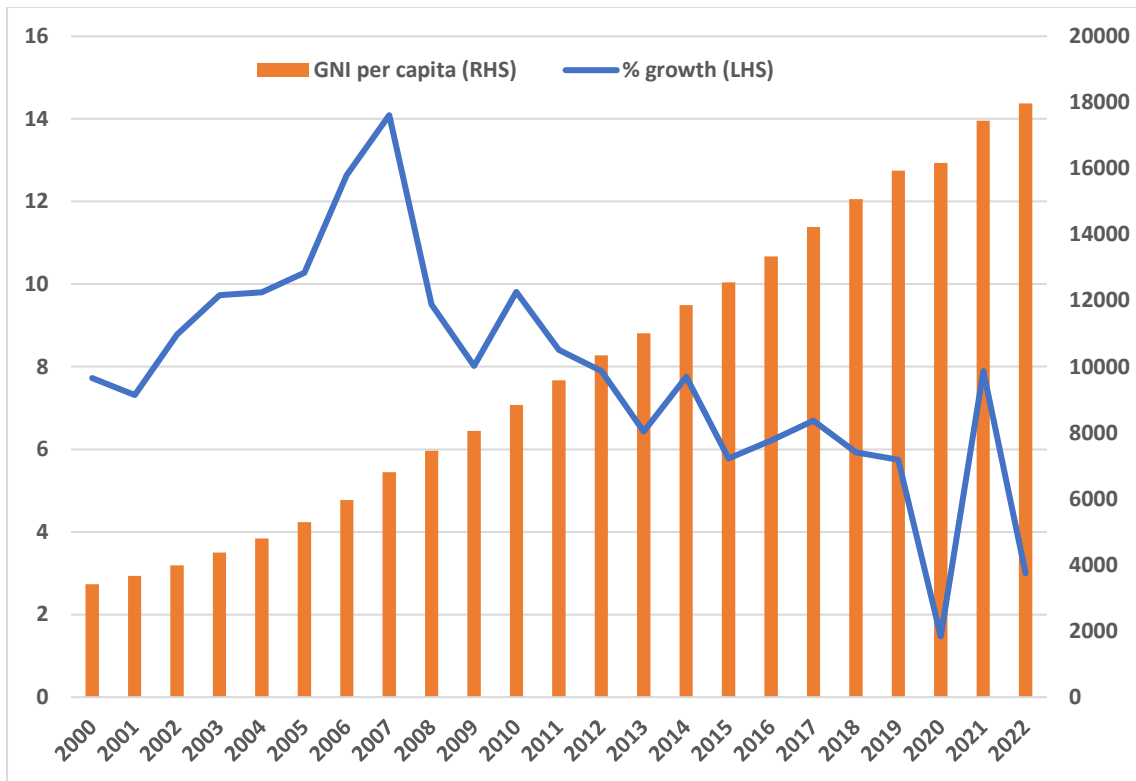
Figure 2: Index of intensity of wine exports to China from Australia, Chile and France,^a and share of Australia's wine exports going to China, by value, 2014 to 2022



^a Defined as the value share of a country's wine exports to China divided by China's share of the value of global wine imports.

