ECONSTOR
Make Your Publications Visible.

A Service of

ZBW Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Anderson, Kym; Aryal, Nanda R.

Book — Published Version

Growth and Cycles in Australia's Wine Industry: A Statistical Compendium, 1843 to 2013

Provided in Cooperation with:
University of Adelaide Press

Suggested Citation: Anderson, Kym; Aryal, Nanda R. (2015) : Growth and Cycles in Australia's Wine Industry: A Statistical Compendium, 1843 to 2013, ISBN 978-1-925261-09-7, University of Adelaide Press, Adelaide, https://doi.org/10.20851/austwine

This Version is available at:
https://hdl.handle.net/10419/182252

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

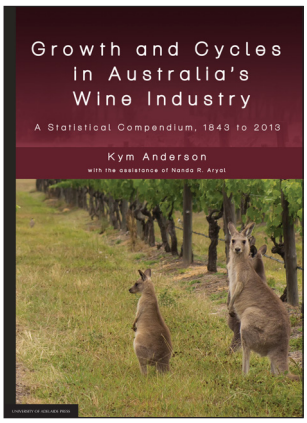
You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

https://creativecommons.org/licenses/by/4.0/

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft



Welcome to the electronic edition of *Growth and Cycles in Australia's Wine Industry.*

The book opens with the bookmark panel and you will see the contents page. Click on this anytime to return to the contents. You can also add your own bookmarks.

Each chapter heading in the contents table is clickable and will take you direct to the chapter. Return using the contents link in the bookmarks.

Please use the 'Rotate View' feature of your PDF reader when needed.

The whole document is fully searchable.

Enjoy.

Growth and Cycles in Australia's Wine Industry

A Statistical Compendium, 1843 to 2013

Kym Anderson

with the assistance of Nanda R. Aryal

UNIVERSITY OF ADELAIDE PRESS

Cover design by Emma Spoehr

Cover image:
iStockphoto

Growth and Cycles in Australia's Wine Industry

A Statistical Compendium, 1843 to 2013

Kym Anderson with the assistance of Nanda R. Aryal

'Another magisterial statistical compendium from Kym Anderson, with the assistance of Nanda Aryal: surely no nation's wine endeavours have ever been more precisely tracked through history than Australia's are here. The depth and intricacy of the global context, too, makes fascinating and often enlightening reading for any student of wine.'

— **Andrew Jefford** is a wine writer for *Decanter* and *The World of Fine Wine*, author of *The New France*, and former Wine Writer in Residence at the University of Adelaide.

'Kym Anderson is the Australian pioneer in the analysis of the economics of wine, and this book is more proof of that. It provides an interesting quantitative history of Australia's wine evolution and a model for how to write such a history.'

— **Professor Orley Ashenfelter** of Princeton University, is a former Editor of the *American Economic Review*, President of both the American Economic Association and the American Association of Wine Economists, and author/publisher of the newsletter *Liquid Assets*.

'The world of wine is changing in a way and to an extent that is unprecedented. Ancient varieties from all parts of Europe are being enthusiastically planted across the New World, especially in Australia. The mapping of the DNA of the grape vine has opened new windows of understanding. This is why Which Wine Grape Varieties are Grown Where? A Global Empirical Picture *(University of Adelaide Press, 2013) is so invaluable. Anderson has now returned to his earlier research on* Growth and Cycles in Australia's Wine Industry.'

— **James Halliday** is Australia's foremost wine writer.

THE UNIVERSITY of ADELAIDE

UNIVERSITY OF
ADELAIDE PRESS

About the Authors

Kym Anderson is George Gollin Professor of Economics and foundation Executive Director of the Wine Economics Research Centre at the University of Adelaide. He has published numerous articles on the economics of wine for industry and academic journals as well as a 2004 book on *The World's Wine Markets: Globalization at Work*. He is also the senior author of a 500-page statistical compendium on *Global Wine Markets, 1961 to 2009* (2011) and a 700-page statistical compendium on *Which Winegrape Varieties Are Grown Where?* (2013), both published by the University of Adelaide Press. He has served on the Board of Directors of Australia's Grape and Wine Research and Development Corporation (2000-05), and is a co-founder and Vice-President of the American Association of Wine Economists and a Co-Editor of Cambridge University Press's *Journal of Wine Economics*.

Nanda R. Aryal was a Research Assistant in the Wine Economics Research Centre at the University of Adelaide at the time of this study. He has MSc degrees in mathematics and statistics from both the University of York in England and Tribhuvan University in Nepal, and is currently a Doctoral student at the University of Melbourne.

This book is available as a free fully-searchable PDF from
www.adelaide.edu.au/press

Growth and Cycles in Australia's Wine Industry:

A Statistical Compendium, 1843 to 2013

Kym Anderson

with the assistance of Nanda R. Aryal

This volume provides time series data for the major wine regions of Australia from the 1840s, to complement a volume on global wine markets (published in December 2011) and one on where the various winegrape varieties are grown in the world (published in December 2013), both by University of Adelaide Press. All three volumes are published in paperback and are also freely available as e-books at www.adelaide.edu.au/press/titles

K. Anderson and S. Nelgen, **Global Wine Markets, 1961 to 2009: A Statistical Compendium**, Adelaide: University of Adelaide Press, 2011

K. Anderson (with the assistance of N.R. Aryal), **Which Winegrape Varieties are Grown Where? A Global Empirical Picture**, Adelaide: University of Adelaide Press, 2013. (Recipient of the 2014 OIV Prize from l'Organisation Internationale de la Vigne et du Vin)

This volume is freely available as an e-book at www.adelaide.edu.au/press/titles/austwine

The data are also freely available in Excel spreadsheets at www.adelaide.edu.au/wine-econ/databases/winehistory

The author welcomes comments on how to improve the quality and coverage of data and the way they have been summarized.

Please send feedback to:

Professor Kym Anderson, Executive Director
Wine Economics Research Centre
School of Economics
University of Adelaide
Adelaide SA 5005 Australia
Phone (+61 8) 8313 4712
Fax (+61 8) 8313 1460
kym.anderson@adelaide.edu.au
www.adelaide.edu.au/wine-econ

Growth and Cycles in Australia's Wine Industry:

A Statistical Compendium, 1843 to 2013

Kym Anderson

with the assistance of Nanda R. Aryal

Wine Economics Research Centre
School of Economics
University of Adelaide
Adelaide, South Australia

THE UNIVERSITY of ADELAIDE

UNIVERSITY OF
ADELAIDE PRESS

Published in Adelaide by

University of Adelaide Press
The University of Adelaide
Level 14, 115 Grenfell Street
South Australia 5005
press@adelaide.edu.au
www.adelaide.edu.au/press

The University of Adelaide Press publishes externally refereed scholarly books by staff of the University of Adelaide. It aims to maximise access to the University's best research by publishing works through the internet as free downloads and for sale as high quality printed volumes.

© 2015 Kym Anderson

This work is licenced under the Creative Commons Attribution 4.0 International (CC BY-NC-ND 4.0) License. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/ or send a letter to Creative Commons, 444 Castro Street, Suite 900, Mountain View, California, 94041, USA. This licence allows for copying any part of the work for personal and commercial use, providing author attribution is clearly stated. Address all inquiries to the Director at the above address.

For the full Cataloguing-in-Publication data please contact the National Library of Australia:

cip@nla.gov.au

ISBN (paperback) 978-1-925261-08-0
ISBN (ebook) 978-1-925261-09-7

Cover image: iStockphoto
Inside cover image: © 2014 Dragan Radocaj, Pindarie cellar door and homestead
Cover design: Emma Spoehr
Project coordinator: Julia Keller
Paperback printed by Griffin Press, South Australia

Table of contents

		Page
List of charts		xi
List of tables		xv
Preface and acknowledgements		xxiii
Technical notes		xxv
Statistical sources		xxix
Executive summary of key findings		xxxv
Ch. 1	**A guide to the industry's growth and cycles**	**1**
	1.1 Introduction	1
	1.2 Candidate indicators of wine industry developments	5
	1.3 The five cycles to date	7
	1.4 Was the optimism at the start of the fifth cycle warranted?	25
	1.5 What did innovation and generic marketing and R&D contribute?	28
	1.6 Australia's wine industry growth in international historical perspective	30
	1.7 Why such a sharp decline in profits and yet sluggish disinvestment?	34
	1.8 In retrospect, was the industry helped or hurt by protectionism?	35
	Annex: Conceptualizing the market for a nation's wine	37
Ch. 2	**Regional developments from the late 20th century**	**47**
	2.1 Introduction	47
	2.2 Sources of regional data	48
	2.3 Regional differences and their contributions	49
	2.4 Are regional differences being recognized in the market?	53
	2.5 Which regions have adjusted most since the latest downturn?	53
Ch. 3	**Varietal developments since the 1950s**	**55**
	3.1 Introduction	55
	3.2 Evolution of winegrape varietal mix	56
	3.3 Emerging varieties in Australia	56
	3.4 Indicators of varietal mix and quality distinctiveness	57
	3.5 The global data	59
	3.6 Australia's varietal distinctiveness globally	59
	3.7 Varietal quality differences within Australia	61

3.8 Varietal prices and summer temperatures 62

Ch. 4 Where to from here? 63
4.1 Market prospects 63
4.2 What about the varietal mix across regions? 66
4.3 Policy and institutional implications 67
4.4 Some lessons from history 69
4.5 Conclusion 71

References 73

Grape and wine market developments in 86 charts 83

I. Australian Grape and Wine Production, Consumption and Trade 83

II. Regional grape and wine developments from the late 20th century 119

III. Winegrape varietal developments since the mid-1950s 135

Table sections 147

I. Grape and wine production, consumption and trade since 1843 147

II. Regional grape and wine developments from the late 20th century 271

III. Winegrape varietal developments since the mid-1950s 391

IV. Appendix of macroeconomic and international data since the early 1800s 485

V. Regional varietal area, production and price data, 1999 to 2013 551
(online in Excel, as are the above series of tables, at
www.adelaide.edu.au.wine-econ/databases)

List of charts

Section I — Charts: Australian grape and wine production, consumption and trade 83

1. Bearing area of vineyards, wine production, and wine exports, 1986 to 2013 84
2. Volume, average price and value of export sales of Australian wine, 1990 to 2013 84
3. Value of wine exports, Australia and other New World countries, 1995 to 2014 85
4. Index of revealed comparative advantage in wine, Australia and other key exporters, 1986 to 2012 85
5. Bearing area of vineyards, Australia and South Australia, 1843 to 2013 86
6. Wine production, Australia and South Australia, 1843 to 2013 87
7. Volume of Australian wine exports to United Kingdom and world, 1854 to 2013 88
8. Exports as % of wine production and imports as % of apparent wine consumption, 1843 to 2013 89
9. Vine area, wine production, and wine exports, 1843 to 2013 89
10. Indexes of vine area, wine production, and wine exports, per capita, 1843 to 2013 90
11. Vine area as a percentage of total crop area, and wine production per $ of real GDP, 1843 to 2013 90
12. States' shares of Australian vine area, 1843 to 2013 91
13. Vine's share of total cropped area, by State, 1843 to 2013 91
14. Wine production per capita, by State, 1843 to 1913 92
15. Share of wine production exported, and all merchandise exports as a share of GDP, 1856 to 2013 93
16. Volume and value shares of exports in sales of Australian wine, 1984 to 2013 93
17. Average price of winegrapes and of exports, and vine area, 1986 to 2014 94
18. Volumes of wine exports by price segment, 2000 to 2014 94
19. Unit value of wine exports, Australia and other New World countries, 1990 to 2013 95
20. Winegrape price, and volume and value of winegrape production, 1999 to 2014 95
21. Volume and value shares of imports in wine consumption in Australia, 1984 to 2013 96
22. Number of wineries in Australia, 1985 to 2013 96
23. Real exchange rate, 1970 to 2013 and international terms of trade, 1871 to 2013 97

24.	Indexes of real international prices of food, energy raw materials and minerals, 1960 to 2014	98
25.	Mining share of merchandise value added and vine area per capita, 1972 to 2013	98
26.	Share of bulk wine in volume of exports, Australia and other key exporters, 2000 to 2013	99
27.	Shares of wine exports, by State of processing, 1995 to 2011	99
28.	Total value of wine imports, by source, 1999 to 2014	100
29.	Unit value of wine imports, by source, 2001 to 2011	100
30.	Closing stock and stocks-to-sales ratio, 1971 to 2013	101
31.	Shares of wine production destined for table wine, fortified wine and distillation, 1923 to 2013	101
32.	Gender ratio, 1820 to 1950	102
33.	Per capita production of beer, table wine, fortified wine, and brandy, 1923 to 2013	102
34.	Per capita consumption of alcohol as wine, beer and spirits, 1843 to 2013	103
35.	Shares of wine, beer and spirits in alcohol consumption, 1843 to 2013	103
36.	Late colonial per capita consumption of wine, beer and spirits, 1896	104
37.	Wine and total alcohol consumption per $ of real GDP, 1860 to 2013	105
38.	Wine consumption and real GDP, per capita, 1860 to 2013	105
39.	Structural changes to wine and brandy production, 1907 to 2013	106
40.	Evolution in consumption and plantings by colour/style, 1956 to 2012	107
41.	Shares of domestic wine sales, by container type, 1978 to 2013	108
42.	R&D investment, total and as a percentage of wine sales, 1984 to 2013	108
43.	Number of producers and total output, by volume of grapes crushed, 2012	109
44.	National shares of global wine production volume, 1907 to 2007	110
45.	National shares of global wine export volumes, 1927 to 2013	110
46.	Wine production per capita, main Old and New World countries, 1840 to 2013	111
47.	Vine area as a share of total crop area (%), main Old and New World countries, 1961 to 2011	112
48.	Wine production volume per $ of real GDP, main Old and New World countries, 1908 to 2008	113
49.	Wine production value as a share of GDP, main Old and New World Countries, 2009	113
50.	Wine exports per capita, main Old and New World countries, 1840 to 2013	114
51.	Wine comparative advantage index, 1961 to 2013	115
52.	Share of volume of global wine exports, key Mediterranean countries, 1861 to 2011	116

53. Nominal rates of assistance to grape growing, winemaking, all agriculture, and all manufacturing, 1904 to 2013 116
54. Ad valorem consumer tax equivalent of excise in commercial premium wines, various countries, 2012 and 2014 117
55. Total and unit value of Australia's wine export to Asia, 2011 to 2014 117

Section II — Charts: Regional grape and wine developments from the late 20th century 119

56. Map of Australia's 65 wine regions 120
57. Winegrape bearing area and winegrape production, by climate zone, 2001 to 2012 121
58. Regional shares of national winegrape bearing area, 2003 and 2012 122
59. Regional diversity in terms of vine intensity of cropping, 2006 122
60. Regional diversity in terms of winegrape yield per hectare, 2001 and 2012 123
61. Average price of winegrapes, by region, 2003, 2008 and 2013 123
62. Distribution of winegrape prices across price points nationally, 2008 and 2014 124
63. Regional shares of national winegrape production value, 2003 and 2012 125
64. Regional diversity in terms of grape and wine industry employment, 2006 and 2011 126
65. Regional diversity in terms of grape and wine value added, 2006 and 2011 127
66. Regional Quality Index dispersion, 2001 and 2012 128
67. Average price of winegrapes, by region, Australia, 2013 129
68. Regional Quality Index diversity across climate zones, 1999 to 2012 130
69. Regional diversity in terms of winegrape varieties (Varietal Similarity Index), 2001 and 2012 130
70. Varietal Similarity Index[a] dispersion, 2001 and 2010 131
71. Percentage change in winegrape bearing area, by region, 2001 to 2008 132
72. Change in winegrape bearing area, by region, 2008 to 2012 133

Section III — Charts: Winegrape varietal developments since the 1950s 135

73. Shares of Australian winegrape area, by varietal colour and quality, 1956 to 2012 136

74.	Shares of winegrape bearing area, by variety, 1956 to 2012	137
75.	Shares of winegrape bearing area, by varietal country of origin, 1956 to 2012	137
76.	Change in bearing area for most expanded varieties, Australia, 2001 to 2012	138
77.	Cumulative shares of Australian winegrape area, by main varieties, 1956, 1984 and 2012	138
78.	Shares of national wine area, production and exports of key varieties, and yield, 2012	139
79.	Angular separation between two regions, each growing two grape varieties	139
80.	World's top 35 varieties in 2010, compared with 1990 and 2000	140
81.	Bearing area of Syrah, key producing countries, 2000 and 2010	140
82.	Australian regions with largest Varietal Intensity Index relative to global average, key red varieties, 2001 and 2010	141
83.	Australian regions with largest Varietal Intensity Index relative to global average, key white varieties, 2000 and 2010	142
84.	National average prices of main winegrape varieties, 2013	143
85.	Varietal Quality Index dispersion, Australia, 1999 and 2012	144
86.	Winegrape price and mean January temperature, select varieties, 2006	145

List of tables

Section I — Tables: Grape and wine production, consumption and trade since 1843 147

1. Timing of booms and plateaus in wine industry's development, 1843 to 2013 148
2. Grapevine bearing area, by State, 1843 to 2013 149
3. Share of national grapevine bearing area, by State, 1843 to 2013 153
4. Grapevine area as a share of total crop area, by State, 1843 to 2013 157
5. Vine intensity of cropping, by State relative to nation, 1843 to 2013 161
6. Grapevine area per capita, by State, 1843 to 2013 165
7. Winegrape area, production, and yield/ha, by State, 1974 to 2013 169
8. Volume and share of grape production for winemaking and other uses, by State, 1937 to 2013 171
9. Wine production volume, by State, 1843 to 2013 175
10. Wine production volume per capita, by State, 1843 to 2013 179
11. Volume of Australian wine sold domestically, wine exports, and exports to the United Kingdom, 1854 to 2013 183
12. Volume of apparent wine consumption, total, per capita and per adult, 1843 to 2013 187
13. Wine trade volume indicators, 1843 to 2013 191
14. Wine trade volume indicators, by State, 1852 to 1913 197
15. Total and unit value of wine exports and imports, 1901 to 2013 203
16. Volume, value, unit value and shares of wine exports to key regions, 1990 to 2009 206
17. Shares of wine in total agricultural and total merchandise exports, 1901 to 2013 211
18. Wine import tariffs, by Colony, 1852 to 1900, and interstate trade in wine, 1906 213
19. Tax revenue from customs and excise duties and sales taxes on wine, beer and spirits, 1858 to 1988 214
20. Wine export assistance and UK import tariff preferences, 1924 to 1946 217
21. Number of wineries, by State and crush size, 1978 to 2014 218
22. Ranking of largest 30 wine companies by various criteria, 2013 220
23. History of brands, mergers and acquisitions by three largest wineries in terms of total sales, 2013 221
24. First Family wine companies and others established more than 100 years ago but 223

not in or part of largest 30 wine companies, 2013
25. Other wineries ranked among Australia's top 100, 2013 224
26. Shares of Australia's 2,573 wine companies as of 2014, by periods of establishment 226
27. Australia's six most powerful wine brands and global ranking of owners, 2013 227
28. Production of wine, brandy and other grape spirit, 1907 to 2013 228
29. Shares of wine production for table wine, fortified wine and distillation, 1923 to 2013 231
30. Per capita production of table wine, fortified wine, brandy and beer, 1923 to 2013 233
31. Consumption of domestic and imported brandy, and production and exports of brandy, 1907 to 2013 235
32. Per capita consumption of wine, beer, spirits, and shares of total alcohol consumption, 1843 to 2013 238
33. Consumption of wine, beer, spirits, and all alcohol, litres of alcohol per million dollars of real GDP, 1843 to 2010 242
34. Domestic, export and total sales of Australian wine, by colour and container type, 1968 to 2013 246
35. Premium and non-premium red and white winegrape area, production and yield /ha, 1956 to 2013 250
36. Listing of premium and non-premium red and white winegrape varieties 256
37. Winegrape price, volume and value of production, 1985 to 2014 258
38. Value of total grape production and share from winegrapes, and value of wine sales, 1971 to 2013 259
39. Consumer and producer price indexes for wine, beer, spirits, and all products, 1979 to 2013 260
40. Beverage wine stocks and stock-to-sales ratio, 1971 to 2013 262
41. Investment in grape and wine research, 1956 to 2014 263
42. Wine research publications, 1992 to 2006 265
43. Consumer (excise) taxes on wines, beers and spirits, various countries, 2012 266
44. Consumer (excise) taxes on wines, beers and spirits, various countries, 2014 268

Section II — Tables: Regional grape and wine developments from the late 20th Century **271**

45. Key regions and their corresponding ABS Statistical Sub-divisions, 2006 and 2012 272

46.	Winegrape regions' climate data, 2000	274
47.	Vine bearing area, by State and major region, 1978 to 2000	276
48.	State and regional shares of vine bearing area, 1978 to 2000	278
49.	Winegrape bearing area, by State and region, 2001 to 2012	280
50.	State and regional shares of national winegrape bearing area, 2001 to 2012	284
51.	Winegrape production volume, by State and major region, 1979 to 2000	288
52.	State and regional shares of national winegrape production volume, 1979 to 2000	290
53.	Winegrape production volume, by State and region, 2001 to 2012	292
54.	State and regional shares of national winegrape production volume, 2001 to 2012	296
55.	Winegrape yield per hectare, by State and region, 2001 to 2012	300
56.	Winegrape price, by State and region, 1999 to 2005	303
57.	Winegrape price, by State and region, 2006 to 2013	305
58.	Vine intensity of cropping, by State and region, 2006	307
59.	Winegrape production value, by State and region, 2001 to 2012	308
60.	State and regional shares of national winegrape production value, 2001 to 2012	311
61.	Winegrape Regional Quality Index, by State and region, 1999 to 2012	314
62.	Number of grapegrowing establishments, and national shares, by State and region, 2008 and 2012	317
63.	Number employed in grape-growing and winemaking, and national shares, by State and region, 2006 and 2011	318
64.	Number of independent and winemaker grape-growing establishments, by State and region, 2012	320
65.	Vine bearing area of independent and winemaker growers, by State and region, 2012	324
66.	Winegrape crush of independent and winemaker growers, by State and region, 2012	328
67.	Grape and wine employment intensity, by State and region, 2006 and 2011	332
68.	Irrigation water use for vineyards, other agriculture, and winemaking, by State and region, 2006 and 2011	333
69.	Winegrape and wine gross value of output, and shares of national total, by State and region, 2006	336
70.	Winegrape and wine value added (GDP), and shares of national total, by State and region, 2006 and 2011	337
71.	Intensity of grape and wine output and value added (GDP), by State and region, 2006	339
72.	Non-premium, commercial premium and super-premium shares in regional winegrape production volume, and share of national volume, by State and region,	340

2008

73. Non-premium, commercial premium and super-premium shares in regional winegrape production value, and share of national value, by State and region, 2008 341

74. Average price of non-premium, commercial premium and super-premium winegrapes, and weighted average, by State and region, 2008 342

75. Area of total and bearing vineyards, for wine and for other purposes, and shares of national total, by State and region, 2008 343

76. Winegrape and other grape production volume, and shares of national total, by State and region, 2008 344

77. Grape yield per hectare, winegrapes and other grapes, in tonnes and relative to the national average, by State and region, 2006 and 2008 345

Tables by Region/State/Climate Zone, 1999 to 2008

78. Adelaide Hills 346

79. Barossa/Eden Valley 347

80. Clare Valley 348

81. Coonawarra 349

82. Langhorne Creek/Currency Creek/Southern Fleurieu 350

83. McLaren Vale 351

84. Other Limestone Coast 352

85. Riverland 353

86. SA Other 354

87. SA Total 355

88. Canberra District 356

89. Hunter 357

90. Mudgee/Cowra 358

91. Murray Darling NSW 359

92. Orange 360

93. Riverina 361

94. NSW Other 362

95. NSW Total 363

96. Alpine Valley/Beechworth 364

97. Goulburn Valley 365

98.	Mornington Peninsula	366
99.	Murray Darling VIC	367
100.	Rutherglen	368
101.	Swan Hill VIC	369
102.	West Central Highlands	370
103.	Yarra Valley	371
104.	Victoria Other	372
105.	Victoria Total	373
106.	Great Southern	374
107.	Margaret River	375
108.	Swan District	376
109.	WA Other	377
110.	WA Total	378
111.	Tasmania	379
112.	Darling Downs	380
113.	Queensland Other	381
114.	Queensland Total	382
115.	NT and ACT	383
116.	Total of above regions	384
117.	Total other regions	385
118.	Total Australia	386
119.	Hot Climate Zones	387
120.	Warm Climate Zones	388
121.	Cool Climate Zones	389

Section III — Tables: Winegrape varietal developments since the mid-1950s 391

122. Winegrape area, by variety, 1956 to 1966 392
123. Winegrape area, by variety, 1973 to 1982 393
124. Winegrape area, by variety, 1983 to 1992 394
125. Winegrape area, by variety, 1993 to 2002 395
126. Winegrape area, by variety, 2003 to 2012 396
127. Varietal shares of national winegrape area, 1956 to 1966 397
128. Varietal shares of national winegrape area, 1973 to 1982 398
129. Varietal shares of national winegrape area, 1983 to 1992 399
130. Varietal shares of national winegrape area, 1993 to 2002 400
131. Varietal shares of national winegrape area, 2003 to 2012 401
132. Shares of national winegrape area premium/nonpremium red and white, 1956 to 2012 402
133. Shares of national winegrape area by varietal country of origin, 1956 to 2012 403
134. Varieties most commonly planted in Australia in 1860 and their likely primes 405
135. Emerging winegrape varieties, 2001 to 2012 406
136. Frequency of varietal names on Australian wine bottle labels, 2013, shares of bearing area and production, and average price, 2012 407
137. National winegrape production volume, by variety, 1956 to 1966 408
138. National winegrape production volume, by variety, 1973 to 1982 409
139. National winegrape production volume, by variety, 1983 to 1992 410
140. National winegrape production volume, by variety, 1993 to 2002 411
141. National winegrape production volume, by variety, 2003 to 2012 413
142. Varietal shares of national winegrape production volume, 1956 to 1966 415
143. Varietal shares of national winegrape production volume, 1973 to 1982 416
144. Varietal shares of national winegrape production volume, 1983 to 1992 417
145. Varietal shares of national winegrape production volume, 1993 to 2002 418
146. Varietal shares of national winegrape production volume, 2003 to 2012 420
147. National winegrape yield per hectare, by variety, 1973 to 1980 422
148. National winegrape yield per hectare, by variety, 1981 to 1988 423
149. National winegrape yield per hectare, by variety, 1989 to 1996 424
150. National winegrape yield per hectare, by variety, 1997 to 2004 425
151. National winegrape yield per hectare, by variety, 2005 to 2012 426

152.	National winegrape price, by variety, 1999 to 2005	427
153.	National winegrape price, by variety, 2006 to 2013	429
154.	National winegrape production value, by variety, 1999 to 2012	431
155.	Varietal shares of national winegrape production value, 1999 to 2012	433
156.	Winegrape bearing area, by variety, cool climate regions, 2001 to 2012	435
157.	Winegrape bearing area, by variety, warm climate regions, 2001 to 2012	437
158.	Winegrape bearing area, by variety, hot climate regions, 2001 to 2012	439
159.	Winegrape production, by variety, cool climate regions, 2001 to 2012	441
160.	Winegrape production, by variety, warm climate regions, 2001 to 2012	443
161.	Winegrape production, by variety, hot climate regions, 2001 to 2012	445
162.	Winegrape yield, by variety, cool climate regions, 2001 to 2012	447
163.	Winegrape yield, by variety, warm climate regions, 2001 to 2012	449
164.	Winegrape yield, by variety, hot climate regions, 2001 to 2012	451
165.	Winegrape Varietal Similarity Index, 1990, 2000 and 2010	453
166.	National and global shares of bearing area of varieties with highest Varietal Intensity Index, 2000 and 2010	454
167.	Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012	455
168.	Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012	463
169.	Winegrape Varietal Similarity Index, by region relative to world, 2001 and 2010	471
170.	Each region's three most similar regions in the world, according to the Varietal Similarity Index, 2001 and 2010	473
171.	Winegrape Varietal Intensity Index, based on area, relative to world, 1990, 2000 and 2010	477
172.	Price, yield, production and Varietal Quality Indexes, key varieties, 2001 and 2010	478
173.	National winegrape Varietal Quality Index, by variety, 1999 to 2005	480
174.	National winegrape Varietal Quality Index, by variety, 2006 to 2013	482

Section IV — Tables: Appendix of macroeconomic and international data since the early 1800s **485**

A1. Total population, by State, 1788 to 2013 486
A2. Male share of population and male/female ratio, 1796 to 2013 491
A3. Total crop area, by State, 1821 to 2013 493
A4. Current and real GDP and real GDP per capita, levels and annual growth rates, 1825 to 2013 497
A5. Current GDP, by State, 1861 to 1978 501
A6. Real GDP, by State, 1861 to 1978 504
A7. Real GDP per capita, by State, 1861 to 1978 507
A8. Real GDP per capita annual growth rates, by State, 1861 to 1978 510
A9. Nominal rates of assistance to agricultural and manufacturing sectors and wine, and relative rate of assistance to manufacturing, Australia, 1904 to 2013 513
A10. Sectoral shares of current GDP, NSW and SA, 1840 to 2013 516
A11. Sectoral shares of current GDP, Vic and WA, 1850 to 2013 520
A12. Sectoral shares of current GDP, Tas and Qld, 1840 to 2013 524
A13. Sectoral shares of current GDP, ACT/NT and Australia, 1840 to 2013 528
A14. Value of gold, wool, all agricultural, all mining, and all merchandise exports, 1901 to 2013 532
A15. Shares of wine, wool, other agricultural, gold, and other mining products in the value of merchandise exports, 1901 to 2013 535
A16. Merchandise exports, imports, and shares of GDP, current prices, 1822 to 2013 538
A17. Foreign exchange rates and CPI, 1850 to 2013 543
A18. International terms of trade, 1871 to 2013 547
A19. Lending interest rates and GDP deflator, 1851 to 2014 548
A20. Index of real ocean freight rates, 1840 to 2004 550

Preface and acknowledgements

This report revises, updates and greatly expands a 1998 booklet by Robert Osmond and Kym Anderson, *Trends and Cycles in the Australian Wine Industry, 1850 to 2000*, which was published by the University of Adelaide's Centre for International Economic Studies. The earlier booklet was written when the nation's wine industry was expanding very rapidly. Its aim was to improve our understanding of prospects for the industry into the 21st century by bringing a long historical perspective to the current export-oriented boom in the industry. Those authors were grateful for helpful comments from numerous people in the industry, especially Brian Croser, Peter Hallier, Peter Hayes, Lawrie Stanford, Stephen Strachan and Ian Sutton, and for financial assistance from the Winemakers Federation of Australia (WFA), the South Australian Government, and the Grape and Wine Research and Development Corporation (GWRDC, now part of AGWA, the Australian Grape and Wine Authority).

One reason for revisiting, expanding and updating these data is because that recent growth spurt — the fifth in the industry's history — has come to an end. There is now value in more fully evaluating the latest boom-bust cycle in the light of the four earlier cycles. The other main reason for the present volume is in response to the industry wishing to improve its profitability through differentiating its product. Two major approached to differentiation in an ever more competitive environment domestically and abroad are by region and by winegrape variety, hence new sections of data pertinent to those two options have been added.

On regional aspects, the data are now differentiated by State (or, before the Australian Federation was formed in 1901, by Colony). As well, for recent years they are also presented for as many regions within States as the available data permit. This updates an earlier report prepared for GWRDC, WFA and the Australian Wine and Brandy Corporation (AWBC, subsequently Wine Australia and now part of AGWA) by Kym Anderson, Signe Nelgen, Ernesto Valenzuela and Glyn Wittwer, *The Economic Contributions and Characteristics of Grapes and Wine in Australia's Wine Regions*, circulated as Wine Economics Research Centre Working Paper 0110, February 2010. The authors of that report gratefully acknowledged helpful comments from Leanne Webb of CSIRO, Jim Fortune of GWRDC and members of the research project's Industry Reference Group.

As for the other option for wineries, of differentiating their product is by grape variety, we now include data on the evolution of the mix of varieties in the bearing area of the various winegrape-growing regions of the country. This expands greatly the period covered for the Australian data included in a 2013 report prepared for GWRDC by Kym Anderson (with the assistance of N.R. Aryal) on *Which Winegrape Varieties are Grown Where? A Global Empirical Picture*, circulated as a University of Adelaide Press e-book that can be freely downloaded at www.adelaide.edu.au/press/titles/winegrapes.

We are grateful also for assistance with data for this volume from Peter Bailey, Kate Harvey and Mark Rowley at the Australian Grape and Wine Authority, for assistance with varietal names from Peter Dry and with AWRI investment data from Chris Day, for wine market modelling from Glyn Wittwer, for library research assistance from Katherine Grace and Winston Reed, for the initial data-gathering in 1998 by Robert Osmond, and for great help with 19th century data for New South Wales from Julie McIntyre and data for Tasmania

from Tony Walker, and for the copy editing by Julia Keller and cover design by Emma Spoehr.

We acknowledge and thank GWRDC/AGWA for assisting with funding the research project that produced this compendium (Project Number UA08/04), along with the University of Adelaide's Wine 2030 Research Network (now Wine Futures), its School of Economics and its Faculty of the Professions. Views expressed are the author's alone.

While we have made every effort to ensure the accuracy and currency of information within this compendium, we cannot accept responsibility for information that may later prove to be misrepresented or inaccurate, or for any reliance placed on the information by readers. We warmly welcome comments on the raw data and the indicators we have derived from them, and we would gratefully receive any additional data. Please send to kym.anderson@adelaide.edu.au

Kym Anderson
Adelaide, SA
February 2015

Technical notes

This section provides definitions of the units used in, and of the various indicators generated from, the raw data in this compendium.

Wine *(SITC 112.12; FAO CODE 0564; Harmonised System Tariff Heading 2204)* refers to beverage wines of fresh grapes of all qualities, including still, sparkling, fortified and dessert wines. Distillation wine refers to wine that is not consumed as such but rather is distilled into grape spirit for later converting to brandy or for strengthening fortified wine.

Definitions of unit measures

Variable	*Unit (per year)*
Grape vine bearing area	hectares (ha)
Volume of grape production	'000 tonnes (kt)
Grape yield	tonnes per hectare (t/ha)
Volume of wine production	'000 litres (kl)
Volume of wine consumption	'000 litres (kl)
Volume of wine exports and imports	'000 litres (kl)
Value of wine exports and imports	current AUD '000 (1 Pound = AUD2)
Unit value of wine exports and imports	current AUD/L

Explanations of unit measures

Abbreviation	*Definition*	*Conversion*
ha	hectare	10,000 square metres or 2.471 acres
t	tonne	1,000 kilograms or 2,205 pounds
kt	kilotonne	1,000 tonnes
kl	kilolitre	1,000 litres or 220 imperial gallons or 264.2 US gallons
lal	litres of alcohol	Assumes to be 40% for spirits, 4.5% for beer, and between 12% and 16% for wine, depending on the period (some of which had a high proportion of fortified wine whose alcohol content is 16-18%)

Definition of indexes used

Vine cropping intensity index is the share of total cropped area under vineyards in a region as a ratio of its share nationally.

Wine self-sufficiency index is the volume of wine production divided by beverage wine consumption, times 100.

Wine trade specialisation index is calculated in volume terms as the ratio of net bilateral exports (exports minus imports) to the sum of bilateral exports plus imports, so that the index ranges between –1 and +1.

Index of intra-industry trade is calculated in value terms as 100 times the ratio of the difference between total bilateral trade (bilateral exports plus imports) and net bilateral trade (the modulus of bilateral exports minus imports) to total bilateral trade, so that it ranges from 0 to 100.

Index of comparative advantage in wine is calculated in value terms as the share of a country's or region's wine exports in total merchandise exports divided by the share of world wine exports in total world merchandise exports.

Regional Quality Index is defined as the average winegrape price in a region across all varieties as a proportion of that average price nationally.

Varietal Quality Index is defined as the average winegrape price of a variety across all regions as a proportion of that average price nationally.

Varietal Intensity Index is defined as a variety's share of a region's winegrape area divided by that variety's share of the global winegrape bearing area. The Varietal Intensity Index is thus a complement to share information in that it indicates the importance of a variety in a region not relative to other varieties in that region but rather relative to that variety in the world. Specifically, define f_{im} as the proportion of bearing area of grape variety m in the total winegrape bearing area in region or country i such that the proportions fall between zero and one and sum to one (i.e., there is a total of M different grape varieties across the world, and $0 \leq f_{im} \leq 1$ and $\Sigma_m f_{im} = 1$). For the world as a whole, f_m is the bearing area of grape variety m as a proportion of the total global winegrape area, and $0 \leq f_m \leq 1$ and $\Sigma_m f_m = 1$. Then the Varietal Intensity Index, V_{im} for variety m in region i, is:

$$(1) \qquad V_{im} = f_{im} / f_m$$

Varietal Similarity Index is defined by Anderson (2010a) to measure the extent to which the varietal mix of one region or country matches that of another region or country or the world. It can also be used to compare the varietal mix of a region or country over time. In defining the index, Anderson (2010a) borrows and adapts an approach introduced by Jaffe (1986) and Griliches (1979). That approach has been used subsequently by Jaffe (1989), and by others including Alston, Norton and Pardey (1998) and Alston et al. (2010, Ch. 4), to measure inter-firm or inter-industry or inter-regional technology spillover potential.[1]

---

[1] Alston, J.M., Andersen, M.A., James, J.S. and Pardey, P.G. (2010), *Persistence Pays: U.S. Agricultural Productivity Growth and the Benefits from Public R&D Spending,* New York: Springer.

Alston, J.M., Norton, G.W. and Pardey, P. (1998), *Science under Scarcity: Principles and Practice for Agricultural Research Evaluation and Priority Setting,* London: CAB International.

Anderson, K. (2010a), 'Varietal Intensities and Similarities of the World's Wine Regions', *Journal of Wine Economics* 5(2): 270-309, Winter.

Griliches, Z. (1979), 'Issues in Assessing the Contribution of R&D to Productivity Growth', *Bell Journal of Economics* 10: 92-116.

Jaffe, A.B. (1986), 'Technological Opportunity and Spillovers of R&D: Evidence from Firms' Patents Profits and Market Value', *American Economic Review* 76(5): 984-1001.

The mix of grape varieties is a form of revealed preference or judgement by vignerons about what is best to grow in their region. That judgement is affected by not only terroir but also past and present economic considerations, including current expectations about future price trends plus the sunk cost that would be involved in grafting new varieties onto existing rootstocks or grubbing out and replacing existing varieties.

The vector of grape varietal shares defined above, $f_i = (f_{i1}, \ldots, f_{iM})$, locates region i in M-dimensional space. Noting that proximity is defined by the direction in which the f-vectors are pointing, but not necessarily their length, Jaffe (1989) proposes a measure called the angular separation of the vectors, which is equal to the cosine of the angle between them. If there were just two varieties, m and n, and region i had 80 percent of its total vine area planted to variety m, whereas only 40 percent of region j was planted to variety m, then their index of regional similarity is the cosine of the arrowed angle between the two vectors (see Chart 79). When there are M varieties, this measure is defined as:

$$(2) \qquad \omega_{ij} = \frac{\sum_{m=1}^{M} f_{im} f_{jm}}{\left(\sum_{m=1}^{M} f_{im}^2 \right)^{1/2} \left(\sum_{m=1}^{M} f_{jm}^2 \right)^{1/2}},$$

where again f_{im} is the area of plantings of grape variety m as a proportion of the total grape plantings in region i such that these proportions fall between zero and one and sum to one (i.e., there is a total of M different grape varieties across the world, and $0 \leq f_{im} \leq 1$ and $\Sigma_m f_{im} = 1$). This makes it possible to indicate the degree of varietal mix 'similarity' of any pair of regions. The index also can be generated for each region relative to the average of the world's N regions, call it ω. In short, ω_{ij} measures the degree of overlap of f_i and f_j. The numerator of equation (2) will be large when i's and j's varietal mixes are very similar. The denominator normalizes the measure to be unity when f_i and f_j are identical. Hence, ω_{ij} will be zero for pairs of regions with no overlap in their grape varietal mix, and one for pairs of regions with an identical varietal mix. For cases in between those two extremes, $0 < \omega_{ij} < 1$. It is conceptually similar to a correlation coefficient. Like a correlation coefficient, it is completely symmetric in that $\omega_{ij} = \omega_{ji}$ and $\omega_{ii} = 1$. Thus the results can be summarized in a symmetric matrix with values of 1 on the diagonal, plus a vector that reports the index for each region relative to the global varietal mix.

