WSET ALUMNI

Wine production: A global overview

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for WSET Alumni

A global overview

One of the challenges of wine production is matching production to consumption in order to minimise both *oversupply*, which causes downward pressure on prices, and *shortage*, which causes price increases.

Two broad factors influence this challenge. Firstly wine is an agricultural product. As such, grape production is subject to weather variation and more gradual climate change causing large annual differences in production.

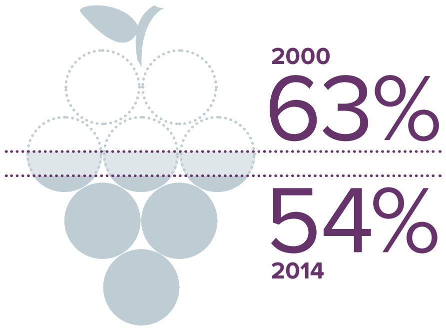
Secondly, wine must be made from fresh grapes or must, which means there is only one opportunity each year to make wine, and as mentioned above, annual weather fluctuations have the potential to significantly affect the volume, and indeed the quality, of wine produced.

Keeping the balance

Linking sales forecasts (consumption) with weather forecasts (production) makes for an unpredictable combination. For many years there has been an excess of production over consumption. This was one of the reasons for the European Union (EU) wine sector reform, implemented between 2008 and 2011, which aimed to uproot 175,000 hectares (ha), 5 per cent, of Europe's vineyard area – to bring supply back into better balance with demand, partially caused by a generational decline in consumption in the top consuming countries. This was important because in the latter part of the 20th century, Europe was home to around 70 per cent of the global vineyard.