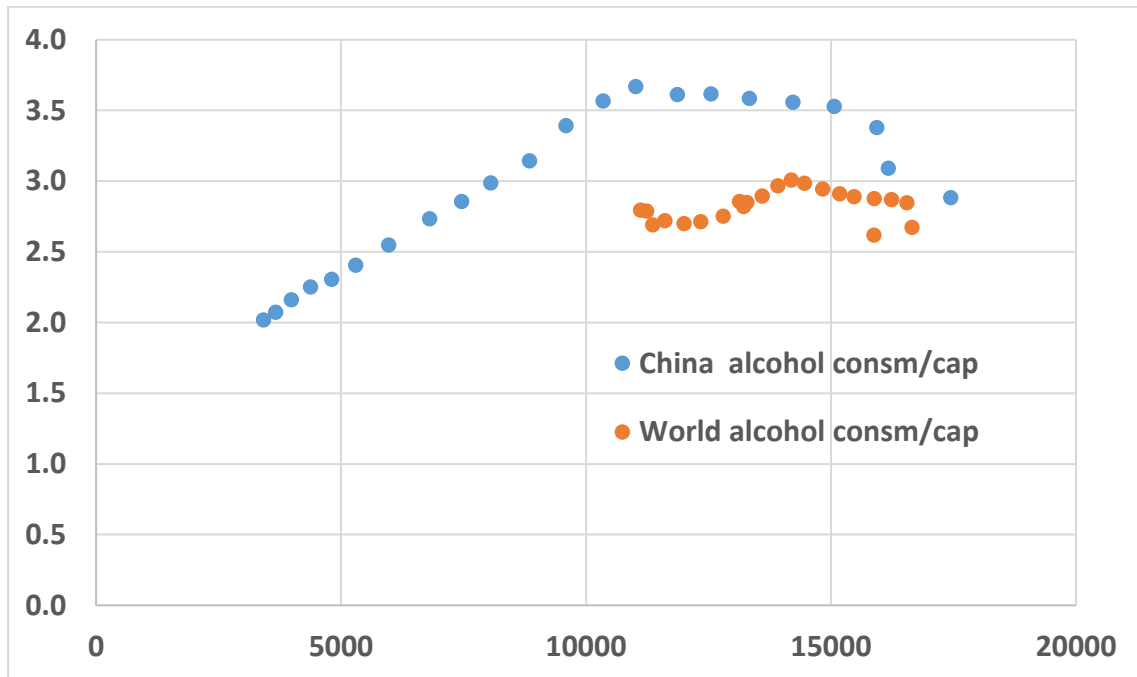
Source: United Nations (2023).

Figure 3: Real gross national income per capita and its annual growth, China, 2000 to 2022 (PPP at constant 2017 international \$, and %/year)



Source: World Bank (2023a).

Figure 4: Real gross national income and total recorded alcohol consumption, per capita, China and the world, 2000 to 2021 (PPP at constant 2017 international \$ and litres of alcohol)



Sources: World Bank (2023a) for GNI and Anderson and Pinilla (2021) for alcohol consumption.

Table 1: China's shares of world wine production and consumption volumes, and world wine import volume and value, 2000 to 2022 (%)

	China's % of volume of world:		China's % of world import:	
	Production	Consumption	Volume	Value
2000	1.1	1.1	0.6	0.2
2001	1.3	1.3	0.5	0.2
2002	1.4	1.5	0.5	0.2
2003	1.4	1.6	0.6	0.2
2004	1.4	1.7	0.6	0.3
2005	1.7	2.0	0.7	0.4
2006	1.5	2.3	1.5	0.6
2007	2.2	2.6	1.8	0.9
2008	2.7	3.0	2.0	1.3
2009	3.4	3.8	2.1	1.7
2010	3.7	4.8	3.1	2.8
2011	4.6	6.5	3.6	4.4
2012	5.5	7.5	3.9	4.7
2013	4.4	6.8	3.8	4.4
2014	3.7	5.6	3.6	4.2
2015	4.0	6.7	5.2	6.3
2016	4.0	6.8	6.0	7.4
2017	2.7	6.7	7.0	8.1
2018	2.1	5.4	6.5	7.6
2019	1.6	4.3	5.8	6.8
2020	1.2	3.1	4.1	5.3
2021	1.0	3.0	4.0	4.2
2022	0.8	2.4	3.2	3.6

Source: Estimated using part (c) of the Appendix Table plus earlier and updated global data from Anderson and Pinilla (2021).

Table 2: Wine's share in the volume of alcohol consumption in China (%), and China's per capita consumption of alcohol by type (litres of alcohol/year),^a 2000 to 2022