Method of estimating annual growth rates

Growth rates are computed using the least-squares method. The least-squares growth rate, r, is calculated by fitting a linear regression trend line to the logarithmic annual values of the variable in the relevant period. The regression equation takes the form

$$\ln X_t = a + bt + u_t$$

which is equivalent to the logarithmic transformation of the compound growth equation,

$$X_t = X_0(1 + r)^t.$$

In this equation X is the variable, t is time and $a = \ln X_0$ and $b = \ln(1 + r)$ are the parameters to be estimated. If b* is the least-squares estimate of b, the average annual growth rate, r, is obtained as [antilog(b*) - 1] and multiplied by 100 for expression as a percentage. The

---

Jaffe, A.B. (1989), 'Real Effects of Academic Research', *American Economic Review* 79(5): 957-70.

calculated growth rate is an average rate that is representative of the available observations over the period. It does not necessarily match the actual growth rate between any two periods.

Statistical sources

Contemporary data on Australia's wine industry — the most recent 30 years — are best found at the Australian Bureau of Statistics (ABS, especially Cat. Nos. 1301.0, 1320.0, 4307.0.55.001, 7310.0, 8336.0 and 8504.0) at www.abs.gov.au and the Australia Grape and Wine Authority's WINEFACTS website at www.agwa.net.au. AGWA came into being on 1 July 2014 by combining Wine Australia (previously the Australian Wine and Brandy Corporation and before that the Australian Wine Board) and the Grape and Wine Research and Development Corporation (GWRDC, which contributed toward the funding of the compilation of data for this compendium). For the previous 150 years of data, a wide range of sources have been tapped, as described below, but the main source for the 19th century is the Statistical Registers of each Colony before the Federation of Australian States brought those British colonies (other than New Zealand) together to form a nation in 1901.[2] Since many tables cover pre- and post-1901 data, for brevity's sake the word State will be used even when referring to the colonial period and the word Australia will be used whenever referring to the mainland plus Tasmania including in the pre-Federation period. A few of the long time series had already been assembled by the Winemakers' Federation of Australia for their publication, *Vintage: the Australian Wine Yearbook* (WFA 1999).

Since the vintage is in the first half of each calendar year, the years shown end either on 30 June or on 31 December, depending on the series. Generally, data for the 19th century are calendar years and those from the early 20th century are fiscal years ending 30 June. Where data are unavailable for an occasional year, trend values are inserted and are shown in italics.

Virtually all of the charts in this compendium are derived from one or more of the tables that follow, as indicated in the table at the end of this section.

The tables in **Section I** that relied on data from sources other than the main ones listed above are listed below with their specific source(s), followed by those used to assemble the macro data in **Section IV**. The original data that have been drawn on to compile **Section V** were kindly provided in various Excel files from AGWA.

Wine industry data at the regional level (**Section II**) are available from various sources, but the coverage has been sporadic and the regional definitions have varied widely across the different sources and over time. The latest regional definitions are shown in Chart 51 on the map of Australia. The most reliable employment data come from the Australian Bureau of Statistics (ABS) censuses, which are conducted every five years with the most recent one being for the 2010-11 financial year (and so covering the 2011 vintage). The ABS

[2] The Colony of New South Wales was settled by the British from 1788. Van Diemen's Land (now the isle and state of Tasmania) began to be settled from 1803 but was not politically separated from New South Wales until 1825. In 1829 Western Australia became a colony (west of the 129th meridian), completing the British settlement of the continent. South Australia was settled as a non-convict colony on 28 December 1836. What is now Victoria began to be settled from 1834 and, although it did not become a separate colony from New South Wales until 1851, it is treated in the data as if it was separate from that earlier year. Queensland began to be settled from 1803 but was not politically separated from New South Wales until 1959. New Zealand, initially a dependency of New South Wales, became a separate colony on 7 August 1840 and chose to become a separate country rather than part of the Federation of Australia in 1901.

also conducts annual industry surveys and reports those data the following year in industry and other publications. More detailed data are made available online for various levels of regional disaggregation: States are divided into Statistical Divisions, Statistical Sub-Divisions (SSDs) and Statistical Local Areas (SLAs, of which there are just over 1400 nationally). SLA data on vineyards and other agricultural activities as of 2005-06 are available in ABS Cat. No. 7125.0, for example.

For present purposes we focus on 27 Statistical Sub-Divisions as defined by the ABS. These are home to around half of the wine industry's Geographical Indications (GIs), which comprise more than 60 homogeneous areas legally defined for marketing purposes by the Australian Grape and Wine Authority's Geographical Indications Committee. Each of our selected 27 SSDs map closely to one or more GIs, and the 34 GIs thereby covered (see Table 45) account for all but one-tenth of the nation's winegrape vineyard area, wine production volume and value of wine sales.[3] Those SSDs account for around one-eighth of national GDP and population. As well, services associated with the wine industry are important in urban areas, for example in shipping activities at the major ports of Adelaide, Melbourne, Perth and Sydney, as well as in the head offices of major wine companies in those cities.

The 2006 ABS census data are incorporated in the database of a regional multi-sectoral model of the Australian economy known as TERM and developed by the Centre of Policy Studies.[4] That database is the source of comparative information on the industry's contribution to regional employment, gross value of production and value added (GDP). Vine area, grape and wine production quantities, and number of establishments in the grape and wine business are from the annual survey data reported in ABS Cat. No. 1329.0. Irrigation data are from ABS Cat. No. 4618.0.

The ABS does not publish winegrape price data, but since 1999 the industry itself has been conducting a series of State-based annual winegrape price and utilization surveys, and the average price data and crush volumes from those surveys are now made freely available online by AGWA. As for wine prices, these are not available at the regional level but AGWA uploads on its WINEFACTS website, on a monthly basis, national information on the distribution of prices for wine exports (which now account for more than three-fifth of the value of all sales of Australian wine).

There is no official definition of wine regions by climate, but Leanne Webb has carefully assembled climate information for the major regions, reported in Table 46.[5] From that we have defined three zones as follows:

- Hot zone: Mean January and February temperatures each above 23^{o}C and Growing Degree Days above 2200.

[3] Further disaggregation did not prove to be sensible because the concordance between the other smaller GI regions and one or more SSDs or SLAs is very poor because of overlapping. Even for the chosen GIs the concordance is not always great. For example, the McLaren Vale GI is a small part of the Southern Adelaide SSD, which includes a large amount of urban activity.

[4] Wittwer, G. and M. Horridge, 'Bringing Regional Detail to a CGE Model Using Census Data', *Spatial Economic Analysis* 5(2): 229-55, 2010. This is a bottom-up regional model. A top-down regional model has also been developed for wine industry analysis, based on the ORANI-G model developed by Mark Horridge, 'ORANI-G: A General Equilibrium Model of the Australian Economy', Preliminary Working Paper No. OP-93, Centre of Policy Studies, Monash University, October 2000.

[5] Webb, L.B., *The Impact of Projected Greenhouse Gas-induced Climate Change on the Australian Wine Industry*, unpublished PhD thesis, University of Melbourne, Parkville, Victoria, October 2006.

- Cool zone: Mean January and February temperatures each below 20^{o}C and Growing Degree Days below 1550.
- Warm zone: those with temperatures and Growing Degree Days between those of the Hot and Cool zones.

The beneficial effect of a large diurnal temperature range also was considered, but it did not cause any change to the above classification of regions into H, W and C.

As for **Sections III** and **V**, data on winegrape bearing area by variety and region are from AGWA's WINEFACTS website for this century, from AGWA archives for last century and, for 1860, from Kelly, A.C., *The Vine in Australia*, (Sydney: Sands and Kenny, 1861), with thanks to Peter Dry for suggesting what those old varietal names are likely to be today by drawing on, among other sources, Antcliff, A.J., 'Variety Identification in Australia', *Australian Grapegrower and Winemaker* 160: 82-88, April 1977. Different firms sometimes use different names for the same winegrape variety, and over time common usage changes. For present purposes, and to be consistent with our global compendium on *Which Winegrape Varieties are Grown Where? A Global Empirical Picture* (Adelaide: University of Adelaide Press, 2013), our key source for identifying DNA-identical varieties is the Robinson, Harding and Vouillamoz book called *Wine Grapes* (London: Allen Lane, 2012). It provides a detailed guide to 1368 commercially grown 'prime' varieties, and it also identifies their various synonyms used in various countries. Those authors chose the 'prime' name according to the name used in its country or region of origin. Hence we use Syrah rather than Shiraz, since Syrah is its common name in France, its country of origin.

Turning back to **Section I** data sources that are table-specific, these are listed here in the order in which they appear. Some indicators involve macro data in the denominator, such as total crop area sown, population, total merchandise trade or real GDP; those macro data are reported in Section IV.

Table 1: Authors' own compilation, with dates of cycles based on visual observation of de-trended data.

Table 11: Exports to the United Kingdom up to 1946 are assumed to be the same as imports by the UK from Australia, reported in Laffer, H.E., *The Wine Industry of Australia*, (Adelaide: Australian Wine Board, 1949).

Table 12: Apparent wine consumption is assumed from 1907 to be production plus net imports less net increase in stock less the diversion of wine production to distillation. Changes in wine stocks are available only from 1983, and wine for distillation data are available only from 1923, so both are assumed to be zero prior to those years. (When divided by population, these turn out to be quite close to wine consumption per capita data in ABS Cat. No. 4307.0.55.001 from 1945.) We estimate consumption prior to 1907 by using per capita consumption data (times population) from Vanplew, W., *Australians: Historical Statistics* (Sydney: Fairfax, Syme and Weldon, 1987). Australian wine import data are unavailable prior to 1901, so apparent imports are derived as apparent consumption plus exports minus production. In a few years this generates a negative number, in which case we assume imports are zero. Sales of Australian wine are available only from 1947 (see Table 11), so wine production minus distillation is used as a proxy for earlier years (hence overstating sales pre-1923 because lack of data requires us to assume no wine was distilled when in fact it rose from close to zero in the early 1890s to one-third of wine production by 1923).

Table 14: Apparent wine consumption in each State pre-Federation is assumed to be production plus net imports, and so overstates actual consumption to the extent of any net increase in stock or any distillation of wine in its year of production.

Table 16: From the database used to compile *Global Wine Markets, 1961 to 2009: A Statistical Compendium* (Adelaide: University of Adelaide Press, 2011), by K. Anderson and S. Nelgen, except for part (j), which is from www.agwa.net.au.
Table 18: Statistical Registers and Mill, S., *Taxation in Australia,* London: Macmillan, 1925.
Table 19: Lewis, M., *A Rum State: Alcohol and State Policy in Australia 1788-1988* (Canberra: Australian Government Publishing Service, 1992).
Table 20: The export bounty is described in Laffer, H.E., *The Wine Industry of Australia* (Adelaide: Australian Wine Board, 1949) and Lloyd, P.J. and D. MacLaren, 'Relative Assistance to Australian Agriculture and Manufacturing Since Federation', *Australian Journal of Agricultural and Resource Economics* 59 (forthcoming 2015). Laffer also describes the UK import tariff preference on Australian fortified wine.
Tables 21 and 22: Winetitles, *The Australian and New Zealand Wine Industry Directory* (Adelaide: Winetitles, 2014, see www.winebiz.com.au).
Tables 23 to 26: Beeston, J., *A Concise History of Australian Wine*, 3rd Edition (Sydney: Allen and Unwin, 2001); Halliday, J., *A History of the Australian Wine Industry: 1949-1994* (Adelaide: Winetitles, 1994) and *Top 100 Australian Wineries: From Vines to Wines, Histories to Vintages* (Melbourne: Hardie Grant Books, 2014); company websites and www.winebiz.com.au
Table 27: Intangible Business, *The Power 100: The World's Most Powerful Spirits and Wine Brands, 2013* (London: Intangible Business, 2014) at www.drinkspowerbrands.com.
Table 28: Brandy production data from 1907 to 1924 refer to clearances of domestically produced brandy.
Table 32: Per capita consumption data pre-1961 for beer and spirits are from Vanplew, W., *Australia: Historical Statistics* (Sydney: Fairfax, Syme and Weldon, 1987). Wine is converted from the apparent wine consumption estimates in Table 13 by assuming it has an alcohol content of 14% during 1843 to 1922; for 1923 to 1960 we use the consumption-weighted average of table wine (12%) and fortified wine (18%) which averaged 15.5% during that period; and during 1961 to 2013 the alcohol content of wine as in Cat. No. ABS 4307.0.55.001 was used (which averaged 13% during that period, ranging from 11.9% to 15.9%). Beer is assumed to have an alcohol content of 4.5%. Where spirits data are reported as proof rather than pure alcohol, they are converted to alcohol by multiplying by 0.5714. For years prior to 1907, Australia's per capita consumption of spirits and beer are assumed to be the population-weighted average of that in New South Wales and Victoria (as was in fact the case in 1896 for which each colony's data are reported in Commonwealth of Australia (1902), *A Statistical Account of the Seven Colonies of Australasia,* page 357). Home-brewed beer was not included in the NSW statistics until 1886 and in Victoria's until 1863. The differences between the five years before and the five years since those dates were 8.4 and 9.4 gallons of beer in New South Wales and Victoria, respectively, so those amounts are added to the prior years' data to get a more accurate beer estimate.
Table 35: The categorization into premium and non-premium is based on winegrape varieties listed in Table 36.
Table 36: The quality categorization of varieties is the author's own, based on historical use of each variety in Australia since the 1950s.
Table 37: Winegrape prices are from ABARES up to 2007 and from the Winemakes' Federation thereafter. Winegrape value is the product of those prices and the volume of production reported also in Table 7.
Table 38: ABARES, *Agricultural Commodity Statistics,* various years, www.abares.gov.au in addition to ABS Cat. No. 1329.0.

Table 41: Various issues of the *Annual Report* of the Australian Wine Research Institute, of the Grape and Wine Research and Development Corporation, and of the Cooperative Research Centre for Viticulture at www.crcv.com.au/publications/annualreports/.
Table 42: Anderson, K., 'Contributions of the Innovation System to Australia's Wine Industry Growth', Ch. 4 in *Innovation and Technological Catch-Up: The Changing Geography of Wine Production,* edited by E. Giuliani, A. Morrison and R. Rabellotti, Cheltenham UK: Edward Elgar, 2011.
Tables 43 and 44: Anderson, K. (with the assistance of N.R. Aryal), 'Excise Taxes on Wines, Beers and Spirits: An Updated International Comparison', *Wine and Viticulture Journal* 2(6): 66-71, November/December 2014.
Table 46: Webb, *op. cit.*
Tables 62-64: WGGA, *The National Winegrape Grower Book 2013* (Adelaide: Wine Grape Growers Australia, 2013).
Tables 72-74: The categorization into premium and non-premium is based on winegrape varieties listed in Table 36.

The **Section IV** data sources are listed here in the order in which they appear, or otherwise they are from Vanplew, W., *Australians: Historical Statistics* (Sydney: Fairfax, Syme and Weldon, 1987).
Tables A1 and A2: ABS Cat. No. 3105.0.65.001, *Australian Historical Population Statistics*, 2008 and Butlin, M., R. Dixon and P.J. Lloyd, 'A Statistical Narrative: Australia, 1800 -2010', Ch. 21 in *The Cambridge Economic History of Australia,* edited by S. Ville and G. Withers (Cambridge: Cambridge University Press 2014). Victoria's population from 1836-50, before it was separated from New South Wales, has been subtracted from the NSW official total. Victoria in 1836 had a population of 177, in 1841 it was 16,671, and in 1846 it was 32,879; the in-between years were estimated assuming a log-linear trend.
Table A3: Vanplew, *op. cit.*; ABARES, *op. cit*.; and the Statistical Registers of each Colony.
Table A4-A8, A10-A13: Butlin, Dixon and Lloyd, *op. cit*.; Butlin, N.G. and W.A. Sinclair, 'Australian Gross Domestic Product 1788-1860: Source and Methods', *Australian Economic History Review* 26(2): 127-47, 1986; Sinclair, W.A. (2009), *Annual Estimates of Gross Domestic Product: Australian Colonies/States 1861-1976/77,* at http://arrow.monash.edu.au/hdl/1959.1/88855. See also Butlin (1962, 1986 and 1994) and Cashin (1995). Updates from ABS Cat. Nos. 5220.0 and 5206.0.
Table A9: Updated from Lloyd and MacLaren, *op. cit.* and Anderson, K., P.J. Lloyd and D. MacLaren (2007), 'Distortions to Agricultural Incentives in Australia Since World War II', *The Economic Record* 83(263): 461-82, December.
Table A10: Manufacturing GDP data have been multiplied by 0.63 pre-1861 because they included construction, unlike post-1860.
Table A14-A16: Vanplew, *op. cit.*; Butlin, Dixon and Lloyd, *op. cit.*
Table A17: Vanplew, *op. cit.*, updated from Reserve Bank of Australia, www.rba.gov.au
Table A18: Butlin, Dixon and Lloyd, *op. cit.*, updated from Reserve Bank of Australia, www.rba.gov.au
Table A19: Vanplew, *op. cit.* and Butlin, Dixon and Lloyd, *op. cit*., updated from Reserve Bank of Australia, www.rba.gov.au
Table A.20: Spliced from indexes in Harley, C.K. **(**1988), 'Ocean Freight Rates and Productivity, 1740-1913: The Primacy of Mechanical Invention Reaffirmed', *Journal of Economic History* 48: 851-76 (up to 1869), in Mohammed, S.I. and J.G. Williamson (2004), 'Freight Rates and Productivity Gains in British Tramp Shipping 1869-1950', *Explorations in Economic History* 41(2): 172-203 (1870 to 1994), and in

Hummels, D.L. (2007), 'Transportation Costs and International Trade in the Second Era of Globalization', *Journal of Economic Perspectives* 21(3): 131-54 (1995 to 2004).

Tables (or other sources, listed below) from which each Chart is drawn are as follows:

Chart no.	Table numbers	Chart no.	Table numbers	Chart no.	Table numbers
1	29, 13	30	40	59	58
2	13, 15	31	29	60	55
3	15, A&N	32	A2	61	56, 57
4	13, A&N	33	30	62	Winefacts
5	2	34	32	63	60
6	9	35	32	64	63, 67
7	11	36	CofA	65	70, 71
8	13	37	32, A4	66	61
9	2, 9, 13	38	33	67	57, Section V
10	6, 10, 13, A1	39	8, 28, 29, 31	68	61
11	4, 9, A4	40	34, 35	69	165
12	3	41	34	70	165
13	4	42	41	71	49
14	10	43	64	72	49
15	13, A20	44	KA15	73	122-126, 132
16	34	45	KA15	74	127-131, 133
17	2, 15, 37	46	KA15	75	133
18	Winefacts	47	KA15	76	125, 126
19	15, A&N	48	KA15	77	127-131
20	37	49	A&N	78	131, 146, 151
21	13, 15	50	KA14	7	KA14
22	21	51	A&N	80	KA14
23	A17, A18	52	KA15	81	KA14
24	WB	53	A9	82	Section V
25	6, A13	54	A&A	83	Section V
26	A&N	55	16	84	153
27	Winefacts	56	Winefacts	85	172, 173
28	Winefacts	57	47, 51	86	KA
29	Winefacts	58	48		

Other sources for charts:

A&N: Anderson, K. and S. Nelgen (2011), *Global Wine Markets, 1961 to 2009: A Statistical Compendium*, Adelaide: University of Adelaide Press (and updated). www.adelaide.edu.au/press/titles/global-wine

Winefacts: AGWA (2014), *Winefacts,* Adelaide: Australian Grape and Wine Authority. www.wineaustralia.com/en/Winefacts

CofA: Commonwealth of Australia (1902), *A Statistical Account of the Seven Colonies of Australasia,* Melbourne: Government Printer.

KA14: Anderson, K. (2014a), 'Evolving Varietal Distinctiveness of the World's Wine Regions: Evidence from a New Global Database', *Journal of Wine Economics* 9(3): 249-73.

KA15: Anderson, K. (2015), 'Global Wine Markets, 1843 to 2013: A Statistical Compendium' (forthcoming database).

A&A: Anderson, K. (with the assistance of N.R. Aryal) (2014), 'Excise Taxes on Wines, Beers and Spirits: An Updated International Comparison', *Wine and Viticulture Journal* 2(6): 66-71, November/December.

KA: Author's own compilation.

WB: World Bank, *Commodity Price Data* (Pink Sheet), accessed 27 January 2015 at http://econ.worldbank.org/

Executive summary of key findings

Just one generation ago, a few visionary leaders were optimistic that more investment funds could be attracted to expand the Australian wine industry. They developed a strategy that attracted even more funds than they had hoped for, and as a result, Australia led and showed the way for New World wine exporters to ride the globalization wave and transform many of the world's wine markets.

Then a perfect storm of shocks hit the Australian industry: a multi-year drought with severe consequences for the cost of irrigation water, the global financial crisis that began in 2008, a dramatic mining-induced appreciation of the Australian dollar, rapid wine export expansion by competitor countries, and an austerity dictate in late 2012 by a new Chinese Government. This coincidence of shocks brought to a sudden halt what had been the fifth boom since the 1840s in Australia's wine industry development.

In contrast to its recent rapid rise, the Australian wine industry was slow to emerge in the first globalization wave in the latter decades of the 19th century despite plenty of suitable land, and was somewhat laggard at the tail end of that wave which ended when World War I broke out.

In the belief that much can be learnt from an evidence-based study of both the early and the more recent history of the development of this industry, the present volume provides an analytical narrative of the long-run trends in its production, consumption and trade, and of the fluctuations around them. Many histories have been written in the past, but none have had access to the comprehensive set of data that has been assembled for this volume.

A great deal of economic and statistical analysis of these newly compiled data has yet to be undertaken. However, since the industry is about to launch into a new phase of strategic planning, this compendium and the associated database (at www.adelaide.edu.au/wine-econ/databases/winehistory) are being made freely available now to assist that process.

In this Executive Summary, key findings are briefly summarized below. They are not in order of importance but just in the order in which they emerge in the Chapters that follow.

Slow vine planting progress to mid-19th century

During the first 50 years of British settlement in New South Wales, numerous settlers experimented with imported vines and winemaking. Virtually none of them got to the stage of having a regular surplus for commercial sale, however. Domestic alcohol consumption prior to 1840 instead relied predominantly on imported wines along with imported spirits and beers.

Per adult consumption levels were similar to those in Britain and Ireland at the time (contrary to earlier claims by historians such as Russel Ward): about 14 litres of alcohol, made up of 11 litres from spirits, 2 litres from wine and 1 litre from beer.

Slow embracing of wine as an alternative beverage to 'rum'

Australia's alcohol consumption dropped substantially during the depression of the early 1840s, but rose in the 1850s with the influx of male migrants and the boost in per capita incomes. Thereafter, as the dominance of adult males in the population diminished, so, too, did per capita consumption, but there was a gradual change in the mix away from spirits to beer and then also to wine.

Wine consumption grew slower than average incomes up to the early 1970s, and then grew faster than incomes as post-war migrants from southern Europe gradually influenced the nation's preferences.

The very long-run trend

Australia's wine industry expanded throughout most of the past 17 decades, but around that very long-run trend have been five distinct cycles in vine area and wine production.

The latest boom in plantings is the biggest of the five by far in absolute terms, but in proportional terms it is only moderate by Australian historical standards.

Each expansion of the bearing area of vineyards, when placed on a per capita basis, was very rapid; but in each case it was followed by a much longer period of considerable decline.

Those sharp increases and slower subsequent declines are also evident when the vine area is shown relative to the total crop area. That indicator has fluctuated around a declining long-run trend since the end of the 19th century.

Even so, wine production per capita and per dollar of overall GDP have trended upwards, due to increasing yields per hectare, thanks to an expanding share of vines being irrigated and more grapes being used for wine rather than other uses.

Only two of the four previous booms involved the industry becoming more outward-focused: the period just prior to the 1890s, and the post-World War I period prior to the depression of the early 1930s.

Both of those outward-focused cycles were partly induced by government support policies that led to surplus production.

The other two booms, 1855-71 and 1967-75, were driven almost entirely by domestic demand growth, generated by rapid immigration and income growth.

Prior to the 1890s, when exports were dominated by wool and gold, Australia had been a net importer of wine; but thereafter wine exports exceeded imports every year except during 1976-86 when mining exports boomed once again.

The first cycle, 1855 to 1882

The first boom (1855-71) was a direct result of the gold rush which started in Victoria in 1851. Within a decade Australia's non-native population trebled and its real disposable

income rose even more. So even though real wages were bid up and farm labour was scarce initially as men went off to the goldfields, the growth-induced boost in demand for wine stimulated a rapid expansion in its supply. By 1871, the area had expanded ten-fold and wine production had increased 17-fold.

That prolonged growth in wine supplies eventually outstripped growth in domestic demand in each colony, so export outlets were sought. Inter-colonial trade within the continent was one option, but transport costs were high and each colony also sought to protect its local producers by imposing high import tariffs.

Fortunately, British import duties and ocean shipping costs began to fall in this period, and legislative changes in 1861 created off-licence retailing there. That allowed Australia's exports to Britain to quadruple over the 1860s and double again by the mid-1870s.

Even so, throughout the 1860s and 1870s Australia's wine exports amounted to less than 3% of its production, so it did little to raise the very low returns to vignerons at that time. As a result, the area of grapevines during the 1870s fell 10% nationally and almost 30% in South Australia.

The poor export performance to the late 1870s was not without some highlights though. After the International Exhibition in Vienna in 1873, the *Morning Post* of 8 June 1874 proclaimed: 'Australia promises ere long to become as celebrated for its wines as it is already for its wool and gold [and] the scope for further increase is almost unlimited.' Similar accolades flowed from the International Exhibition of 1882 in Bordeaux.

The second cycle, 1882 to 1915

Those successes in International Exhibitions, together with the prospect of the forthcoming Federation removing the high inter-colonial trade restrictions by the turn of the century, encouraged growers to further expand the area under winegrapes.

True, there were phylloxera outbreaks in Victoria, but the Victorian Government responded with compensation for forced removal of diseased plants, and then in 1890 it offered subsidies to growers who replanted with resistant stocks.

In response, Victoria's vine area more than doubled between 1889 and 1894 — just as the 1890s' Depression hit and domestic alcohol sales were plummeting.

Phylloxera continued to spread in Victoria, causing its vine area to decline to the point that South Australia regained the lead in total vine area that Victoria had held for four decades.

South Australia's wine production per capita doubled between the five years preceding and the five years following Federation, to more than five times the national average, while that in other states remained flat or fell when inter-colonial trade barriers were removed.

In Western Australia, the vine area only started expanding rapidly when gold was discovered in the early 1890s. As in Victoria in the 1850s, that gold mining boom attracted financial capital from abroad and the colony's white population quadrupled in the 1890s.

National wine production by the turn of the century was three times its 1880 level. As it had grown faster than domestic demand, one-sixth of the newly federated country's wine production was being exported, despite considerable difficulties still associated with exporting from Australia at that time.

Exporting in this cycle was helped partly by the reduced competition from France and other suppliers to Britain following the arrival and devastating spread of phylloxera and mildew in Europe in the 1870s and 1880s.

An important impact on the industry following Federation was the imposition of tariff protection from imports of many manufactured products and some processed farm goods.

Dried vine fruit was one of the first farm products to be so protected. It received tariff protection that doubled the local price of drying grapes when introduced in 1904.

As well, the Australia Dried Fruits Association controlled over 90% of domestic production and was able to raise the domestic price by diverting supplies to distilleries, or to the export market with the help of a government export subsidy.

That scheme raised the price of winegrapes, and hence the cost of producing wine, but that cost was more or less than offset by a tax also on wine imports from early Federation days.

This cycle's export boom involved bulk full-bodied reds. It continued for two more decades after the initial build-up to 1895.

Macroeconomic conditions at home and abroad, not just industry-specific forces, impacted on those exports though: from the late 1880s to World War I, the share of wine production exported closely paralleled fluctuations in the share of all merchandise exports in GDP.

The third cycle, 1915 to 1967

Following World War I the vine area expanded rapidly, encouraged by the subsidized settlement on farms of ex-servicemen, particularly in the newly developed Murrumbidgee Irrigation Area of NSW and along the Murray River.

Annual output of wine more than doubled in the decade to 1925, leading to a glut especially of Doradillo grapes whose price fell by two-thirds in 1924.

The Australian Government decided to further assist producers in the newly planted areas by offering export assistance in the form of a bounty on fortified wines.

The export bounty almost doubled the price received by producer, which dampened domestic fortified wine sales at the same time as boosting production and exports of fortified wines.

Then in its June 1925 budget, the British Government introduced, by way of thanks for war contributions, a tariff preference for wines from the British Empire that effectively halved the duty paid by Australia in that market.

The industry continued to be assisted also by an import tariff on wine and brandy, a sales tax of 15% on imported but not domestically produced wine, excise taxes on beer and spirits but not on wine, and a lower excise tax on brandy than on other spirits.

The import tax on wine was non-trivial, generating a rate of industry assistance that was above the average for other manufactures and twice the average for the agricultural sector. That helps explain both the low share of imported wine in domestic consumption and the relatively low overall level of wine consumption throughout this cycle.

Together these policies gave a considerable boost to Australia's depressed producers of low-valued winegrapes and fortified wines during the interwar years.

The resulting bulk shipments of immature wines, and poor storage treatment in Britain, ensured they were low quality hence low priced by the time they were sold there. That generated a reputation for Australia as a supplier of poor-quality fortified wine, eclipsing its previous reputation as a promising red wine producer.

The Australian Government established in 1929 the Wine Overseas Marketing Board (later known as the Australian Wine Board). Like many marketing boards at the time, it tried to set a minimum price for export wine from 1930. However, the market price was barely half the set price, so the scheme was abandoned in 1936.

With returns to winemakers falling from the late 1920s, a vine-pull scheme by the South Australian Government was introduced in 1936. That contributed to two-thirds of the Coonawarra region's vines being uprooted.

Meanwhile, in Victoria's Yarra Valley, farmers began turning to dairying; and in the Hunter Valley of New South Wales, the acreage of vines was eventually halved.

Hence the total area of vines in Australia grew very little over this cycle, and it was five decades before the annual volume of wine exports achieved in the late 1930s (artificially boosted to build stocks in Britain for the foreshadowed war) was again reached.

The export assistance in the interwar period was a mixed blessing at best: being confined to fortified wines, it undermined the growing British and continental European interest in Australian dry table wines, which had been slowly building up over the previous few decades; by making it a specific rather than *ad valorem* duty it dampened the incentive to produce higher-quality wines; and by giving six months' notice of the intention to reduce the subsidy in late 1927, it encouraged shipments of immature wines that could not be stored well in Britain.

During World War II domestic wine consumption rose, because beer and spirits sales were rationed, while in the United Kingdom severe restrictions were placed on wine imports from 1941.

Then in 1947 Britain raised its tariff on fortified wines five-fold and kept it very high until the end of the 1950s, and the Australian government removed its wine export bounty.

After Australia removed its war-time grain rationing to breweries, beer again comprised three-quarters of all alcohol consumption in Australia.

Over the next three decades, however, the wine share was to double (as was the spirits share, much of it based on wine distilled into brandy), at the expense of beer sales.

The 50% rise in wine consumption in the 1960s was helped by a one-third increase in real income per capita, by brand advertising and generic promotion domestically, by the influx of wine-preferring immigrants from southern Europe, and by many more young Australians travelling to Europe.

The area of vines and wine production grew only slowly from the mid-1940s to the mid-1960s, and wine exports were flat. The Korean War-induced wool price boom and then subsidies to other farm products meant sheep, wheat, milk and tobacco production appealed more to farmers than winegrapes.

As well, tighter import restrictions on other manufactured goods boosted the import-competing industrial sector, while the removal in the early 1960s of a ban on iron ore exports triggered a boom in mining exploration, both of which indirectly dampened producer incentives in other sectors including wine.

The fourth cycle, 1967 to 1986

Britain hiked its tariff on fortified wines again in the late 1960s, and then joined the European Economic Community, which allowed duty-free access to wines from the other EEC members from 1973.

Meanwhile, the mining boom at home and the spike in energy raw material and food prices internationally in 1973-74 and again in 1979-80 reduced the competitiveness of Australia's producers of other tradables including wine. So wine exports remained flat from the mid-1960s to mid-1980s, exports to the UK shrunk by nine-tenths, and wine imports exceeded exports during 1976-86. Grape and wine prices also remained low, particularly for reds.

A subsequent surge in demand for premium red wines stimulated an expansion in their production from the late 1960s. This was followed by an equally sudden surge in domestic consumer interest in premium white wines from the mid-1970s, which was followed in turn by a renewed interest in reds in the following cycle.

During this and the previous cycle the share of fortified wines in domestic sales shrank from more than half to just 7%. In vineyards, premium table wine varieties, which were less than 20% of the area up to the mid-1960s, represented 40% by the mid-1970s.

Reforms of liquor licencing laws for restaurants and hotels, and the Trade Practices Act of 1974, made retail price fixing illegal and stimulated the emergence of liquor chain stores and wine discounting.

This period saw the commercial development of the 2- to 4-litre cask, or 'wine in a box', which added hugely to domestic demand at the lower end of the market.

Between 1978 and 1984, the volume of white wine sold in Australia in a plastic bag inside a box rose from 33 to 152 ML per year, while bottled red and white wine sales fell by one-quarter, from 73 to 55 ML.

Neither of the surges in production in the two decades to the mid-1980s, of first red and then white table wines, was export-driven.

The industry continued to be internationally uncompetitive and dependent on import restrictions on dried vine fruit and wine.

Then in 1984, the Government introduced a 10% wholesale sales tax on wine, and raised it to 20% two years later. That, plus the perceived over-supply situation especially in reds in the mid-1980s, meant the prospects for grapegrowers and winemakers looked bleak.

It seemed inconceivable to many observers at that time that another boom was about to begin, so the South Australian and Federal governments co-financed a vine-pull scheme in 1985-86.

The fifth and current cycle, starting in 1986

The most recent boom began in 1986 with a steady increase in exports to take advantage of the historically low value of the Australian dollar, which was due to a sharp fall in prices of Australia's coal, grain and other primary export products.

The export expansion was so large as to raise wine's share of total merchandise value above the 0.9% record set in 1932, peaking in 2004 at 2.3%, just as mineral exports were taking off.

The wholesale value of Australian wine sales doubled between 1984-86 and 1992-94, and the domestic consumer price and the export price of Australian wine both grew by around 50% over that period.

Those price changes stimulated vine plantings, wine production and wine exports, and slowed the growth in domestic sales of Australian wine (as did another increase in the wholesale sales tax on wine from 1993).

Grapegrowers were the main beneficiaries of the initial increase in Australian wine prices. The average price received for winegrapes was three times higher in 1999 than at the start of that decade, even though the export price rose only 60%.

The proportion of Australia's grape production used for wine rose from 57% to 85% over the decade of the 1990s.

With these developments came a substantial increase in firm concentration. By 2014 the top three producers accounted for the majority of wine exports and for more than 40% of the annual crush, of the number of bottles of wine sold, and of the value of domestic sales.

Those largest of wineries were particularly suited to supply large volumes of popular premium wines to supermarkets in the UK and Australia.

The export surge increased substantially the incentive for investment in developing overseas markets for Australian wine. Generic marketing of Australian wine, together with the huge increase in the quantity and quality of Australia's exports, began to build the country's international reputation for popular commercial premium-quality wines.

While this fifth boom was largely market-driven it was also influenced by changes in government interventions. The steady reduction in manufacturing protection and in assistance to some other agricultural industries, that began in 1972 and was accelerated through the 1980s and 1990s, paralleled and thus offset the reductions in nominal rates of assistance to grape and wine producers.

The imposition from 1984 of the wholesale sales tax on wine dampened domestic sales but encouraged exporting, while the government's vine-pull scheme in the mid-1980s led to the loss of some valuable old vines, but also the replacement of others with more profitable alternatives.

By way of consolation for raising the wholesale sales tax again in 1993, the government assisted new plantings of vines by providing for accelerated depreciation of vineyard construction costs, which contributed to the trebling of the vineyard area during the boom.

That huge expansion in vineyard plantings inevitably led to a surge in winegrape production three or so years later. Stocks of wine ready for sale trebled in the ten years to 2005.

Meanwhile, several New World suppliers had begun to emulate the Australian export-led experience, leading to a growth spurt in their wine exports just a few years behind Australia's. As well, several Old World suppliers plus Argentina and Chile were expanding their exports because of declining domestic consumption.

Thus Australian exporters began to face increasing competition just as the historically low value of the Australian dollar began its unprecedented decade-long rise after 2001.

The Australian dollar appreciation contributed greatly to the subsequent decline in the Australian dollar price of Australia's wine exports.

While the volume of those exports continued to expand each year until 2007 before stabilizing, their value plummeted as the Australian dollar continued to rise in the wake of the massive mining investment boom.

The decline in wine export prices saw a parallel (and hence proportionately larger) decline in winegrape prices. By 2011, the average winegrape price had returned to the same nominal level as in 1989.

Domestic consumers benefited from these developments: the retail price index for wine grew far less than the overall consumer price index every year of the past ten.

The appreciating value of the Australian dollar also encouraged wine imports, which grew dramatically from the turn of the century.

New Zealand led the import charge with Sauvignon Blanc, followed by France with Champagne. Even though import prices were well above Australia's export prices, New Zealand's Sauvignon Blanc became the biggest selling white wine in Australia.

A direct consequence of the wine and grape price collapse was that both vineyard and winery asset prices plummeted after 2007, with some vineyards selling for no more than unimproved land value.

The collapse in asset values was partly because banks lost interest in financing the industry, and partly because listed corporations sought to shed their least-productive vineyard and winery assets to boost the rates of reported return on their remaining capital.

Was the optimism at the start of the fifth cycle warranted?

The latest boom differs from the earlier booms in several important respects that justified new optimism.

First, it was overwhelmingly export-oriented, in contrast with the first and fourth booms.

Second, it was mostly market-driven. This was not unlike the first two booms, but in contrast to the third (inter-war) boom that evaporated once government export assistance measures were withdrawn.

Third, the quality of wine output improved hugely relative to the cost of production.

Fourth, the aging of the population and the rapid growth in incomes in high and middle-income countries, at least up to the 2008 financial crisis, was boosting demand, as was the global spread of wine supermarketing.

Those contemplating new investments in Australia's wine industry at the end of the 20th century could be excused for not anticipating the rapidity with which other New World suppliers copied Australia's export-led growth model.

Nor could those investors have anticipated the combination of an unprecedented decade-long rise from 2001 in the value of the Australian dollar, a long and widespread drought that stimulated major policy reforms affecting irrigation water pricing, and the global financial crisis from 2008, which reduced wine demand and weakened the US dollar, Euro and Pound Sterling.

What did innovation and generic marketing and R&D contribute?

One of the hallmarks of the export-oriented success of Australia's wine industry since the 1980s has been the very considerable degree of collaboration among its firms, including through levying themselves and attracting matching government funds for investments in generic promotion and research and development (R&D).

The extent of R&D investment was modest relative to value added when compared with other industries, yet the number of research papers on viticulture and oenology generated per litre of wine produced was very high compared with other wine-producing countries.

Studies have found that the portfolio of GWRDC research projects has yielded benefit/cost ratios ranging from 7:1 to more than ten times that level.

The industry has engaged in generic promotion of exports since the late 1920s (and it added generic marketing in the domestic market from the mid-1960s). Initially the focus was on broadly promoting 'Brand Australia', but since 2007, the campaign became more refined with an explicit objective of encouraging consumers to 'trade up' to progressively higher prices.

The strategy has been supplemented by regional promotion campaigns, funded by regional producer levies.

The budget for these generic promotion efforts is trivial relative to the value of national production and the extent of expenditure by European competitors. Moreover, despite the many misappropriations that have been uncovered, the EU's wine promotion budget from Brussels is to be more than doubled for the period 2014-18.

How does Australia's wine industry growth compare historically with rest of the world's?

As recently as 1980-84, the five key European wine-producing and -consuming countries (France, Germany, Italy, Portugal and Spain) accounted for just over half of global wine production and consumption. One hundred years earlier, they contributed three-quarters of global wine production, and (with Algeria) they accounted for 95% of global wine exports during the five decades to World War I.