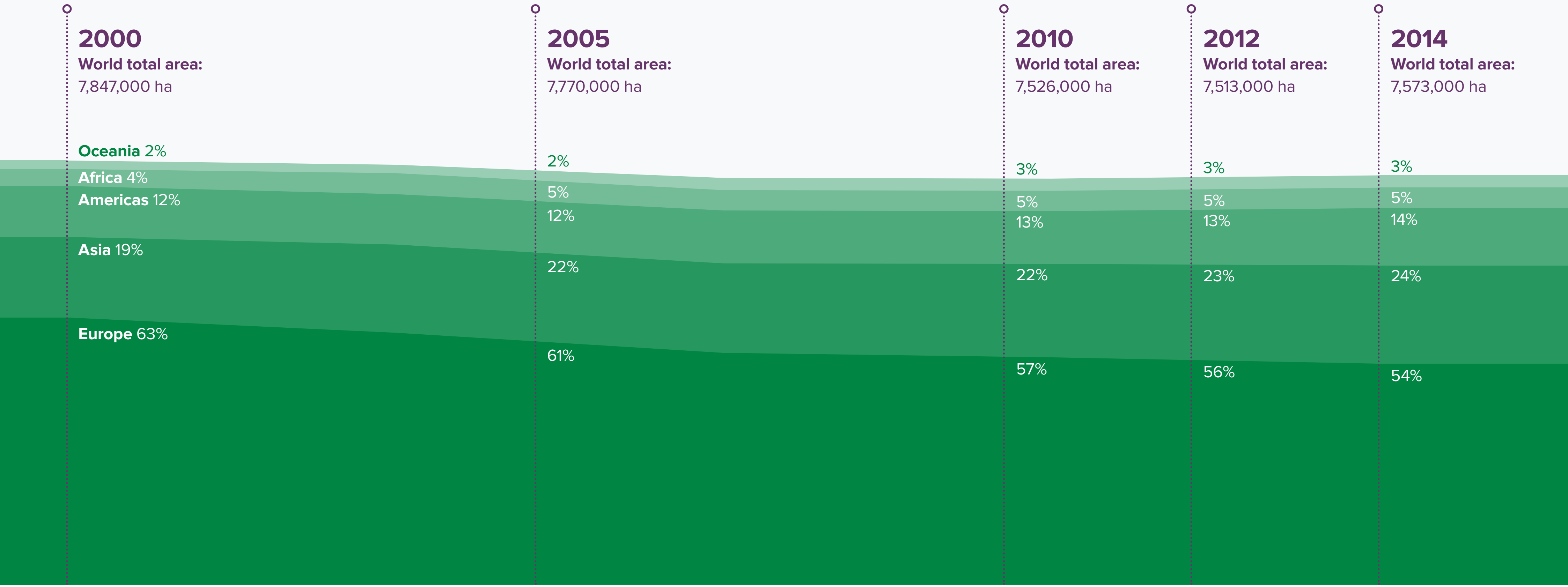
Vineyard area

Vineyard area is the starting point for building a picture of global wine production. That said, grapes are grown for purposes other than wine, notably for table (eating) grapes, and for dried (raisins) grapes, so vineyard area data does not