	Wine's % of China's alcohol consumption:	China's per capita alcohol consumption (l/yr):			
		Beer	Spirits	Wine	TOTAL
2000	1.2	0.7	1.3	0.02	2.0
2001	1.4	0.7	1.3	0.03	2.1
2002	1.5	0.7	1.4	0.03	2.2
2003	1.6	0.8	1.4	0.04	2.3
2004	1.7	1.0	1.3	0.04	2.3
2005	1.8	1.0	1.3	0.04	2.4
2006	1.9	1.2	1.3	0.05	2.5
2007	2.0	1.3	1.4	0.06	2.7
2008	2.3	1.4	1.4	0.06	2.9
2009	2.7	1.4	1.5	0.08	3.0
2010	3.2	1.5	1.5	0.10	3.1
2011	4.1	1.6	1.7	0.14	3.4
2012	4.6	1.6	1.8	0.16	3.6
2013	3.9	1.7	1.9	0.14	3.7
2014	3.2	1.6	1.9	0.12	3.6
2015	3.8	1.5	1.9	0.14	3.6
2016	3.9	1.5	2.0	0.14	3.6
2017	4.0	1.5	2.0	0.14	3.6
2018	3.1	1.4	2.0	0.11	3.5
2019	2.5	1.4	1.9	0.09	3.4
2020	2.0	1.4	1.6	0.06	3.1
2021	2.0	1.3	1.5	0.06	2.9
2022	1.5	1.4	1.5	0.05	3.0
<i>2022 as % of 2019</i>	<i>61</i>	<i>97</i>	<i>83</i>	<i>53</i>	<i>88</i>

^a Wine is assumed to average 12% alcohol, beer 4.5% and spirits 40%.

Source: See part (c) of the Appendix Table for wine data; beer and spirits data are from an update of Anderson and Pinilla (2021).

Appendix Table: China's wine production estimates, trade and apparent consumption, 2005 to 2022 (ML, litres and %)

(a) OIV prod'n and UN COMTRADE trade data (b) Assuming bulk imports blended with local wine (c) China's official local production

	Prod'n (ML)	Exports (ML)	Imports (ML)	<i>Bulk (%) of imports</i>	Prod'n (ML)	Consm (ML)	Consm p.c. (L)	SSR (%)	Prod'n (ML)	Consm (ML)	Consm p.c. (L)	SSR (%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2005	1180	3	54	80	1137	1188	0.91	96	455	506	0.39	90
2006	1190	4	116	82	1095	1207	0.92	91	408	519	0.40	78
2007	1250	9	148	71	1145	1284	0.97	89	548	687	0.52	80
2008	1260	5	165	64	1154	1314	0.99	88	706	866	0.65	82
2009	1280	2	173	46	1200	1372	1.02	88	889	1060	0.79	84
2010	1300	1	286	48	1163	1447	1.07	80	952	1236	0.92	77
2011	1343	2	366	33	1222	1586	1.17	77	1200	1563	1.15	77
2012	1607	2	394	31	1485	1877	1.37	79	1228	1620	1.19	76
2013	1369	2	377	24	1279	1653	1.20	77	1281	1656	1.20	77
2014	1350	4	384	21	1268	1648	1.19	77	967	1347	0.97	72
2015	1335	8	555	26	1188	1735	1.25	68	1062	1609	1.15	66
2016	1322	10	638	22	1179	1807	1.29	65	1023	1651	1.18	62
2017	1164	9	746	24	985	1721	1.22	57	928	1665	1.18	56
2018	927	6	687	23	766	1447	1.02	53	621	1302	0.92	48
2019	784	3	612	23	646	1255	0.88	51	410	1019	0.72	40
2020	659	2	430	24	554	983	0.69	56	304	732	0.51	42
2021	591	4	424	29	468	888	0.62	53	274	694	0.49	39
2022 ^p	418	3	337	25	334	668	0.47	51	214	548	0.38	39

^a Consm in column 6 or 10 is apparent consumption in ML, calculated as production (in column 5 or 9) plus imports minus exports (from columns 2 and 3); Consm p.c. (litres per capita) in column 7 or 11 is apparent consumption in column 6 or 10 divided by total population; and SSR, the wine self-sufficiency ratio in column 8 or 12, is production in column 5 or 9 divided by apparent consumption in column 6 or 10 (expressed as a percentage).

^p Preliminary, pending final trade data for 2022.

Source: Authors' calculations starting with production reported, respectively, by the International Vine and Wine Organization (OIV 2023) for column 1 (and adjusted for column 5) and NBSC (2023) for column 9 from 2014. Trade numbers are from the COMTRADE database of the United Nations (2023).