By contrast, Australia prior to the 1990s always accounted for less than 1% of the world's vineyard area and wine exports. Even in the early 1990s Australia's shares of world wine production and consumption were less than 1.5%.

Early in the 20th century Australia's production was small relative also to that of Argentina, Chile and the United States, although its exports then and in the latter 1920s and in 2007 were greater than those of other New World producers. Australia had become the world's fourth largest exporter of wine by 2002, before Chile pushed Australia back into fifth place in 2012.

When expressed on a per capita basis, the differences between the Old World and New World are less stark, and the two groups are converging.

For most decades from the 1870s to the 1970s, Europe's four main wine-producing countries produced an annual average in excess of 100 litres per capita, but since the early 1980s those volumes have dropped to an average of just above 70 litres.

Among the New World countries, only Argentina and Chile produced more than 30 litres per capita per year prior to the latter 1990s, but Australia's per capita production rose from around 10 litres in the 1920s and 1930s to a peak of 60 litres by 2005-09, exceeding that of

all other New World countries and just one-sixth below the 2010-13 average for the four main Western European exporters.

Australia slipped back to 52 litres per capita during 2010-13, by which time it was matched by New Zealand. Meanwhile, Chile has shot up to 75 litres, Argentina has fallen dramatically to half Chile's, South Africa has fallen too to one-quarter of Chile's, and the United States has risen steadily but only to one-ninth that of Chile.

The vine intensity of cropping has an even wider range. Italy's share of crop area under vines was the highest in the world at 25% in the early 1960s. It had fallen to 15% by 1980-84 and to 8% by 2000-04, by which time Portugal had taken the lead at 12%. Spain is next at 7% in recent years. France and several other European countries are in the 3-4% range, the level that New Zealand recently reached, but the only other New World country above that is Chile, which recently shot up to 10%.

Australia, by contrast, has never had more than 0.35% of its crop area under vine, and has had less than half that for most years since the 1840s. Already China is approaching that intensity, averaging 0.33% in 2010-11.

This suggests suitable cropping land has not been the binding constraint on Australia's wine industry development. Even in the two most vine-intensive States (South Australia and now Tasmania) the share of crop area under vine is just a little above 1%.

A broader indicator that goes beyond the farm sector to economy-wide productive capability is the share of wine production volume or value relative to overall GDP. In the 19th century, the four main West European countries produced more than 60 kl of wine per real US million dollars of GDP). The range for those countries was still 15-35 kl in the late 1950s, but it had fallen below 5 kl by the early 1990s and to 3-4 kl by 2008. Australia was always below 2kl in the 19th century and less than 3 kl in the 20th century before peaking in 2004 at 3.1 kl, close to the Old World's current average.

As for exports, they did not exceed eight litres per capita per year for France and Italy in the 19th century and were less than five for most years of the first six decades of the 20th century. Spain, by contrast, exported more than ten litres per capita per year in the seven decades to the Great Depression (and Algeria more than 100 litres during 1900-60), but then less than five litres for the next three decades.

From the 1960s, as per capita domestic consumption fell in those West European countries, per capita exports grew steadily from less than five litres, reaching 22 in France, 28 in Portugal, 37 in Italy and 40 in Spain by 2010-13.

In the New World, per capita exports were always less than 2 litres prior to the 1990s, even in Australia in the 1930s. But since then it has risen dramatically in all New World exporting countries: as of 2010-13, it was 32 litres in Australia but was even higher at 40 litres in Chile and New Zealand, and eight litres in Argentina and South Africa.

While Australia was the leader among New World countries in contributing to the latest wave of wine globalization, the three biggest wine producing countries in Western Europe have been expanding their wine exports per capita steadily since the 1950s.

Another indicator of wine export intensity is the ratio of two shares: the share of a country's wine exports in the total value of its merchandise exports to wine's share of global merchandise exports. That index of comparative advantage was around 20 for Portugal prior to the mid-1980s, and by 2010-11, it was around nine for France and Portugal and around six for Spain and Italy.

In the New World the indexes of wine comparative advantage have shot up to 13 for Chile and New Zealand, six for Argentina and 4.5 for South Africa. For Australia, the index peaked at almost 11 in 2004, before falling by nearly two-thirds by 2013.

An important contributor to the sales of wine in any market is the rate at which consumers are discouraged via an excise or import tax. Apart from briefly in 1971-73, the only tax on wine consumption in Australia had been an import tariff until the imposition of a wholesale sales tax from August 1984. Beer and spirits consumption, by contrast, has always been subject to very heavy customs and excise taxation. Prior to the mid-1980s the Australian wine industry thus benefited from that tax regime, both directly via a protective import tariff on wine and indirectly via heavier taxation of alcoholic beverage substitutes in the domestic market.

Between 1984 and 1999, however, a wine sales tax applied and at an increasing rate until it was replaced in 2000 by a wholesale Wine Equalization Tax.

Australia's rate of wine consumer taxation is now high by OECD standards, and especially by the standards of significant wine producing/exporting countries. That is especially true at higher price points, because Australia's consumer wine tax is unusual in being ad valorem (a percentage of the wholesale price) rather than specific (in cents per litre of alcohol).

In 2012 Australia's wholesale tax per standard drink was the same as New Zealand's for commercial premium wines (22 cents), but higher at any price point above A$7.50/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 other wine-exporting countries.

Why such a sharp decline in profits and yet sluggish disinvestment in the past decade?

In 2014, 84% of the industry's producers in Australia were not covering even their variable costs of production that year (which was even worse than the 77% survey finding for 2012).

The recent financial situation in Australia contrasts markedly with that in the United States, where for the past six years producers have had not only positive but relatively rosy financial results. In New Zealand, too, all but the smallest category of producers have been operating with healthy profits in all years since 2006, apart from a dip for some in 2010.

While some of those differences with Australia are due to real exchange rate changes, the volume of winegrape production in Australia has not diminished over the past ten years, despite the halving of its average winegrape price.

When prices and profits slump, production does not decline even in the medium term: because each producer's investment involved large up-front sunk costs in assets that have no

alternative use, they hang on in the hope that the downturn is only temporary or that others are exiting to speed adjustment.

Another reason for slow adjustment is that a large proportion of vignerons in regions near cities earn the majority of their income from other sources and continue to enjoy the lifestyle of being a part-time vigneron even when profits are low or negative.

Also, there are plenty of producers who continue to have access to credit or other funds even when the wine industry is depressed. Those that are in a position to purchase others' assets at low prices at such times are then in a stronger financial position as and when the industry returns to profitability.

Inevitably, though, the vineyard bearing area begins to shrink. Between 2008 and 2013, it fell by one-fifth, and there has been a further net reduction since then. A similar, if more gradual, fall in the vine area per capita occurred with the more gradual mining boom of the 1970s/early 1980s, which was followed by a decade in which the vine area per capita hardly changed.

In retrospect, was the industry helped or hurt by protectionism?

While the Australian Federation began by eliminating barriers to interstate trade, it replaced them with tariff barriers to imports from abroad. The aim was mainly to encourage domestic manufacturing, but from the outset some import-competing agricultural industries also succeeded in securing such protection.

Dried vine fruit was one of the first farm products to get such protection, and from 1904 to 1939, that caused the price of grapes to average about 50% above what they otherwise would have been.

The extent of that support dropped during the two decades following World War II, but was still double that for other farm industries, and it rose again during the fourth wine cycle (1967-86) to three to four times that for agriculture as a whole.

Winemakers also have been protected by import tariffs, and at considerable rates in earlier decades but at just 5% in recent years (and zero for New Zealand wines).

Estimates of the wine nominal rate of assistance (NRA) averaged 23% during the third wine cycle (1950-67), the same as for other manufacturing. During the fourth cycle (1967-86) the wine NRA averaged 32%, almost double the average for all other manufacturing of 17%.

Both those NRA averages have since diminished and both are now less than 4%, but prior to the 1980s wine import tariffs were virtually prohibitive, with imports rarely accounting for more than 1% of domestic consumption during the third and fourth cycles.

The extent of support for the agricultural sector as a whole peaked in 1971, just before the Whitlam Labor Government was elected the next year and began dismantling farm support programs.

All import tariffs were cut overnight in 1973 by one-quarter, reducing manufacturing protection to that extent.

Then the Hawke Labor Government floated of the Australian dollar in December 1983 and introduced major microeconomic reforms including programs to phase out import tariffs and quotas and production and export subsidies by the new millennium.

In short, throughout all but the last years of the 20th century, manufacturing has been protected and the agricultural sector as a whole strongly discriminated against by Australia's trade-related policies. Yet within that broad picture, grape and wine producers received relatively favourable treatment throughout the last century.

Protectionism in general leads to an inefficient allocation of the nation's resources, is taxing of consumers, and inhibits innovation and productivity growth, and the same could be argued about supports for Australia's wine industry.

By discouraging imports and raising wine prices, consumers drank less wine and were less aware than they would have been of the wide range of qualities and varieties of wines and brandies available elsewhere.

Those policies, together with the assistance to fortified wine exports in the interwar period, also lowered the incentive for producers to raise their productivity and specialize in the wines in which they were most competitive globally.

It was only when those policies were phased out from the mid-1980s that the wine industry became far more dynamic, innovative, and internationally competitive — notwithstanding the recent slump.

Regional developments from the late 20th century

The Australian wine industry's export-led growth and quality upgrading since the 1980s has added remarkable wealth and vitality to many rural regions of Australia. It has also altered the characteristics of grape and wine production in those various regions.

Since 2003, some areas have increased their share of the national vineyard a lot (Coonawarra, Adelaide Hills, Riverina) while others have seen their share fall a lot (most notably the Murray Darling region of Victoria).

The country's hot zones accounted for 48% of the country's winegrape area in 2001, 46% in 2006, and 42% in 2012. Another 42% of the area comprises warm zones.

The cool regions, such as the Adelaide Hills, Tasmania, Mornington Peninsula and Yarra Valley, accounted for 12% of the bearing area in 2006, but those regions expanded their plantings by two-fifths over the first decade of this century and by 2012 comprised 15% of the national area.

Tasmania is the coolest region, and its share of the national winegrape area was less than 0.2% in 1990, but it rose to 0.5% in 2001 and 0.8% by 2012. With less than 1% of

Tasmania's crop area devoted to vineyards, it still has enormous potential to expand, should climate change encourage more growers to move to higher latitudes.

There is also the option of moving to higher altitudes such as in the Adelaide Hills: by 2008, 30% of that region's crop land was under vines, up from virtually zero in the early 1970s.

Certainly yields per hectare typically are lower and more variable in cooler regions, but higher prices compensate more or less for that: in 2008 the cool-region average price was one-quarter above that for warm regions and almost three times above that for hot regions.

Prices were lower in 2013 than a decade earlier in virtually all but the premium cool-climate regions, and the proportional fall was largest in the four large hot regions.

In 2008, two-thirds of all winegrapes were sold in the $400 to $650 per tonne range, but by 2014 most were sold at less than $450.

The average price in 2014 was $441, halfway between the averages for red and white winegrape varieties ($540 for reds, $340 for whites).

Despite their low prices, the massive volumes of production in the hot regions are enough to ensure that they comprise four of the top five regions in terms of gross value of winegrape production. The Barossa Valley is ranked third by that criterion, while McLaren Vale and Margaret River take sixth and seventh place.

Regions also vary in the extent to which their wineries are export focused. Since 1870, South Australian wineries have always been the most export-focused. In recent decades that State has accounted for the processing of around 70% of the country's total export volume, although New South Wales and then Victoria have increased their shares a little since 2000.

By 2013, the price dispersion across regions was far greater than at the turn of the century. Average prices ranged from around $350 in the hot-climate regions to seven times that (almost $2500) in cool Tasmania and Mornington Peninsula.

The dispersion is almost as wide for just Shiraz winegrapes, suggesting that for versatile varieties it is regional rather than varietal characteristics that determine their quality/price.

Another indicator, the so-called Varietal Similarity Index (VSI), captures the extent to which each region's mix of winegrape varieties in their vineyards differs from the global average mix. According to that indicator, there has been a considerable decrease in the diversity of Australia's regions in terms of their vineyards' varietal mix, relative to the global average.

Which regions have adjusted most since the latest downturn?

Between 2001 and 2008, Australia's cool and warm regions had the highest rates of vine area expansion.

Cool-climate regions of other countries also expanded in the first decade of this century: in the US, the vine area increased 55% in Sonoma County of California, 108% in Oregon State, and 158% in Washington State, while New Zealand's area grew 220%. Presumably a similar

force was at work in all three New World countries, namely, an increasing appreciation for finer wines as incomes and familiarity with wine grew.

By 2012, however, when Australia had almost 21,000 fewer hectares than in 2008, every State except Tasmania had seen its area shrink.

The shrinkage was least in South Australia (a 1% drop to 70,000 ha) and greatest in Victoria (a one-third drop to 24,700 ha, all but 4% of which was in its hot irrigated regions). Western Australia had a one-fifth drop to 10,300 ha, and New South Wales had a one-tenth drop to 38,300 ha.

Almost none of the falls in vine area were in cool climate regions, and the 9% drop in warm regions was only half as large as the 19% drop in hot regions.

Within each of the climatic regions the change was far from uniform though. Eight cool-climate regions shrank, offsetting smaller gains in ten other cool regions. In the hot regions, Riverina and Lower Murray had gains but they only slightly offset the losses, which were largest in the big irrigated regions along the rest of the Murray River.

As for the warm regions, the biggest vineyard losses in New South Wales were in the Hunter Valley, Mudgee and Cowra with only a slight offset in Orange; in South Australia the regions of Langhorne Creek and Currency Creek had the largest losses.

These adjustments suggest that while climate change may have driven part of that adjustment, some was also the result of having planted in less suitable places or with less than optimal varieties during the immediately preceding boom period.

The lack of area reduction in regions near cities probably reflects the fact that many small producers there are enjoying the lifestyle of being a vigneron and are willing to finance that indulgence with off-farm income or assets acquired elsewhere.

The rebate on the Wine Equalization Tax of 29% on the first $1.7 million of sales each year also has helped small wineries to stay in business.

Varietal developments since the 1950s

Several indicators have been compiled that capture changes in the varietal mix in Australia and its wine regions.

The indicators reveal that the varietal distinctiveness of Australia vis-à-vis the rest of the world, and the varietal differentiation between regions within the country, are far less than for other countries. This pattern has become even more pronounced since 2000.

Annual data on Australia's winegrape varietal mix, available for the country as a whole from 1956, reveal the swings away from reds in the latter 1950s, then towards reds from the mid-1960s to the early 1980s, and again from the late 1990s.

They also reveal the move from non-premium to premium varieties: the latter were barely 20% of the total bearing area in the 1950s, but since the turn of the century they have accounted for more than 90%.

Among the reds, the initial dominance of Garnache (Grenache) for port production was gradually eclipsed first by Shiraz and then also Cabernet Sauvignon, plus Merlot from the late 1990s.

Among the whites, the varieties of importance for fortified wines dominated in the 1950s and 1960s along with Semillon.

The fortified focus (and the use of multi-purpose grapes such as Sultana) was gradually supplemented with Riesling from the 1970s to the early 1990s, while Chardonnay — today's dominant white — began to make its mark only from the 1980s.

Associated with this dramatic change in the varietal mix in Australia's vineyards is a change in the country of origin of the varieties being made into wine. In the 1950s Spanish varieties made up about half of Australia's area, and French varieties one-fifth. Today, French varieties account for all but one-tenth of the area and Spanish varieties comprise less than 3%.

Much publicity has been attached to the increased plantings of so-called emerging or alternative varieties that are diversifying Australia's vineyards. Of those varieties not in the world's top-20 list and which have expanded from less than 200 ha in Australia in 2000, there are ten whose areas have grown significantly since then. But in aggregate those ten raised their share of Australia's total winegrape area between 2001 and 2010 by only 1.7%.

The eight varieties whose area in Australia expanded most over the first decade of this century are, apart from Viognier, all in the top 20 globally. The share for Shiraz alone rose 6 percentage points over that decade, while Chardonnay's rose five points and the shares of Sauvignon Blanc and Pinot Gris each rose two points.

Not surprisingly, emerging varieties are being displayed on wine labels as soon as possible by producers seeking to differentiate themselves in novel ways. Eleven of the emerging varieties are among the 35 most frequently mentioned varieties on Australian bottles sold — even though those 11 varieties in aggregate accounted for only 1.4% of the value of winegrape production in 2012.

Despite this flurry of new varieties appearing on Australian wine labels, the increase in varietal diversity of Australia's vineyards observed between 1956 and 1984 had reversed considerably by 2012, when there were just 25 varieties that had shares of national area and production greater than 0.2%.

Australia's varietal distinctiveness globally

The earlier-mentioned Varietal Similarity Index or VSI between Australia and the world rose by more than one-third between 2000 and 2010 to 0.62, indicating a substantial drift in Australia's varietal mix toward the world aggregate mix over that decade.

Meanwhile, the average of the VSIs for all other countries is much lower and hardly changed, at 0.35. In other words, Australia was much less distinct than the average country in its varietal mix in 2000, and its distinctiveness became even less so by 2010.

Since France is the country whose varietal mix is most similar to the world mix, this means in effect that Australia has become more like France: the two countries had a VSI of 0.47 in 2000 and 0.58 in 2010.

A key reason for Australia's varietal mix becoming more like the global mix has to do with Syrah. The popularity that Australia brought to Syrah in the 1990s has led to many other countries expanding their plantings of this variety.

In 1990, there were 35,000 bearing hectares, making it 35th in area ranking of all winegrape varieties globally. But by 2000 there were 102,000 hectares, and by 2010 that had risen to 186,000, bringing Syrah to the sixth position on that global ladder and less than one-third below the areas of the two now most widespread varieties, namely Cabernet Sauvignon and Merlot.

Over the decade to 2010, the Syrah area grew more than either Cabernet or Merlot — in fact, only Tempranillo expanded faster globally.

Certainly Australia contributed to that expanding area of Syrah, but expansion was even greater in France and Spain. Australia is no longer as globally dominant in this variety: its share of the global Syrah area has dropped from 29% in 2000 to 23% in 2010, even though Syrah increased its share of Australia's own vineyards over that decade, from 22% to 28%.

Regional differences in the varietal mix within Australia

Varietal differences between regions within Australia are more muted than is the case within other countries, despite the very large differences in growing conditions across Australia.

Of the three most similar regions in the world to each of Australia's 94 regions in 2010, less than 7% were non-Australian regions. In New Zealand, by contrast, more than two-thirds of the three most similar regions to each of its ten regions were in other countries.

It is true that some regions in Australia have managed to pull away from the pack and so are more differentiated from the national mix now than in 2000. However, a little over one-fifth of Australia's 74 regions, comprising 40% of the national winegrape area in 2010, changed their varietal mix hardly at all over that decade.

Varietal quality differences within Australia

Given that different varieties grow better in some regions than others, and that consumer tastes change and over time, it is not surprising that there is also considerable dispersion in the national average prices by variety.

In 2001, the difference between the lowest and highest average varietal prices was more than six-fold, and it shrunk very little by 2010, despite the two-fifths fall in the nominal average price for all varieties.

The ranking from lowest- to highest-priced varieties changed a lot over that decade though, reflecting the fact that the mixes of varieties in all three climate zones in Australia have altered considerably.

Varietal prices and summer temperatures

In the northern hemisphere it is common to observe an inverted U-shape relationship between the price of winegrapes and the summer temperature. Across Australia's regions, by contrast, that relationship tends to be only negative for observed temperatures.

As the number of cool-climate regions expands that relationship in future years may become a little more like Europe's, but that tendency may be offset by the facts that Australia's climate continues to warm and the January mean temperatures are becoming higher and are bringing forward the harvest dates.

The current pattern of lower prices in warmer regions is likely to mean that climate change will lower Australia's average winegrape price, unless vignerons switch to Southern European varieties more suited to our relatively warm climate.

What are the market prospects for the rest of this decade?

The Australian wine industry is not alone in feeling challenged during the past few years. Common contributors include the following:

- a chronic oversupply of winegrapes and wine in the European Union,
- retail concentration of supermarkets, with the largest developing their own labels by buying bulk wine,
- tight regulatory environments for wine distribution in such settings as Ontario, many of the US states and Scandinavia,
- the global financial crisis from 2008,
- expanding supplies in emerging markets such as China,
- consumer health and environmental concerns,
- anti-alcohol campaigns by health and road safety lobbyists, and
- great uncertainties resulting from climate change and associated policy responses.

Australian producers have had to deal also with such things as:

- a high-valued currency that has made Australian wines less competitive,
- large stocks of unsold wine (thanks to the rapidity of vineyard expansion),
- a fashion swing against Australian wine especially in the UK and US,
- a fashion swing in Australia toward New Zealand's Sauvignon Blanc, and
- major reforms to irrigation water institutions and policies.

Symptoms of those difficulties for the Australian industry include large declines in winery profits, the cut in winegrape prices particularly in the hot irrigation areas, more than 15% of

domestic sales being supplied by imports (compared with just 3% at the start of the millennium), and almost three-fifths of Australia's wine exports in 2014 being in bulk containers (compared with one-seventh during 1996-2003).

Climate change also is likely to be a bigger challenge for Australia than for many other wine-producing countries. The majority of Australia's winegrapes are produced in the hot irrigated regions around the Murray and Murrumbidgee Rivers. Those regions are becoming warmer and drier, and have seen a slowdown in river flows.
There is also an increasing demand from the community for a larger share of those reduced river volumes to be saved for environmental flows and urban uses, so there will be less scope in the future for irrigation to compensate for reduced precipitation.

The quality of the main international winegrape varieties currently grown in the hot regions deteriorates as the growing temperature rises, so producers are having to go to the expense of searching for and planting or grafting alternative varieties that will be more suitable. By contrast, global warming will improve winegrape quality in much of temperate Europe.

Daunting though the above lists of challenges looks, some of those adverse developments are only short term. Also, there are several positive signs emerging. One is the cautious optimism of economic recovery that is showing up in the United States and parts of the recessed economies of Europe.

A second encouraging sign was the substantial take-up of the European Union's offer to pay winegrape growers to grub up vines during 2009-11.

There has also been some grubbing out of unprofitable vineyards in the hot irrigated areas of California in recent years, as well as in Australia.

Third, expected demographic changes in the United States over the next two decades suggests wine consumption there will grow considerably faster than overall population.

Fourth, the Asian market is growing steadily. Not only is its population expected to rise by 700 million people by 2030, but its share of global income (ignoring Japan) is expected to double, to around 23 percent.

Already the middle classes in those emerging economies are importing both popular and fine wines, but at above-average prices. In China, for example, wine from grapes in recent years has accounted for just 2 percent of the volume of alcohol consumption but for 8 percent of the value of alcohol sales.

The average unit value of wine exports to all East Asian countries from Australia is very high. During 2011-14 it averaged $6.40 per litre, compared with less than $2.20 to all other destinations, and for exports to China (by far the biggest Asian wine market) the average price was more than $5.70.

Australia's export prospects depend very much on exchange rate movements. With the recent devaluation of the Australian dollar, those prospects are looking much brighter, and imports into Australia will be less competitive.

It needs to be kept in mind, though, that Australia's per capita income growth may slow and possibly decline with the mining investment boom coming to an end, which will dampen domestic demand growth.

What about the varietal mix in Australia's various regions?

Australia's mix of winegrape varieties is not very different from the rest of the world's and, since 2000, it has become even less differentiated. Whether that is a good thing commercially is unclear, especially for Australia's hottest regions. Do Australian producers benefit enough by emulating France's varietal mix to offset any economic downsides, for example from being less differentiated from the world mix, or from growing varieties that are less than ideal for the terroir of Australia's various regions?

Even though there are very large differences in growing conditions and especially climates across Australia, cross-regional varietal differences within Australia are much less than is the case within other countries. Perhaps this is a consequence of producers finding it easier to market well known 'international' (mostly French) varieties than trying to differentiate their offering and region with less familiar varieties.

The current homogeneity suggests there is plenty of scope to explore alternative varieties in the various regions of Australia as grapegrowers consider ways to adapt to climate changes. Australia's various regions to date have made only a little headway in diversifying their vineyards, despite much discussion of alternative or emerging varieties.

Policy and institutional implications

How might Australia strengthen its competitive edge over the next decade or so? Looking beyond the immediate difficulties, there are reasons to be cautiously optimistic about the Australian wine industry's future.

Recovery will not be easy and may not be as quick as the resurgence from its mid-1980s slump. Certainly major adjustments will be required for many participants. However, to the extent there is a willingness to continue to invest for the long term (rather than just focusing on quarterly returns to shareholders), and if the earlier spirit of collaboration within the industry can be re-invigorated, a return to at least normal levels of profitability should be possible before long.

One adjustment already under way is in marketing. The earlier emphasis in generic marketing on 'Brand Australia', of providing sunshine in a bottle, has switched to a marketing strategy that places far more emphasis on regional characteristics and higher-quality wines.

That idea was taken further with the creation in 2009, by a dozen long-established, mid-sized, quality-driven, high-profile, family-owned Australian wineries, of the 'First Families of Wine' group: together it represents 16 Australian regions across four states, and between them those producer have more than 1200 years of winemaking experience.

Following the merger of Wine Australia and GWRDC on 1 July 2014 to form the Australia Grape and Wine Authority, the industry is now developing a five-year strategic plan, which is expected to have a stronger focus on building and promoting the country's fine wine offering. The aim is to go beyond offering good value wine to making the world aware Australia also has great wine.

Getting that message across in not only Australia's traditional markets but also in Asia will require a larger budget than AGWA's predecessor organizations have had in the past, especially given the commitment by the European Union to more than double its generic promotion expenditure over the next five years.

In terms of private-sector promotion by individual large wine companies, they already have well-recognized labels, including five of the top dozen wine brands globally plus Penfolds. The first four represent low-priced labels though, which are coming under stronger competition from Argentina, Chile and South Africa.

As for the R&D portfolio, the returns from such investments have been very high in the past. Returns in the next two decades are likely to be even higher, bearing in mind marketplace changes and long-term uncertainties such as climate change, water and other environmental policy reforms, and prospective alcohol tax changes at home and abroad.

As with generic promotion, returns to the various players along the value chain and to different types of producers and different regions from R&D investments will not be equal.

Wine consumer tax policy reform could contribute to the transition to higher-quality wine production. If Australia were to switch from an ad valorem to a volumetric tax, that would encourage the transition to finer wines while weakening the case by anti-alcohol lobbies for a higher *rate* of tax on wine.

In particular, it would make it easier for smaller fine-wine producers to sell all their product on the domestic market, thereby avoiding the high fixed costs of breaking into new export markets.

There is the risk that any change to the method of taxing wine consumers will be accompanied by a hike in the extent of taxation. That would need to be countered by the argument that moderate wine consumption can have positive health and social externalities.

Advocacy by the industry on wine tax policy and myriad other issues is likely to be more successful the more the industry can speak with a united voice. The industry has managed recently to join its generic promotion and R&D bodies, but it still has two advocacy groups.

Some lessons from history

Lessons can be learnt from the past which are pertinent to the industry's current opportunities and challenges. They are laid out here as dot-point responses to a series of questions that have arisen in the course of the present study.

Why did the Australian wine industry not take off in the latter half of the 19th century when Europe's wine industry was being ravaged by phylloxera and mildew?

- It had no large firms at that time, and the overall scale of industry was too small.
- Spain was on France's doorstep and far more capable of rapidly expanding its exports to its neighbour.
- Algeria was a close-by territory so that, as soon as French producers became established there, competitors were cut off by discriminatory import restrictions, including against Spain.

Why did the industry grow so slowly during most of the 20th century?

- The creation of the Australian Federation led to the removal of inter-colonial trade barriers which assisted the South Australian wine industry greatly, but at the expense of wine producers in other mainland states.
- However, from Federation to the 1970s Australia adopted a highly interventionist set of trade and industry policies that protected producers from international competition and slowed innovation and hence productivity and income growth.
- The grape industry was one of the first agricultural industries to successfully lobby for such assistance, and wine imports also have been subject to tariffs from early last century. That meant both parts of the wine industry were sheltered from the cool winds of international competition. That assistance was also an offset to the negative effects on production costs of high protection to other industries.
- In the interwar years the industry was also distorted by policies that assisted exports but in a very discriminating way, favouring only fortified wine exports to Britain.

How important were macroeconomic conditions to the industry's cycles?

- Very: Australia suffered three severe economic depressions (in the early 1840s, early 1890s and early 1930s), which dampened both domestic demand for wine and the availability of finance to help producers weather those downturns.
- Also, the Global Financial Crisis from 2008 and associated changes in exchange rates dampened demand for Australian wine on both sides of the North Atlantic.

How important were the fortunes of other sectors of the Australian economy to the industry's development?

- Very: the gold rushes in the 1850s and 1890s (and the copper boom in South Australia in the 1840s) had generally positive effects because they brought permanent immigrants and capital from abroad, which grew the domestic demand for wine.
- The ban on iron ore exports from the 1930s to the 1960s delayed the start of a mining boom in response to Japan's industrialization, which benefited wine and other tradable industries relatively, but meant the economy grew less rapidly than it might have in the 1960s and 1970s.
- The latest two mining booms, in the 1970s/early 1980s, and especially in the first dozen years of the present century, contrasted with the 19th century mining booms in that they attracted few extra permanent residents and were financed mostly by footloose overseas capital. Being export-demand driven, those mining boom involved major real exchange rate appreciations followed by major and faster depreciations. Since the wine industry was far more open to international competition in the past two decades than it had been throughout most of the 20th century, those exchange rate gyrations had a major impact on the wine industry's current cycle (contributing positively to the start of its boom, negatively to its end, and potentially positively again if the Australian dollar remains at its current low level for some years to come).

How have successful investors in the wine industry behaved in past cycles?

- Cycles are inevitable for perennial crop industries, so canny investors with finance and market outlets have bought assets in slumps, giving them a reasonable return on those low-priced assets and readying them for take-off in the next boom when they can sell those assets at higher prices and lower their capital base to concentrate on brand investment.

What can be done to shorten the current slump and reduce the amplitude of future cycles?

- The industry as a whole needs to invest more in at least four areas: generic promotion; technical, policy and market research; data on industry developments; and collaborating better on these and other issues including advocacy.
- Governments need to keep out of grape and wine markets and confine their activities to generating public goods and overcoming market failures such as the free-rider problem of collecting levies for generic promotion and R&D.

A final word

It is almost two centuries since John Macarthur and Gregory Blaxland invested in vineyard developments in New South Wales. It is therefore worth recalling the words of the late Baroness Philippine de Rothschild, who liked to tell visitors to her château that ‘wine making is really quite a simple business, only the first 200 years are difficult.’

Chapter 1:

A guide to the industry's growth and cycles

1.1 Introduction

Less than a generation ago, a few visionary leaders were optimistic that far more investment funds could be attracted to expand the Australian wine industry. Their optimism was triggered by the change in liquor retailing laws in the United Kingdom, to allow supermarketing of wine to increasingly more affluent baby boomers, plus the low value of the Australian dollar (AUD) in the mid-1980s. Those leaders developed a 30-year strategic plan, laying out 30-year targets for production and exports by 2025 (AWF 1995). The plan created a demand from prospective investors for more information on the industry, including on past investment booms and slumps. In response, the Winemakers Federation of Australia, the South Australian Government and the Grape and Wine Research and Development Corporation provided funds to support during the summer of 1997/98 a compilation of pertinent historical data. The resulting report (Osmond and Anderson 1998) was modest, but it served its purpose of providing basic background data and a few summary indicators for first-time would-be investors and other analysts.

Despite the clear evidence in that report of each previous boom being followed by a long period of stagnation, investment in Australian vineyard expansion flooded in and many of the WFA's 30-year targets were exceeded within a decade of the strategic plan's release.

Even in the best of circumstances, the consequent growth in winegrape and thus wine output was bound to generate a marketing challenge in the new millennium. However, a series of exogenous events added to the downward pressure on prices and profits. That perfect storm of shocks included a multi-year drought, the global financial crisis that began in 2008, a dramatic mining-induced appreciation of the Australian dollar, rapid wine export expansion by competitor countries,[6] and an austerity dictate in 2013 by a new Chinese Government aimed at reducing conspicuous consumption in that burgeoning market.

That coincidence of shocks brought to a sudden halt the fifth boom in Australia's wine industry development. This is therefore an appropriate time to re-visit the long history of the industry's booms and plateaus, and to draw out more clearly the lessons that can be learnt from that history, so as to provide a better foundation for understanding the industry's prospects for recovering from the current slump and establishing a more sustainable growth path. To that end, the data in Osmond and Anderson (1998) have been revised, updated, and much expanded into the present volume, again with much-appreciated financial support from

[6] A conference in Adelaide as early as 2001 focused on the dramatic globalization of and increasing competition in the world's wine markets in the last decade of the previous millennium. See Anderson (2004) for revised and updated papers.

the Grape and Wine Research and Development Corporation (prior to its absorption on 1 July 2014 into the new Australian Grape and Wine Authority).

Apart from their usefulness in their own right to industry participants as they develop their next strategic plans, the series of data collected here include variables required not only for describing *what* happened *when* and *where* as the industry developed (the purpose of the present volume), but also for analyzing more thoroughly *why* it developed in the ways revealed by the data, and what the *consequences* were relative to what they might have been/could be under alternative policies, institutions and market developments. The latter is a task for a follow-on research project, ideally to be done in comparison with wine industry developments in other countries over the same periods.[7]

This volume is thus limited to providing an empirical narrative of Australia's wine industry ups and downs, informed by a set of charts and tables. It complements the large number of history books that have been published, none of which have had the advantage of having in front of them the breadth and depth of statistical material assembled for this volume.

Colonial and State details are provided from when the earliest reliable industry statistics became available for the various colonies just after the economic recession of the early 1840s, while intra-State regional data and grape varietal information are confined to the most recent few decades.

The Australian industry has not developed on its own, of course. It could not have begun without initially importing vine cuttings, wines, production technologies, and a consumer taste for wine and other alcohols. The industry also has been dependent on export markets to varying extents for some of its growth since the 1850s. Competition in foreign markets — and also in Australia's domestic market — from other producers and exporters has played a significant role throughout most of that long period.

Some of the drivers of the Australian industry's growth and cycles are shared with other countries, so a comparative analysis is needed to be able to distinguish them from purely local drivers over which the industry may have had more influence (Hatton, O'Rourke and Taylor 2007). Those comparative data (see Anderson and Nelgen 2011) reveal that Australian wineries led the way among New World wine exporters in the current globalization wave. However, the Australian wine industry was slow to emerge in the initial decades of European settlement despite plenty of suitable land, and was somewhat laggard at the tail end of the first globalization wave that ended 100 years ago.

Long time series of annual data are easy to come by for only a small sub-set of the variables economists need to explain trends, fluctuations and turning points in the industry's development, and to understand its structural changes in terms of what winegrape varieties are grown and where wine is produced within the continent. To guide the labour-intensive task of searching for and compiling series that are not so readily available, or selecting proxies for them, a conceptual framework that lays out the likely development drivers is

[7] Analyzes of these newly compiled data and compilations of similar data for other wine-exporting countries are getting under way, starting with an assembly of wine trade data by Pinilla (2014). The purpose of releasing this comprehensive Australian collection now, and also making it freely available as an Excel database (Anderson and Aryal 2015), is to encourage other analysts in both Australia and other wine-exporting countries to contribute to such an enterprise.

required. For those readers wishing to reflect in depth on the drivers, such a framework is provided in the Annex to this chapter.

The standard way an economist begins to analyze developments in the market for a product is to list the key variables affecting its supply and its demand. For thousands of years production was a very simple exercise. It involved no more than using clay to produce a vessel for storing the product (called a *qveri* in Georgia, where wine production is reputed to have begun more than 8000 years ago — see McGovern 2003, 2009), and then gathering berries from wild vines and immersing them in the vessel and waiting for them to ferment with the help of natural yeasts on the berry skins. The only input (including for the storage vessel) was own labour, and since wine was produced for consumption with family and friends rather than for sale, that was the extent of the value chain.

Australia does have native current bushes, but since they produce a sparse crop of very small berries, it is not surprising that there was no equivalent of the Georgian enterprise when European settlers arrived in 1788. In their first 50 years some settlers in New South Wales experimented with imported vines and winemaking, but virtually none of them got to the stage of having a regular surplus for commercial sale. Domestic alcohol consumption prior to 1840 instead relied predominantly on imported wines along with imported spirits and beers, supplemented with only a small amount of domestic legal production of spirits and beers and a larger amount of homebrewed beer.

While precise estimates are impossible to generate, Butlin (1983) suggests the mix of wine, spirits and beer and the total volume of alcohol consumption per capita in New South Wales during 1800-20 was probably similar to that in Britain at the time once allowance is made for the much higher proportion of adult males in the colony's population. Powell (1988) has made the appropriate conversions and suggests an estimated average of 13 litres of alcohol per person in NSW during 1800-20 compared with the UK's 14 litres in 1800 and 11 litres in 1816 (reported also in Lewis 1992). This is thus contrary to earlier claims by many commentators, and even historians as prominent as Russel Ward (1966), that New South Wales as a penal colony was far more alcoholic than European countries. In the 1830s Australia's estimated per capita consumption (ignoring illegal production) was about the same as in the century's first two decades, at 15 litres of alcohol, made up of 12 litres from spirits, 2 litres from wine and 1 litre from beer (Dingle 1980). Australia's consumption dropped substantially during the depression of the early 1840s, but rose in the 1850s with the influx of male migrants and the boost in per capita incomes — already the highest in the world (Maddison 2013) — thanks to the gold mining boom. Thereafter, as the dominance of adult males in the population diminished (Chart 32), so too did per capita consumption (Charts 34 and 33). By the 1890s' economic depression it was down to 5 litres of alcohol per capita in Australia: a bit over two-fifths each from beer and spirits, and less than one-seventh from wine (Chart 36). Alcohol consumption has declined at an even steeper rate when expressed relative to real GDP (Chart 37). Wine consumption per capita remained relatively flat prior to World War II, but has trended upwards with GDP per capita since then (Chart 38).

During subsequent decades the wine value chain in Australia, as elsewhere, has become progressively more complex. Nonetheless it is still dominated by two prime

activities: grape growing and winemaking.[8] The latter has focused on three types of products: table wines (both still and sparkling), fortified wines and wine that is distilled into grape spirit, including for conversion to brandy. In 2010, table wines accounted for 98% of Australia's wine production, with fortifieds accounting for 1.3% and brandy just 0.9%. From the mid-1920s to the early 1970s, however, the share being distilled was always more than 40%, and around one-third of wine output was fortified. The prices consumers are willing to pay for those different products depend most importantly on consumers' incomes and their tastes and preferences at the time, and on consumer prices (inclusive of any taxes) of each of those products and of substitutes offered by producers of other beverages including imported wines.

As for wine's key input of grapes, they can also be dried or consumed directly as fresh table grapes or in other forms such as a non-alcoholic juice. Over the past decade no more than one-tenth of Australia's grapes have been destined for non-wine uses, but as recently as 1993 wine's share of grape uses was only 70 percent and it has been considerably lower than that in some earlier periods. So although grapes are a perennial crop, supply of winegrapes can be varied even in the short run: the quantity of grapes crushed for wine each year depends on the relative price or implicit value of grapes in winemaking versus those other possible purposes. Over the long run, the domestic supply of winegrapes depends on the opportunity cost of the land, water, labour and capital to be used for that purpose.

Over most of the long history of the wine industry, the perishability of winegrapes effectively rendered them nontradable internationally, or even inter-regionally within large countries. Ocean transport costs prior to the 20th century also made it prohibitively expensive for inter-continental trade in bottled wine, so wine was typically shipped in large barrels for subsequent bottling in the country of destination. That, plus blending possibilities at the destination, meant producers had limited control over the quality and branding of the product sold at its destination and hence of the eventual price they received. However, by the latter half of the 20th century, transport costs had fallen sufficiently for bottled, branded product to be sold over long distances, and for grapes or juice to be transported inter-regionally. That raised greatly the returns from mass production of homogenous wine and for investment in brand development. Then by the end of the 20th century, a further transformation in transport costs took place: plastic wine bladders of 24,000 litres, for 20-foot shipping containers that otherwise carried only 9,900 litres of bottled wine in cartons, improved sufficiently in quality to become a viable shipping option. They have also become available in smaller sizes, down to 10,000 litres, to allow smaller batches to be blended at the destination bottling plant. That development means wineries are now less dependent on local grapes to satisfy demands at home or abroad for their branded commodities, particularly at the lower end of the bottle price range, since it is now affordable to import bulk wine from lower-priced locations to either the home winery or, in the case of export wine, to the bottling plant in the destination country. Globalization of the wine industry has thus taken another major leap, with nearly half the volume of New World wine exports (and 58 percent of Australia's) now in bulk. In each of those countries the price of all but ultra-premium winegrapes now closely tracks the unit value of their exports.