necessarily equate to wine grape vineyard area.



By 2014, Europe accounted for only 54 per cent of the world's vineyards, down from 63 per cent in 2000.

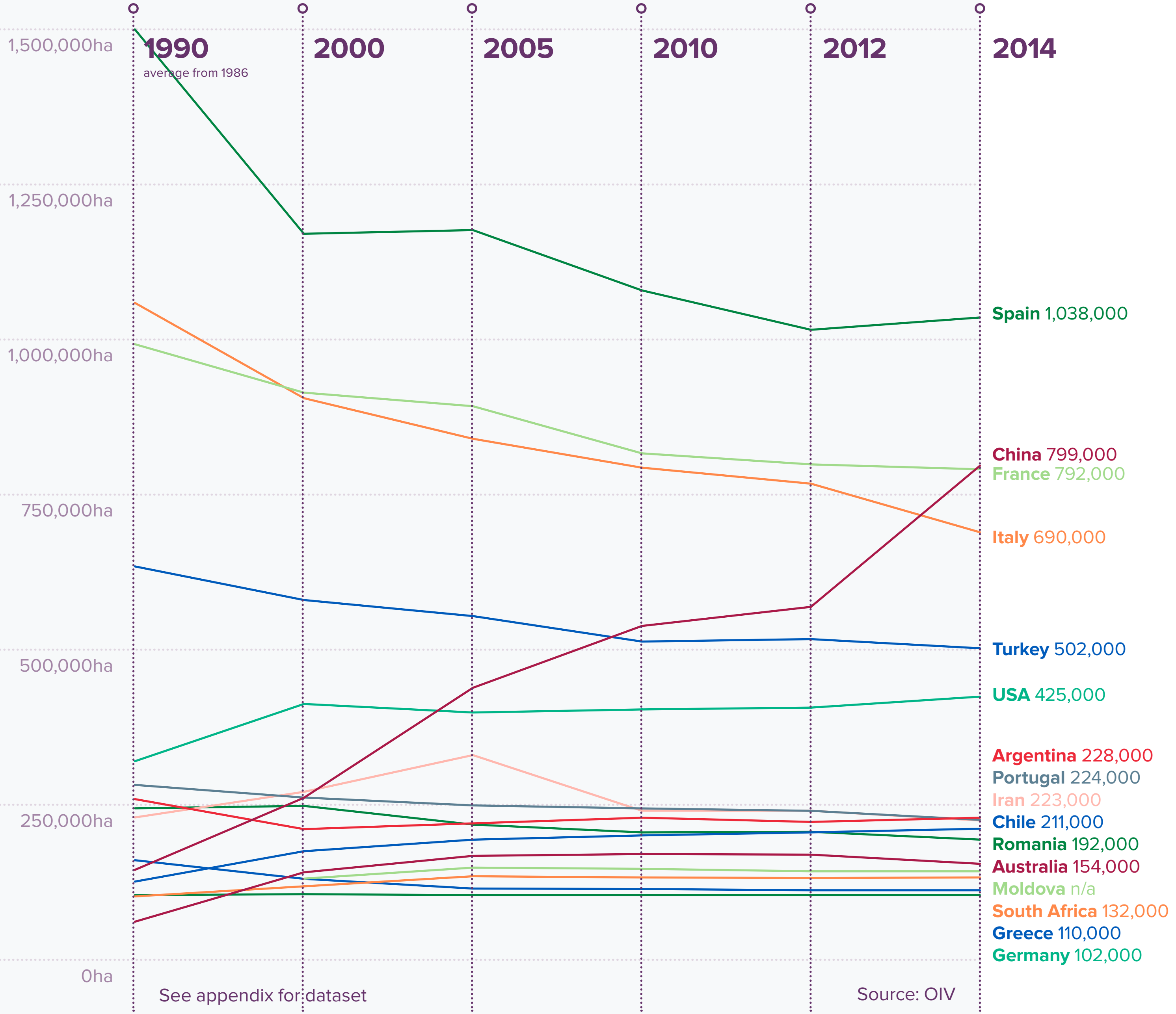
Total world vineyard area, all uses (table grapes, raisins, wine grapes), and share by continent (hectares)