[8] Indicators of many other activities along the wine industry's modern value chain are not included in this volume. Those activities include supplying inputs into grape growing (cuttings from nurseries, spray chemicals, machinery services), inputs needed to make wine marketable (barrels, bottles, caps, labels), finance for the very substantial up-front investments and to pay grapegrowers prior ot the wine's sale (from banks and stock exchanges), wine marketing (advertising/promotion) and wine distribution (transporters, negotiant exporters/importers, wholesalers, retailers and, most recently, online providers and their storers and shippers).

Investments in all three key components of the modern wine industry (vineyards, the winery, brand development) require large amounts of capital up front which, once invested, becomes a sunk cost. Given the uncertainty about future profitability in this (somewhat fashion-driven) industry, it is not surprising that when new opportunities arise, investments are made cautiously at first until prospective profit signals become clearer. It is equally unsurprising that when profits slump, disinvestments in the industry tend to be drawn out over many years as producers hang on in the hope that the downturn is only temporary (Dixit and Pindyke 1994). Such slow downward adjustment is made even slower as the proportion of producers who are earning the majority of their income from other sources grows.

1.2 Candidate indicators of wine industry developments

The key variables for which there are long time series for indicating the growth, plateaus and slumps in the wine industry are hectares of vines and litres of wine produced and exported. Changes in these variables are indicators of extensive growth (or, if negative, of decline).

With so many other changes at home and abroad over the past two centuries, it is helpful in comparing over time and across countries to focus also on intensive growth indicators. On the supply side of the wine industry they include the following for a region or nationally:

- vine area per capita;
- vine area as a share of total crop area;
- wine production per capita;
- wine production per $ of real GDP;
- wine exports per capita; and
- share of wine sales abroad/exported.

It is also helpful to focus on demand-side developments, since producers have the opportunity to influence that demand through their investments in marketing and in their lobbying for lower domestic consumer taxes on wine and greater access to markets abroad. Indicators of intensive growth in the domestic wine market include the following:

- wine consumption per capita or per adult;
- wine's share of total alcohol consumption; and
- wine consumption per $ of real GDP.

How internationally competitive the industry is at a point in time can be captured by several additional indicators, such as:

- share of the domestic market supplied by local rather than imported wine;
- ratio of wine exports net of imports to wine exports plus imports in volume terms;
- ratio of wine exports net of imports to wine exports plus imports in value terms;
- share of wine in the country's total value of merchandise exports; and the
- ratio of that share to the share of wine in the value of global merchandise exports.

Annual data on all of these key indicators of domestic growth and international competitiveness are provided in Section I of this Compendium's charts and tables, along with

data on many other indicators and variables. The rest of this chapter draws on them in an effort to improve our understanding of *what* happened *when* and *where* as Australia's wine industry developed over the past 170 years.

It would be helpful also to examine indicators of the quality of production and exports. Quality indicators could be the unit value of exports and the prices received by grapegrowers and winemakers. However, given the enormous heterogeneity of grapes and wines, heavy caveats to such prices are in order and no long series of producer prices have been collected. Even the more recent winegrape price series tend to refer to the initial price notified to the grower, which is often subject to an upward or downward adjustment once the quality of the wine produced from them has been assessed by the winery and the winery's supplies of and demand for each category is more certain.

Other common indicators of the development of an industry include the productivity of its firms' and their profitability. Yield per hectare, the most common indicator of crop land productivity, is not very helpful in the case of winegrapes though, since the quality and price of winegrapes typically are negatively correlated with yield per hectare (and even more so with yield per vine).

The nature of the various types of firms in this industry means that profitability indicators too are scarce. Independent winegrape growers are almost all family farms rather than listed companies, so they do not need to publicly disclose their earnings. That is also the case for most of the long-established wineries. Of the small proportion of wineries that are publicly listed on the stock exchange, they do not separate their grapegrowing, winemaking and wine marketing profits. Many of the large listed companies are also involved in other industries (brewing, spirits, luxury goods, tobacco), so their wine profits are often difficult to extract from their disclosed aggregated accounts. Even if the company sold only wine, its reported rate of return on capital can easily be manipulated by altering the extent to which it owns physical assets such as vineyards, wineries and storage or transport facilities. And if it operates as a multinational company, as is the case for several of the largest wineries, the scope for tax-minimizing transfer pricing — especially now that so much wine is exported in bulk for bottling in the destination country — further reduces the reliability of the firm's annual report as an indicator of industry profitability.

The rest of this chapter provides a guide to the overall development of the industry in each of the colonies and nationally. Chapter 2 then looks in more detail at how the various regions within each State have developed in recent decades. Regional identification has become one of the means by which producers have chosen to differentiate their product as wine globalization proceeds.

Australian producers have also chosen to differentiate themselves from those in the Old World by clarifying on their labels the winegrape variety or varieties (or cultivars) used to produce each wine. Varieties also vary hugely in their suitability under different climatic conditions, and in their usefulness for particular styles of wine. Chapter 3 therefore includes data on the evolution of the mix of winegrape varieties grown over the past six decades for which reliable data are available. Those varietal data are available also at the regional level since the end of the 20th century.

It is not possible to explain the trends and cycles in this industry with only grape and wine data of course. Also important are developments in other parts of the economy and

society. For that reason, a fourth group of tables is included, providing annual state and national data on population, total crop area, real GDP in total and by sector, government assistance to other sectors, sectoral and total merchandise trade, foreign exchange rates, the nation's international terms of trade, and national rates of interest and inflation.

1.3 The five cycles to date

> *'The production of wine in Australia has not increased as rapidly as the suitability of soil and climate would appear to warrant. The cause of this is probably twofold ... Australians are not a wine-drinking people and consequently do not provide a local market for the product, and ... the new and comparatively unknown wines of Australia find it difficult to establish a footing in the markets of the old world, owing to the competition of well-known brands. Active steps are being taken in various ways to bring the Australian wines under notice, and it may be confidently expected that when their qualities are duly recognised the wine production of this country will exhibit a rapid development.'*

The above statement is a quote from the *Yearbook of Australia 1922* (p. 279). That potential had been recognized for a long time, for almost the same statement appears in the Federation's first *Yearbook* published in 1908. Moreover, thirty years earlier it was claimed that 'many of the leading wine merchants of London and other important commercial centres admit that Australia promises to become a powerful rival in the world's markets with the old-established vineyards of Europe' (Irvine 1892, p. 6).[9]

Clearly the Australian wine industry has had a long gestation period. Until the 1970s domestic consumption per capita had grown only very slowly. True, exports have boomed several times in the past, but in each case those booms have plateaued and, because of an expanded acreage, grapegrowers went back to receiving low returns. Indeed in the latter 1970s/early 1980s exports were so low that Australia became a net importer of wine again, as it had been prior to the 1890s. As recently as 1985 the Federal Government introduced a vine-pull compensation scheme to encourage grapegrowers to move to alternative crops, so dire was the wine industry's view of its prospects at the time. Yet like a phoenix, the industry rose again and grew with renewed vigour during the 1990s and early 2000s. The real value of both winegrape and wine production grew at more than 10 percent per year and the share of wine sales in export markets rose from just 2-3 percent in the mid-1980s to more than 60 percent.

The history of fluctuating fortunes raised the obvious question of whether the export-oriented wine boom of the 1990s would be followed by yet another crash, at least in winegrape prices if not in wine production and exports. The wine industry was very bullish, having in 1995 set itself targets of exporting A$1 billion worth of wine by the turn of the century (up from A$470 million in 1995-96 and less than A$100 million per year in the 1980s) and of trebling the real value of wine production within 30 years (AWF 1995). Others,

[9] Such an admission was not yet forthcoming from the French, however. At the international wine competition of the Vienna Exhibition of 1873, for example, the French judges, on hearing of the identity of the wines they had judged blind, are reported to have resigned when they learnt a prize-winning shiraz was not French but from Bendigo, Victoria (Beeston 2001, p. 62).

aware of the boom-bust cycles of the past both in Australia and elsewhere, were more sceptical.

In the event this latest boom lasted one-third longer than any of the previous four booms. It was triggered by the low Australian dollar in 1986 which made exporting more profitable, and it peaked in 2007 in terms of bearing area and export expansion. Exportable wine output expanded initially by diverting grapes from non-wine uses, allowing wine exports to grow even though the national grape bearing area was virtually no higher in 1995 than in 1985 (Chart 1). Further expansion was stimulated by the almost doubling of the average AUD unit value of exports between 1993 and 2001, when the value of the Australian dollar bottomed out at 49 US cents. By 2004 wine production per dollar of GDP reached a record level, well above the previous peaks in 1947 and 1927, and the share of vineyards in the total crop area peaked in 2007 at the highest level since the start of the 20th century apart from during the disruptions of World War II (Chart 11). But from 2001 the Australian dollar rose for more than a decade in the wake of Australia's mining boom. That contributed to the average AUD price of wine exports halving in nominal terms over the next dozen years (Chart 2), and to growth in exports from the other New World countries (Chart 3). Australia's index of comparative advantage peaked in 2004 and, with Chile, was the highest in the world in 2005,[10] but by 2012 its index was the lowest and less than half that of France (Chart 4).

These past three decades are but the latest of a series of booms and slumps in the industry's history. Before examining in more detail why this latest boom lasted as long as it did but no longer, it is helpful to first review the nature of the previous cycles.

1.3.1 Growth and structural changes since 1788: an overview [11]

There were four acres of vines in Parramatta in 1791 and a few more had been planted by Blaxland by 1816. Macarthur had a further 20 acres at Camden by 1820, Blaxland exported a tiny sample in 1822, and Wyndham Estate (originally Dalwood) was established in the Hunter Valley in 1828 and had two acres of vines by 1832. But it was James Busby's planting of European vines in the Sydney Botanic Gardens following his trip to France and southern Spain in 1832 that triggered the development of the Australian wine industry. Even though his plantings in the Botanic Garden were neglected, he had the foresight to send duplicates to Macarthur, to Melbourne and to South Australia, from which their spread began.

An overview of trends and cycles in the industry can be quickly grasped from Charts 5 to 10 and Table 1. While it is difficult to allocate a precise year to the start or finish of each cycle, Chart 5 nonetheless shows five distinct cycles around the long-run upward trend in grapevine acreage. The absolute size of each of the five booms in bearing area is best seen from Chart 5a, while their relative magnitude is more discernible from the log-linear scaling of Chart 5b. Certainly the latest boom in plantings is the biggest of the five by far in absolute terms, but in proportional terms it is only moderate by Australian historical standards.

[10] Except for the former Soviet republics of Moldova and Georgia, almost all of whose exports at that time continued to go to Russia and other former Soviet republics. But see Anderson (2012) on subsequent developments in Georgia's exports.

[11] Very readable histories of the Australian wine industry can be found in Laffer (1949), Halliday (1994), Rankine (1996), Dunstan (1994), Beeston (2001), Faith (2003), Allen (2012) and Walker (2012). Aspects of the history of South Australia's industry during the 19th century are recorded by Bell (1993, 1994) and Griffiths (1966). Unwin (1991) places Australia's history in global perspective in his superb history of the world wine industry stretching back well before Christ, as does Simpson (2011) in his in-depth history of the first globalization wave that ended at the start of the World War I.

Wine production of course fluctuates more than vine area because of seasonal factors and the changes over time in the relative profitability of directing multipurpose grapes to wineries versus to the drying or fresh markets. That makes it less easy to see the cycles around the sharp upward trend in the 20th century annual production data shown in Chart 6a, but they are more discernible in Chart 6b which shows that expansion on a log-linear scale. Chart 6b also reveals the dominance of South Australia in Australian wine production throughout the period since 1850.

As for the export orientation of those booms, Chart 7 shows that only three of them involved the industry becoming more outward-focused: the period just prior to the 1890s, the post-World War I period prior to the depression of the early 1930s, and, of course, the most recent and much longer boom from the mid-1980s. The other two booms, 1855-71 and 1967-75, were driven almost entirely by domestic demand, generated by rapid immigration and income growth. Prior to the first of those export booms Australia had been a net importer of wine (Chart 8), but after 1890 exports exceeded imports on a sustained basis (Table 13).

Bearing in mind the fluctuating rates of population and income growth over this long period, it is helpful to also examine in this overview the key intensive growth indicators. While vine area and wine production fluctuate around a rising trend over virtually all the period, as do exports apart from interruptions during the first and second world wars (Chart 9), that is not true of vine area per capita. On the contrary, Chart 10 shows that each expansion has been very rapid but is then followed by a much longer period of considerable decline in the bearing area of vineyards per capita. That chart also shows that despite the near-trebling in vine area over the two decades straddling the new millennium, the per capita area did not quite reach the record level of 1924 before it began to decline again after 2007. Those sharp increases and slower subsequent declines are also evident when the vine area is shown relative to the total crop area (Chart 11). That indicator has fluctuated around a declining long-run trend since the end of the 19th century. Even so, Charts 10 and 11 reveal that wine production per capita and per dollar of overall GDP have trended upwards, due to increasing yields per hectare as the share of vines being irrigated expanded or more grapes being used for wine rather than for drying or fresh consumption.

With this overview in mind, we now turn to examine in some detail each of the previous four cycles, which provide helpful background for examining the distinguishing features of the latest boom and slump.

1.3.2 Slow birth: the first five decades of British settlement

The vines planted immediately upon British settlement of New South Wales in 1788 did lead to some wine being produced, but just as a small sideline for household use rather than commercial sale. Fifty years later the Australian colonies had less than 200 hectares of grapevines, and only a portion of their grapes was used for making wine, the rest being for table grapes and dried vine fruit. Annual wine production (including for distillation into brandy) was well under 100 kilolitres prior to 1840. South Australia probably would have contributed more from the late 1830s had there not been an early discovery of copper just north of the Barossa Valley, production and exports of which boomed in the latter 1840s (Table A10). Wine and other farm industries also would have grown more had the demand

for wool for Britain's booming textile mills not been so strong throughout the 19th century.[12] Wool's high price and relatively low transport cost per dollar of product meant wool dominated Australia's exports in every decade up to the early 1960s, apart from the short periods during and following the gold rushes of the 1850s and 1890s (Table A15).

The initial lack of domestic consumer interest in wine is understandable given that the settlers were mainly from Britain and Ireland, where in the late 18th and early 19th centuries beer and spirits dominated the drinking habits of all but the upper classes. It was only as new migrants began settling in Victoria, South Australia and Western Australia from the late 1830s that demand for wine began to grow. Then supply expansion was suspended when a severe recession hit Britain which temporarily starved the Australian colonies of finance for development and income for spending in the early 1840s (McIntyre 2012).[13]

Only two wine brands established prior to that brief economic recession have survived to today (Wyndham Estate in the Hunter Valley north of Sydney in 1828 and Houghton in the Swan Valley of Western Australia in 1836), but several more enduring ones were established in the next ten years, notably Lindeman's in 1843 in the Hunter and then, in South Australia, Penfolds in 1844, Chateau Reynella in 1845, Gramp in 1847, Yalumba in 1849, Seaview in 1850, Seppelt in 1851 and Hardys in 1853 (Tables 22 and 23(b)). Their owners were among the firms positioned to take advantage of the boom in demand following the start of the gold rush in 1851.

1.3.3 The first cycle: 1855 to 1882

The gold rush caused Australia's white population to almost treble in the 1850s, raising substantially the domestic demand for alcoholic beverages including wine. Despite that expanded supply of labour, wages rose dramatically in the early 1850s as men went off to the Victorian goldfields (Maddock and McLean 1984). That squeezed grape and wine production and profitability, with wine output in 1855 being only 70 percent of that in 1851. However, by the mid-1850s the dramatic extent of the increases in the continent's population and income was perceived correctly to lead to an expansion in demand for many products, including wine. As a result, the area of grapevines began to increase rapidly, trebling in the latter half of the 1850s in South Australia where wine production quadrupled. By 1871 the area had expanded ten-fold for Australia as a whole, and wine production had increased 17-fold (Tables 2 and 9).

The consequent growth in wine supplies was so fast that it outstripped the growth in domestic demand in each colony, so export outlets were sought.

Inter-colonial trade within the continent was one option. However, transport costs were high, and each colony also sought to protect its local producers by imposing high import tariffs. In 1858 the duties on wine coming into South Australia, Victoria and New South Wales were already quite high at 2.2, 4.4 and 6.6 cents per litre, respectively, but by 1876

[12] Between the 1820s and the start of the 20th century, about one-quarter of Britain's imports were wool and cotton, and their share did not fall below one-tenth until the latter 1950s (Anderson 1992, Table 2.5).

[13] Real per capita GDP in Britain fell by more than 3% in each of 1840, 1841 and 1842, and it took until 1846 before the average income in British returned to its 1839 level (Maddison 2013). The impact on the Australian economy was compressed into a 2-year recession, with real per capita GDP falling 8.4% in 1842 and less than fully recovering in 1843 (Table A4). The owner of the first vineyard in South Australia to export wine (Echunga Springs in the Adelaide Hills) was one of many to be bankrupted during that sharp downturn (Mathews 2013).

they had been raised to nearly 9 cents per litre and by the early 1890s to the virtually prohibitive levels of 11 cents per litre for still wine and twice that for sparkling wine (Table 18(a)).

Fortunately, British import duties and ocean shipping costs began to fall in this period.[14] Specifically, Britain in 1860 abolished the import tariff preference for South African wine (which had been taxed at half the rate of other wines), and by 1862 had lowered the tariff on all wine with less than 26^0 proof spirit (equivalent to 14.9 percent alcohol) to 1/- instead of 5/9 per gallon (Unwin 1991, p. 328). That made the dry wine duty only two-fifths that for the more alcoholic fortified wines from Portugal and Spain — having been nearly double the duty on fortifieds for most of the previous one hundred and sixty years (Kelly 1867, p. 6). While the abolition of South Africa's tariff preference caused British imports of Cape wine to plummet, the general cuts in dry wine tariffs, together with the creation of off-licence retailing (thanks to legislative changes in 1861), allowed Australia's exports to Britain to quadruple over the 1860s and double again by the mid-1870s.[15] This, however, was from a very low level first established in the mid-1850s: throughout the 1860s and 1870s Australia's modest wine exports amounted to less than 3 percent of its production (Chart 7 and Table 11).

Exports were inhibited not only because the wine produced was generally of extremely low quality (mostly dry red, shipped bulk in hogsheads only weeks after the grapes had been crushed), but also because up until then very little had been invested in securing quality packaging, marketing and distribution arrangements in Britain (Bell 1994; Irvine 1892). Meanwhile, from the late 1860s producers suffered very low returns as a consequence of the rapid supply expansion outstripping demand growth. Kelly (1867, p. 1) opened his book by claiming that no industry in South Australia was as depressed as wine at that time. So poor were returns that the area of grapevines fell 10 percent nationally and almost 30 percent in South Australia during the 1870s (Table 2).

The poor export performance to the late 1870s was not without some highlights though. An important foundation for the future was the establishment in Britain of two firms distributing and promoting Australia's better wines: Auld and Burton's Australian (later Emu) Wine Co. from 1862, and P.B. Burgoyne and Co. from 1872. Those firms ensured the best of Australia's wines were included in European wine competitions, and to great effect. After the International Exhibition in Vienna in 1873, the editorial of the *Morning Post* of 8 June 1874 proclaimed:

> *'Australia promises ere long to become as celebrated for its wines as it is already for its wool and gold. ... Australia carried off the only Diploma of Honour awarded at the Vienna Exhibition for wines in competition with wines of all other countries, and took a larger percentage of the wine prizes generally at that Exhibition in proportion to the number of its entries than any of its rivals. ... We cannot do better that quote the*

[14] On the economic history of Britain's wine import policies and its impact on France's exports, see Nye (2007).
[15] Britain's annual imports of Cape wine fell from 3.4 to 0.2 million litres between 1857-59 and 1867-69 while its imports from Australia quadrupled, from 0.07 to 0.28 million litres. Both suppliers were, however, dwarfed by France, Portugal and Spain, whose combined annual imports into Britain amounted to 67 million litres during 1867-69. The volume of French imports also quadrupled over the 1860s because of the same tariff changes that favoured Australia (Laffer 1949, pp. 118 and 123). For further details of the wine trade as it relates to Britain at that time, including the important role of the new off-licence retailing in expanding hugely the accessibility of wine to household consumers, see Briggs (1985) and Francis (1972).

> *official report made in March last to the Commissioners of Her Majesty's Customs: 'The Australian wines are wonderfully advanced in improvement of quality and area of production since the Exhibition of 1862, while the scope for further increase is ... almost unlimited: they have generally a full, rich, vigorous character and quality. Some few are especially fine in all that constitutes a high-class wine, and will bear comparison with the best European growths, while the average of the remainder, compared with the bulk of Continental wines, omitting the best, is higher in quality, strength and body, as also in character and flavour.'* (quoted from Laffer 1949, pp. 69-70).

Similar accolades (along with some critical reports) flowed from the International Exhibition of 1882, which happened to be in Bordeaux. This recognition provided some hope for the future, and that export future was not long in coming.

1.3.4 The second cycle: 1882 to 1915

The successes in International Exhibitions, together with the prospect of Australian Federation by the turn of the century which would see the removal of the high inter-colonial trade restrictions, encouraged growers to expand the area under winegrapes substantially. True, there were phylloxera outbreaks in Geelong in the latter 1870s and then gradually other parts of Victoria (Pope 1971). But the Victorian Government responded with compensation for forced removal of diseased plants, and in 1890 offered subsidies of £2 per acre (A$10 per hectare) to replant with resistant stocks over the subsequent three years. As a result, Victoria's vine area more than doubled between 1889 and 1894, from 5,200 to 12,300 hectares (Table 2) — just as the 1890s' Depression hit and domestic alcohol sales were plummeting (as they did again during the 1930s' Depression, see Chart 34). Rutherglen especially expanded, to compete with still red wines being imported from South Australia. That vineyard expansion meant that Australia's overall vineyard area and production of wine grew substantially during the 1880s and early 1890s, at about 11 percent and 8 percent per year, respectively (Table 1).

The industry's growth continued unevenly across the colonies. Victoria's excessive subsidy-induced vineyard expansion in the early 1890s was not coupled with quarantine precautions and so Phylloxera spread, reaching Rutherglen by 1899, whose vines were devastated by 1906. Victoria's area stagnated and declined and its area peak in 1895 was not reached again until almost three decades later (Table 2). South Australia's share of the country's vine area, which fell from more than half in the early 1860s to less than a quarter by the late 1880s, then doubled by 1915 to regain the lead Victoria had held for four decades (Chart 12). South Australia also took the lead from 1906 in vine area per hectare of total crop area (Chart 13 and Table 4), as its producers responded rapidly to the fall in interstate barriers to wine trade following Federation in 1901.[16] Its wine production per capita — which from 1850 was always above that of other colonies/states — doubled between the five years preceding and the five years following Federation, to more than five times the national average, while that in other states remained flat and subsequently fell (Chart 14).

In Victoria, wine production grew rapidly in the 1860s from a very low base and then stagnated in the 1870s, averaged about 40 percent more in the 1880s, and then was double

[16] Once those tariffs were eliminated on interstate trade following Federation, South Australian exports to other States grew to 1500 kl by 1906, while all other states except Victoria were net importers of wine by that year (Table 18(b)). Victoria was a slight net importer even at the time of Federation (Table 14(c)).

that average in the 1890s. In New South Wales, by contrast, there was no growth in the area of vines and production of wine in the 1890s.

Meanwhile, in Western Australia, the vine area only started expanding rapidly when gold was discovered in the early 1890s (Tables 2 and 9). As in Victoria in the 1850s, that gold mining boom attracted many migrants, together with financial capital. The colony's white population quadrupled in the 1890s and, with it and the associated income growth, land development was encouraged. The growth in the supply of local labour, together with the fall in demand for labour in non-mining sectors due to the early 1890's recession, meant real wages did not rise much in WA despite the gold rush. This allowed the colony's crop area to grow ten-fold in 15 years from the mid-1890s, compared with only doubling in the rest of Australia. That is, the mining boom did not have a negative effect on the State's farm sector in general (Anderson 2014b). However, its wine industry evidently was unable to compete with other agricultural industries at that time, because the region's vine area and output of wine shrunk over that pre-World War I period.

Close behind the vineyard expansions in South Australia and Victoria were expansions of winery capacity and improvements in winemaking technology. Given the heavy capital intensity of quality winemaking, this was associated with a concentration of winery ownership across Australia — particularly by the three big family dynasties in South Australia at the time: Hardys, Penfolds and Seppelt (Hardy Family 1953, Caillard 2013 and Seppelt 1951). That consolidation in winery ownership, with the help of the Emu Wine Co. (established 1862) and P.B. Burgoyne and Co. (established 1872) as importers in London, no doubt contributed to the industry's success in exporting as the new century and Federation approached.

The rapid growth in national wine production and exports was such that by the turn of the century production was three times its 1880 level. Moreover, one-sixth of the newly federated country's wine production was being exported — notwithstanding the considerable difficulties still associated with exporting from Australia at that time (Irvine 1892). Australia's early export success in this cycle was helped partly by the reduced competition from France and other suppliers to Britain following the arrival and devastating spread of phylloxera and mildew in Europe in the 1870s and 1880s (Unwin 1991, pp. 284-96; Campbell 2004).

The build-up in exports during that first export boom, largely involving bulk full-bodied reds, was sustained for two more decades after the initial build-up from 1885 to 1895, before being interrupted by World War I (Chart 7 and Table 11). While strong prejudices against New World wine remained in many quarters, a firm reputation for Australian dry wines had been established in Europe in the generic sense at least, even though varietal, regional and winery brand labelling was still absent (and would be until the 1950s).

However, by 1895 two-fifths of France's vine area had been transplanted onto American rootstocks and yields per hectare rose rapidly with the demise of phylloxera. As a result, France's total production in the following 15 years was 60 percent above that of the 15 years to 1895. This depressed prices for wine in Europe and contributed to the cessation of acreage and production growth in Australia through to World War I.

Two key domestic contributors to the industry's second expansion prior to that plateau were therefore the anticipation of Federation, which would expand aggregate

domestic demand for wine by disallowing interstate restrictions on trade, and winery modernization and ownership concentration across Australia that was in part stimulated by that freeing of interstate trade.

One further impact on the industry following Federation was the imposition of tariff protection from imports of many manufactured products and some processed farm goods. Dried vine fruits were one of the first and most protected such goods, receiving tariff protection that doubled the local price when first introduced in 1904 (Table A9). That year also saw the formation of the Australia Dried Fruits Association, which by controlling over 90 percent of domestic production was able to raise the domestic price by diverting supplies to distilleries, or to the export market with the help of a government export subsidy (Sieper 1982). That raised the price of winegrapes as well, and hence the cost of producing wine. That cost was more or less than offset by a tax also on wine imports, which has prevailed to the present (although the most favoured-nation rate is only 5 percent currently).

However, the four pre-conditions that made the export take-off in this cycle possible were the removal by Britain in 1860 of tariff preferences for South African wine and the subsequent lowering in 1862 of its tariff on dry table wines from 5/9 to 1/- per gallon,[17] the legislation in 1861 that allowed off-licence retailing in Britain, the establishment of firms in Britain specializing in the importation, distribution and promotion (including in prestigious and well-publicised international wine shows) of Australian wines, and the lowering of inter-continental ocean transport costs.

The development of the steamship played a crucial role in making intercontinental trade cheaper. Knick Harley's (1988) index of British ocean freight rates remains relatively constant between 1740 and 1840, before dropping by about 70 percent between 1840 and 1910: a dramatic decline that was mirrored on sea routes worldwide (Harley 1988, Findlay and O'Rourke 2007, Mohammed and Williamson 2004). Transport cost declines from around 1860 to World War I were especially large (Table A20). On top of that, the increasing speed of ocean transport has implied cost savings additional to those indicated by freight rate data, especially for perishable products.[18] For Australia, transport costs were especially large in the early decades of European settlement (Blainey 1966).

Those falling transport costs, like declines in wine import tariffs abroad, do not affect all products equally of course, and the share of production exported is affected by numerous other forces as well. Yet the share of wine production exported closely paralleled the share of all merchandise exports in GDP from the late 1880s to the First World War (Chart 15). That suggests macroeconomic conditions at home and abroad, not just industry-specific forces, can have a non-trivial impact on the performance of the wine industry.

1.3.5 The third cycle: 1915 to 1967

Towards the end of and following World War I there was a rapid vine area expansion (Chart 1). This was encouraged by the subsidized settlement on farms of ex-servicemen, particularly in the newly developed Murrumbidgee Irrigation Area of NSW and along the Murray River

[17] Equivalent to a drop from 12.6 to 2.2 cents per litre. For comparison, the unit value of Australia's wine exports at the beginning of the 20th century was less than 7 cents per litre (Table 15).

[18] O'Rourke and Williamson (2002) and Findlay and O'Rourke (2007, pp. 402-405) point to the huge declines in commodity price gaps between Europe and both America and Asia between about 1840 and1913 as additional evidence of the fall in transport costs.

(Davidson 1969, Ch. 4). Annual output of wine more than doubled in the decade to 1925, leading to a glut especially of Doradillo grapes whose price fell by two-thirds in 1924. Having been fueled by government assistance with land development and water infrastructure, the Australian Government decided to further assist producers in the newly planted areas by offering export assistance in the form of a bounty on wines with at least 34^0 proof spirit (that is, fortified wines with more than 19 percent alcohol, for which the non-premium Doradillo variety was relatively well suited).

The Wine Export Bounty Act, passed in 1924, provided the equivalent of 6 cents per litre plus excise duty drawback on the fortifying spirit, making a total of 8.8 cents per litre (Laffer 1949, pages 78 and 134). This came at a time when the average unit value of Australia's wine exports was less than 10 cents per litre (Table 20). This generous export subsidy was intended to make Australia better able to compete with much closer Portugal and Spain in the British market for sweet fortified wines.

Since an export subsidy is the equivalent of a production subsidy and a domestic consumption tax, this bounty dampened domestic fortified wine sales, and table wine production, at the same time as boosting production and exports of fortified wines (and more so for lower-valued grapes and fortified wines, since the export bounty was a specific rather than an *ad valorem* duty).[19] Chart 31 shows that Australia's table wine production diminished substantially over the inter-war period, reaching one-fifth of its 1923 level by the late 1930s. Production and consumption of beer rose rapidly in the 1930s (Charts 33 and 34), presumably as a cheaper substitute for domestic consumers in the wake of the diversion of grapes to the production of fortified wine for export.

The fortified wine export subsidy was not all that assisted grapegrowers from the mid-1920s period of surpluses and low prices. In its June 1925 budget, the British Government introduced, by way of thanks for war contributions, a tariff preference for wines from the British Empire. As a result, Australian table wines faced a British tariff of 2/- and its fortified wines 4/- per gallon, compared with 3/- (raised to 4/- at the Ottawa Conference in 1932) and 8/-, respectively, for wines imported by Britain from Europe.

As well, the industry continued to be assisted by an import tariff on wine and brandy, a sales tax of 15 percent on imported but not domestically produced wine,[20] excise taxes on beer and spirits but not on wine, and a lower excise tax on brandy than on other spirits. The import tax on wine was non-trivial, which helps explain both the low share of imported wine in domestic consumption and the relatively low overall level of wine consumption throughout this cycle (Charts 8 and 34). The extent to which those support measures raised the domestic prices of grapes and wine is indicated by the estimated nominal rates of assistance (NRAs). As reported in Table A9, the NRA for drying grapes averaged 25 percent in the interwar period and 10 percent in the two decades thereafter. Meanwhile, the NRA for wine from

[19] The export subsidy had been partly a response to a large hike in 1918 in what until then had been a very small excise tax on fortifying spirit. That excise tax rate was raised again (almost doubled) in 1930. Lobbying from the industry caused the Government to put the boost in revenue from that second increase into a Wine Export Encouragement Trust Account, which largely financed the export bounty until its abandonment in 1947. In the meantime, the rate of the bounty had been lowered gradually by a total of two-thirds but also the excise tax on fortified wine had been cut by two-fifths in the turmoil of Government responses to the 1930s Depression (Laffer 1949, pp. 78-79).

[20] Sales taxes were introduced in 1930, but with exemptions to domestic producers, so they had the same protective effect as an import tariff. See Lloyd (1973, Ch. 7).

import tariffs averaged 24 percent over the 1950s and 1960s, which was slightly above the average for other manufactures and twice the average NRA for the agricultural sector.

Together these policies gave a considerable boost to Australia's depressed producers of low-valued winegrapes and fortified wines during the interwar years. They also encouraged wine importers in Britain to expand purchases ahead of sales when the Australian Government in 1927 gave six months' notice that it was going to reduce the export subsidy by one-quarter: there was a big surge and then temporary downturn in exports at the end of the 1920s (before they levelled out at an average of 16 million litres per year for the 1930s — see Table 13). Many of the wines shipped in 1927 were rushed in order to qualify for the higher bounty before it was reduced, in the sense that they had not been given time to mature. That, together with poor storage treatment in Britain, ensured they were of low quality by the time they were sold there. This meant they not only fetched a low price but also secured a reputation for Australia as a new supplier of poor-quality fortified wine.

In a further response, the Australian Government established in 1929 the Wine Overseas Marketing Board (later known simply as the Australian Wine Board when its promotion mandate broadened to include the domestic market). Like many marketing boards at the time, it tried to set a minimum price for export wine during 1930-36, but had to abandon it as the market price was barely half the set price.

With returns to winemakers falling from the late 1920s, they wanted to reduce by 25 percent the prices they paid growers for winegrapes. In response, the South Australian Grapegrowers Cooperative was established as a competing winemaker, but that did little to stem the erosion in returns. In 1936 a vine-pull scheme sponsored by the South Australian Government saw two-thirds of Coonawarra vines uprooted. Meanwhile, in Victoria's Yarra Valley, farmers began turning to dairying, and in the Hunter Valley of New South Wales the acreage of vines was eventually halved. Not surprisingly, the total area of vines in Australia grew very little over this period (Chart 5). And it was five decades before the annual level of wine exports achieved in the late 1930s (artificially boosted to build stocks in Britain for the foreshadowed war) was again reached (Charts 7 and 9).

In short, the wine industry was boosted by government supports in the early part of the interwar period in terms of vine area and production volume, but those enlarged supplies depressed prices and rewards to producers even before the Great Depression of the early 1930s. The share of production that was exported rose, but only to take advantage of Australian and British trade policies to sell the irrigation-induced surplus of low-quality grapes rather than as a way to develop a sustainable market. The key causes of the boom in volume were all government-induced: the subsidized settlement of returned ex-servicemen on farms particularly in the newly expanding irrigation areas where low-priced water was made available largely at public expense, the provision after 1924 of an export subsidy for fortified wines, and the halving of tariffs in Britain for wines imported from the British Empire.[21]

The export subsidy was a mixed blessing for at least three reasons: by confining it to low-quality fortified wines it undermined the growing British and continental European

[21] Together these changes meant Australia exported more wine to Britain in the 1926-40 period than did France (Laffer 1949, p. 125). Between the 1860s and the 1920s France, Portugal and Spain each supplied more than 20% of British wine imports and together the combined import share of those three countries exceeded 80% each decade. Australia's share of British wine imports was just 5% in the first two decades of the 20th century and 9% in the 1920s, but it rose to 21% in the 1930s (Anderson and Nelgen 2011, Table 268).

interest in Australian dry table wines which had been slowly building up over the previous few decades; by making it a specific rather than *ad valorem* duty it dampened the incentive to produce higher-quality wines; and by giving six months' notice of the intention to reduce the subsidy in late 1927 it encouraged shipments of immature wines that could not be stored well in Britain, which damaged further Australia's reputation as a reliable supplier of quality wines.[22]

During World War II domestic wine consumption rose (Charts 34 and 35). This was partly because beer and spirits sales were rationed, and the rations were cut by one-third in March 1942. Interstate trade in alcoholic beverages was banned during the war also, to conserve transport fuel. And the United Kingdom placed severe restrictions on wine imports in January 1941, providing only a small quota for Australia (Laffer 1949, pp. 87-94). That plus difficulties in obtaining space on ships meant Australia's annual wine exports to Britain during 1940-45 were only one-fifth those in the 1930s (and only one-tenth during 1941-44 — see Table 11).

Following World War II, consumers in the United Kingdom moved away from wine once the wartime rationing of grain used in beer production was lifted. Partly this was because of long-established preferences, but two policy changes gave a helping hand. One was that Britain raised its tariff on fortified wines five-fold in 1947 and kept it very high until the end of the 1950s (when it was lowered but was still double the inter-war rate). The other was that, in Australia, the wine export bounty was no longer provided after 1947-48.

Meanwhile, Australia's liquor licensing laws (whereby, among other things, purchased meals involving wine had to be completed by 8pm) continued to discourage wine relative to beer consumption. Thus by the latter 1950s, after war-induced grain rationing to breweries and rations on beer and spirits consumption were removed, beer again comprised three-quarters of all alcohol consumption in Australia compared with as little as one-seventh coming from wine (and most of that fortified).

Over the next three decades, however, the wine share was to double (as was the spirits share, much of it based on wine distilled into brandy), at the expense of beer sales (Chart 35). The 50 percent rise in the 1960s was helped by a one-third increase in real income per capita (Table A4), by brand advertising and generic promotion domestically by the industry's Wine Bureau, by the influx of wine-preferring immigrants from Southern Europe, and by the fall in the real cost of air travel and of discounts for under-25s that encouraged young people to travel to Europe. Even so, annual wine consumption took until the early 1970s to exceed ten litres per capita (Table 12), and the transition from sweet fortified to table wine consumption was only gradual.

As for supply, despite new irrigation schemes at Loxton in South Australia and Robinvale in Victoria, the area of vines and wine production grew only slowly from the mid-1940s to the mid-1960s (Charts 5 and 6). During that time the Korean War-induced wool price boom and then subsidies to other farm products such as wheat, milk and (e.g. in the King Valley) tobacco appealed more to farmers. As well, tighter import restrictions on manufactured goods boosted the import-competing industrial sector, while the removal in the early 1960s of a ban on iron ore exports triggered a mining boom, both of which indirectly

[22] Two other changes in the 1930s of relatively minor immediate significance to the Australian industry were the signing of the preferential trade agreement between Canada and Australia in 1931 and the lifting of prohibition on alcohol sales in the United States in 1933.

dampened incentives in other sectors including wine. As a consequence, wine production grew only 3 percent per year between 1946 and 1966, and wine exports remained flat (Table 1 and Charts 6 and 7).

1.3.6 The fourth cycle: domestic demand changes, 1967 to 1986

Britain hiked its tariff on fortified wines again in the late 1960s, and then joined the European Economic Community, which gave duty-free access to wines from the other EEC members from 1973. Meanwhile, the mining boom at home was reducing the competitiveness of Australia's non-mineral exporters. So for both demand and supply reasons, wine exports remained flat from the mid-1960s to mid-1980s, and exports to the UK shrunk by nine-tenths (Chart 7 and Table 11).[23] Grape and wine prices also remained low, particularly for reds. The low red prices attracted the attention of domestic consumers, and a taste swing ensued. In turn numerous companies — many of them with no experience in making and marketing still wines — perceived opportunities for taking over brands through mergers or acquisitions (Table 23(a)). The surge in demand for domestic premium red wines from the late 1960s stimulated an expansion in their production. This was followed by an equally sudden surge in domestic consumer interest in premium white wines from the mid-1970s, which was followed in turn by a renewed interest in reds in the following cycle. During these two cycles the share of fortified wines in domestic sales shrank, from 53% to just 7% (Chart 40(a) and Table 34(a)).