See appendix for dataset

Source: OIV

Countries with total vineyard areas over 100,000 hectares, ranked on 2014



Global vineyard area reached a high point in the late 1970s, averaging 10,213,000 ha in the five years to 1980. It has steadily declined since then and has been largely stable for the past five years. This masks a changing face of vineyard location, and wine production. As Europe uproots, other countries are expanding. In the late 1980s, Europe had a 70 per cent share of the global vineyard area. It is now heading towards a 50 per cent share. Part of this shift is due to the effect of the EU wine sector reform. Another part is the rise of the new world wine industry.

It should be noted that all grapes in Iran, and almost all those in Turkey are grown for fresh table and dried grapes. Additionally, whilst China overtook France in 2014 to house the world's second-largest vineyard area only around 20 per cent of this area is used for wine production. Such vineyard expansion has helped Asia account for nearly a quarter of the world's vineyards.

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Reading between the vines

Iran	China
0%	20%

grapes used for wine production

Wine production

Differences year to year can be sizeable. In 2012, global production was down 15.3mhl on 2011. This equates to about the entire production of Argentina “missing” from the global market. In 2013, global production was 39.3 mhl more than in 2012. This amount is equivalent to more than the entire production of the third biggest producer in 2014 – Spain.

Significant annual global variations

2012

-15.3mhl

down from 2011

Equal to the entire production of Argentina

2013

+39.3mhl

up from 2012

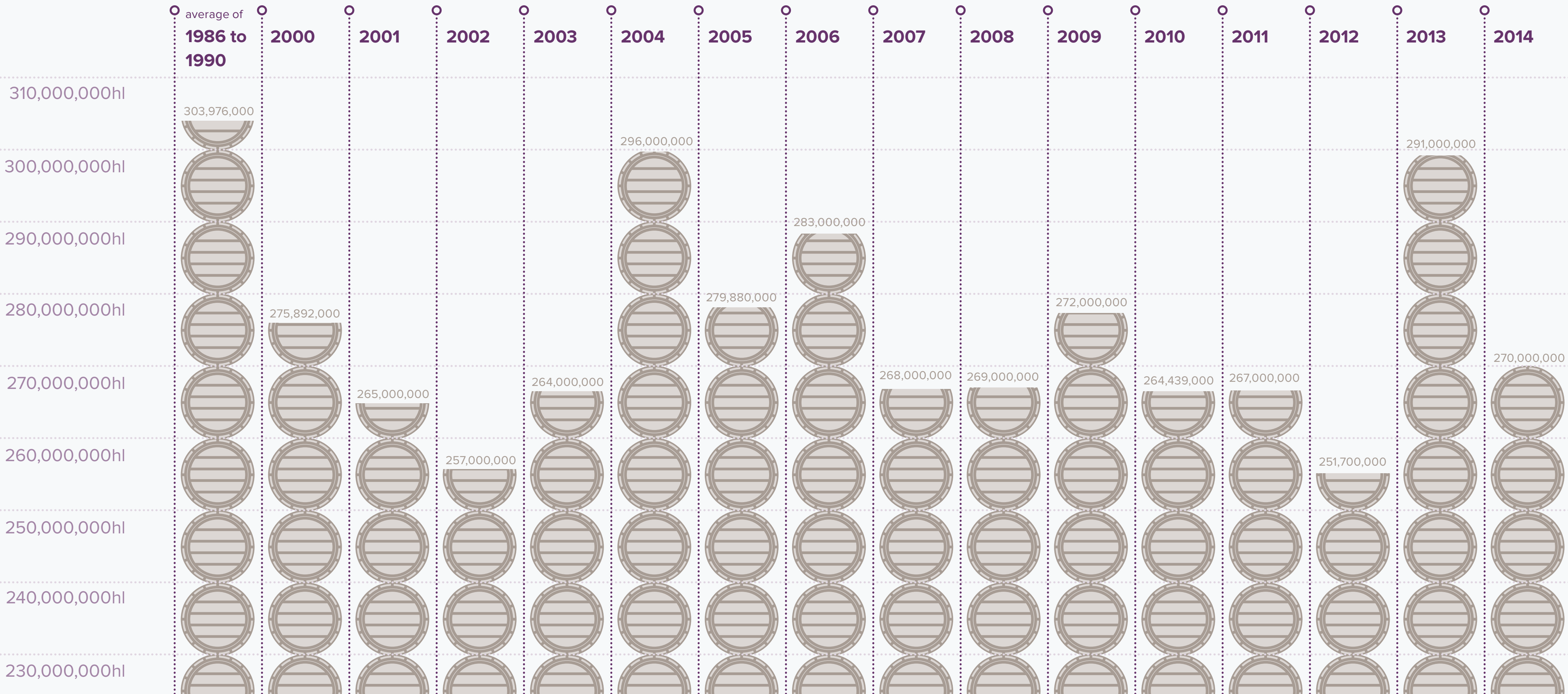
More than the entire production of Spain

A large proportion of any annual difference can sometimes be focused on a particular country. This is unsurprising given that weather is a more local phenomenon than climate. This can create particular challenges given that country of origin is one of the main factors influencing consumer purchasing patterns. For example, in 2010, cool and damp weather in Germany saw harvest volumes drop by around a quarter to a third. Similarly, the 2012 vintage in Spain created a huge anomaly for that country.

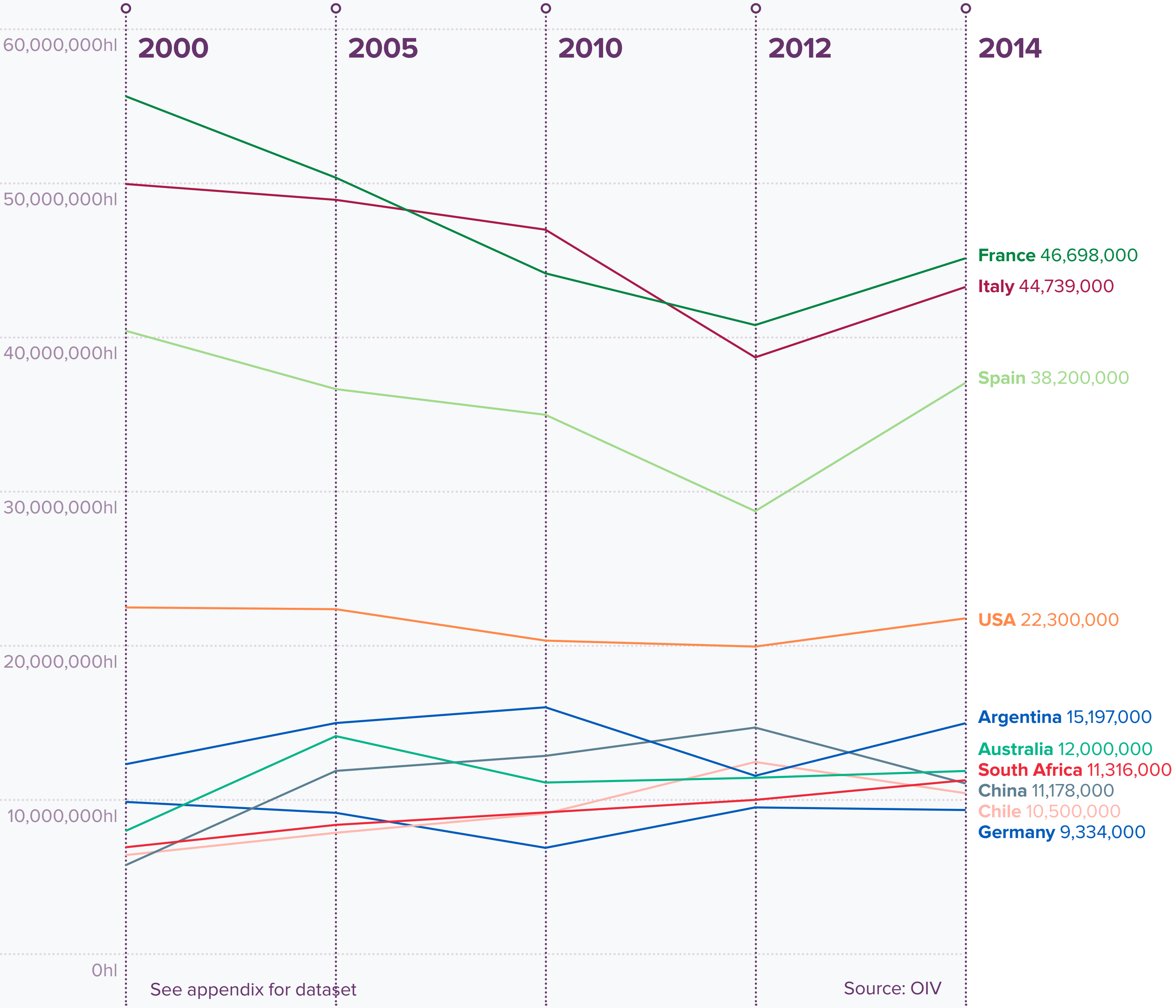
Annual variation in global wine production (hectolitres)