The producer responses to these consumer demand changes are reflected in the changes in bearing areas of different winegrape varieties. Chart 40(b) shows that premium table wine varieties were less than 20% of the area up to the mid-1960s, whereas they represented 40% by the mid-1970s (and more than 90% by the turn of the century). Within the premium category, that Chart shows first the surge in reds in the decade to the mid-1970s, then the surge in whites at the expense of reds for a decade (followed by a resurgence of reds and then of whites yet again). Details of the changes in the vineyard area and consequent wine crush changes are reported in Table 35.[24] Notice from that Table that the proportions of premium varieties increased noticeably in the decade to the mid-1980s, from 27% to 36% in bearing area and from 19% to 25% in grapes crushed, the lower shares for crush reflecting the generally lower yields per hectare for premium as compared with non-premium varieties. (In the following decade that trend accelerated, and by the mid-1990s the proportions of premium varieties in the area planted and grapes crushed were around 65% and 55%, roughly double the proportions of the mid-1980s.)

Clearly, tastes/fashions in wine can change quickly and unpredictably, making life very difficult for those grapegrowers who are slow to adapt to the changes in demand. The move from tea-drinking to coffee-drinking over the 1960s and 1970s is symbolic of the gradual adoption of Continental tastes in Australia (Halliday 1994, Figure 8), which included a move to wine drinking. Reforms of liquor licencing laws for restaurants and hotels helped. So, too, did the Trade Practices Act of 1974, which made retail price fixing illegal and stimulated the emergence of liquor chain stores and wine discounting.

---

[23] Wine exports were so low in the mid-1960s that the Australian Wine Board closed its Wine Centre in London.
[24] The ABS data in Table 35 are from the viticulture series, which differ slightly from those reported by ABS in its wine series (used in the Tables in Section II), for reasons the ABS cannot fully explain (see pp. 61-63 of the 1997 issue of ABS Cat. No. 1329.0).

Meanwhile, there were numerous takeovers of old family wineries by large corporations during this period (see Table 23(a)). In some cases this added a sharper commercial edge to production, R&D and marketing, not least because companies listed on the stock exchange had to regularly report their net returns to shareholders.

Among other things, this period saw the commercial development of the 2- to 4-litre cask, or 'wine in a box', which added hugely to domestic demand at the lower end of the market. White wine eclipsed reds in the domestic market by 1976 (Table 34(a)) and continued to skyrocket: the volume of white wine sold in Australia in a plastic bag inside a box rose from 33 to 152 million litres per year between 1978 and 1984,[25] while bottled red and white wine sales declined from 73 to 55 million litres (Table 34(d)). That was not enough to make the industry internationally competitive, however, particularly with the Australian dollar appreciating in the mid-1970s and again in the early 1980s thanks to rises in the international prices of some of Australia's primary export products (shown in Chart 23).

The move away from reds was partly triggered by a histamine health scare associated with red wine consumption (later shown to be a fiction). It was partly also because the reds produced to meet the domestic demand growth from the mid-1960s were of relatively low quality or not aged sufficiently when released for sale. One reason for the low quality is that Grenache grapes, whose demand had fallen away with the decline in sales of ports, were being used without great finesse in dry wine production. Meanwhile, a new production technique involving stainless steel pressure tanks was able to bring out more fruit flavours and aromas in white wine, making it relatively more attractive particularly for newcomers to table wine consumption. A subsequent new technique for producing sparkling whites at low cost added to that in the 1980s, as did the fashion swing by wine consumers towards Chardonnay from the mid-1980s (a grape variety that played no part in the earlier swing to white wines). Allowing the sale of wine in supermarkets added to that domestic consumer trend toward whites, since at that time women did most of the shopping for food and beverages in those stores and they preferred whites to heavier red wines.

In short, the fourth boom was driven mostly by domestic developments, and occurred despite exporting becoming even more difficult (with the hike in British import duty on fortified wines in 1969 and the UK's subsequent entry into the EEC in 1974, and with the appreciation of the Australian dollar in the mid-1970s and again around 1980 thanks to rises in the international prices of food and energy raw materials (Chart 24) and hence in Australia's exports of primary products. Factors contributing to domestic demand growth were the 'Europeanization' of Australian consumer habits which, among other things, led to reform of liquor licencing laws, and the outlawing of price fixing, which stimulated the spread of liquor chain stores and wine discounting. Supply factors which contributed to the boom were the takeover of family wineries by corporates that led to more effective marketing and faster adoption of innovations, and in particular the commercial development of wine-in-a-box. Even so, there was a gradual fall in the vine area per capita in the ten years following the mining boom's take-off in the mid-1970s (Chart 27).

That is, neither of the surges in production in the two decades to the mid-1980s, of first red and then white table wines, was export-driven. On the contrary, exports had remained of minor and declining importance over those two decades and the two preceding

[25] The cask was first introduced to the market by Penfolds in 1967, but that first prototype failed to keep oxygen out of the bag. It took another decade of experimentation before the technology was perfected.

them. Exports even were below wine imports during 1976-86, for the first time since the 1880s (Chart 8 and Table 13). The industry continued to be internationally uncompetitive and dependent on import restrictions on dried vine fruit and wine (and lower consumer taxes on wine and brandy than on other alcoholic beverages). Over this two-decade cycle the nominal rate of assistance averaged 20% for drying grapes and 30% for winegrape production, and 32% for winemaking (Table A9). The effective rate of assistance for wine (the extent to which value added has been raised in this industry, after taking account of the higher prices winemakers had to pay for grapes) was 64% in 1984, or three times the average for other manufacturing industries.

Given that high level of industry assistance, it was therefore not a complete surprise that, in the August 1984 budget, the Australian (Hawke Labor) Government introduced a 10% wholesale sales tax on wine,[26] and raised it to 20% two years later.[27] That plus the perceived over-supply situation especially in reds in the mid-1980s meant the prospects for grapegrowers and winemakers looked bleak — so much so that the South Australian and Federal Governments financed a vine-pull scheme in 1985-86. By paying growers $3250 per hectare to remove their vines, it contributed to the one-ninth net reduction in vineyard bearing area between 1985 and 1987 (see Chart 5). At the time it seemed inconceivable to many observers that another boom was about to begin.

1.3.7 The fifth and current cycle: export take-off from 1986

The latest boom began in 1986 not with a vine planting expansion, but rather with a steady increase in exports to take advantage of the historically low value of the Australian dollar (Chart 23). That export growth was possible partly because of a continuing decline in the proportion of wine production being diverted for distillation (Chart 31), and partly by a rapid increase from the early 1990s in the share of grape production going into wine, as well as by almost no growth in the volume of domestic wine consumption per capita over the 1980s and early 1990s (Chart 34). The latter slow growth in volume of domestic consumption occurred despite a considerable growth in disposable income in Australia, and was because consumers were moving away from quantity and towards higher quality wines (Wittwer and Anderson 2001), that is, away from non-premium (especially fortified and flagon) wines to premium still wines in bottles (Chart 41).

The export boom was so large as to raise wine's share of total merchandise value above 1% for the first time. The previous peak, which had been just below 0.9% in 1932 when other exports were severely depressed, was surpassed in 1998. The new peak was reached in 2004 at 2.3%, just as mineral exports were taking off (Tables 17 and A15). The

[26] Although beer and spirits have always attracted excise taxes in Australia, it was not until August 1970 that an excise tax (of 50 cents per gallon) was imposed on wine. So unpopular was the tax that it was halved in March 1972 and completely removed in December 1972 by the then-new Whitlam Labor Government (see Table 19). The Fraser Coalition Government that followed resisted re-introducing it, but the next (Hawke Labor) Government did not.

[27] On top of that there was a 15% tax levied at the State level until 1997 and thereafter by the Commonwealth and passed back to the States. Those sales taxes subsequently morphed into a 29% wholesale Wine Equalization Tax (WET) that replaced them when the 10% retail Goods and Services Tax (GST) was introduced in 2000 (Anderson 2010b). Why an ad valorem rather than volumetric tax was imposed on wine from 1984 is unclear, but presumably it was preferred by the wine industry since only a small fraction of domestic consumption was high-priced, so the dollar per litre impact on most wine sales was modest, and the price elasticity of demand for the latter is higher than for the former.

boom continued until 2007, but had an inflection point in the late 1990s (Charts 5 (b) and 6 (b)). Because of that, we begin by examining the first dozen or so years of this period.

The very slow growth in still wine consumption per capita in the final two decades of the 20th century contrasts sharply with its doubling in the 1970s (Chart 40(a)). The 1970s growth was mostly due to increased demand for non-premium white wine, whereas in the later period, as just mentioned, consumers substituted quality for quantity, especially in reds. That maturing of the Australian palate coincided with the industry's highly successful change in emphasis towards improving the quality of Australian wine production. Those trends, clearly evident in in the vineyard area data summarized in Chart 40(b)), were in response to the changes in domestic producer prices favouring premium reds and despite increases in the taxes on domestic wine consumption (Wittwer and Anderson 1998a and b, 2001, 2002).

The wholesale value of Australian wine sales doubled between 1984-86 and 1992-94 (excluding State and Federal sales taxes). Most of that growth came from export sales: they grew 18-fold while domestic sales grew only three-fifths over that period (Table 38). Associated with these changes were hikes in the prices of Australian (and to some extent imported) wines. On average, the domestic consumer price and the export price of Australian wine both grew by around 50% over that period. Those price changes no doubt stimulated vine plantings, wine production and wine exports: the volumes of wine production and exports were, respectively, 25% and more than 1000% greater in 1992-94 than 1984-86. However, domestic sales of Australian wine grew less rapidly thereafter, due not only to the average export price rising which diverted sales abroad, but also to the increase in the wholesale sales tax from 20% to 31% in 1993 (before it was reduced to 26% from 1995).

Grapegrowers were major beneficiaries of the increase in Australian wine prices. The average price received for winegrapes was three times higher in 1999 than at the start of that decade, even though the export price rose only 60% (Chart 17). Most of the production response is accounted for by an expansion in the area of bearing winegrapes, rather than through increases in yield per hectare. The increased volume of winegrapes came about partly also by diverting grapes from other uses; and the value of grape output was also raised by grafting higher-valued winegrape varieties onto existing multi-purpose rootstocks. As a result of these changes in the vineyard, the proportion of Australia's grape production used for wine rose from 57% to 85% over the decade of the 1990s (Chart 39(a)).

An important contributor to this production and export growth relates to ownership concentration. There has been a huge increase in the number of Australian wine producers (currently more than 2500, compared with fewer than 200 in the early 1970s, 300 in the early 1980s and 620 in 1990 — see Tables 21 and 26 and Chart 22). Most of the new wineries are very small though (Chart 43). During the fifth boom there were numerous mergers and takeovers by larger firms to form even larger conglomerates. The three biggest of those are detailed in Table 23(b): Treasury Wine Estates, Accolade and Pernod Ricard.

Treasury Wine Estates is a result of the Australian brewer Foster's taking over Southcorp, which included the iconic brand Penfolds, and adding it to its Beringer Blass Wine Estates business. Beringer Blass began with Wolf Blass and Mildara Wines combining in 1991 to form Mildara Blass. Penfolds (which acquired Allied Vinters in 1985 and so added Wynns, Seaview, Tulloch and Killawarra, and was renamed Southcorp in 1994) acquired Coldstream Hills and Devil's Lair in 1996. That same year Foster's bought Mildara Blass and Rothbury Estate. Australian producers moved closer to the American market with the

takeover of California's Beringer Wine Estates by Foster's to form Beringer Blass Wine Estates in 2001, the same year Southcorp and Rosemount Estate merged. Beringer Blass added T'Gallant in 2003 before acquiring Southcorp in 2005 to form Foster's Wine Estates. In 2010 that was separated from the beer business to form the listed company Treasury Wine Estates, which claims to be the world's largest premium wine company in value terms.

Accolade has its origin with Thomas Hardy & Sons making its first corporate acquisition in 1976 by purchasing the London-based Emu Wine Company, which included Houghton (Western Australia's largest winery) and Morphett Vale. The company purchased Chateau Reynella in 1982, where Thomas Hardy had commenced his employment south of Adelaide 130 years before, and converted it to its headquarters. Further expansion came in 1992, when Hardy merged with Berri Renmano Limited (itself a merger of two Riverland Cooperatives) to form what then became Australia's second largest wine group, BRL Hardy Limited. In 2003, the brands of BRL Hardy and those of New York-based Constellation Brands were merged to create the world's largest international wine business in volume terms. Constellation acquired Vincor International in 2006, adding the West Australian brands of Amberley and Goundrey to the Hardy portfolio. In 2008, The Hardy Wine Company changed its name to Constellation Wines Australia. Constellation sold their Australian arm in 2011 — for a small fraction of their 2003 purchase price — to a private equity firm Champ who re-named it Accolade Wines.

In 1989 the French spirits company Pernod Ricard purchased Orlando Wines, and then in 1990 it added Wyndham Estate to form the Orlando Wyndham Group. In 2005 Pernod Ricard took over Allied Domecq and the New Zealand business unit Allied Domecq NZ was integrated into the company which was renamed Pernod Ricard Pacific in 2006, made up of business units throughout the Pacific region. As part of that re-structure, Pernod Ricard Australia was formed to take over the Australian sales marketing and distribution responsibilities of the Pernod Ricard brand portfolio (which includes numerous spirits brands), whilst Orlando Wines focused on the production of the Australian wine brands of Pernod Ricard.[28]

The net result has been a substantial increase in firm concentration: whereas in 1978 those crushing more than 1000 tonnes accounted for 17% of wine firms, by 2014 they accounted for just 4-5% of all wine firms (Table 21(d)). The top three producers in 2014 accounted for more than 40% of the annual crush, of the number of bottles of wine sold, and of the value of domestic sales, and for the majority of wine exports. (See Table 22 for rankings of the top 30 wineries, Table 24 for others that were first established more than 100 years ago, and Table 25 for other wineries considered to be in the top 100 in terms of quality.)

This concentration provided the opportunity to reap large economies of scale not only in winemaking but also distribution and brand promotion, including through establishing their own sales offices abroad rather than relying on distributors.[29] The large volumes of grapes

[28] In 2010 Pernod Ricard re-named its global wine brand company Pernod Ricard Winemakers (formerly Premium Wine Brands).

[29] The corporatization of firms helped in raising the enormous amounts of capital required for rapid expansion in the 1990s and beyond. The capital intensity of winegrape growing in the late 1990s was about 50 percent above that of other agriculture, and that of winemaking is more than one-fifth higher than that of other manufacturing.

grown and purchased[30] by these firms from numerous regions enable them to produce large volumes of consistent, popular wines for specific markets abroad. Indeed some types (e.g., Lindemans Bin 65 Chardonnay) were sold only in export markets initially and not released in Australia until several years later.

In particular, the production of large volumes of low-end premium wines that used grapes from several regions, so as to ensure little variation from year to year, suited perfectly the customers of large UK supermarkets. By the mid-1980s those supermarkets, dominated by Sainsbury's, Marks and Spencer, Waitrose and Tesco, accounted for more than half of all retail wine sales in the United Kingdom (Unwin 1991, p. 341). Given also Australia's close historical ties with Britain, it was the prime target in the first decade of this latest boom.

The timing for this export surge was catalyzed by the devaluation of the Australian dollar in the mid-1980s, which was due to a sharp fall in prices of Australia's coal, grain and other primary export products (Charts 23 and 24, and Tables A14 and A15). That devaluation, together with low domestic prices for premium red grapes at the time, increased substantially the incentive for investment in developing overseas markets for Australian wine. Other factors expanding demand abroad for Australian wine at the time were food-safety scares associated with Chernobyl in April 1986 and scandals involving additives in Austrian and Italian wines (Rankine 1996). Also helpful in raising Australia's profile abroad was the win by an Australian sailing team of the America's Cup in 1983, the first visit by a group of Master of Wine graduates in 1984, and the release in 1986 of the popular comedy movie *Crocodile Dundee* (just as the *Lord of the Rings* and *Hobbit* movies have boosted New Zealand's wine sales in the past decade). Meanwhile, competition from other New World countries was minimal: from South Africa because of anti-apartheid sentiment, from South America because of its macroeconomic and political instability, and from the United States because the high value of its dollar ensured its exports were minimal. Generic marketing of Australian wine by the Australian Wine Export Council (particularly following Hazel Murphy's appointment in London in 1985), together with the huge increase in the quantity and quality of Australia's exports, began to build the country's international reputation for popular commercial premium-quality winegrape growing, winemaking and wine marketing.

This fifth boom was largely market-driven but was also influenced by changes in government interventions. The steady reduction in manufacturing protection and in assistance to some other agricultural industries, which began in 1972 and was accelerated through the 1980s and 1990s, paralleled and thus offset the price-reducing effect of reductions in nominal rates of assistance to grape and wine producers from 20-32% to below 5% over those two decades (Chart 53 and Table A9). The imposition from 1984 of the wholesale sales tax on wine dampened domestic sales but encouraged exporting, while the government's vine-pull scheme in the mid-1980s led to the loss of some valuable old vines but the replacement of others with more profitable alternatives. By way of consolation for raising the wholesale sales tax again in 1993, the government did assist new plantings of vines by providing for accelerated depreciation of vineyard construction costs over just four years for tax purposes (even though the average life of the investments involved is closer to thirty years). That

[30] Wineries that chose to be dependent on purchased grapes went out of their way to build better relationships between the grapegrower and winemaker during the initial expansion phase (Hoole 1997). Ten-year contracts were not unusual in the 1990s, which encouraged lenders to finance expansion of first vineyards and then wineries. However, as the prices of winegrapes fell in the new millennium and renewed contracts were for much shorter periods, those relationships understandably soured somewhat.

provision contributed non-trivially to the rapid acceleration in vineyard bearing area, which almost trebled during the boom (Chart 1 and Table 2).

How close did the boom bring the industry towards its targets for 2025? In 1994-95 the wine industry developed and published its *Strategy 2025,* laying out its targets for 30 years hence (AWF 1995). At the time those targets were considered rather optimistic, since they involved a three-fold increase in the real value of wine production, 55 percent of it for the export market. Getting half way to those targets requires having 80,000 hectares of winegrapes bearing enough for a crush of 1100 kt to produce 750 million litres of wine at a wholesale pre-tax value of $3 billion ($4/litre) in 1995-96 Australian dollars. By the turn of the century the industry had reached that half-way point for achieving its targets 30 years out — that is, in just five vintages!

That huge expansion in vineyard plantings inevitably led to a surge in winegrape production three or so years later, and hence also in wine output shortly thereafter. Much of the new plantings were red varieties, so those wines spend a year or more in barrel in contrast to mostly un-oaked whites, but even so the stocks of wine ready for sale more than trebled in the ten years to 2005 (Chart 30).

Meanwhile, several New World suppliers had begun to emulate the Australian export-led experience, leading to a growth spurt in their wine exports just a few years behind Australia's (Chart 3). Also, several Old World suppliers plus Argentina and Chile were expanding their exports because of declining domestic consumption. Thus Australian exporters began to face increasing competition just as the historically low value of the Australian dollar began its decade-long rise after 2001. The latter contributed greatly to the decline from that time in the AUD price of Australia's wine exports. The volume of those exports continued to expand each year until 2007 though, such was the need to dispose of rapidly growing stocks. Thereafter, when the volume of exports stabilized, their AUD value plummeted (Charts 2 and 16) as the Australian dollar continued to rise in value in the wake of Australia's unprecedented improvement in its international terms of trade and the massive mining investment boom (Chart 23 and Tables A13 to A18). The extent of that decline in the average wine export price from 2001 is as spectacular as its rise in the previous decade (Chart 2).

The resulting decline in AUD wine export prices saw a parallel decline in winegrape prices that was interrupted only by a short spike in 2008, following the drought-induced shortfall in production in the 2007 vintage (Chart 20). By 2011 the average winegrape price had returned to the same nominal level as in 1989 (Chart 17). Domestic consumers have benefited from this because the retail price index for wine has grown far less than the overall consumer price index every year since 2003 (Table 41).

The appreciating value of the Australian dollar also encouraged wine imports, which have grown dramatically since the turn of the century (Chart 21 and Table 13). New Zealand has led the charge, followed by France (Chart 28). Most of the wine from France has been relatively highly priced Champagne, while that from New Zealand has been mostly Sauvignon Blanc, which had a unit import value of around US$8 a litre during its first decade, compared with just US$5 for the wines being imported from Italy and Spain (Chart 29). Those import prices are well above Australia's export prices, which averaged just US$2.80 during 2000-10 and in 2011-13 were for the first time equalled by Chile and surpassed by the United States (Chart 19). New Zealand's Sauvignon Blanc has become the

biggest selling white wine in Australia, eclipsing Australian Chardonnay in the latter part of the past decade, and has been a non-trivial contributor to the fall in the price of Australia's white wines and winegrapes. The surge in imports from New Zealand was particularly sharp from 2005, when the Australian Government agreed that New Zealand wineries could receive the same rebate of the 29% wine equalization tax on their wines sold in Australia (up to the ceiling of A$1.7 million of sales per winery per year).

A direct consequence of the wine and grape price collapse was that both vineyard and winery asset prices plummeted after 2007, with some vineyards selling for no more than unimproved land value even though the average cost of planting a vineyard was in the vicinity of A$30,000 per hectare. The collapse in value was partly because banks lost interest in financing such purchases, and partly because listed corporations sought to shed their least-productive vineyard and winery assets to boost the rates of reported return on their remaining capital. The slump was in sharp contrast to the growth in industry asset prices in the United States and Western Europe, which reached record levels in local currency terms at the start of the millennium's second decade, thanks to the weakening of the US dollar and Euro and the growth in demand for iconic wines and wineries by Chinese buyers.

1.4 Was the optimism at the start of the fifth cycle warranted?

The past cyclicality of the wine industry in Australia and abroad was well known to established firms. Yet the industry's past history also was encouraging, because the latest boom differs from the earlier booms in several important respects.

To reiterate, the first boom from 1854 was almost exclusively driven by domestic demand growth following the trebling in Australia's population in the 1850s, but the excessive volume of wine from that expansion was not able to be exported profitably, largely because of high duties on inter-colonial trade and poor marketing and high transport and communication costs in exporting to the Old World.

The second boom from the 1880s was due to a mixture of domestic and export demand growth, the latter involving better marketing and lower transport costs of mostly generic bulk (rather than winery bottled and branded) dry red wine sales to a relatively open British market. That market absorbed as much as one-fifth of Australia's production early in the 20th century, before World War I intervened.

The acreage boom induced by soldier settlement after World War I provided the basis for the next export boom from the mid-1920s, helped by irrigation and land development subsidies, a fortified wine export subsidy, and a 50 percent imperial tariff preference in the British market for fortified wines. The decline in domestic consumption, induced by the export subsidy and the Great Depression, added to wine exports in the 1930s — which by then accounted for more than one-fifth of production. The removal of the export subsidy, plus the huge hike in UK tariffs on fortified wine in the latter 1940s, caused a severe decline in export orientation, while the return to normal beer consumption after war-induced grain rationing kept down domestic wine sales growth.

The fourth boom, following two post-war decades of slow growth in the industry, was entirely domestic as tastes became more European, as licencing and trade practice laws changed with income growth, as corporatization of wineries led to more sophisticated domestic marketing and new innovations (including casks), and as Britain's wine import barriers rose again. Initially domestic demand grew for red wine. Then the cask attracted a new clientele of white wine drinkers, causing Australia's per capita consumption to more than treble during the fourth cycle.

The fifth and latest boom is different in several important respects from the earlier ones. Firstly, the fifth boom was overwhelmingly export-oriented (Figure 2 and Table 1). This contrasts with the first and fourth booms at least, which were primarily domestic. It also differs from the inter-war boom, when exports were more a way of disposing of soldier-settlement induced surplus low-quality fortified wine production than a pre-planned growth strategy.

Secondly, the latest boom was market-driven (apart from the tax incentive to expand plantings via the tax-reducing accelerated depreciation allowance for some vineyard construction costs). This was not unlike the first two booms in the 19th century, but it contrasts markedly with the third (inter-war) boom that evaporated once government assistance measures (an export subsidy and preferential tariff access to the United Kingdom market) were withdrawn. What triggered the recent growth in export demand for Australian wine was the change in UK liquor licensing laws in the 1970s, allowing supermarkets to retail wine to the (by then adult) post-war baby boomers. Given also Australia's close historical ties with Britain, and the exceptionally low value of the Australian dollar in the mid-1980s, it is not surprising that Australian companies recognized and responded to this new market opportunity. Australian wineries were able to do so faster than European suppliers because the latter were hamstrung by myriad regulations and were somewhat insulated from market forces by price supports (Meloni and Swinnen 2013).

To exploit the new market opportunity in the UK required large volumes of consistent, low-priced branded premium wine. Land- and capital-abundant Australia had the right factor endowments to supply precisely that. High labour costs were overcome for larger firms by adapting and adopting new techniques for mechanical pruning and harvesting, thereby generating large economies of size, especially in the hot areas along the Murrumbidgee and Murray rivers, where irrigation water was (as in most countries) greatly under-priced. That stimulated a number of mergers and acquisitions among Australia's wine firms, which resulted in several very large wine companies able to reap scale economies not only in grape growing and winemaking, but also in viticultural and oenological R&D, in accumulating market intelligence globally, in innovative brand promotion and related marketing investments, and in distribution. It also enhanced their capacity to bargain with emerging retail giants. The volumes of grapes grown and purchased from numerous regions by these large firms enabled them to provide massive shipments of consistent, popular wines, with little variation from year to year, for the British and American supermarkets.

The third major difference between the recent and earlier booms is that the quality of wine output improved hugely during the past two decades, relative to the cost of production. Moreover, for the first time, the industry was in a position to build brand, regional and varietal images abroad to capitalize on those improvements in the quality of its grapes and wines. That image building was partly generic, with the help of the Australian Wine Bureau's activities in Europe, but mostly came from the promotional activities of individual

corporations and their local representatives abroad. The promotional efforts were helped by being able to point to the legislated wine quality standards in the Australian and New Zealand Food Standards Code, and to the fact that Australian wines over-delivered in terms of value for money in northern hemisphere markets, until exports from other southern hemisphere and Southern European producers began to offer stiffer competition. Australia's average export price rose three times more than the global average over the 1990s. However, since 2006 the volume of exports has grown only for wines priced below A$2.50 a litre (Chart 18). This is partly a consequence of the phenomenal success, particularly in the United States, of Casella's Yellowtail label since it was first introduced in 2001; but it is also partly due to the rapid increase in the use of bulk containers for shipping wine in bladders for bottling in the northern hemisphere. The share of bulk wine in total exports has grown more rapidly for Australia than for other key exporters since the turn of the century (Chart 26), and by 2014 had reached 58 percent.

A fourth feature distinguishing the most recent boom period was a consequence of the rapid growth in incomes that accompanied the latest wave of globalization, and the aging of the population, in high and middle-income countries. Associated with that was an ever-wider appreciation of the desirability of moderate over heavy drinking, and of the possible health benefits of a moderate intake of red wine in particular. That ensured a consumer trend towards spending on quality rather than quantity of wine (and on wine in preference to beer and spirits). At least up to the 2008 financial crisis on both sides of the North Atlantic, this was especially so among the post-war baby boomers in OECD countries reaching middle age with more disposable income and time to indulge in wine-inclusive dining as their children reach adulthood.

Another feature of that maturing taste for wine is the desire for more diversity, which causes intra-industry trade to grow. That is, wine sellers even in wine-exporting countries are importing wines to widen the range available for their consumers. As a relative newcomer in many markets, the Australian wine industry benefitted from this during its fifth boom — even though it subsequently has had to compete with an increase in imports in its own domestic market as incomes surged and the Australian dollar appreciated in the wake of Australia's recent mining boom.

Moreover, those contemplating new investments in Australia's wine industry at the end of the 20th century could be excused for not anticipating the rapidity with which both other New World suppliers and producers in the Old World copied Australia's successful formula for export-led growth. Nor could those investors have anticipated the combination of an unprecedented decade-long rise from 2001 in the value of the Australian dollar, a long and widespread drought that stimulated major policy reforms affecting irrigation water pricing, and the global financial crisis from 2008, which reduced wine demand and weakened currencies on both sides of the north Atlantic Ocean. Using their model of the world's wine markets (Wittwer, Berger and Anderson 2003), Anderson and Wittwer (2013a,b) estimate that the real exchange rate changes between 2007 and 2011 alone reduced Australia's annual wine exports by 64 ML while boosting exports of the United States by 19 ML and of Western Europe by 167 ML. In addition to losing export sales, those changes in real exchange rates meant Australian producers had to compete more with import competition in the domestic market. One-third of the estimated extra imports, due to currency changes, were from New Zealand, because of the greater real appreciation of the Australian dollar compared with the New Zealand dollar.

1.5 What did innovation, generic marketing and R&D contribute?

During the past three decades, the Australian wine industry improved its competitiveness in no small measure by large investments not only in vineyards, wineries and wine brand marketing but also in the creation and dissemination of production and market knowledge plus investments in generic wine marketing. One of the hallmarks of the export-oriented success of Australia's wine industry since the 1980s has been the very considerable degree of collaboration among its firms, including through levying themselves and attracting matching government funds for investments in generic promotion and R&D.

At the outset of Australia's settlement by Europeans, vine experimentation was by trial and error by individual interested entrepreneurs, with plenty of innovation being done at the firm level. An early influential viticulturist was James Busby, who migrated from near Bordeaux in France to Australia in 1824, where he was appointed to run an agricultural school which specialized in viticulture. In 1831, Busby undertook a three-month tour of Spain and France and returned with a collection of vine cuttings and started the first source block in Sydney's Botanic Gardens, along with duplicate blocks in Victoria and South Australia.

Innovation can be boosted with the help of formal education in viticulture and oenology, through boosting the supply of both scientists and practitioners capable of making use of newly generated technologies.

Australia's investment in formal grape and wine education and training dates from the establishment in 1883 of Roseworthy Agricultural College (now part of the University of Adelaide). Viticulture was compulsory and oenology was an optional field of study in its Diploma in Agriculture, with a Diploma in Oenology being added in 1936. In 1975, the Riverina College of Advanced Education (now Charles Sturt University) in Wagga Wagga in New South Wales became the second Australian tertiary institution to offer wine education and training, under Brian Croser's leadership. The program was broadened in 1997, when it became part of that university's National Wine and Grape Industry Centre. Then the wine industry's take-off in the 1990s saw many other universities begin to offer courses, including in wine business and marketing.[31]

Formal wine research began in 1934 with funding to the University of Adelaide from (what soon became) the Australian Wine Board. The Board's annual reports indicated high rates of return from its initial research investments, and this led in 1955 to the creation of the Australian Wine Research Institute and in 1988 to the establishment of the Grape and Wine Research and Development Corporation (GWRDC), although it was called a Council until 1991.

It took until then for the first professor of oenology to be appointed in Australia. Terry Lee took up that appointment at the University of Adelaide while continuing as the Director of AWRI. In his Inaugural Lecture in October 1991, he pointed out that AWRI had

[31] However, several of those newer programs have gone into hybination or ceased with the downturn in demand for such courses after 2007.

insufficient funding to undertake viticultural research in previous decades. A viticulturalist was first appointed to AWRI only in 1990, and Australia's first professorial Chair in viticulture was established at the University of Adelaide in 1991. That was the year in which the industry successfully bid for federal funding to support the establishment of a Cooperative Research Centre for Viticulture. The CRCV subsequently enjoyed a second period of seven-year funding before being wound up in 2006.

The GWRDC is funded by producer levies which the Federal Government matches dollar-for-dollar up to a maximum of 0.5% of the gross value of output of grapegrowers (in the case of growers) and of the winegrape crush (in the case of wineries). Producers initially opted for low levies, but they were raised in 1999 and again in 2005 such that in 2010-13 they were around 0.7% of the value of wine sales (Table 41 and Chart 42) and so a little more than 1% of value added in these two activities. Private-sector research and that by universities, CSIRO and State Departments of Agriculture not funded by GWRDC would add a little more to that, especially in earlier years.

This represents a relatively modest investment in R&D compared with the averages for OECD countries of around 2% of agricultural and 3% of manufacturing value added (Pardey et al. 2006). It looks especially modest in comparison with the aggregate rural R&D investment in Australia, which in 2008-09 amounted to 3.6% for the gross value of farm production (A$1.5 billion out of A$42 billion, of which one-quarter was private — see Productivity Commission (2011)).

Despite that modest budget, the outputs from past R&D investments remain impressive. Data from the Web of Science database suggest Australia was 2.8 times as intense in producing research papers on viticulture and oenology as the rest of the world per litre of wine produced in 1992-96 (exceeded only by the United States — see column 4 of Table 42). The latter intensity has since dropped (e.g., to 1.5 in 2002-06), but that is understandable in the wake of Australia's rapid expansion in wine production.

In terms of research payoff, one study found that the 2002 portfolio of GWRDC research projects was expected to yield a 9:1 benefit/cost ratio, and that a sample of past projects yielded ratios ranging from 7:1 to 76:1 (McLeod 2002). These are at least as high if not higher than the returns to agricultural research in general (Hurley, Rao and Pardey 2014).

As for generic marketing, the industry has engaged in promotion of exports since the formation in 1929 of the Wine Overseas Marketing Board (later to become the Australian Wine Board or AWB). In 1965 the AWB added generic marketing in the domestic market, hiring Len Evans to lead that effort. These activities expanded following the AWB's conversion in 1980 to the Australian Wine and Brandy Corporation (AWBC), and especially with the AWBC's hiring of Hazel Murphy to lead promotion in Britain from 1985 through the Australian Wine Bureau (she stayed until 2003) and the creation of its Australian Wine Export Council in 1992.[32]

[32] AWBC has had five other tasks in addition to generic marketing. One is to ensure that exported wine meets the product standards of the country of destination, so that the reputation of the industry as a whole is not jeopardised by any sub-standard shipments. Another is to supervise its Label Integrity Program. A third has been to establish the regional boundaries for the purpose of legally registering Geographical Indications. A fourth is to lobby directly and via Australia's Department of Foreign Affairs and Trade for greater market access abroad through a lowering of tariff and non-tariff import barriers. And fifth, AWBC has been the systematic provider of strategic information on wine market developments at home and abroad. These and GWRDC's

Initially the AWBC focused on broadly promoting 'Brand Australia' but, with the launch of the *Directions to 2025* strategy paper (AWBC and WFA 2007), that campaign became more refined and directed towards four segments of the market with an explicit objective of encouraging consumers to 'trade up' to progressively higher prices. The four segments are Brand Champions (the easy drinking commercial segment that spearheaded Australia's export drive in the 1990s), Generation Next (appealing to younger social drinkers attracted by innovative packaging and style), Regional Heroes (varietal wines that have a sense of place of origin), and Landmark Australia (high-quality, globally recognized iconic wines).

The *Directions to 2025* strategy has been supplemented by regional promotion campaigns (funded entirely by regional producer levies), and by the activities of a new grouping of 'Australia's First Families of Wine'. The latter is made up of a dozen of the oldest family companies not listed on the stock exchange and hence not subject to the same financial 'short-termism' of listed companies.

The budget for these generic promotion efforts is trivial relative to the value of national production and the extent of expenditure by European competitors, however. In 2011-12, for example, Australia's expenditure on generic promotion was barely A$9 million or 0.7 cents per litre of wine produced, which is equivalent to 0.2 percent of the value of production. That same year, Bordeaux alone spent A$23 million, or 3.3 cents per litre. The European Union supplements regional and national promotion expenditures, and during 2009-13 it provided 522 million Euros for wine promotion. That supplement alone is equivalent to 0.6 Australian cents per litre of EU wine produced. Moreover, despite the many misappropriations that have been uncovered, that EU promotion expenditure is to be raised to 1156 million Euros for the period 2014-18 (European Court of Auditors 2014). That would raise the EU's investment to around 1.3 cents per litre, or double the rate recently spent in Australia — and that is just the supplement from Brussels, which adds to what will be spent by national governments and wine regions themselves on generic promotion.

1.6 Australia's wine industry growth in international historical perspective[33]

As recently as 1980-84, the five key European wine-producing and -consuming countries (France, Germany, Italy, Portugal and Spain) accounted for 58% of global wine production and 53% of global wine consumption. They also accounted for 45% of the world's area of vineyards, including those vines not dedicated to wine. One hundred years earlier, they contributed three-quarters of global wine production, or four-fifths if Austria and Hungary are included. Moreover, with the French colony of Algeria they accounted for more than 95% of global wine exports during the five decades to World War I.

R&D tasks have been enfolded into the Australian Grape and Wine Authority when it was formed on 1 July 2014 by merging AWBC and GWRDC.

[33] International data in this section are from Anderson and Nelgen (2011) post-1960 and from Anderson (2015) pre-1960, the latter building on Pinilla (2014). The pre-1960 (and especially pre-1900) data are preliminary and subject to on-going refinements. On wine's globalization in general, see Anderson, Norman and Wittwer (2003) and Anderson (2004).

By contrast, Australia prior to the 1990s never accounted for more than 0.7% of the world's vineyard area and 0.9% of global wine exports, and prior to 1970 its share of global wine production was always below 0.9%. Even in the early 1990s Australia's shares of world wine production and consumption were less than 1.5%. Early in the 20th century Australia's production was also small relative to that of Argentina, Chile and the United States (Chart 44), although its exports then and in the latter 1920s and 2007 were greater than those of other New World producers. Indeed Australia had become the world's fourth highest exporter of wine volume by 2002, before Chile pushed Australia back into fifth place in 2012 (Chart 45).

More interesting comparisons are obtained, however, by expressing those indicators on per capita or per $ of real GDP bases, since Australia's economy was smaller than many European and New World ones over much of the past 200 years.

For most decades from the 1870s to the 1970s, Europe's four main wine-producing countries produced an annual average in excess of 100 litres per capita, but since the early 1980s those volumes have dropped to an average of just above 70 litres (Chart 46(a)). Among the New World countries, by contrast, only Argentina and Chile produced more than 30 litres per capita per year prior to the latter 1990s, but Australia's per capita production rose from around 10 litres in the 1920s and 1930s to a peak of 60 litres by 2005-09, exceeding that of all other New World countries and just one-sixth below the 2010-13 average for the four main Western European exporters. Australia slipped back to 52 litres during 2010-13, virtually matched by New Zealand. Meanwhile, Chile has shot up to 75 litres, Argentina has fallen dramatically from a peak of 90 litres in the latter 1960s to now just 36 litres, South Africa has fallen from a peak in the early 1980s above 25 to 19 litres, and the United States remains at less than 9 litres per capita but up from less than four litres prior to 1970 (Chart 46(b)).

The vine intensity of cropping has an even wider range. Italy had more than 4 million hectares of vines throughout the first half of the 20th century, and its share of crop area under vines was the highest in the world at 25% in the early 1960s. It had fallen to 15% by 1980-84 and to 8% by 2000-04, by which time Portugal had taken the lead at 12%. Spain is next at 7% in recent years, the same as Moldova and followed by Georgia at 5-6% (the same as Algeria was in the early 1960s). France and several other European countries are in the 3-4% range. That is the level New Zealand has recently reached, but the only other New World country above that is Chile, which recently shot up to 10%. Australia, by contrast, has never had more than 0.35% of its crop area under vine (Chart 47), and less than half that for most years since the 1840s. Already China is approaching that intensity, averaging 0.33% in 2010-11. This suggests suitable cropping land has not been the binding constraint on Australia's wine industry development. Even in the two most vine-intensive States (South Australia and now Tasmania) that rate is just a little above 1% (Table 4).

A broader indicator that goes beyond the farm sector to economy-wide productive capability is the share of wine production volume or value relative to overall GDP. In the 19th century, the four main West European countries produced more than 60 kl of wine per real US$ million of GDP (apart from France where it dropped below 40 kl after France was hit with phylloxera in the 1870s and 1880s). The range for those countries was still 15-35 kl in 1958, but it had fallen below 5 kl by the early 1990s and to 3-4 kl by 2008 (Chart 48), by which time it was slightly below the level in Bulgaria, Hungary and Romania. Australia, by contrast, was always below 2kl in the 19th century and less than 3 kl in the 20th century before

peaking in 2004 at 3.1 kl. By 2008 the levels in the New World were very close to those of the key producing countries in Europe: around 4kl in Italy, Portugal, Spain, Chile and South Africa, 3.3 in Argentina, 2.9 in France, 2.6 in New Zealand and 2.4 in Australia (Chart 47). The ranking was slightly different for the *value* of wine production as a share of GDP at current prices in 2009 (from Anderson and Nelgen 2011, Tables 86 and 159), at which time there were at least a dozen countries ahead of Australia (Chart 48).

As for exports, they did not exceed eight litres per capita per year for France and Italy in the 19th century and were less than five for most years of the first six decades of the 20th century. Spain, by contrast, exported more than ten litres per capita per year in the seven decades to the Great Depression (and Algeria more than 100 litres during 1900-60), but then less than five litres for the next three decades. From the 1960s, however, as per capita domestic consumption fell in those West European countries, per capita exports grew steadily from less than five litres, reaching 22 in France, 28 in Portugal, 37 in Italy and 40 in Spain by 2010-13 (Chart 50(a)). In the New World, it was always less than 2 litres prior to the 1990s, even in Australia in the 1930s. But since then it has risen dramatically in all New World exporting countries: as of 2010-13, it was 32 litres in Australia but was even higher at 40 litres in Chile and New Zealand, and eight litres in Argentina and South Africa (Chart 50(b)). Thus while Australia was the leader among New World countries in contributing to the latest wave of wine globalization, the three biggest wine producing countries in Western Europe have been expanding their wine exports per capita steadily since the 1950s.

Another helpful indication of wine export intensity is found by generating the ratio of the share of wine exports in the total value of merchandise exports to wine's share of global merchandise exports (Balassa 1965). That index of comparative advantage was around 20 for Portugal prior to the mid-1980s (and more than 40 for Georgia and Moldova as recently as 2000-04), and by 2010-11 it was around nine for France and Portugal and around six for Spain and Italy (Chart 51(a)). Meanwhile, in the New World the indexes had shot up by 2010-13 to 13 for Chile and New Zealand, six for Argentina and 4.5 for South Africa (Chart 51(b)), while for Australia the index peaked at almost 11 in 2004 before falling by nearly two-thirds, to 3.6 in 2013.

An intriguing question is why Australia (or other New World countries) seemed to make so little headway into exporting to Europe in the last quarter of the 19th century when the Old World was struck so severely by phylloxera. Chart 50(a) reveals that Spain became a far more important exporter between the latter 1870s and the early 1890s — to the same extent that France became less able to export (Chart 52). The other major supply response to phylloxera was the migration of many French producers to Algeria, whose exports subsequently took off at the expense of Spain in the two decades both prior to and following World War I (Meloni and Swinnen 2014).[34] It was only during the lead-up to and following Algeria's independence from France in 1962 that Algeria's importance in world wine exports shrunk and that of Italy and then France grew (Chart 52). Presumably it was the proximity of both Spain and Algeria to France that made them far more able to make up for France's lost production and export capability between the 1880s and 1960.

[34] Even though some French winemakers moved to northern Spain too, phylloxera eventually also invaded some Spanish regions from the end of the 19th century. However, the disease spread only slowly there, due to the large distances between Spain's wine regions and the fact that by then the remedy to graft European varieties onto North American rootstocks had been discovered. Hence wine production suffered less, as well as later, in Spain than in France.

An important contributor to the sales of wine in any market is the rate at which consumers are discouraged via an excise or import tax. Apart from briefly in 1971-73, the only tax on wine consumption in Australia had been an import tariff until the imposition of a wholesale sales tax from August 1984. Beer and spirits consumption, by contrast, has always been subject to very heavy customs and excise taxation. Those taxes contributed one-third of the New South Wales' tax revenue in the middle of the 19th century (Table 19(a)), and one-quarter of the new Federation's tax revenue in the early 20th century (Table 19(b)). Prior to the mid-1980s the Australian wine industry thus benefited from that tax regime, both directly via a protective import tariff on wine and indirectly via the heavy taxation of alcoholic beverage substitutes in the domestic consumer market.

Between 1984 and 1999, however, a sales tax applied and at an increasing rate until it was replaced in 2000 by a wholesale Wine Equalization Tax (so-called because it replaced the sales tax of 41% with a WET of 29% which, with the newly introduced 10% goods-and-services tax on retail sales, equated to the previous sales tax). As a result of those tax hikes, Australia's rate of wine consumer taxation is now high by OECD standards, and especially by the standards of significant wine producing/exporting countries (Berger and Anderson 1999, Anderson 2010c, Anderson with the assistance of Aryal 2014). It is especially true at higher price points because Australia's consumer wine tax is unusual in being ad valorem (a percentage of the wholesale price) rather than specific (in cents per litre of alcohol). That can be seen by expressing tax rates as ad valorem equivalents or as volumetric rates per standard drink of alcohol,[35] and at a selection of still wine price points. Table 43 shows the consumer tax equivalent (CTE)[36] for regular beer (5% alcohol, A$2/litre wholesale pre-tax), for spirits (40% alcohol, A$15/litre wholesale pre-tax), and for wines at four different wholesale pre-tax prices assuming all wines have an alcohol content of 12.5%.[37] In that Table 43 excise (but not VAT/GST) taxes in 2012 and 2014 are shown for wines, beers and spirits expressed as a percentage of the selected wholesale pre-tax prices shown at the top of each column. For commercial premium wines (the sort that would retail at A$12 for a 750ml bottle in Australia inclusive of GST), those rates are depicted in Chart 54, 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 43, only Korea and Norway among OECD countries had a higher tax rate than Australia's 29%.

[35] 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 AUD 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

[36] 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 any value-added or goods-and-services tax. Most countries also have a VAT or GST 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. The foreign exchange rates used to convert specific tax rates expressed in national currencies to the Australian currency are based on Reserve Bank of Australia rates on 3 January 2012 and 1 July 2014 (www.rba.gov.au).

[37] 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 A$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 A$12 for a 750ml bottle; and for super-premium and sparkling wine (A$20 and A$25 per litre, respectively) and the same mark-ups as commercial premium implies a retail price of around A$32 and A$40, respectively, for a 750ml bottle.

Table 44 shows the excise taxes in 2012 and 2014 for wines, beers and spirits expressed in Australian cents per standard drink of alcohol. The rates are converted from the national currencies at the exchange rates shown in the final column. In 2012 Australia's wholesale tax per standard drink was the same as New Zealand's for commercial premium wines (22 cents) but higher at any price point above A$7.50/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. True, 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. But 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.

1.7 Why such a sharp decline in profits and yet sluggish disinvestment?

At its 2014 Outlook Conference, the Winemakers' Federation of Australia reported its survey results, suggesting that 84% of producers in Australia were not covering even their variable costs of production that year. That was even worse than its survey finding for 2012, namely 77% (WFA 2014). The situation in Australia contrasts markedly with that in the United States, where for the past six years producers have had not only positive but relatively rosy financial results (Silicon Valley Bank 2015, Figures 19 and 20). In New Zealand, too, all but the smallest category of producers have been operating with healthy profits in all years since 2006, apart from a dip for some in 2010 (Deloitte and NZW 2014). As already indicated, some of those differences with Australia are certainly due to real exchange rate changes (Anderson and Wittwer 2013a,b). But Australia's volume of winegrape production has not diminished over the past ten years despite the halving of the average winegrape price (Chart 20), so that price is expected to continue to be very low in 2015.

An additional reason for the persistence of low prices in Australia in recent years, compared with the end of previous booms, has to do with the changed destination of grapes. Instead of most grapes being multi-purpose and the majority destined for non-wine uses, and for most of the wine that was produced being used to create fortified wine or distilled, today well over 90% of grapes are used for wine and all but 2% of that wine is for making table wines (Charts 31 and 39). Competition from imports has depressed returns in the fresh and dried grape markets, fortified wines have gone out of favour, and brandy too is mostly imported now. As a consequence, when winegrape prices are low, there are no longer the options of directing grapes to the fresh fruit market or to drying, or to process them for the fortified wine or brandy markets: evidently the rewards would be even lower.

Several reasons have been mentioned already as to why, when prices and profits do slump, production does not decline even in the medium term and disinvestments in the industry tend to be minimal or drawn out over many years. One is that each producer's investment involved large up-front sunk costs in assets (vineyards, wineries, brands) which have no alternative use, so producers hang on in the hope that the downturn is only temporary. Another reason is that a large proportion of vignerons in regions near cities earn the majority of their income from other sources and continue to enjoy the lifestyle of being a part-time vigneron even when profits are low or negative.

Also, there are plenty of producers who continue to have access to credit or other funds even when the wine industry is depressed. Those that are in a position to purchase others' assets at low prices at such times are then in a stronger financial position as and when the industry returns to profitability. Their purchase does nothing to reduce the industry's aggregate assets or production, but it does mean a smaller number of stronger firms remain in the industry.

Inevitably, though, the vineyard bearing area has begun to shrink. Between 2008 and 2013 it fell by one-fifth, and there has been a further net reduction since then. A similar if more gradual fall in the vine area per capita occurred with the more gradual mining boom of the 1970s/early 1980s. It was followed by a decade in which the vine area per capita hardly changed (Chart 25), which raises the question — addressed in Chapter 4 — about how long the current slump might last.

1.8 In retrospect, was the industry helped or hurt by protectionism?

The Australian Federation began by eliminating barriers to interstate trade (Section 92 of the Constitution) but replacing them with tariff barriers to imports from abroad. The aim was mainly to encourage domestic manufacturing, but from the outset some import-competing agricultural industries also succeeded in securing such protection (Anderson and Garnaut 1987). Dried vine fruit was one of the first farm products to get such protection, and from 1904 to 1939 that caused the price of grapes to average about 50% above what they otherwise would have been. The extent of that support dropped to about 10% for the two decades following World War II, but was still double that for other farm industries; and it rose again during the fourth wine cycle (1967-86), to three to four times that for agriculture as a whole. During the fourth wine cycle (1967-86) winegrapes received even more support with a NRA of 27%, compared with 20% for grapes for drying and just 7% for agriculture as a whole.

Winemakers also have been protected by import tariffs, at considerable rates in earlier decades but at just 5% in recent years (and zero for New Zealand, whose wineries also have received the WET rebate on sales in Australia since 2005 up to $1.7 million per year per winery). Estimates of the wine NRA are available since 1950, and they averaged 23% during 1950-67, the same as for other manufacturing. During the fourth wine cycle (1967-86) the wine NRA averaged 32%, almost double the average for all other manufacturing of 17%. Both averages have since diminished and both are now less than 4% (Chart 53), but prior to that wine import tariffs were virtually prohibitive, with imports rarely accounting for more than 1% of domestic consumption during the third and fourth cycles (Chart 8).

The extent of support for the agricultural sector as a whole peaked in 1971, just before the Whitlam Labor Government was elected the next year and began dismantling farm support programs. All import tariffs were cut overnight in 1973 by one-quarter, reducing manufacturing protection to that extent. The subsequent conservative Fraser Government temporarily reversed that process by introducing highly protective import quotas on cars and textiles, but then the Hawke Labor Government floated of the Australian dollar in December 1983 and introduced major microeconomic reforms. Those reforms included programs to phase out import tariff and quotas and production and export subsidies by the new millennium (which raised the share of exports in GDP by almost two-fifths Table A16). Thus

throughout all but the last of the 20th century manufacturing was protected and the agricultural sector as a whole was strongly discriminated against by Australia's trade-related policies (Anderson, Lloyd and MacLaren 2007, Lloyd and MacLaren 2015b), as reflected in the estimated Relative Rates of Assistance shown in Table A9. Yet within that broad picture, these estimates suggest grape and wine producers received relatively favourable treatment throughout the last century.

Protectionism in general leads to an inefficient allocation of the nation's resources, is taxing of consumers, and inhibits innovation and productivity growth; the same could be argued about supports for Australia's wine industry. By discouraging imports and raising wine prices, consumers drank less wine and were less aware than they would have been of the wide range of qualities and varieties of wines and brandies available elsewhere. Those policies, together with government assistance to fortified wine exports in the interwar period, also lowered the incentive for producers to raise their productivity and specialize in the wines in which they were most competitive globally. It was only when those policies were phased out from the mid-1980s that the wine industry became far more dynamic, innovative, and internationally competitive — notwithstanding the recent slump.

Before turning to the question of what the next phase of the industry's development might look like (Chapter 4), it is helpful to pause to examine in more detail the evolution of the industry to date in terms of regional and varietal diversity and specialization (Chapters 2 and 3 respectively).

Annex to Chapter 1: Conceptualizing the market for a nation's wine

It is helpful to view the national market for Australian-produced wine at any point in time as in Figure A1, where for simplicity's sake it is assumed the product is homogeneous, there are no marketing/distribution margins, and:

- S_d is the quantity of Australian wine available for sale at different prices (the industry's cost curve);
- D_d is the quantity of Australian wine demanded domestically at different (excise tax-inclusive) prices;
- D_x is the quantity of Australian wine demanded abroad at different (ex-winery) prices; and
- D_t is the horizontal sum at each price of the quantity on the D_d and D_x curves, which therefore kinks to become flatter at K.

Equilibrium in this market is at point E, where the price is P, the quantity sold on the domestic market is Q_d, the total quantity sold is Q_t, and the quantity exported is Q_t — Q_d (call it Q_x).

The industry's direct contribution to the national economy's Gross Domestic Product (GDP) that year is represented by the triangle P'EP, where P' is the price below which no domestic wine would be produced. This area represents the industry's 'value added' over and above all its costs of production including for grapes, those costs being represented by the area P'EQ_tO. The industry also contributes to consumer welfare, which is determined by the consumers' willingness to pay. In Figure A1 the triangle PJP" represents domestic consumer welfare.

Historical data on wine production and export volumes (Q_d and Q_x) are available. But since in practice this product is very heterogeneous — even between what is sold domestically and what is exported — it is not very meaningful to seek average wine price data. In any case such data are not readily available, except for wine exported or imported where the unit value can be derived from trade volume and value data.

Drivers of the market for domestically produced wine

What are the most likely shifters of the curves in FigureA1 and hence the main drivers of the industry's trends, fluctuations and structural changes? They include but are certainly not limited to changes in the following:

Domestic supply curve, S_d

- Price of domestic grapes for non-wine use (table/fresh, drying, juice)
- Price of imported bulk wine for blending with wine produced from domestic grapes
- Aust R&D investment (or spill-in from R&D abroad)
- Temporary yield reductions such as due to diseases or bad-weather events
- A rebate on excise taxes
- Price and availability of vineyard irrigation water
- Opening stocks-to-sales ratio

- Investor incentives from government (e.g., accelerated depreciation of capital expenditure for income tax purposes)
- Boom/slump in sectors producing other tradable products
- Import protection for sectors producing other tradable products
- Interest rate

Domestic demand curve, D_d

- Australia's adult population, age distribution, and tastes/preferences
- Australia's per capita income
- Excise taxes (and any associated rebate) on wine and on other alcoholic beverage substitutes
- Generic and brand promotion domestically
- Domestic retail and hospitality regulations and responsible drinking rules such as drink-driving laws
- Domestic consumer prices (in AUD) of wine imports, which depend on import tariffs or other restrictions at Australia's border (which can vary by source and may be zero under bilateral preferential arrangements, and may also be subject to a rebate on the domestic excise tax or its equivalent, as currently for New Zealand wineries)
- Domestic promotion of imported wines.

Export demand curve, D_x

- Competition in third-country markets from other wine-exporting countries, which depends on their:
    - investments in R&D and in promotion (or their spill-in from Australian R&D)
    - currency's real exchange rate (which can be affected by a boom/slump in their other tradables' sector)
    - diseases or bad-weather events
    - interest rate
    - subsidies to their production, distillation or exports, or for removal of vines
- Per capita income and taste/preference changes abroad
- Generic and brand promotion of Australian wine abroad
- Retail and hospitality regulations and responsible drinking rules abroad
- Import restrictions abroad (including any preferential or discriminatory access to foreign markets relative to competitors)
- Export bounties/subsidies
- Ocean transport and intercontinental communication costs relative to competitors
- Stevedoring and other costs of getting from the winery to being on board the ship (depends on internal transport and port infrastructures)
- Institutions such as export inspection services and foreigners' unique labelling laws and technical standards

Drivers of supply of domestically produced winegrapes

The demand curve for winegrapes is of course derived from the demand curve for wine, while the supply curve for winegrapes is a function of not only their price but also, in the case of multipurpose grapes, their price for non-wine uses (table/fresh, drying, juice) and of crucial variable inputs such as irrigation water. The interaction of those winegrape demand

and supply curves determines the equilibrium quantity and price of domestic winegrapes at any point in time.

Available indicators of that quantity are the volume of grapes delivered to or crushed by wineries. Where gross value data also are available, the average price or implicit unit value of winegrapes crushed can then be calculated.

For earlier periods when even grape crush volume data were not recorded, the area of vineyards provides a (cruder) indicator of the marketed quantity. Insofar as some vineyards are not bearing in any year (too young, too old, diseased), the vine bearing area would be a less exaggerated indicator of winegrape quantity — but it is still exaggerated to the extent that not all grapes are used in wine production.

Since grapes are a perennial crop involving a high-cost up-front investment with no yield for the first two or three years, and the future demand for grapes is uncertain, the decision as to whether, when and how much to expand or contract plantings is complex. It depends on expected prices and interest rates, but producers will vary in their expectations. Hence if an expansion or contraction is to occur, it will tend to happen only gradually as more and more become convinced that a change in prices will persist long enough to be worth responding to (Dixit and Pindyck 1994). Meanwhile, the actual price of grapes will move away from its trend level while this slow supply adjustment is occurring and then gradually move back to trend as the last of the adjustment occurs. Should there be excessive exuberance on the part of investors in response to high winegrape prices, and firms have incomplete information on the extent of new investments by other firms, there is a risk of overshooting in aggregate, which will then be followed by a sharp fall in grape prices three to five years later once that excessive planting transposes into excessive wine ready for sale.[38] For this reason it is helpful to have an up-to-date time series of winegrape prices so as to foresee changes in the need for further adjustment.

Economy-wide drivers of domestic supply of and demand for winegrapes and wine

Wine is only a very small part of the exports or imports of almost all countries, including Australia. Booms or slumps in the wine industry therefore have very little macroeconomic impact. The reverse is not true though: macroeconomic changes can have major impacts on the wine industry. Growth in income per capita and adult population boost domestic demand, and the business cycle leads to fluctuations in income and thus consumer spending around their long-run trend. Since wine has a relatively high income elasticity of demand, such fluctuations can cause non-trivial shifts in the demand curve for wine.

If there is a boom in one of the economy's main tradable sectors, that strengthens the country's real exchange rate and draws resources to that sector, and to the sectors producing nontradables such as services, and thus away from other sectors producing tradables, including therefore wine. It also raises national income and so boosts the domestic demand for both locally produced and imported wines. Together those forces reduce the volume of wine exported and the domestic-currency price of those exports, and hence their aggregate

[38] The 3-5 year delay between new planting and extra wine for sale, and the fact that many producers expand their vine area with less than full knowledge of the extent to which others are expanding at the same time, have been *for at least two millennia* the reasons behind grape and wine market cyclicality (Unwin 1991, pp. 359-60).

value — and conversely if there is a slump in one of the economy's main tradable sectors (Corden 1984). Such a boom in a key export sector could be supply driven (e.g., the discovery of a mineral or energy raw material deposit), or demand driven (e.g., a rise in the international price of that sector's output). In the latter case it will show up as an improvement in the country's commodity terms of trade and encourage new investment in that booming sector. The more the funding for that new investment comes in from abroad, the earlier and larger will be the initial appreciation in the real exchange rate, before it depreciates as the boom moves from its investment phase to its export phase and begins returning dividends to the foreign investors (Freebairn 2015).

In addition to those cyclical forces, long-run economic growth at home and abroad alters a country's comparative advantages. According to trade theory, we should expect agricultural trade to occur between relatively lightly populated economies that are well-endowed with agricultural land and those that are densely populated with little agricultural land per worker (Krueger 1977). This theory is further developed by Leamer (1987), who points out that if the stocks of natural resources are unchanged, rapid growth by one or more countries relative to others in their availability of produced capital (physical plus human skills and technological knowledge) per unit of available labour time would tend to cause those economies to strengthen their comparative advantage in non-primary products. And as port etc. infrastructure is developed and costs of trading internationally fall for the country, more products would move from the nontradable to the tradable category (Venables 2004). By contrast, if key import-competing sectors are protected by barriers to imports such as tariffs, they will draw resources from other sectors and strengthen the country's currency while reducing national income. This will shift inward the curves for domestic demand for and supply of winegrapes and wine.

At early stages of development of a country with a relatively small stock of natural resources per worker, wages would be low and the country is likely to have an initial comparative cost advantage in unskilled labour-intensive, standard-technology manufactures. Then as the stock of industrial capital grows, there would be a gradual move toward exporting manufactures that are relatively intensive in their use of physical capital, skills and knowledge. Lightly populated natural resource-abundant economies such as Australia's, however, are likely to have high wages and to invest more in capital specific to primary production.

The above theory of changing comparative has been used successfully to explain Asia's resource-poor first- and second-generation industrializing economies becoming more dependent on imports of primary products from their resource-rich trading partners (see, e.g., Anderson and Smith 1981). But how helpful is that theory for explaining comparative advantage in wine?

Grape-based wine is dependent on winegrapes as an input, and they are too perishable to be transported internationally without at least the first stages of processing. The lowest-quality winegrapes and wine can be produced in less-than-ideal regions and sold as an undifferentiated commodity without a great deal of knowhow, but only at prices barely above the cost of production for most vignerons. To produce a higher-quality product that can be differentiated from other wines by consumers, and thus attract a higher price, requires far more technological knowledge and skills in grape growing, winemaking and wine marketing in addition to access to high-quality vineyard land or at least grapes therefrom. To be economically sustainable the producer also needs ready access to financial capital to cover

the very considerable up-front establishment costs and to finance the years when receipts fall short of outgoings, including the first seven years before cash income begins to exceed cash outlays. Secure property rights over the vineyard land are essential as well, since the lifetime of vines is at least 30 years and can be much longer.

Of particular importance as determinants of a country's competiveness in producing wine rather than other farm products are the three T's of terroir, traditions and technologies.

Terroir refers to various pertinent aspects of climate, topography, soils, geology, etc. that determine the quality of the vine's growing conditions. Vineyard site selection therefore is crucial. Experience has determined the best sites and most suitable grape varieties in long-established regions, whereas in new regions science has to be used to speed the process of approaching the potential of any region to produce quality winegrapes. The conventional wisdom is that winegrapes grow best between the 30^{o} and 50^{o} temperate latitude bands north and south of the equator, and where rain is concentrated in the winter and summer harvest times are dry. Lower latitudes typically result in lower-quality winegrapes, although moving to higher altitudes can help because temperatures decline about 5^{o} centigrade per 1000 metres of elevation (Gladstones 1992; Ashenfelter and Storchmann 2014). Sight selection is helped by the fact that some winegrape varieties are able to perform over a wider range of terroir than others.

Traditions determine not only how a product is produced but also the extent of local consumer demand. This is important for wine because typically local demand is the easiest and least costly for producers to satisfy, as there are relatively high fixed costs of entry into new export markets (Friberg, Paterson and Richardson 2011). Stigler and Becker (1977) argue that economists should begin by assuming tastes are stable over time and similar among people, and then focus on explaining differences in consumption patterns using standard determinants such as relative prices and real incomes. Social norms and religion can also influence interest in consumption of alcoholic beverages, and those can alter with economic integration/globalization (Aizenman and Brooks 2008).

Also, when preferences are non-homothetic, trade patterns can be affected by growth in domestic demand (Markusen 2013). The income elasticity of demand for wine is typically below one and falling in traditional wine societies, but wine tends to have an income elasticity of demand greater than one in emerging economies in which wine is exotic (Fogarty 2010). In such emerging economies its comparative advantage in wine would decline as per capita income rises unless its wine productivity grew sufficiently faster than domestic incomes, other things equal.

As for technologies, there is always potential to improve on traditional production, processing, entrepreneurship and marketing, be that by trial and error of practitioners over the generations or via formal investment in private and public research and development (R&D). The New World wine-producing countries have been more dependent on newly developed technologies and less on terroir than have producers in Europe, although both sets of countries have made major R&D investments — and expanded complementary tertiary education in viticulture, oenology and wine marketing — over the past half-century (Giuliana, Morrison and Rabellotti 2011). Those technologies potentially are transferrable to other countries and can even become globalized, as has happened with grain technologies (Olmstead and Rhode 2007). That innovation process has been greatly accelerated over the past two decades through two mechanisms. One is the emergence of fly-in, fly-out

viticulturalists and winemakers from both Old World and New World wine-producing countries (Williams 1995). The decline in airfares has made it far more affordable for young professionals to work in both hemispheres each year, doubling their vintage experiences and learning and spreading new technologies quickly. The other mechanism is via foreign direct investment joint ventures: by combining two firms' technical and marketing knowledge, the latest technologies can be diffused to new regions more rapidly.

How important modern technologies are relative to terroir in determining wine comparative advantage is a moot point. One recent statistical study suggests terroir is not as dominant as is commonly assumed — even in regions as established as Bordeaux (Gerguad and Ginsburg 2008). Another study, of vineyard sale values in Oregon, finds that while appellation reputation has some economic value, each location's physical attributes are not closely related to wine prices (Cross, Plantinga and Stavins 2011). A recent book by Lewin (2010) begins its section on wine regions with the New World rather than the Old World, to emphasize the point that wines almost everywhere are manipulated by winemakers as they endeavour to make use of available knowledge to produce the products most desired by their customers. What they choose to produce is increasingly being affected by how they can maximize profits through satisfying consumer demand, rather than by what they prefer to make with their available resources.

New technologies in agriculture have long tended to be biased in favour of saving the scarcest factor of production, as reflected in relative factor prices. Hayami and Ruttan (1985) emphasize that the focus of R&D investments thus has been driven in part by changes in factor prices, and in particular by the rise in real wages. That has resulted in the development and/or adoption of labour-saving technologies such as mechanical harvesters and pruners for vineyards and super-fast bottling/labelling equipment for wineries in viticultural land-abundant, labour-scarce countries such as Australia. The adoption of labour-saving technologies has helped countries with the highest and fastest-rising real wages retain their comparative advantage in what traditionally had been (at least at the primary stage) a labour-intensive industry. This in turn means poorer countries need to find sources of comparative advantage other than just low wages.

Relative factor endowments affect the comparative advantage of a country in terms also of the quality of its exported products. New trade theory provides reasons to expect richer, capital-abundant countries to export higher priced, higher-quality goods (Fajgelbaum, Grossman and Helpman 2011; Nayak 2011). Care is needed when using the unit value of exports as a quality indicator though. This is because improvements in bladders for transporting wine in 20-foot shipping containers have been so great in the past decade that half of all New World wine is now shipped in bulk, up from only one-quarter in 2004 (Rabobank 2012, 2014) — and much of that change is because a rapidly rising proportion of commercial premium wine is being bottled in the destination country.

A further influence on an industry's productivity is the openness of the overall economy to international trade and investment. There is a rapidly expanding literature of industry studies based on firm-level survey data that is providing strong support for the theory (summarized in Helpman, Marin and Verdier 2008) that overall trade policy reform boosts the rate of industry productivity growth. This is relevant in the Australian context because the Labor Government from 1983 undertook major economic reforms that included floating the currency and opening the economy to allow greater international trade and foreign investment.

It appears more productive firms are innately better at exporting, so opening an economy leads to their growth relative to the least-productive firms (Bernard et al. 2007, 2012). That leads to better exploitation of comparative advantage in terms not only of industries but also of firms within each industry. If those more productive firms are also foreign owned, then becoming more open to foreign direct investment multiplies the gains from product trade openness. It need not be just the most productive firms that engage in exporting though. For lower-productivity firms, incurring the fixed costs of investing in foreign markets may be justifiable if accompanied by the larger sales volumes that come with exporting. Lower trade costs will induce these firms to simultaneously export and invest in productivity (Melitz 2003, Melitz and Ottaviano 2008, and Melitz and Redding 2014).

Additional drivers of industry development

This conceptual framework is based on two important assumptions requiring qualification: that wine is a homogeneous product, and that there is no value chain of distribution activities.

In practice, of course, wines are extremely heterogeneous, and are made more so in the eyes of consumers by wine writers and via private promotional investments by brand owners as well as generic promotions by wine regions and nations. Such promotion aims to shift the demand curve to the right and make it steeper (less price-elastic) so as to raise the price received by the producer and make demand less responsive to prices of substitutes.

The fact that there are other players along the value chain between the producer and the final consumer would not be an issue if those players were perfectly competitive, other than that the cost of their services would be built into the retail price. But where any player such as the wholesaler, exporter, foreign importer/distributor or retailer has some monopoly power, they can reduce the price received by the producer and, if that difference is not passed on to the final consumer, reduce the quantity demanded. The recent concentration of supermarkets in Australia and elsewhere, the oligopolistic nature of distribution in each of America's states, and the monopolistic retailing of wine by the governments of some Nordic countries and Canada, are all examples of such imperfect competition reducing the demand for or at least the producer price of wine, and hence also of winegrapes.

Summary of drivers of industry development

The above framework suggests that the area planted to winegrapes and the subsequent national production and export of wine will respond positively to the following changes in the three sets of drivers:

(a) On the supply side:

- A fall in demand for/price of domestic grapes for non-wine uses
- A fall in the price of bulk wine imported for blending with local wine
- More grape and wine R&D investment (or spill-in from R&D abroad)
- A fall in the price and/or an increased allocation of vineyard irrigation water
- A rebate on wine excise taxation
- A devaluations of the exchange rate (prior to the flexible exchange rate regime)
- A fall in the wine stocks-to-sales ratio
- More investor incentives from government (e.g., via income tax concessions; or the opposite if incentives to dis-invest are introduced, such as a vine-pull subsidy)

- A cost-reducing technological improvement such as eradication of a domestic grapevine disease
- A supply- or demand-induced slump in sectors producing other tradable products
- A decrease in import protection for sectors producing other tradable products
- A fall in interest rates and/or a greater willingness of banks to lend to the industry

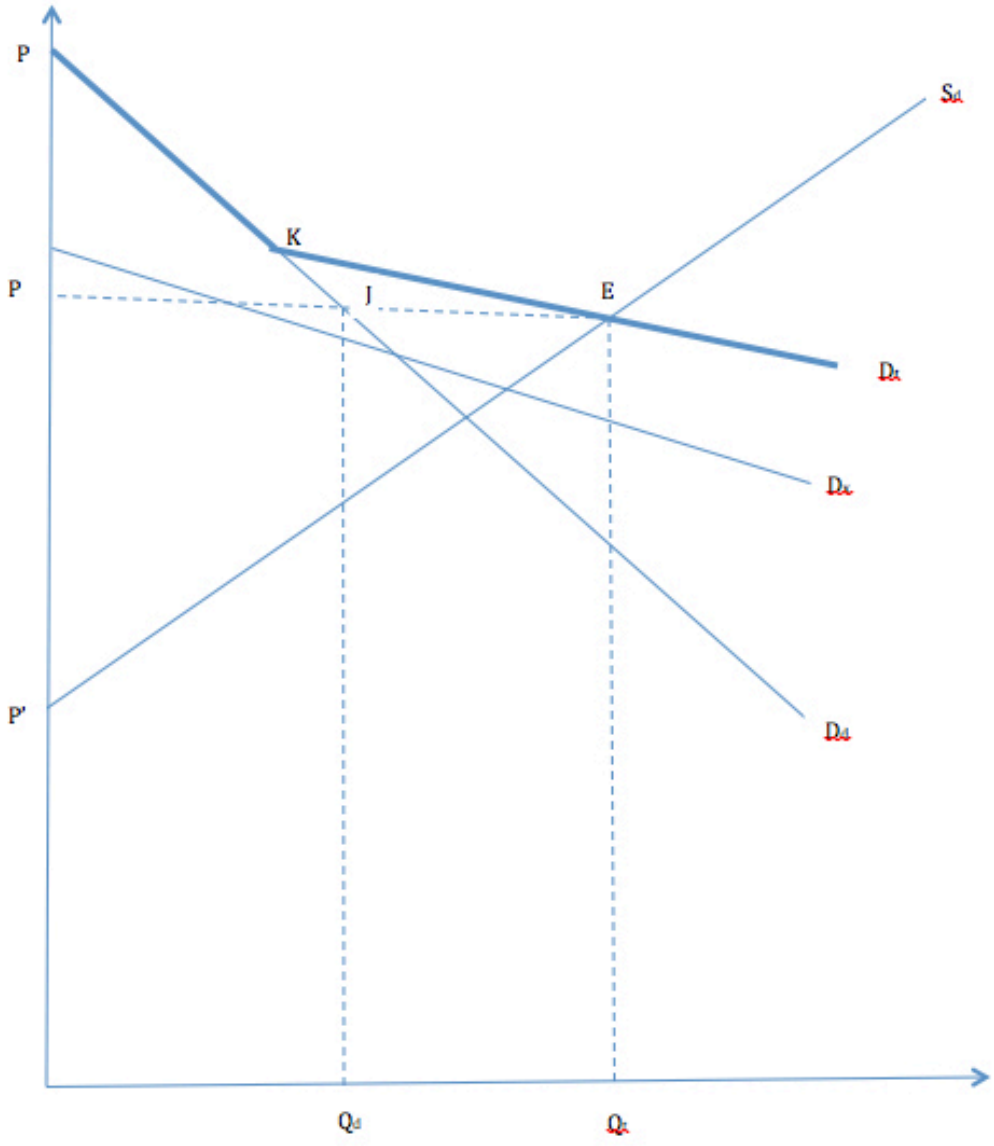
(b) On the domestic demand side:

- A rise in the adult population and its average age
- A change in tastes/preferences toward domestic wine
- A change in tastes/preferences against imported wine
- A rise in per capita income
- A fall in excise taxes on wine
- A rise in excise taxes on alcoholic beverage substitutes for wine
- A rise in competing countries' costs of producing wine imported by Australia
- An increase in generic and/or brand promotion of local wine domestically
- A decrease in generic and/or brand promotion of imported wine
- A relaxation of retail and hospitality regulations inhibiting domestic wine sales
- A rise in wine import barriers
- A fall in the excise tax rebate currently provided to New Zealand wineries

(c) In actual or potential export markets:

- A rise in the adult population and its average age
- A change in tastes/preferences toward wine
- A rise in per capita income
- A fall in excise taxes on wine
- A rise in excise taxes on alcoholic beverage substitutes for wine
- An increase in generic and/or brand promotion of Australian wine
- A decrease in generic and/or brand promotion of non-Australian wine
- A relaxation of retail and hospitality regulations inhibiting wine sales
- A fall in wine import barriers (including any preferential access for Australian wine over its competitors)
- An increase in any Australian export bounties/subsidies
- A fall in ocean transport and intercontinental communication costs (including relative to competitors) and a rise in speed and quality of transport services
- A fall in stevedoring and other costs of getting from the winery to the ship
- A real depreciation of the AUD against the importing country's currency
- A real appreciation of the currency of competing exporters against the importing country's currency
- An increase in production costs, or a decrease in investments in grape and wine R&D, in the importing country or competing exporting countries
- Diseases or bad-weather events in the importing country or in competing exporting countries
- An increase in interest rates and/or a lesser willingness of banks to lend to the industry in the importing country or in competing exporting countries
- A decrease in subsidies to production, distillation or exports in competitor countries
- A reduction of costs associated with Australian exporters meeting labelling laws and technical standards in importing countries

Figure A1: Market for a nation's domestically produced wine



Chapter 2:

Regional developments from the late 20th century

2.1 Introduction

The Australian wine industry's export-led growth and quality upgrading since the 1980s has added remarkable wealth and vitality to many rural regions of Australia. It has also altered the characteristics of grape and wine production in those various regions. This Chapter summarizes the more easily measured of the industry's regional economic contributions. Other contributions multiply those regional benefits, including to the complementary restaurant, accommodation and other tourist-related industries, and to input-supplying industries such as bottle producers, designers and printers of labels, and transport firms.[39]

This Chapter also summarizes some key characteristics of the industry at the regional level. In doing so it reveals the increasing distinctiveness of the various wine regions as they seek to add value by differentiating themselves from each other and from producers abroad.

One reason for compiling regional data is because regions are investing increasingly in their own promotional efforts, as a supplement to national generic promotion through the Australian Grape and Wine Authority and its predecessors. Pressures to move in that direction have intensified in recent years as the Australian dollar strengthened as a result of a boom in mineral and energy raw material exports, and as competition from other New World suppliers intensified.

Another reason to focus on regional differences within the industry is to assist producers in each region to develop strategies to adapt to climate change and associated developments in water markets. Changes such as rising mean temperatures, a greater frequency and intensity of extreme weather events, changing precipitation patterns, and widening fluctuations in irrigation water prices and availability are altering over time the optimal methods of production and possibly even the optimal regional location for producing particular varieties of winegrapes (see, e.g., Webb 2006 and other references cited in Anderson et al. 2008). For that reason we highlight climate zones in addition to geographic regions: each region is classified, according to the region's average January and February

[39] In this chapter we resist the temptation to use input-output multiplier analysis, since it necessarily exaggerates an industry's contribution. In a report to New Zealand Winegrowers by Ballingall and Schilling (2009), for example, it is claimed that every extra dollar of value added by the wine industry creates an extra $2.34 of national GDP (and every new wine industry job creates also 1.79 new non-wine jobs) via other industries. But if every industry did such partial analysis and the direct and indirect contributions of all industries were summed, the total would be several times national GDP and employment, which clearly makes no sense. It is conceivable that, as 0'Mahony et al. (2006) find, wine cellar door visits boost the quantity and average price of customers' future wine purchases, but such contributions will be captured in the value of future wine sales and so it would be double counting to include them in any estimate of current contributions.

temperatures and growing degree days (Webb 2006, pp. 239-40), as belonging to one of three viticultural climate zones as defined at the bottom of Table 45 and detailed in Table 46: hot, warm or cool.[40]

Economic modeling of the Australian economy also can benefit from more disaggregated data by sector and region. Recent software developments and the rise in computer memory allow economy-wide models to be targeted for analysis of particular industries however small, and to focus specifically on their regions of production (Horridge and Wittwer 2008). The prime limitation these days for model analysis of small industries is therefore not computer software or hardware but rather the availability of disaggregated data of sufficient quality. A side benefit of this Chapter is that it provides insights into the quality of data currently available for regional modeling of Australia's wine industry (a prototype analysis being Anderson, Valenzuela and Wittwer 2011).

After discussing the sources of data in the next section, the following sections first examine the regional contributions of the Australian wine industry before moving on to explore the regional diversity of the industry. As in the previous chapter, numerous charts and tables are referred to in the text to support the findings. They are followed by a series of tables which provides one page of statistics for each of the 27 major wine regions plus a summary one for each State and for each of the three climate zones identified: hot, warm and cool (see Tables 78 to 121).

2.2 Sources of regional data

Wine industry data at the regional level have been available from various sources, but the coverage has been sporadic and the regional definitions have varied widely across the different sources and over time. Basic vine area, production and yield data are available by State back to the 1974 (Table 7) and by broad regions back to 1979 (Table 52), but more detailed regional data begin in 2001 (Table 53). The most reliable employment data come from the Australian Bureau of Statistics (ABS) censuses, which are conducted every five years with the most recent ones being for the 2005-06 and 2010-11 financial years (and so covering the 2006 and 2011 vintages). The ABS also conducts annual industry surveys and reports those data the following year in industry and other publications. More detailed data are made available online, including for various levels of regional disaggregation. States are divided into Statistical Divisions, Statistical Sub-Divisions (SSDs), and Statistical Local Areas (SLAs, of which there are just over 1400 nationally). SLA data on vineyards and other agricultural activities as of 2005-06 are available in ABS (2009), for example.

For present purposes we focus initially on 27 Statistical Sub-Divisions (SSDs) as defined by the ABS for ABS data, plus some more disaggregated regions for AGWA data. The 27 SSDs are home to around half of the wine industry's Geographical Indications (GIs), which comprise 65 homogeneous areas legally defined for marketing purposes by AGWA's Geographical Indications Committee (see the map showing all GIs, Chart 56).[41] Each of our

[40] The beneficial effect of a large diurnal temperature range also was considered, but it did not cause any change to the above classification of regions into hot, warm or cool. A finer classification could identify 'very cool' regions, but to date they comprise only a very small share of Australian winegrape production.
[41] For a description of the main wine regions prior to GIs, see, for example, Halliday (1998) and Beeston (1999).

selected 27 SSDs correspond closely to one or more GIs, and the 34 GIs thereby covered (see Table 45) account for all but one-tenth of the nation's vineyard area.[42] Those SSDs account for one-ninth of national GDP and population. As well, services associated with the wine industry are important in urban areas, for example in shipping activities at the major ports of Adelaide, Melbourne, Perth and Sydney as well as in the head offices of major wine companies in those cities.