See appendix for dataset

Source: OIV



Top ten producing countries, ranked on 2014 (hectolitres)



See appendix for dataset

Source: OIV

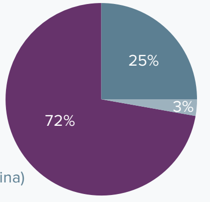
The medium-term trend for declining or slowing production in the top three producing countries can be partly explained by the EU wine sector reform uprooting scheme. Countering this in some cases has been a restructuring of vineyards, elements of which include more efficient production and higher yields.

By splitting production of the top ten countries in the previous chart into new and old world countries, a clear shift in production to the new world is evident:

Production of top ten countries, split by old : new world

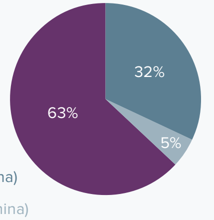
2000

Old World
160,705,000hl
New World
56,970,000hl (ex. China)
62,720,000hl (inc. China)



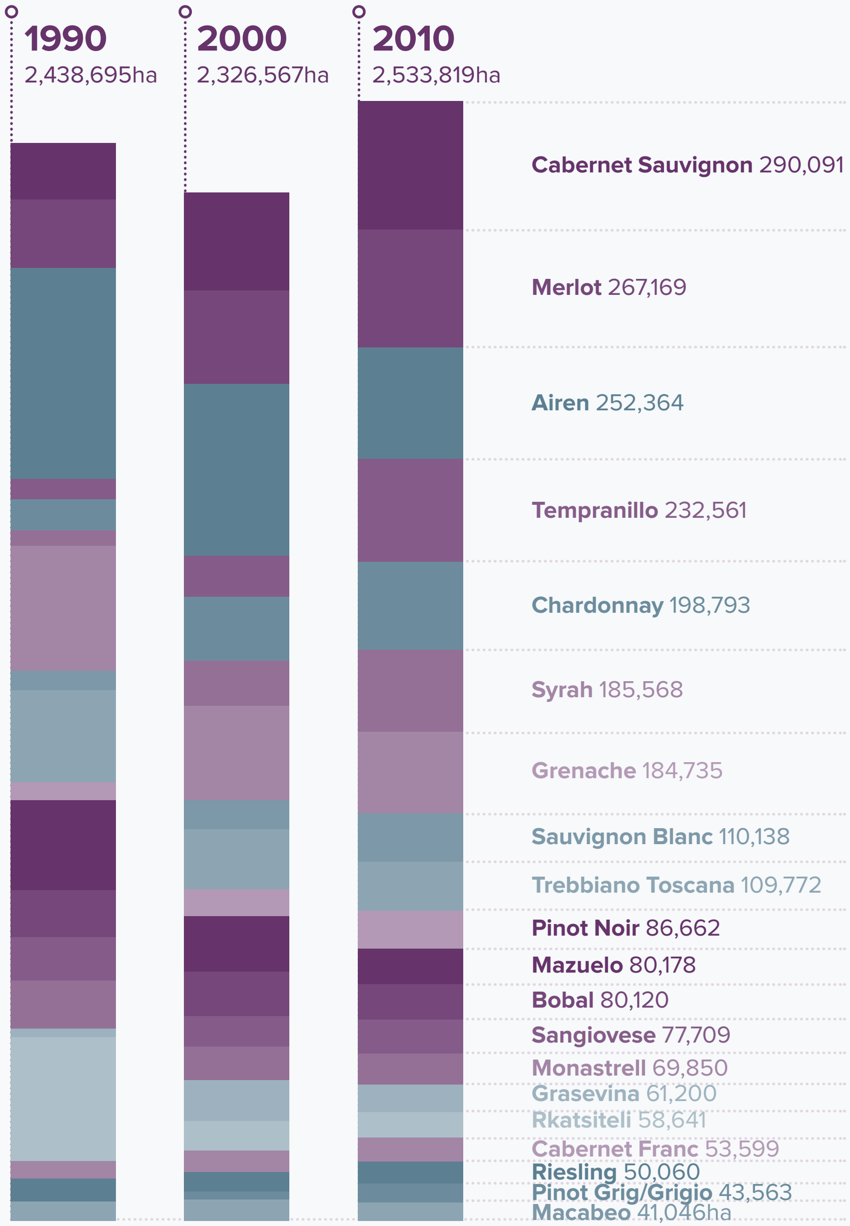
2014

Old World
138,971,000hl
New World
71,313,000hl (ex. China)
82,491,000hl (inc. China)



Between 2000 and 2014, absolute production in these old world countries declined 14 per cent whereas in the new world countries they increased 25 per cent (excluding China) or 32 per cent (including China). Unsurprisingly, this reflects the shifting pattern of the world's vineyard area.

Top 20 most planted grape varieties for wine ranked by 2010 global share (hectares)



See appendix for dataset

Source: OIV

Grape varieties

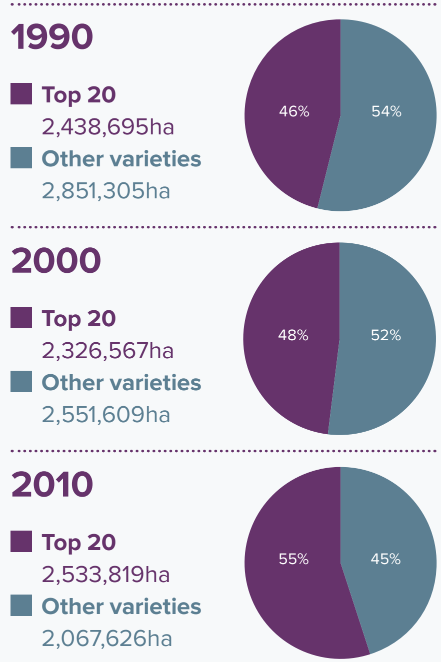
The viticulturist's choice of grape variety is another of the main factors influencing consumer purchasing patterns. Professor Kym Anderson of the University of Adelaide has collated data of vineyards used for wine production. He calculated the global wine-vineyard area to be 4.6 mha, in 2010.