The 2006 ABS census data are incorporated in the database of a regional multi-sectoral model of the Australian economy known as TERM and developed by Victoria University's Centre of Policy Studies (Horridge and Wittwer 2008).[43] That database is the source of comparative information reported below on the industry's contribution to regional employment, gross value of production and value added (GDP). Vine area, grape and wine production quantities, and number of establishments in the grape and wine business are from the latest annual survey data reported in ABS Catalogue No. 1329.0.

The ABS does not publish comprehensive price data, but since 1999 the industry itself has been conducting a series of State-based annual winegrape price and utilization surveys. The average price data and crush volumes from those surveys, and the dispersion of winegrape prices around mean levels in each region, are now made freely available online, in a PDF report and an Excel file, at www.agwa.net.au/winefacts (see AGWA 2014a). In addition, AGWA reports online the distribution of prices for wine exports.

2.3 Regional differences and their contributions

Changes since 2003 in the major regions' shares of the national vine area are shown in Chart 58. Some areas have increased their share a lot (Coonawarra, Adelaide Hills, Riverina) while others have seen their share fall (most notably the Murray Darling region of Victoria).

The previous chapter provided production details for the various States of Australia, but it does not give precise indications of the climatic differences across Australia's wine-growing regions. Just under one-third of South Australia's winegrape vineyards are in the hot Riverland region. In both NSW and Victoria three-fifths of their areas were in that hot zone (Riverina and Murray Darling/Swan Hill) in 2006 and the combined share had risen to two-thirds by 2012. The increase was mostly in the Riverina region of NSW, making possible the huge expansion in sales to the United States and elsewhere of Casella Wines under the Yellowtail label, while in Victoria the hot region area shrunk from 60% to 46%. Together with a small area in southern Queensland and the Swan District near Perth, those hot zones accounted for 48% of the country's winegrape area in 2001, 46% in 2006 and 42% in 2012. Another 42% of the area comprises warm zones. The cool regions, such as the Adelaide Hills, Tasmania, Mornington Peninsula and Yarra Valley, accounted for 12% of the bearing area in

[42] Further disaggregation proved to be not sensible for ABS data because the concordance between the other smaller GI regions and one or more SSDs or SLAs is very poor, thanks to overlapping boundaries. Even for the chosen GIs the concordance is not always great. For example, the McLaren Vale GI is a small part of the Southern Adelaide SSD which includes a large and rapidly increasing amount of urban activity.

[43] This is a bottom-up regional model. A top-down regional model has also been developed for wine industry analysis, based on the ORANI-G model (Horridge 2000).

2006, but those regions expanded their plantings by two-fifths over the first decade of this century and comprised 15% of the national area by 2012 (Tables 45 and 50).

Tasmania is the coolest region, and its share of the national winegrape area was less than 0.2% in 1990, but it rose to 0.5% in 2001 and 0.8% by 2012. With less than 1% of Tasmania's crop area devoted to vineyards, it still has enormous potential to expand, should climate change encourage more growers to move to higher latitudes. There is also the option of moving to higher altitudes such as in the Adelaide Hills: by 2008, 30% of that region's crop land was under vines, from virtually zero in the early 1970s. The cool regions' share of winegrape production has grown less rapidly — and been more volatile — than its share of vine area though (Table 54 and Chart 57). This is because yields per hectare typically are lower and more variable in cooler regions: during 2001-12 they averaged 6.9 t/ha (and just 6.0 in Tasmania), compared with 7.3 t/ha in warm regions and 14.8 t/ha in hot regions (Table 55). Higher prices compensate more or less for the lower yields, with Tasmania's average ranging between $2400/t and $2600/T between 2005 and 2013 (Table 57). The average grape price for all cool regions in 2008 was one-quarter above that for warm regions and almost three times above that for hot regions (Table 74).[44]

Regions vary hugely in the vine intensity of their cropping, defined as the share of vines in the region's total crop area relative to that share nationally. Nationally, vineyards account for just 0.7% of the total crop area at its peak around 2006 and was down to 0.46% by 2012; but in most wine regions the share is at least several percentage points. For the majority of the 27 wine regions it is more than six times the national share (Table 58), and more than 40 times for four regions (McLaren Vale, Yarra Valley, Margaret River and Adelaide Hills). By contrast, the Clare Valley and the Canberra District are even less vine intensive than Tasmania (Chart 599). By State, South Australia has been the most vine intensive since the early 20th century, although Tasmania surpassed it during 2007-10 (Table 5) and may again very soon.[45]

Regions also vary hugely in their yields per hectare, with some less than 5 tonnes while others are more than 15 tonnes. In 2012 most regions had lower yields than in 2001 even though the national average yields were almost the same in those two vintages (10.7 and 10.9 tonnes, respectively). That was because a few of the large hot regions had much higher yields per hectare in 2012 than in 2001 (Chart 60).

Those higher yields have gone at least some way toward offsetting the opposite trend in winegrape prices. Prices were lower in 2013 than a decade earlier in virtually all but the premium cool-climate regions, and the proportional fall was especially large in the four large hot regions (right-hand side of Chart 61). In 2008, the mid-point of that period, two-thirds of all winegrapes were sold in the A$400 to $650 per tonne range, but by 2014 most were sold at less than A$450. In both years, only 2% of sales were above A$1550 per tonne (Chart 62). The average price in 2014 was A$441, halfway between the averages for red and white winegrape varieties (A$540 for reds, A$340 for whites).

---

[44] The cool regions' share of the national value of grape and wine production was just under one-tenth in 2006, compared with just under one-quarter for the hot regions and two-thirds for the warm regions (Table 69). The hot regions' share would be slightly less if grapes used for non-wine purposes were excluded, since almost all of them are grown there (Tables 75 and 76) and yields are higher for non-wine grapes than for winegrapes (compare Tables 55 and 77).

[45] A change in definition of crop area in 2011 led to its measured increase in all states but more so in Tasmania than other states (see Table A3).

Despite their low prices, the massive volumes of production in the hot regions are enough to ensure that they comprise four of the top five regions in terms of gross value of winegrape production. The Barossa Valley is ranked third by that criterion, while McLaren Vale and Margaret River take sixth and seventh place (Chart 63).

A similar ranking applies with respect to the contribution of the industry to regional and national employment (Chart 64). The numbers of grapegrowing establishments in each region is shown in Table 62. For almost all regions the industry's share of regional employment is more than twice the national average, and for nearly half of them it is more than ten times (Tables 63 and 67). The share is much higher for employment than for the number of establishments in some regions (Barossa, McLaren Vale, and the region near Mildura in Victoria), where some large wine companies dominate. By contrast, in South Australia's Riverland the industry's regional employment share is much smaller than the establishment shares, reflecting the fact that large vineyards using labour-saving mechanical pruning and harvesting predominate and much of the processing of Riverland grapes is done in the Barossa. These differences in employment and establishment shares also reflects the fact that there is a very uneven distribution of wineries across Australia in terms of tonnes of grapes crushed: in 2012, 70% of wineries crushed less than 25 tonnes each, and only 4% crushed more than 100 tonnes (Table 66 and Chart 43). The same is true of the national share of vine area (Table 65).

The other resource whose employment varies greatly across regions is irrigated water use. Unfortunately comprehensive data are not yet available at the wine region level, but even at the state level the differences are large. In 2006 vineyards accounted for almost one-quarter of agricultural water use in South Australia but for only 6% nationally and less than 1% in Tasmania and Queensland. When differences in wine production are taken into account, Victoria is a much heavier user than South Australia per litre of wine produced, but perhaps that is because some of the grapes around Mildura are processed in South Australia. When expressed per dollar of gross value of agricultural production, Victoria and South Australia are close to the national average whereas New South Wales is 50% higher while Western Australia and Tasmania are only a small fraction of the national average. Compared with other farm enterprises, water use per litre of production value for grapes is greater than for other fruits or for vegetables, but it is much less than for sugar, cotton, rice or dairying. And in aggregate terms, grapegrowers use less than all those enterprises except vegetable growing. New South Wales is the only state still a significant user of flood irrigation to water vines (Table 68).

Turning to output contributions of the industry, in 2006 and 2011 grapes accounted for around 1.5% of the gross value of all agricultural value added (GDP), but in wine regions their shares are more than three times larger on average — although much less so in 2011 (a very cool and damp summer and hence a poor vintage) than in 2006 (Table 70 and Chart 65).

Regions also vary in the extent to which their wineries are export focused. Since 1870 South Australian wineries have always been the most export-focused (Table 14). In recent decades that State has accounted for the processing of around 70% of the country's total export volume, although New South Wales and then Victoria have increased their shares a little since 2000 (Chart 27). Some of South Australia's exported wine is based on grapes grown across the border, however, particularly in the Sunraysia region around Mildura.

Data are available on the distribution of winegrape prices within each region (AGWA 2014a). Those price and quantity data, when multiplied, provide value data too. They are summarized in Tables 72 to 74 by dividing the spectrum of prices in the 2008 vintage into three categories. The non-premium category is defined as grapes purchased at less than $550/tonne, super-premium as grapes purchased at $1200/tonne or more, and commercial premium at between $550 and $1199/tonne. The majority of regions supply grapes into all three categories, but a few do not supply any of either non-premium (Margaret River, Mornington, Tasmania) or super-premium (Murray Darling, Riverland, Riverina, Swan Hill and Mudgee/Cowra). Evidently, the distribution of prices tends to be further to the right the warmer the climate.

To capture the differences in quality across regions, at least as reflected in prices, a Regional Quality Index has been defined as the average winegrape price in a region across all varieties as a proportion of that average price nationally. The average prices themselves are shown in Tables 56 and 57, and the Regional Quality Indexes are reported in Table 61. The distribution of the share of winegrape production at any one RQI point is shown in Chart 66 for 2001 and 2012. That pair of graphs suggests that over that period the average price dispersion increased substantially, with the right side of that distribution's tail now stretching more. The unweighted mean value of that index rose by one-eighth, from 1.48 to 1.67.

This shift is reflected also in the increase in the coefficient of variation of the RQI across regions, from 0.31 to 0.50 over the 2001 to 2012 period. It is also reflected in the fact that of the 50% of regions whose RQI rose over that 12-year period, two-thirds of them had an index value of greater than 1.6 in 2001 and greater than 2 in 2012. None of them were hot irrigated regions (Murray Darling, Riverland, Riverina and Swan Hill, which comprise nearly three-fifths of the national crush volume). Hence the RQI for hot regions as a group has fallen slightly since the turn of the century, and that of cool climate regions has risen slightly (Chart 68). By 2013, the national average price was one-tenth lower again and price dispersion was even wider, ranging from A$320-360 in the hot-climate regions to more than seven times that (almost A$2500) in cool Tasmania and Mornington Peninsula (Chart 67(a)). The dispersion is almost as wide even for just Shiraz winegrapes (Chart 67(b)), suggesting that for versatile varieties it is regional rather than varietal characteristics that determine their quality and price.

A final indicator of the extent to which regions differentiate themselves can be found by focusing on each region's mix of winegrape varieties in their vineyards differs from the global average mix. A so-called Varietal Similarity Index (VSI), to be defined in the next chapter (together with appropriate vine bearing area data), provides such an indicator. The degree of similarity of each region's varietal mix with the global varietal mix is shown in the VSI numbers for 2001 and 2010 reported in Table 169. According to that indicator, there has been a considerable decrease in the diversity of Australia's regions in terms of their vineyards' varietal mix, relative to the global average. This is evident from Chart 69, showing all regions to have a higher VSI in 2010 than in 2001. It is also evident from the slightly narrower range and rightward-shifted distribution of those VSI numbers in 2010 as compared with 2001, depicted in Chart 70.

2.4 Are regional differences being recognized in the market?

Clearly there a great deal of wine regional diversity in Australia in terms of climate and other aspects of terroir and hence in terms of the quality mixes of the winegrapes produced, even if the varietal mix has become less diverse since the turn of the century. That also means regions are affected differently from external shocks, as shown, for example, in a quantitative analysis of the regional impacts of a fall in wine export demand and prospective wine tax changes (Anderson, Valenzuela and Wittwer 2011). This increasing diversity is what one would expect as vignerons become more familiar with the growing characteristics and potential of each region and indeed of each vineyard.

But are consumers recognizing this in terms of being willing to pay higher prices from regions that are promoted as being of higher quality? Some years ago an econometric study was undertaken to address this question (Schamel and Anderson 2003). Many consumers, especially when they are new to or inexperienced with wine, seek guidance before purchasing, for example from published ratings of wine experts. So how have expert ratings affected what consumers are willing to pay for such things as the reputation of the producing region as distinct from corporate brand reputation, or grape variety reputation, or the published ratings of wine writers/judges/critics?

The Schamel and Anderson (2003) study uses a hedonic pricing model to estimate price functions for premium wine from Australia (and New Zealand), differentiating implicit prices for sensory quality ratings, wine varieties, and regional as well as winery brand reputations over the vintages 1992 to 2000. The results show regional reputations became increasingly differentiated through time (although less so for New Zealand). In particular, during that decade cool-climate regions became increasingly preferred over other regions in Australia. The results are therefore consistent with the view that price premia can be generated through regional promotion, which suggests that the European tradition of emphasizing region in addition to nation of origin was gradually taking hold in Australia as it headed into the new millennium.

2.5 Which regions have adjusted most since the latest downturn?

Australia's winegrape bearing area peaked in 2008 before shrinking gradually under the adverse economic conditions since then. Between 2001 and 2008 the cool and warm regions had the highest rates of vine area expansion (Chart 71). Cool-climate regions of other countries also expanded in the first decade of this century: in the US, the vine area increased 55% in Sonoma County of California, 108% in Oregon State, and 158% in Washington State, while New Zealand's area grew 220% (Anderson and Aryal 2013a,b). Presumably a similar force was at work in all three New World countries, namely, an increasing appreciation for finer wines as incomes and familiarity with wine grew.

By 2012, however, when Australia had almost 21,000 fewer hectares than in 2008, every State except Tasmania had seen its area shrink (Table 49). The shrinkage was least in South Australia (a 1% drop to 70,000 ha) and greatest in Victoria (a one-third drop to 24,700 ha, all but 4% of which was it its hot irrigated regions). Western Australia had a one-fifth

drop to 10,300 ha, and New South Wales had a one-tenth drop to 38,300 ha. Almost none of falls were in cool climate regions, and the 9% drop in warm regions was only half as large as the 19% drop in hot regions (bottom of Table 49).

Within each of the climatic regions the change was far from uniform though. Eight cool-climate regions shrank, offsetting smaller gains in ten other cool regions (Chart 72(a)). In the hot regions, Riverina and Lower Murray had gains but they only slightly offset the losses, which were largest in the big irrigated regions along the rest of the Murray River (Chart 72(b)). As for the warm regions, the biggest losses in New South Wales were in the Hunter, Mudgee and Cowra with only a slight offset in Orange; in South Australia the adjoining regions of Langhorne Creek and Currency Creek had the largest losses (Chart 72(c)). These adjustments suggest that while climate change may have driven part of that adjustment, some was also the result of having planted in less than optimal places during the immediately preceding boom period. The lack of area reduction in regions near cities also probably reflects the fact that many small producers there are enjoying the lifestyle of being a vigneron and are willing to finance that indulgence with off-farm income or assets acquired elsewhere. The rebate on the Wine Equalization Tax of 29% on the first A$1.7 million of sales each year also has helped small wineries to stay in business.

Chapter 3:

Varietal developments since the 1950s

3.1 Introduction

Traditionally the Old World has emphasized regional differences and has restricted both the range of varieties grown in each region and the use of varietal labeling on bottles. In Australia and other New World countries, by contrast, differentiation had been mainly through varietal labeling, although gradually more emphasis has been given also to regional labeling. In both parts of the world, though, producers are also well aware of the impact climate changes (higher temperatures, more extreme weather events) are having on their winegrapes. Adaptation strategies include switching to warmer-climate or more resilient grape varieties, and sourcing more from regions with a higher latitude or altitude to retain the firm's current mix of grape varieties. Especially in recently established regions and sites whose varietal comparative advantages are still unclear, winegrowers are continually searching for attractive and profitable varieties that do well in climates similar to what they expect theirs to become in the future. Where affordable water availability is becoming a more important issue, the drought tolerance of varieties also is influencing varietal (and rootstock) choices.

These marketing and climate/environment adaptation needs are generating a rapidly growing demand for information on what winegrape varieties are grown where and how those patterns are changing over time. Certainly there are great books available on both the varieties and wine regions of major supplying countries, including the latest seminal ones by Robinson, Harding and Vouillamoz (2012) and Johnson and Robinson (2013). Yet none of those resources provides enough empirical information to get a clear view of the relative importance of the various regions and their winegrape varieties in the global vineyard and their changes over time. To respond to the need for more comprehensive empirical information, a global database for 2000 and 2010 was recently compiled (Anderson and Aryal 2013a). The database includes more than 640 regions in 48 countries that together cover 99 percent of global wine production; and it includes more than 2,000 varieties, of which more than 1,500 are 'primes' and the rest are their synonyms (according to Robinson, Harding and Vouillamoz 2012).

This chapter draws on that newly compiled global database plus additional new Australian data to generate several indicators that capture changes over the first decade or so of this century in the varietal mix in Australia and its wine regions vis-à-vis the rest of the world. The indicators reveal that the varietal distinctiveness of Australia vis-à-vis the rest of the world, and the varietal differentiation between regions within the country, are far less than for other countries. This pattern — which has been noted several times since World War II (Hickinbotham 1947, Dry and Smart 1980) — is one that has become even more pronounced since 2000.

3.2 Evolution of winegrape varietal mix

As a prelude to putting Australia in that global context, it is helpful to examine the evolution of Australia's winegrape varietal mix. Annual data for the country as a whole are available from 1956.[46] The hectares of bearing area of each variety are compiled in Tables 122 to 126, and Tables 127-131 express them as shares of the national bearing area. Those data reveal the swings away from reds in the latter 1950s, then towards reds from the mid-1960s to the early 1980s, and again from the late 1990s (Chart 73(a)). They also reveal the move from non-premium to premium varieties:[47] the latter were barely 20% of the total bearing area in the 1950s, but since the turn of the century they have accounted for more than 90% (Chart 73(b) and Table 132).

The red and white split is shown in Chart 74 by main variety. Among the reds, the initial dominance of Garnache (Grenache) for port production has been gradually eclipsed first by Syrah and then also Cabernet Sauvignon, plus Merlot from the late 1990s. Among the whites, the varieties of importance for sherries, muscats and tokays dominated in the 1950s and 1960s along with Semillon. The fortified focus (and the use of multi-purpose grapes such as Sultana) was gradually supplemented with Riesling from the 1970s to the early 1990s, while Chardonnay — today's dominant white — began to make its mark only from the 1980s.

This dramatic change in the varietal mix in Australia's vineyards is reflected in the change in the country of origin of the varieties being made into wine. In the 1950s Spanish varieties made up about half of the area and French varieties just one-fifth. Today, by contrast, French varieties account for all but one-tenth of the area and Spanish varieties comprise less than 3% (Chart 75 and Table 133).

Australia was not unfamiliar with the noble varieties in earlier decades though. Prior to the subsidies and preferential tariffs into the British market provided for fortified wines in the inter-war period, the colonies had seen a wide range of traditional French varieties being introduced, first by Macarthur and very importantly in the early 1830s by Busby, and then by others. Kelly (1861) compiled a list of the main ones that were growing as of 1860 (see Table 134).

3.3 Emerging varieties in Australia

What about the increased plantings of so-called emerging or alternative varieties that are diversifying Australia's vineyards? Of those varieties not in the world's top 20 list and which have expanded from less than 200 bearing hectares in Australia in 2000, there are ten whose areas have grown significantly since then. But in aggregate those ten raised their share of Australia's total winegrape area between 2001 and 2010 by only 1.7% (Table 135). The eight

[46] There is a data gap for the years 1967 to 1972, so trend values have been inserted for graphing purposes in the charts that follow.
[47] The listing of varieties in those categories is shown in Table 36.

varieties whose area in Australia expanded most over the first decade of this century are, apart from Viognier, all in the top 20 globally (Chart 76).

Since there is a total of less than 50 varieties separately identified in the Australian official data though, that list in columns 1 and 2 of Table 135 excludes many of the small emerging varieties that are hidden in a residual 'Others' category. Even so, that 'Others' category accounted for just 5% of Australia's total area in 2000 and for only 1.6% by 2010, which means the main varieties have expanded much more than lesser alternative ones. The share for Syrah alone rose 6 percentage points over that decade, while Chardonnay's rose 5 points and the shares of Sauvignon Blanc and Pinot Gris each rose 2 points.

Fortunately, the Phylloxera and Grape Board of South Australia has a much more detailed dataset for that state (Phylloxera Board 2013), and it reveals another dozen varieties that have shown some growth between 2006 and 2012. The ABS (2012) also has provided some more varieties in its release of 2012 data. These data, shown on the right-hand side of Table 135, refer to planted area rather than bearing area, and so provide a better indicator of recent changes since newly planted vines take three years to bear. But even these data reveal that emerging varieties make up only a small fraction of 1% of the national area. The total number of varieties in South Australia with more than 0.5 hectares rose by only 20 between 2006 and 2012, from 91 to 111.[48]

Not surprisingly, however, these emerging varieties are being displayed on wine labels as soon as possible by producers seeking to differentiate themselves in novel ways. Hence seven of the ten varieties listed in the first two columns of Table 135, and four of those listed on the right-hand side of Table 135, are also listed by Winetitles (2014) as among the 35 most frequently mentioned varieties on Australian bottles sold — even though those 11 varieties in aggregate accounted for only 1.4% of the value of winegrape production in 2012 (Table 136).

Thus, despite this flurry of new varieties appearing on Australian wine labels, the increase in varietal diversity of Australia's vineyards between 1956 and 1984 had reversed considerably by 2012, as shown in the cumulative graphs in Chart 77. By then there were just 25 varieties that had shares of national area and production greater than 0.2% (Chart 78).

3.4 Indicators of varietal mix and quality distinctiveness

In addition to bearing area data, the volumes of production by variety over the past six decades, and their shares of total winegrape production, are shown for each variety in Tables 137 to 141 and Tables 142-46, respectively, and their yields per hectare are reported in Tables 147 to 151. Price data by variety, available from 1999 to 2013, are reported in Tables 152 and 153, from which their value of national production is calculated (Tables 154 and 155). Those five variables by variety also are available for each Australian region, but that mega table is too large for this book and so has been made freely available online at www.adelaide.edu.au/wine-econ/databases. Also compiled are the area, production volume

[48] For more on these and other emerging varieties in Australia, and on which firms have planted them, see Higgs (2010) and his updates at www.vinodiversity.com. Winetitles (2014) also maintains a list of the varieties included on Australian wine labels, which in 2013 amounted to 144 varieties.

and yield per hectare of each of the main varieties produced in the cool, warm and hot regions (Tables 156 to 164).

It is helpful to summarize these data through calculating various indexes. In addition to regional and varietal shares, a varietal intensity index and a varietal similarity index, suggested by Anderson (2010a, 2013), are defined here. Also defined is a varietal quality index, using winegrape price as a proxy for quality.

3.4.1 Varietal Intensity Index (VII)

The Varietal Intensity Index is defined as a variety's share of a region's winegrape area divided by that variety's share of the global winegrape bearing area. The Varietal Intensity Index is thus a complement to share information in that it indicates the importance of a variety in a region not relative to other varieties in that region but rather relative to that variety in the world.

Specifically, define f_{im} as the proportion of bearing area of grape variety m in the total winegrape bearing area in region or country i such that the proportions fall between zero and one and sum to one (i.e., there is a total of M different grape varieties across the world, and $0 \leq f_{im} \leq 1$ and $\Sigma_m f_{im} = 1$). For the world as a whole, f_m is the bearing area of grape variety m as a proportion of the total global winegrape area, and $0 \leq f_m \leq 1$ and $\Sigma_m f_m = 1$. Then the Varietal Intensity Index, V_{im} for variety m in region i, is:

$$(1) \qquad V_{im} = f_{im} / f_m$$

3.4.2 Varietal Similarity Index (VSI)

An Index of Varietal Similarity has been defined by Anderson (2010a) to measure the extent to which the varietal mix of one region or country matches that of another region or country or the world. It can also be used to compare the varietal mix of a region or country over time.

The mix of grape varieties is a form of revealed preference or judgement by vignerons about what is best to grow in their region. That judgement is affected by not only terroir but also past and present economic considerations, including current expectations about future price trends plus the sunk cost that would be involved in grafting new varieties onto existing rootstocks or grubbing out and replacing existing varieties.

The index, defined in the Technical Notes on page xxiii, will be zero for pairs of regions with no overlap in their grape varietal mix, and one for pairs of regions with an identical varietal mix. For cases in between those two extremes, the index will be between zero and one. It is conceptually similar to a correlation coefficient. Like a correlation coefficient, it is completely symmetric. Thus the results can be summarized in a symmetric matrix with values of 1 on the diagonal, plus a vector that reports the index for each region relative to the global varietal mix.

The VSI, and the VII, could have been based on production rather than area data, but their comparisons over time would have been less reliable because of year-to-year variations in yield per hectare. In any case production data by variety are less commonly available than data on bearing area.

3.4.3 Varietal Quality Index (VQI)

To capture differences in the quality of the grapes delivered, which reflect consumers' and thus winemakers' willingness to pay as well as growers' willingness to accept, we generate a price-based index on the assumption that prices indicate quality. The simplest index of quality of different varieties is the ratio of the national average price for variety m to the national average price of all winegrape varieties. That has been called the Varietal Quality Index, VQI_m, where

$$(3) \qquad VQI_m = (P_m/P).$$

3.5 The global data

To calculate the Varietal Intensity and Similarity Indexes, data on bearing area of winegrapes are needed for the world. Such data were compiled recently by Anderson and Aryal (2013a). In the case of the European Union countries, plantings in several member countries are available from one source (Eurostat 2013), while for other countries they are typically available online from a national wine industry body or national statistical agency. The United States and Canada are key exceptions, where data are collected at the state/provincial level and only for those with significant wine production. The years included in Anderson and Aryal (2013a) correspond to the most recent decadal agricultural census periods of the European Union, which were 1999 or 2000 and 2009 or 2010. For the non-EU countries data have been sought for the earlier year in the northern hemisphere and the latter year in the southern hemisphere. Inevitably not all other countries or regions had data for exactly those vintages, but in most cases the data refer to vintages that were only six months apart.

Using those raw data, the Varietal Intensity and Similarity Indexes have been assembled in comprehensive tables and figures in Anderson (2013). With the supplementary data for Australia on production volume and average price by variety and region, we are also able to calculate the Varietal Quality Index.

3.6 Australia's varietal distinctiveness globally

It is possible to draw distinctions in terms of the varietal distinctiveness of Australia's vineyard bearing area vis-à-vis the rest of the world's, and the varietal differences between regions within the country and their changing varietal intensities.

3.6.1 National varietal distinctiveness

The Varietal Similarity Index or VSI between Australia and the world was 0.45 in 2000, but it rose to 0.62 by 2010 (Table 165), indicating a substantial drift in Australia's varietal mix toward the world aggregate mix over that decade. Meanwhile, the average of the VSIs for all other countries in the sample is much lower and hardly changed, at 0.35. In other words, Australia was much less distinct than the average country in its varietal mix in 2000, and its

distinctiveness became even less so by 2010.[49] Since France is the country whose varietal mix is most similar to the world mix, this means in effect that Australia has become more like France: the two countries had a VSI of 0.47 in 2000 and 0.58 in 2010.

A key reason for Australia's varietal mix becoming more like the global mix has to do with Shiraz, or Syrah, as it is called in most other parts of the world. The popularity which Australia brought to Syrah in the 1990s has led to many other countries expanding their plantings of this variety. In 1990 there were barely 35,000 bearing hectares, making it 35th in the area ranking of all winegrape varieties globally. But by 2000 there were 102,000 hectares, and by 2010 that had risen to 186,000, bringing Syrah to the sixth position on that global ladder and less than one-third below the areas of the two now most widespread varieties, namely Cabernet Sauvignon and Merlot. Over the decade to 2010, the Syrah area grew more than either Cabernet or Merlot — in fact only Tempranillo expanded faster globally (Chart 80). Certainly Australia contributed to that expanding area of Syrah, but expansion was even greater in France and Spain. There were also large plantings in other key New World wine countries, and in Italy and Portugal (Chart 81). As a result, Australia is no longer as globally dominant in this variety: its share of the global Syrah area has dropped from 29% in 2000 to 23% in 2010 — even though Syrah has increased its share of Australia's own vineyards over that decade, from 22% to 28% (the next-nearest countries being South Africa and France, with 10% and 8% of their vineyards under Syrah, respectively).

A further reason Australia's varietal mix has become more like the world's has to do with the large declines in some of the main varieties traditionally used for producing non-premium wines in the Old World (Airen, Grasevina, Mazuelo), the first two of which are not grown in Australia and Mazuelo (locally known as Carignan Noir) has had only a tiny presence. Three other low-valued traditional varieties that have declined globally, Garnacha Tinta, Sultaniye and Trebbiano, have declined in Australia also, again contributing to Australia's lack of distinctiveness vis-à-vis the rest of the world.[50]

In 2000, Australia had a higher share of its winegrapes under varieties of French origin than any country other than New Zealand and South Africa (74%), and in 2010 its share was even higher at 88%, just below China, Chile and New Zealand. (Between 2000 and 2010 the winegrape area devoted to varieties of French origin rose from 26% to 36% globally: from 20% to 27% in the Old World and from 53% to 67% in the New World's vineyards — see Anderson 2013, Tables 21 and 22.)

This is not to say that Australia is not highly ranked in terms of the global bearing area of certain varieties. On the contrary, in addition to some unique varieties developed in this country such as Tarrango, Table 166 reveals that among the varieties whose share of winegrape area in Australia exceeds that of the world (i.e., they have a VII > 1), there are ten in which Australia ranks second, five in which it ranks third, and three in which it ranks fourth globally. Australia also ranks in the top five for a further eight varieties whose VII is less than one.[51] But other key wine-producing countries also rank highly for handfuls of varieties, so Australia is not unusual in this respect either. Details of the VII for each region are presented in Table 167 based on area and Table 168 based on production volume.

---

[49] New Zealand, by contrast, had a VSI with the world of 0.34 in 2000, which fell to 0.30 by 2010.

[50] Two-thirds of what has disappeared as a winegrape in Australia since 2000 is Sultaniye (Sultana), whose area globally fell by three-quarters over the 2000-10 period.

[51] Dolcetto (2nd), Nebbiolo and Monastrell (3rd), Touriga Nacional and Tribidrag (4th), and Chenin Blanc, Cot and Tempranillo (5th).

3.6.2 Regional differences in the varietal mix within Australia

Varietal differences between regions within Australia are more muted than is the case within other countries — notwithstanding the very large differences in growing conditions across Australia. Bear in mind that it is possible for the VSI for a country vis-à-vis the world to be high but the VSI of each region in that country vis-à-vis the world to be low. In France, for example, where each region is required by law to grow only a small number of varieties that have been designated as most suitable for that region, the average of its regional VSIs of 0.29 is well below France's national VSI in 2010 of 0.72 vis-à-vis the world's varietal mix (which is the highest in the world, because so many other countries have adopted varieties from France's various diverse regions). In Australia, however, the average of its regional VSIs in 2010 of 0.53 is not much below Australia's national VSI of 0.62 (Table 169), and it is almost double the average regional VSI of other countries in the sample (including New Zealand's, which is 0.37). Moreover, in 2010, of the 3 most similar regions in the world to each of Australia's 94 regions according to the VSI, less than 7% were non-Australian regions (Table 170). In New Zealand, by contrast, more than two-thirds of the 3 most similar regions to each of its ten regions were in other countries.

It is true that some regions in Australia have managed to pull away from the pack and so are more differentiated from the national mix now than in 2000. However, a little over one-fifth of Australia's 74 regions in the global database, comprising 40% of the national winegrape area in 2010, changed their varietal mix hardly at all (the VSI of their mix in 2010 vis-à-vis 2000 was 0.97 or higher). For another one-fifth of Australia's regions, accounting for 22% of the national area, their VSI was 0.95 or 0.96; and for yet another one-fifth (18 percent of the area) their VSI was between 0.91 and 0.94. Thus it was for just Australia's remaining regions (slightly less than one-fifth of the total number and the national area) that the VSI between their varietal mix in 2000 and 2010 was less than 0.91.

The Varietal Intensity Index or VII provides another way to check on the altered varietal distinctiveness of regions. That index is the ratio of the regional to global shares of the area under a particular variety. Charts 82 and 83 show for each of three red and three white varieties the five Australian regions with the highest VIIs. In the case of red varieties, for example, the five most intense regions all have VIIs above 3, but they are all lower in 2010 than in 2000. In the case of whites there are a few regions where the VII has risen, but certainly not a majority. For Australia as a whole, for all the varieties that had a VII above one in 2010, as many as two-thirds of them had a higher VII in 2000 (Table 171).

3.7 Varietal quality differences within Australia

Given that different varieties grow better in some regions than others, and that consumer tastes differ across varieties and over time, it is not surprising that there is also considerable dispersion in the national average prices by variety. In 2001, the difference between the lowest and highest varietal prices was more than six-fold, and it shrunk very little by 2010 despite the two-fifths fall in the nominal average price for all varieties. The ranking from lowest- to highest-priced varieties changes a lot over that decade though (Tables 172 to 174). This reflects the fact that the mixes of varieties in all three climate zones in Australia have

altered considerably. Chart 84 shows that the range in 2013 from lowest-priced to highest-priced, even for just the main varieties, was four-fold, but it is six-fold if minor varieties such as Pinot Meunier are included. Moreover, for each variety there is a wide spectrum of prices across and even within regions. As Chart 67 reveals, the cross-regional range for Shiraz prices is almost as large as that for the all-variety average regional prices, even though data are not available for including some of the highest-priced cool regions with emerging Shiraz vineyards. Over the past 15 years there has been a move away from producing the lowest-quality wines though. That has caused the shift away from the left in varietal price dispersion between 1999 and 2012, which is clearly visible in the histograms for the Varietal Quality Index in Chart 85.

3.8 Varietal prices and summer temperatures

In the northern hemisphere it is common to observe an inverted U-shape relationship between the price of winegrapes and the summer temperature (Jones et al. 2005, 2012). Across Australia's regions, by contrast, that relationship tends to be only negative for observed temperatures (Chart 86). As the number of cool-climate regions expands that relationship in future years may become a little more like Europe's, but that tendency may be offset by the fact that Australia's climate continues to warm and January mean temperatures are becoming higher and bringing forward the harvest date (Webb 2006, Anderson et al. 2008). The current pattern of prices being lower in warmer regions is likely to mean that climate change will lower Australia's average winegrape price, unless vignerons switch to Southern European varieties more suited to our relatively warm climate. Indeed more than six decades ago Hickinbotham (1947) believed that Australia's hot regions were too narrowly focused on varieties from France rather than from warmer parts of Europe. Dry and Smart (1980) suggested that if acid addition had been outlawed in Australia, the hot regions would have been forced to at least add 'improver' varieties to their varietal mix.

Chapter 4:

Where to from here?

4.1 Market prospects

The Australian wine industry is not alone in feeling challenged during the past few years. Common contributors include the following:

- economic recessions on both sides of the North Atlantic,
- a chronic oversupply of winegrapes and wine in the European Union,
- retail concentration of supermarkets in many high- and middle-income countries, with the largest developing their own labels by buying bulk wine
- tight regulatory environments for wine distribution in such settings as Ontario, many of the US states and Scandinavia
- expanding supplies in emerging markets such as China
- consumer health and environmental concerns
- anti-alcohol campaigns by health and road safety lobbyists, and
- great uncertainties resulting from climate change and associated policy responses.

On top of those common challenges, Australian producers have had to deal also with such things as:

- a high-valued currency (thanks to the boom in industrial raw material and agricultural exports to China) that has made Australian wines less competitive abroad as well as at home in competition with imports
- large stocks of unsold wine (thanks to the rapidity of the latest boom's vineyard acreage expansion coupled with a slowdown in global demand)
- a fashion swing against Australian wines in the UK and US
- a fashion swing toward New Zealand's Sauvignon Blanc, and
- major reforms to irrigation water institutions and policies.

Symptoms of those difficulties for the Australian industry include large declines in winery profits, the cut in winegrape prices particularly in the hot irrigation areas, more than 15% of domestic sales being supplied by imports (compared with just 3% at the start of the millennium), and almost three-fifths of Australia's wine exports in 2014 being in bulk containers (compared with 15% in 1996-2003).

Climate change also is likely to be a bigger challenge for Australia than for many other wine-producing countries. The majority of Australia's winegrapes are produced in the hot irrigated regions around the Murray and Murrumbidgee Rivers (see Chapter 2). Those regions, like most of southern Australia, are becoming warmer and drier, and have seen a slowdown in river flows. There is also an increasing demand from the community for a larger

share of those reduced river volumes to be saved for environmental flows and urban uses, so there will be less scope in the future for irrigation to compensate for reduced precipitation. The quality of the main international winegrape varieties currently grown in that region deteriorates as the growing temperature rises (Webb, Whetton and Barlow 2008, Anderson et al. 2008), so producers are having to go to the expense of searching for and planting or grafting alternative varieties that will be more suitable. By contrast, in much of temperate Europe global warming will improve the quality of winegrapes. Ashenfelter and Storchmann (2010a, b) estimate that in the Mosel region of Germany, for example, an increase of 3^{o}C would improve winegrape quality so much as to double the value of vineyards there.

Daunting though the above lists of challenges looks, some of those adverse developments are only short term. Also, there are several positive signs already emerging. One is the cautious optimism of economic recovery that is showing up in the United States and parts of the recessed economies of Europe.

A second encouraging sign was the substantial take-up of the European Union's offer to pay winegrape growers to grub up vines during 2009-11. There has also been some grubbing out of unprofitable vineyards in the hot irrigated areas of California in recent years, as well as in Australia.

Thirdly, a recent assessment of the impact of expected demographic changes in the United States over the next two decades suggests wine consumption there will grow considerably faster than overall population: as the age and ethnic profiles alter, Lapsley (2010) concludes that wine sales could rise from 280 million cases in 2009 to around 400 million by 2030.

Fourthly, the Asian market is promising to grow steadily. Its population is expected to rise by about 750 million people by 2030, and its share of global income (ignoring Japan) is expected to double, to around 23%. Already the middle classes in those emerging economies are importing popular and fine wines — and with China producing more wine locally, often by firms partly owned by producers in the Old or New World with best-practice technical and marketing knowledge, that is adding to their consumers' interest in the product.

Not only are Asian incomes growing very rapidly and their preferences becoming more westernized, but also they are seeking relatively high-priced imported wines. In China, for example, wine from grapes in recent years has accounted for just 2% of the volume of alcohol consumption but for 8% of the value of alcohol sales.

The Asian region shows great promise for Australian wineries in particular: the market is relatively close and in the same time zone, Australia already has a strong trade and investment presence there in other product areas, and the number of alumni returning there from Australian educational institutions is growing rapidly. The region accounted for barely 4-5% of Australia's wine exports in the early 2000s, but since then its share has more than doubled (Table 16(i)). Australia is a close second to France in supplying imported wines to China, which is now Australia's third biggest market in value terms, ahead of Canada and New Zealand. Moreover, those exports are not just bulk wine used for blending with Chinese juice. Indeed their unit value was more than twice the average for all Australian wine exports in 2012-14. Australia's exports to other Asian countries enjoy substantial premia, too, earning almost three times Australia's average export price in 2012-14. Five of the East Asian countries shown in Table 16(j) are now among the top dozen destinations for Australian

wine, having grown far faster than sales to the rest of the world. With per capita consumption still very low in Asia, the potential for steady long-term growth in demand and in returns from marketing investments there, even if not instantaneous, is very considerable. This is clear in the high average unit value of wine exports to all East Asian countries from Australia: during 2011-14 it averaged $6.40 per litre, compared with less than $2.20 to all other destinations, and for exports to China (by far the biggest Asian wine market) the average price was more than $5.70 (Chart 55). In fact, 90 percent of Australia's exports of wines priced at over $50/litre went to Asia in 2014, at the same time as Australia grew its $2.50-$5.00 per litre sales to China. The recent completion of bilateral preferential trade agreements with Korea, Japan and most recently China will help to rebuild market share Australia lost to Chile and others who signed earlier agreement in Asia.