His work done on grape varieties (used for winemaking) shows interesting trends over the first decade of the new millennium. Grape varieties used for "Bordeaux blends" were the mainstay of much of the new world's modern era of wine industry, i.e. the latter part of the 20th century. It's probably no surprise to see real, continued, growth in Cabernet Sauvignon, Merlot and Cabernet Franc in this first decade of the 21st century. Perhaps more surprising is that in 1990 this trio were not higher in the rankings: Cabernet Sauvignon was ranked 8th, Merlot 7th and Cabernet Franc 32nd.

More recent demand trends are those for Sauvignon Blanc, Pinot Gris/Grigio, Tempranillo and Syrah. These have seen rapid rises. In 1990, Tempranillo ranked 24th with 'just' 47,429 ha; this increased by nearly fivefold by 2010. Syrah's percentage rise since 1990 has been even greater – nearly 430 per cent. The rise of Pinot Gris/Grigio has been so recent that individual planting figures were not available in 1990. This grape variety's vineyard area has more than doubled in just ten years. And Sauvignon Blanc is another Bordeaux variety, so an obvious choice for new world countries researching what grape varieties to plant. It quickly took on a life, and style, of its own in New Zealand.

The 15th most widely planted grape variety in 2010 is Grasevina, also known as Laski Rizling, Olasz Risling, Riesling Italico, and Welschriesling . It is a staple of eastern Europe and is the main white grape variety of Croatia.

Top 20 share of global wine grape vineyard



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Total world vineyard area, all uses (table grapes, raisins, wine grapes), and share by continent (hectares)

	2000	2005	2010	2012	2014
World total vineyard area ('000 ha)	7,847	7,770	7526	7513	7573
Africa	4%	5%	5%	5%	5%
Americas	12%	12%	13%	13%	14%
Asia	19%	22%	22%	23%	24%
Europe	63%	61%	57%	56%	54%
Oceania	2%	2%	3%	3%	3%
	100%	100%	100%	100%	100%

Source: OIV

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Countries with total vineyard areas over 100,000 hectares, ranked on 2014 (hectares)

		average of 1986 to 1990	2000	2005	2010	2012	2014
1	Spain	1,506,000	1,174,000	1,180,000	1,082,000	1,018,000	1,038,000
2	China	143,000	260,000	438,600	539,000	570,000	799,000
3	France	996,000	917,000	894,900	818,000	800,000	792,000
4	Italy	1,063,000	908,000	842,000	795,000	769,000	690,000
5	Turkey	636,000	581,000	554,700	513,000	517,000	502,000
6	USA	319,000	413,000	399,000	404,000	407,000	425,000
7	Argentina	259,000	209,000	218,600	228,000	221,000	228,000
8	Portugal	282,000	261,000	248,000	243,000	239,000	224,000
9	Iran	228,000	270,000	330,300	239,000	239,000	223,000
10	Chile	124,000	174,000	193,000	200,000	205,000	211,000
11	Romania	244,000	248,000	217,000	204,000	205,000	192,000
12	Australia	59,000	140,000	167,000	170,000	169,000	154,000
13	Moldova	N/A	130,000	148,000	146,000	142,000	N/A
14	South Africa	100,000	117,000	134,000	132,000	131,000	132,000
15	Greece	160,000	129,000	112,800	112,000	110,000	110,000
16	Germany	102,000	105,000	102,000	102,000	102,000	102,000

Source: OIV

Appendix

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Annual variation in global wine production (hectolitres)

Year	production (hl)	difference from previous year
average of 1986 to 1990	303,976,000	
2000	275,892,000	
2001	265,000,000	-10,892,000
2002	257,000,000	-8,000,000
2003	264,000,000	7,000,000
2004	296,000,000	32,000,000
2005	279,880,000	-16,120,000
2006	283,000,000	3,120,000
2007	268,000,000	-15,000,000
2008	269,000,000	1,000,000
2009	272,000,000	3,000,000
2010	264,439,000	-7,561,000
2011	267,000,000	2,561,000
2012	251,700,000	-15,300,000
2013	291,000,000	39,300,000
2014	270,000,000	-21,000,000

Source: OIV

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Top ten producing countries, ranked on 2014 (hectolitres)

		2000	2005	2010	2012	2014
1	France	57,541,000	52,105,000	45,704,000	42,243,000	46,698,000
2	Italy	51,620,000	50,566,000	48,575,000	40,060,000	44,739,000
3	Spain	41,692,000	37,808,000	36,093,000	29,665,000	38,200,000
4	USA	23,000,000	22,888,000	20,890,000	20,510,000	22,300,000
5	Argentina	12,538,000	15,222,000	16,250,000	11,778,000	15,197,000
6	Australia	8,064,000	14,301,000	11,240,000	11,554,000	12,000,000
7	South Africa	6,949,000	8,406,000	9,220,000	10,037,000	11,316,000
8	China	5,750,000	12,000,000	13,000,000	14,880,000	11,178,000
9	Chile	6,419,000	7,885,000	9,150,000	12,554,000	10,500,000
10	Germany	9,852,000	9,153,000	6,906,000	9,500,000	9,334,000

Source: OIV

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Production of top ten countries, split by old : new world

	2000 old world	2000 new world	2014 old world	2014 new world
Hl, excl. China	160,705,000	56,970,000	138,971,000	71,313,000
% of top ten production	72%	25%	63%	32%
Hl, incl. China	160,705,000	62,720,000	138,971,000	82,491,000
% of top ten production	72%	28%	63%	37%

Source: OIV

Appendix

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Top 20 most planted grape varieties for wine ranked by 2010 global share (hectares)

Source: OIV

	Hectares in 1990	ranked in 1990	% share of global wine vineyard 1990	hectares in 2000	ranked in 2000	% share of global wine vineyard 2000	hectares 2010	ranked in 2010	% share of global wine vineyard 2010
Global total	5,290,000		100	4,878,176		100	4,601,445		100
Top 20 total	2,438,695		46	2,326,567		48	2,533,819		55
Cabernet Sauvignon	127,678	8	2.41	220,890	2	4.53	290,091	1	6.3
Merlot	154,752	7	2.93	211,967	4	4.35	267,169	2	5.81
Airen	476,396	1	9.01	387,978	1	7.95	252,364	3	5.48
Tempranillo	47,429	14	0.9	92,985	10	1.91	232,561	4	5.05
chardonnay	69,282	13	1.31	145,344	5	2.98	198,793	5	4.32
Syrah	35,086	35	0.66	101,516	8	2.08	185,568	6	4.03
Grenache	282,997	2	5.35	213,987	3	4.39	184,735	7	4.01
Sauvignon Blanc	44,677	25	0.84	64,889	15	1.33	110,138	8	2.39
Trebbiano Toscana	207,442	5	3.92	136,572	6	2.8	109,772	9	2.39
Pinot Noir	41,539	30	0.79	60,099	16	1.23	86,662	10	1.88
Mazuelo	202,869	6	3.83	126,650	7	2.6	80,178	11	1.74
Bobal	106,149	10	2.01	100,128	9	2.05	80,120	12	1.74
Sangiovese	98,946	11	1.87	68,877	13	1.41	77,709	13	1.69
Monastrell	108,213	9	2.05	76,304	12	1.56	69,850	14	1.52
Grasevina	19,384	48	0.37	92,306	11	1.89	61,200	15	1.33
Rkatsiteli	280,569	3	5.3	67,354	14	1.38	58,641	16	1.27
Cabernet Franc	39,619	32	0.75	48,551	19	1	53,599	17	1.16
Riesling	52,164	21	0.99	43,166	23	0.88	50,060	18	1.09
Pinot Grig/Grigio	N/A	N/A	N/A	18,879	44	0.39	43,563	19	0.95
Macabeo	43,504	26	0.82	48,125	21	0.99	41,046	20	0.89

Statistical sources for this report:

— OIV (International Organisation of Vine and Wine). www.oiv.int
— Anderson, K (2013) Which winegrape varieties are grown where? A global empirical picture. Adelaide: University of Adelaide Press. [Online]
Available at: http://www.adelaide.edu.au/press/titles/winegrapes/winegrapes-ebook.pdf

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