A recent global economic modelling study by Anderson and Wittwer (2013a, c, 2014a, b) projected impacts of market changes on domestic wine production, consumption and trade in key wine-producing and -consuming countries by 2018 under various growth and real exchange rate (RER) assumptions. If RERs in 2018 were to be the same as in 2011, Australia's non-premium grape and wine prices would be even lower than in 2011 while super-premium and iconic still wine prices would be more than 40 percent higher.[52] If, on the other hand, RERs were to return half-way toward what they were in 2009 — which is what had happened by the end of 2014 — and China's imports continued to grow rapidly, real producer prices in Australia would be above 2011 levels for most grape and wine types, especially for super-premium+ wines. The extent of those rises would be somewhat but not substantially less if China's import growth were to be slower.[53]

With that reversal in RER trends, Australia is projected to expand its output by 2018 for all wine types except non-premium, with commercial-premium and super-premium increases of one-eighth and one-sixth, respectively. The projected upgrading of qualities demanded in most markets means that China accounts for only about one-third of the projected growth (by about one-sixth) in the value of global imports.

Australia's export prospects depend very much on the exchange rate scenario though. If RERs were the same in 2018 as in 2011, Australia's exports to all destinations other than Asia are projected to decline, and in aggregate volume would be no more than in 2011. By contrast, if exchange rates settled at half-way back to those of 2009 — as has since happened — Australian total annual export volumes are projected to increase to become as much as one-eighth more than in 2011 (or somewhat less under slower import growth by China). Within that growth, however, Australian exports of non-premium wines are projected to fall.

Finally on market prospects, it needs to be kept in mind that Australia's per capita income growth is slowing and may even decline as the latest mining investment boom comes to an end, depending on how well the government is able to deal with the political difficulties of balancing the federal budget (Garnaut 2013). This will slow the growth in domestic

[52] Commercial-premium still wines are defined to be those between US$2.50 and 7.50 per litre pre-tax at a country's border or wholesale. Non-premium wines are defined as those below US$2.50 per litre and super-premium wines are defined as those greater than 7.50 per litre. The sparkling wine category in the model covers all price points.

[53] The lower Chinese import growth scenario assumes the growth in disposable incomes in China is one-quarter less than in the high-growth scenario, its RER ceases to appreciate, and capital investments in domestic grape and wine production grow twice as fast as in the base scenario.

demand. How much it slows the growth in Australian wine sales at home will also depend on the impact of RER changes on competition in the domestic market from imports.

4.2 What about the varietal mix across regions?

The data reviewed in Chapter 3 reveal three things about Australia's vineyard. First, Australia's mix of winegrape varieties is not very different from the rest of the world's and, since 2000, it has become even less differentiated. One reason is that even though Australia's signature variety, Shiraz, has expanded its share of the national vineyard, the importance of that variety has expanded even faster in numerous other countries. Australia's mix is now closer to that of France, since France is the closest to the global mix. Whether that is a good thing commercially is unclear, especially for Australia's hottest regions. Do Australian producers benefit enough by emulating France's varietal mix to offset any economic downsides, for example from being less differentiated from the world mix, or from growing varieties that may be less than ideal for the terroir of Australia's various regions?

Second, even though there are very large differences in growing conditions and especially climates across Australia, cross-regional varietal differences within Australia are much less than is the case within other countries. Perhaps this is a consequence of producers finding it easier to market well known 'international' (mostly French) varieties than trying to differentiate their offering and region with less familiar varieties. But it does suggest there is plenty of scope to explore alternative varieties in the various regions of Australia — which is something grapegrowers are doing in any case as they consider ways to adapt to climate change.

And third, Australia's various regions to date have made only a little headway in diversifying their vineyards — despite much discussion of alternative or emerging varieties in the media and at conferences.

This leaves open the question of *why* particular varieties have been produced at various times in Australia's various regions. To what extent is the varietal mix driven by what grows best in each location (the terroir explanation)? Gergaud and Ginsburgh (2008) argue that terroir has not been the main explanation even in Bordeaux. Is the increasing concentration on major 'international' varieties partly a result of producers in newly expanding wine-producing regions finding it easier to market them because of France's strong reputation with those varieties? Might part of the explanation also be that those key varieties do well in a wide range of growing environments, or have been found to be desirable for blending with other varieties that grow well in the same regions?

These and other centripetal forces during the first decade of this century apparently have dominated possible centrifugal forces such as intensifying competition from abroad and consumer demand for novel offerings. It remains to be seen as to whether the latter are strong enough to dominate the former over the coming years so as to differentiate Australia's regions more and thereby reverse the trend of this century's first decade.

4.3. Policy and institutional implications

How might Australia strengthen its competitive edge over the next decade or so? Looking beyond the immediate difficulties, there are reasons to be cautiously optimistic about the Australian wine industry's future. Recovery will not be easy, and may not be as quick as the resurgence from its mid-1980s slump. Certainly major adjustments will be required for many participants. However, to the extent there is a willingness to continue to invest for the long term (rather than just focusing on quarterly returns to shareholders), and if the earlier spirit of collaboration within the industry can be re-invigorated, a return to at least normal levels of profitability should be possible before long.

One adjustment already under way is in marketing. The earlier emphasis in generic marketing by the Australian Wine and Brandy Corporation on Brand Australia, of providing sunshine in a bottle, has switched to a marketing strategy that places far more emphasis on regional characteristics and higher quality wines. Wine Australia also initiated a website allowing individual producers of fine wines to tell a story about their wines (www.australiaplus.com).

That idea was taken further with the creation in 2009, by a dozen long-established, mid-sized, quality-driven, high-profile, family-owned Australian wineries, of the First Families of Wine: together they represent 16 Australian regions across four states, and between them they have more than 1200 years of winemaking experience (www.australiasfirstfamiliesofwine.com.au).

Following the merger of Wine Australia and GWRDC on 1 July 2014 to form the Australia Grape and Wine Authority, the industry is now developing its next five-year strategic plan. Its Discussion Paper (AGWA 2014b) reveals that there will be a stronger focus on building and promoting the country's fine wine offering. The aim is to go beyond offering good value wine to making the world aware Australia also has great wine, and indeed has the potential to be one of the greatest wine-producing nations in the world, given its wide range of climates and terroir.[54] Getting that message across in not only Australia's traditional markets but also in Asia will require a larger budget than AGWA's predecessor organizations have had in the past though, especially given the commitment by the European Union to more than double its generic promotion expenditure over the next five years (European Court of Auditors 2014).

In terms of private-sector promotion by individual large wine companies, they already have well-recognized labels, including five of the top dozen wine brands globally plus Penfolds (Table 27). The first four represent rather low bottle prices though (Hardy's at number four, Yellowtail at six, Jacob's Creek at nine and Lindemans at ten), while Wolf Blass is ranked twelve. Most of those labels have been selling wine in the key UK supermarkets at less than £4 a bottle over recent years, which is almost certainly not sustainable in the long run. Since competition from Argentina, Chile and South Africa at that non-premium commodity end of the wine quality spectrum is strengthening, improved profit margins require graduation to higher quality, more differentiated wines of place. One step in

[54] That Australia can produce the equivalent of Bordeaux first-growth wines is beyond dispute, even if they have yet to reach the same stratospheric prices. And the characterists of what it takes to produce them are also reasonably well known. In the case of weather variables, they have virtually the same influence on Australian iconic wines as those in Bordeaux (Wood and Anderson 2006).

that direction was the decision a few years ago by Treasury Wine Estates to abandon cask (bag-in-box) wine and thus to not renew contracts with growers of non-premium fruit. Another example is the greater emphasis being given by Pernod Ricard Australia to their Regional Reserve range of Jacob's Creek wines. Other examples are the purchase in late 2014 of Peter Lehmann Wines by Casella and Grant Burge Wines by Accolade (see Tables 22 and 23). Also helpful is the embracing of environmental stewardship by an ever-larger number of Australian producers, in the expectation that retailers and their consumers will be increasingly looking for evidence at all stages of production of sustainable use of natural resources. Numerous high-end wineries also have embraced organic and biodynamic methods in their vineyards, believing that they result in better wines that will attract higher prices, even when those methods are not advertised on the bottle label (Allen 2010).

As for the R&D portfolio of AGWA and private firms, the returns from such investments have been shown to be very high in the past. Returns in the next two decades are likely to be even higher, bearing in mind marketplace changes and long-term uncertainties such as climate change, water and other environmental policy reforms, and prospective alcohol tax changes at home and abroad. Transgenic biotechnology offers much promise for accelerating the research discovery process (Pretorius and Hoj 2005), and consumer resistance to genetic engineering is likely to gradually fade over time and thus reduce its constraint on exploiting that opportunity. The scope for collaboration across scientific disciplines could be exploited more, as could the scope for collaboration between scientists at the basic and applied ends of the spectrum, and between scientists in various countries.

As with generic promotion though, the returns to the various players along the value chain and to different types of producers and different regions from R&D investments will not be equal of course. And they will vary across the adoption time period as well, rewarding most those producers able to adopt a new technology fastest before it is mainstreamed by others nearby and abroad (Zhao, Anderson and Wittwer 2003). Ex ante economic analysis of the likely effects is one way for AGWA to anticipate the possible distributional impacts of its various strategic choices. Ideally such analysis would be undertaken with a model of global markets and not just the national market, taking into account the efforts also being considered in other key countries, for example recent innovative efforts in Chile (Dutz, O'Connell and Troncoso 2014) and proposals under consideration in Europe (Cogea 2014).

Policy reforms could contribute to the transition to higher-quality wine production. The gradual creation of better property rights for water and the increasing opportunities for them to be tradable is allowing irrigation water to be attracted to its most profitable uses. Within agriculture, vineyards have been among the more profitable crops to irrigate, so when prices for water rise in drier years vignerons will be able to out-compete other users for the available allocations.

On domestic wine taxation, if Australia were to switch from an ad valorem to a volumetric tax, as recommended by the Henry Review of Taxation (Henry 2009) and as used in most other countries, it would encourage the transition to finer wines (and it would weaken the case by anti-alcohol lobbies for a higher *rate* of taxation of wine). In particular, it would make it easier for smaller fine-wine producers to sell all their product on the domestic market, thereby avoiding the high fixed costs of breaking into new export markets (bearing in mind that successful exporting firms typically are larger and more productive — see Bernard et al.

2007, 2012).[55] There is the risk that any change to the method of taxing wine consumers will be accompanied by a hike in the extent of taxation to bring it up to at least the beer rate if not the higher spirits rate. Argumentation to that effect would need to be robustly countered by the argument that moderate wine consumption can have net positive health and social externalities rather than negative externalities on society associated with excessive alcohol consumption and especially binge drinking. According to that argument the volumetric tax on wine should be lower than that for other alcohols and potentially zero (Anderson 2010b), as it is in the major wine-producing countries of the world (Charts 45 and 46).

Advocacy by the industry on wine tax policy and myriad other issues is likely to be more successful the more the industry can speak with a united voice. That is no small task for an industry that is even more widely spread geographically and more diverse in terms of firm size and product quality than it was at the start of the present cycle a generation ago. The industry has managed recently to join its generic promotion and R&D bodies, but it still has two advocacy groups (the Winemakers' Federation of Australia, www.wfa.org.au, and Wine Grape Growers Australia, www.wgga.com.au). Independent grapegrowers and winemakers inevitably find it more difficult to see eye to eye on every issue when profits are low or negative, but that is also when the stakes in advocacy may be highest. It remains to be seen whether the strength of industry leadership that was so abundant in the 1990s can be garnered again for this second and more challenging half of the present cycle.

4.4 Some lessons from history

What lessons can be learnt from the past which are pertinent to the industry's current and prospective opportunities and challenges? For brevity's sake, these are laid out as dot-point responses to a series of questions that have arisen in the course of the present study.

Why did the Australian wine industry not take off in the latter half of the 19th century when Europe's wine industry was being ravaged by phylloxera and mildew?

- It had no large firms at that time, and the overall scale of industry was too small.
- Spain was on France's doorstep and far more capable of rapidly expanding its exports to its neighbour.
- Algeria was a close-by territory so that, as soon as French producers became established there, competitors were cut off by discriminatory import restrictions, including against Spain (Pinilla and Ayuda 2002; Pinilla and Serrano 2008; Meloni and Swinnen 2014).

Why did the industry grow so slowly during most of 20th century?

- The creation of the Australian Federation led to the removal of inter-colonial trade barriers, which assisted the South Australian wine industry greatly, but at the expense of wine producers in other mainland states.
- However, from Federation to the 1970s Australia adopted a highly interventionist, protective set of trade and industry policies that protected producers from

[55] However, a move to a volumetric tax on wine consumption — like climate change — would harm hot winegrape regions more than those in the higher latitudes and altitudes, and more so the higher is that volumetric tax rate (Anderson, Valenzuela and Wittwer 2011).

international competition and slowed innovation and hence productivity and income growth.

- The grape industry was one of the first agricultural industries to successfully lobby for such assistance, and wine imports also have been subject to tariffs from early last century. That meant both parts of the wine industry were sheltered for most of the century from the cool winds of international competition. It was also an offset to the negative effects on production costs of high protection to other industries.
- In the interwar years the industry was also distorted by policies that assisted exports but in a very discriminating way, favouring only fortified wine exports to Britain.

How important were macroeconomic conditions to the industry's cycles?

- Very: Australia suffered three severe economic depressions (in the early 1840s, early 1890s, and early 1930s), which dampened both domestic demand for wine and the availability of finance to help producers weather those downturns.
- Also, the Global Financial Crisis from 2008 and associated changes in exchange rates dampened demand for Australian wine on both sides of the North Atlantic.

How important were the fortunes of other sectors of the Australian economy to the industry's development?

- Very: the gold rushes in the 1850s and 1890s had a generally positive effect because they brought permanent immigrants and capital from abroad, which grew the domestic demand for wine.
- The ban on iron ore exports from the 1930s to the 1960s delayed the start of a mining boom in response to Japan's industrialization, which benefitted wine and other tradable industries relatively, but meant the economy grew less rapidly than it might have in the 1960s and 1960s.
- The latest two mining booms, in the 1970s/early 1980s and especially in the first dozen years of the present century, contrasted with the 19th century mining booms in that they attracted few extra permanent residents and were financed mostly by footloose overseas capital. Being export-demand driven, those mining boom involved major real exchange rate appreciations followed by major and faster depreciations. Since the wine industry was far more open to international competition in the past two decades than it had been throughout most of the 20th century, those exchange rate gyrations had a major impact on the wine industry's current cycle (contributing positively to the start of its boom, negatively to its end, and potentially positively again if the Australian dollar remains at its current low level for some years to come).

How have successful investors in the wine industry behaved in past cycles?

- Cycles are inevitable for perennial crop industries, so canny investors with finance and market outlets have bought assets in slumps, giving them a reasonable return on those low-priced assets and readying them for take-off in the next boom when they can sell those assets at higher prices and lower their capital base to concentrate on brand investment.

Why was there such a sharp downturn in the present cycle?

- It was affected by a perfect storm of coincident influences: the biggest and longest demand-driven mining investment boom and hence RER appreciation in Australia's history, the deepest global recession since the early 1930s, coming at the end of one of Australia's longest droughts followed by floods, and at a time of rapid wine export expansion in other New World countries.

4.4 Conclusion

What can be done to shorten the current slump and reduce the amplitude of future cycles? Firms have numerous strategies. Those that have been long-established know that cycles are normal and recoveries tend to be slow, so they preserve some earnings from high-profit booms to carry them through the long periods of low returns that tend to follow. In this era of flexible and volatile exchange rates, they also hedge against currency fluctuations. They also use the slump period when asset prices are low to shift new investments from low-return to prospectively higher-return regions and even to other countries, so as to also hedge against macroeconomic shocks and improve access to more market and technical knowledge.

The industry as a whole needs to invest more in at least four areas: generic promotion; technical, policy and market research; data on industry developments; and collaborating better on these and other issues including advocacy. Had better and more timely data been available in the latter 1990s, there may have been fewer inappropriate investments in vineyard expansion. The Australian Bureau of Statistics has been scaling back its collection of data in recent years, and it expects the industry to fully cover the cost of collecting extra data. A new strategy for data collection and its analysis is therefore needed, and its implementation will require more industry resources than have hitherto been made available in this area if the government continues to cut back on public data collecting.

One of the clearest lessons from the past 170 years is that distortionary government policies tend to exacerbate rather than smooth adjustments in the industry as it goes through each cycle. An ongoing objective of the industry should be to keep governments out of markets and confine their activities to generating public goods and overcoming market failures such as the free-rider problem of collecting levies for generic promotion and R&D.

References

ABARES (2014 and earlier issues), *Australian Commodities*, Canberra: Australian Bureau of Agricultural and Resource Economics and Sciences.

ABS (2014 and earlier issues), Catalogue Nos. 1301.0, 1329.0, 3105.0, 3105.0.65.001, 4307.0.55.001, 4618.0, 5220.0, 5206.0, 7125.0, Canberra: Australian Bureau of Statistics, www.abs.gov.au

ABS (2012), *Vineyards Estimates, Australia, 2011-12*, Canberra: Australian Bureau of Statistics, Catalogue No. 1329.0.55.002, October.

ABS (2014 and earlier issues), *Yearbook of Australia,* Canberra: AGPS.

AGWA (2014a), *Winegrape Purchases: Price Dispersion Report 2014*, Adelaide: Australian Grape and Wine Authority, accessed 8 January 2005 at www.wineaustralia.com/en/Winefacts

AGWA (2014b), *Strategic Plan 2015-2020: Discussion Paper,* Adelaide: Australian Gape and Wine Authority, December.

AGWA (2015), *Winefacts,* Adelaide: Australian Grape and Wine Authority, www.wineaustralia.com/en/Winefacts

Aizenman, J. and B. Brooks (2008), 'Globalization and Taste Convergence: the Cases of Wine and Beer', *Review of International Economics* 16(2): 217-33.

Allen, M. (2010), *The Future Makers: Australian Wines for the 21st Century,* Melbourne and London: Hardie Grant Books.

Allen, M. (2012), *The History of Australian Wine: Stories from the Vineyard to the Cellar Door,* Melbourne: Victory Books (Melbourne University Publishing Ltd).

Alston, J.M., Andersen, M.A., James, J.S. and Pardey, P.G. (2010), *Persistence Pays: U.S. Agricultural Productivity Growth and the Benefits from Public R&D Spending,* New York: Springer.

Alston, J., G.W. Norton and P. Pardey (1998), *Science Under Scarcity: Principles and Practice for Agricultural Research Evaluation and Priority Setting,* London: CAB International.

Anderson, K. (ed.) (1992), *New Silk Roads: East Asia and World Textile Markets*, Cambridge and New York: Cambridge University Press.

Anderson, K. (ed.) (2004), *The World's Wine Markets: Globalization at Work*, Cheltenham UK: Edward Elgar.

Anderson, K. (2010a), 'Varietal Intensities and Similarities of the World's Wine Regions', *Journal of Wine Economics* 5(2): 270-309, Winter.

Anderson, K. (2010b), 'Reforming Taxes on Wine and Other Alcoholic Beverage Consumption', *Economic Papers* 29(2): 197-99, June.

Anderson, K. (2010c), 'Excise and Import Taxes on Wine vs Beer and Spirits: An International Comparison', *Economic Papers* 29(2): 215-28, June.

Anderson, K. (2011), 'Contributions of the Innovation System to Australia's Wine Industry Growth', Ch. 4 in *Innovation and Technological Catch-Up: The Changing Geography of Wine Production,* edited by E. Giuliani, A. Morrison and R. Rabellotti, Cheltenham UK: Edward Elgar.

Anderson, K. (2012), 'Is Georgia the Next "New" Wine-Exporting Country? *Journal of Wine Economics* 8(1): 1-28, Spring.

Anderson, K. (2014a), 'Evolving Varietal Distinctiveness of the World's Wine Regions: Evidence from a New Global Database', *Journal of Wine Economics* 9(3): 249-73.

Anderson, K. (2014b), 'Mining's Impact on Australia's Agricultural Competitiveness, Past and Prospective', 2014 Shann Memorial Lecture, University of Western Australia, 25 September.

Anderson, K. (2014c), 'Agricultural Trade Consequences of Asia's Economic Growth: A Case Study of Wine', Ch. 4 (pp. 43-63) in *Trade, Development, and Political Economy in East Asia*, edited by P. Athukorala, A.A. Patunru and B. Resosudarmo, Singapore: Institute of Southeast Asian Studies.

Anderson, K. (2015), 'Global Wine Markets, 1843 to 2013: A Statistical Compendium', database to be posted at www.adelaide.edu.au/wine-econ, Wine Economics Research Centre, Adelaide (forthcoming).

Anderson, K. (with the assistance of N.R. Aryal) (2013), *Which Winegrape Varieties are Grown Where? A Global Empirical Picture*, Adelaide: University of Adelaide Press. www.adelaide.edu.au/press/titles/winegrapes

Anderson, K. (with the assistance of N.R. Aryal) (2014), 'Excise Taxes on Wines, Beers and Spirits: An Updated International Comparison', *Wine and Viticulture Journal* 2(6): 66-71, November/December.

Anderson, K. and N.R. Aryal (2013a), *Database of Regional, National and Global Winegrape Bearing Areas by Variety, 2000 and 2010*, freely available in Excel files at the University of Adelaide's Wine Economics Research Centre, at www.adelaide.edu.au/wine-econ/databases.

Anderson, K. and N.R. Aryal (2013b), 'Where in the World are Various Winegrape Varieties Grown? Evidence From a New Database', *OIV Bulletin* 86(994): 461-84, December.

Anderson, K. and N.R. Aryal (2015), *Australian Grape and Wine Industry Database, 1843 to 2013*, freely available at the Wine Economics Research Centre, University of Adelaide, Adelaide, at www.adelaide.edu.au/wine-econ/databases

Anderson, K., C. Findlay, S. Fuentes and S. Tyerman (2008), 'Viticulture, Wine and Climate Change', Commissioned Paper for the Garnaut Climate Change Review, June. www.garnautreview.org.au

Anderson, K. and R. Garnaut (1987), *Australian Protectionism: Extent, Causes and Effects*, Boston, London and Sydney: Allen and Unwin.

Anderson, K., P.J. Lloyd and D. MacLaren (2007), 'Distortions to Agricultural Incentives in Australia Since World War II', *The Economic Record* 83(263): 461-82, December.

Anderson, K. and S. Nelgen (2011), *Global Wine Markets, 1961 to 2009: A Statistical Compendium*, Adelaide: University of Adelaide Press. www.adelaide.edu.au/press/titles/global-wine Excel files are freely available at www.adelaide.edu.au/wine-econ/databases/GWM

Anderson, K., S. Nelgen, E. Valenzuela and G. Wittwer (2010), *Economic Contributions and Characteristics of Grapes and Wine in Australia's Wine Regions*, Working Paper 0110, Adelaide, Wine Economics Research Centre, www.adelaide.edu.au/wine-econ/papers/0110_Aust_wine_regions_0210.pdf

Anderson, K., D. Norman and G. Wittwer (2003), 'Globalization of the World's Wine Markets', *The World Economy* 26(5): 659-87, May.

Anderson, K. and B. Smith (1981), 'Changing Economic Relations Between Asian ADCs and Resource-Exporting Developed Countries', in *Trade and Growth in the Advanced Developing Countries*, edited by W. Hong and L. Krause, Seoul: Korea Development Institute Press.

Anderson, K., E. Valenzuela and G. Wittwer (2011), 'Wine Export Demand Shocks and Wine Tax Reform in Australia: Regional Consequences using an Economy-Wide Approach', *Economic Papers* 30(3): 386-99, September.

Anderson, K. and G. Wittwer (2001), 'World Wine Market in 2005: Effects of Faster Asian Demand Growth', in *Proceedings of the 26th World Congress of the OIV*, Paris: Office International de la Vigne et du Vin, October.

Anderson, K. and G. Wittwer (2013a), 'Modeling Global Wine Markets to 2018: Exchange Rates, Taste Changes, and China's Import Growth', *Journal of Wine Economics* 8(2): 131-58.

Anderson, K. and G. Wittwer (2013b), **'**How Much Have Exchange Rate Movements Reduced Competitiveness of Australian Wines?' *Australian and New Zealand Grapegrower and Winemaker* 590: 73-76, March.

Anderson, K. and G. Wittwer (2013c), **'**How Large Could Australia's Wine Exports to China be by 2018?', *Wine and Viticulture Journal* 28(6): 60-64, November/December.

Anderson, K. and G. Wittwer (2014a), **'**A Global Macroeconomic Perspective on Australia's Wine Industry', Ch.1 in *Proceedings of the 15th Australian Wine Industry Technical Conference*, eds. R.J. Blair and D. Johnson, Adelaide: Australian Wine Research Institute.

Anderson, K. and G. Wittwer (2014b), **'**How Much Will Exchange Rates Affect Wine Export Prospects?', *Australian and New Zealand Grapegrower and Winemaker* 602: 16-17, March.

Antcliff, A.J. (1977), 'Variety Identification in Australia', *Australian Grapegrower and Winemaker* 160: 82-88, April.

Ashenfelter, O. and K. Storchmann (2010a), 'Using Hedonic Models of Solar Radiation and Weather to Assess the Economic Effect of Climate Change: The Case of Mosel Valley Vineyards', *Review of Economics and Statistics* 92(2): 333-49, May.

Ashenfelter, O. and K. Storchmann (2010b), 'Measuring the Economic Effects of Global Warming on Viticulture Using Auction, Retail and Wholesale Prices', AAWE Working Paper No. 60, May, available at www.wine-economics.org

Ashenfelter, O. and K. Storchmann (2014), 'Wine and Climate Change', AAWE Working Paper No. 152, March. www.wine-economics.org

AWBC and WFA (2007), *Wine Australia: Directions to 2025,* Adelaide: Australian Wine and Brandy Corporation and Winemakers Federation of Australia, www.wineaustralia.com/Australia/Default.aspx?tabid=3529

AWF (1995), *Strategy 2025: The Australian Wine Industry*, Adelaide: Winemakers' Federation of Australia for the Australian Wine Foundation.

AWRI (2014 and earlier issues), *Annual Report,* Adelaide: Australian Wine Research Institute.

Balassa, B. (1965), 'Trade Liberalization and 'Revealed' Comparative Advantage', *Manchester School of Economic and Social Studies* 33(2): 99-124, May.

Ballingall, J. and C. Schilling (2009), 'Economic Impact of the New Zealand Wine Industry', A report to New Zealand Winegrowers, Wellington: New Zealand Institute for Economic Research, April.

Beeston, J. (1999), *Wine Regions in Australia,* Sydney: Allen and Unwin.

Beeston, J. (2001), *A Concise History of Australian Wine*, 3rd Edition, Sydney: Allen and Unwin.

Bell, G. (1993), 'The South Australian Wine Industry, 1858-1876', *Journal of Wine Research* 4(3): 147-63.

Bell, G. (1994), 'The London Market for Australian Wine, 1851-1901: A South Australian Perspective', *Journal of Wine Research* 5(1): 19-40.

Berger, N. and K. Anderson (1999), 'Consumer and Import Taxes in the World Wine Market: Australia in International Perspective', *Australasian Agribusiness Review* 7(3), June.
Bernard, A.B., J.B. Jensen, S.J. Redding and P.K. Schott (2007), 'Firms in International Trade', *Journal of Economic Perspectives* 21(3): 105-30, Summer.
Bernard, A.B., J.B. Jensen, S.J. Redding and P.K. Schott (2012), 'The Empirics of Firm Heterogeneity and International Trade', *Annual Review of Economics* 4(1): 283-313.
Blainey, G. (1966), *The Tyranny of Distance: How Distance Shaped Australia's History*, Melbourne and London: Macmillan.
Briggs, A. (1985), *Wine for Sale: Victoria Wine and the Liquor Trade, 1860-1984*, London: B.T. Batsford.
Butlin, M., R. Dixon and P.J. Lloyd (2014), 'A Statistical Narrative: Australia, 1800-2010', Ch. 21 in *The Cambridge Economic History of Australia,* edited by S. Ville and G. Withers, Cambridge and New York: Cambridge University Press.
Butlin, N.G. (1962), *Australian Domestic Product, Investment and Foreign Borrowing 1861-1938/39*, Cambridge: Cambridge University Press.
Butlin, N.G. (1983), 'Yo, Ho, Ho and How Many Bottles of Rum?', *Australian Economic History Review* 23(1): 1-27, March.
Butlin, N.G. (1986), 'Contours of the Australian Economy 1788-1860', *Australian Economic History Review* 26(2): 96-125, September.
Butlin, N.G. (1994), *Forming a Colonial Economy, Australia 1810-1850*, Cambridge: Cambridge University Press.
Butlin, N.G. and W.A. Sinclair (1986), 'Australian Gross Domestic Product 1788-1860: Source and Methods', *Australian Economic History Review* 26(2): 127-47, September.
Caillard, A. (2013), *The Rewards of Patience* (Seventh Edition), Melbourne and London: Hardie Grant Books.
Campbell, C. (2004), *Phylloxera: How Wine Was Saved for the World*, London: HarperCollins Publishers.
Cashin, P. (1995), 'Economic Growth and Convergence Across the Seven Colonies of Australasia: 1861-1991', *Economic Record* 71(213): 132-44, June.
Cogea (2014), *Study on the Competitiveness of European Wines,* Brussels: European Commission, October.
Commonwealth of Australia (1902), *A Statistical Account of the Seven Colonies of Australasia,* Melbourne: Government Printer.
Corden, W.M. (1984), 'Booming Sector and Dutch Disease Economics: Survey and Consolidation', *Oxford Economic Papers* 36(3): 359-80, November.
Cross, R., A.J. Plantinga and R.N. Stavins (2011), 'The Value of Terroir: Hedonic Estimation of Vineyard Sale Prices', *Journal of Wine Economics* 6(1): 1-14.
Davidson, B.R. (1969), *Australia Wet or Dry?* Melbourne: Melbourne University Press.
Deloitte and NZW (2014), *Vintage 2014 New Zealand Wine Industry Benchmarking Survey*, Auckland: New Zealand Winegrowers, December.
Dingle, A.E. (1980), '"The Truly Magnificent Thirst": An Historical Survey of Australian Drinking Habits', *Historical Studies* 19(75): 227-49.
Dixit, A. and R.S. Pindyck (1994), *Investment Under Uncertainty*, Princeton NJ: Princeton University Press.
Dry, P.R. and R.E. Smart (1980), 'The Need to Rationalize Wine Grape Variety Use in Australia', *Australian Grapegrower and Winemaker* 196: 55-60.
Dunstan, D. (1994), *Better Than Pommard! A History of Wine in Victoria*, Melbourne: Australian Scholarly Publishing and the Museum of Victoria.

Dutz, M.A., D.S. O'Connell and J.L. Troncoso (2014), 'Public and Private Investments in Innovation Capabilities: Structural Transformation in the Chilean Wine Industry', Policy Research Working Paper 6983, World Bank, Washington DC, July.

Eurostat (2013), Basic Vineyard Survey, accessible by navigating ['Agriculture, forestry and fisheries à "Agriculture" à "Vineyard survey" à "Basic vineyard survey"] at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

European Court of Auditors (2014), 'Is the EU Investment and Promotion Support to the Wine Sector Well Managed and Are its Results on the Competitiveness of EU Wines Demonstrated?', Special Report No. 9, Luxembourg: Publications Office of the European Union.

Faith, N. (2003), *Australia's Liquid Gold,* London: Mitchell Beazley.

Fajgelbaum, P., G.M. Grossman and E. Helpman (2011), 'Income Distribution, Product Quality and International Trade', *Journal of Political Economy* 119(4): 721-65, August.

Findlay, R. and K.H. O'Rourke (2007), *Power and Plenty: Trade, War and the World Economy in the Second Millennium*, Princeton NJ: Princeton University Press.

Fogarty, J.J. (2010), 'The Demand for Beer, Wine, and Spirits: A Survey of the Literature', *Journal of Economic Surveys* 24(3): 428-78.

Francis, A.D. (1972), *The Wine Trade*, London: Adam and Charles Black.

Freebairn, J. (2015), 'Mining Booms and the Exchange Rate', *Australian Journal of Agricultural and Resource Economics* 59 (forthcoming).

Friberg, R., R.W. Paterson and A.D. Richardson (2011), 'Why is there a Home Bias: A Case Study of Wine', *Journal of Wine Economics* 6(1): 37-66.

Garnaut, R. (2013), *Dog Days: Australia After the Boom,* Melbourne: Penguin.

Gerguad, O. and V. Ginsburg (2008), 'Natural Endowments, Production Technologies and the Quality of Wines in Bordeaux: Does Terroir Matter?' *Economic Journal* 118(529): F142-57, June. Reprinted in *Journal of Wine Economics* 5(1): 3-21, 2010.

Gillitzer, C. and J. Kearns (2005), 'Long-term Patterns in Australia's Terms of Trade', RDP2005-01, Reserve Bank of Australia, Sydney, April.

Giuliana, E., A. Morrison and R. Rabellotti (eds) (2011), *Innovation and Technological Catch-up: The Changing Geography of Wine Production,* Cheltenham UK: Edward Elgar.

Gladstones, J. (1992), *Viticulture and Environment,* Adelaide: Winetitles.

Gregory, R.G. (2014), 'Living Standards, Terms of Trade and Foreign Ownership: reflections on the Australian Mining Boom', *Australian Journal of Agricultural and Resource Economics* 56(2): 171-200, April.

Griffiths, J.M. (1966), *The Wine Industry of South Australia 1880-1914*, unpublished B.A. Honours Thesis, Department of History, University of Adelaide, Adelaide.

Griliches, Z. (1979), 'Issues in Assessing the Contribution of R&D to Productivity Growth', *Bell Journal of Economics* 10: 92-116, Spring.

GWRDC (2014 and earlier issues), *Annual Report,* Adelaide: Grape and Wine Research and Development Corporation.

Halliday, J. (1994), *A History of the Australian Wine Industry: 1949-1994*, Adelaide: Winetitles for the Australian Wine and Brandy Corporation.

Halliday, J. (1998), *Wine Atlas of Australia and New Zealand,* Sydney: Harper Collins.

Halliday, J. (2014), *Top 100 Australian Wineries: From Vines to Wines, Histories to Vintages,* Melbourne and London: Hardie Grant Books.

Hardy Family (1953), *The Hardy Tradition: Tracing the Growth and Development of a Great Wine-Making Family Through its First Hundred Years*, Adelaide: Thomas Hardy and Sons.

Harley, C.K. **(**1988), 'Ocean Freight Rates and Productivity, 174-1913: The Primacy of Mechanical Invention Reaffirmed', *Journal of Economic History* 48: 851-76, December.

Hatton, T.J., K.H. O'Rourke and J.G. Williamson (eds.) (2007), 'Introduction', pp. 1-14 in *The New Comparative Economic History: Essays in Honor of Jeffrey G. Williamson,* Cambridge MA: MIT Press.

Hayami, Y. and V.W. Ruttan (1985), *Agricultural Development: An International Perspective,* Baltimore MD: Johns Hopkins University Press.

Helpman, E., D. Marin and T. Verdier (eds) (2008), *The Organization of Firms in a Global Economy*, Cambridge MA: Harvard University Press.

Henry, K. (2009), *Australia's Future Tax System: Report to the Treasurer, The Henry Review*, Canberra: The Treasury, December, at: www.taxreview.treasury.gov.au

Hickinbotham, A.R. (1947), 'Problems of viticulture', *Australian Brewing and Wine Journal* pp. 24-28, May 20 and pp. 23-25, June 20.

Higgs, D. (2010), *Vinodiversity — The Book: New Grape Varieties and Wines in Australia,* Melbourne: Vinodiversity. For updates see www.vinodiversity.com

Hoole, B.J. (1997), 'Securing Supply Through Improved Grower and Processor Relationships: Orlando Wyndham Pty Ltd', Ch. 8 in *Competitive Performance: Case Studies on the Australian Agribusiness Experience*, edited by D. Gifford, L. Hall and R. Collins, East Hawthorn: Morescope Publishing for DPIE.

Horridge, M. (2000), 'ORANI-G: A General Equilibrium Model of the Australian Economy', Preliminary Working Paper No. OP-93, Centre of Policy Studies, Monash University, October.

Horridge, M. and G. Wittwer (2008), 'Creating and Managing an Impossibly Large CGE Database that is Up-to-date', paper presented at the 11th Annual Global Economic Analysis Conference, Helsinki, 12-14 June. http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

Hummels, D.L. (2007), 'Transportation Costs and International Trade in the Second Era of Globalization', *Journal of Economic Perspectives* 21(3): 131-54, Summer.

Hurley, T.M., X. Rao and P.G. Pardey (2014), 'Re-examining the Reported Rates of Return to Food and Agricultural Research and Development', *American Journal of Agricultural Economics* forthcoming (published online 8 July).

Intangible Business (2014), *The Power 100: The World's Most Powerful Spirits and Wine Brands, 2013,* London: Intangible Business, www.drinkspowerbrands.com/The-Power-100-2013.pdf

Irvine, H.W.H. (1892), *Report on the Australian Wine Trade*, Melbourne: R.S. Brain, Government Printer for the Victorian Minister of Agriculture.

Jaffe, A.B. (1986), 'Technological Opportunity and Spillovers of R&D: Evidence from Firms' Patents Profits and Market Value', *American Economic Review* 76(5): 984-1001, December.

Jaffe, A.B. (1989), 'Real Effects of Academic Research', *American Economic Review* 79(5): 957-70, December.

Johnson, H. and J. Robinson (2013), *World Atlas of Wine,* 7th edition, London: Mitchell Beasley.

Jones, G.V., R. Reid and A. Vilks (2012), 'Climate, Grapes, and Wine: Structure and Suitability in a Variable and Changing Climate', pp. 109-133 in The Geography of Wine: Regions, Terroir, and Techniques, edited by P. Dougherty, London: Springer Press.

Jones G.V., M.A. White, O.R. Cooper and K. Storchmann (2005), 'Climate Change and Global Wine Quality', *Climatic Change* 73(3): 319-43.

Kelly, A.C. (1861), *The Vine in Australia,* Sydney: Sands and Kenny. Reprinted by Kessinger Legacy Reprints, Whitefish, Montana, USA, 2010.
Kelly, A.C. (1867), *Wine-growing in Australia*, Adelaide: E.S. Wigg.
Krueger, A.O. (1977), *Growth, Distortions and Patterns of Trade Among Many Countries*, Princeton, NJ: International Finance Section.
Laffer, H.E. (1949), *The Wine Industry of Australia*, Adelaide: Australian Wine Board.
Lapsley, J. (2010), 'Looking Forward: Imagining the US Wine Market in 2030', Symposium on Outlook and Issues for the World Wine Market, University of California, Davis, 25 June.
Leamer, E.E. (1987), 'Paths of Development in the Three-Factor, n-Good General Equilibrium Model', *Journal of Political Economy* 95(5): 961-99.
Lewin, B. (2010), *Wine Myths and Reality,* Dover: Vendange Press and San Francisco: Wine Appreciation Guild
Lewis, M. (1992), *A Rum State: Alcohol and State Policy in Australia 1788-1988*, Canberra: Australian Government Publishing Service.
Lloyd, P.J. (1973), *Non-tariff Distortions of Australian Trade,* Canberra: Australian National University Press.
Lloyd, P.J. and D. MacLaren (2015a), 'Assistance to Australian Agriculture from Federation to World War II', *Australian Journal of Agricultural and Resource Economics* 59 (forthcoming).
Lloyd, P.J. and D. MacLaren (2015b), 'Relative Assistance to Australian Agriculture and Manufacturing Since Federation', *Australian Journal of Agricultural and Resource Economics* 59 (forthcoming).
Maddison, A. (2013), *The Maddison-Project Database*, freely available at http://www.ggdc.net/maddison/maddison-project/home.htm
Maddock, R. and I. McLean (1984), 'Supply-Side Shocks: The Case of Australian Gold', *Journal of Economic History* 64(4): 1047-67, December.
Markusen, J.R. (2013), 'Putting Per-Capita Income Back into Trade Theory', *Journal of International Economics* 90(2): 255-65, July.
Mathews, I.H. (2013), *Chequered Lives: John Barton Hack and Stephen Hack and the Early Days of South Australia,* Adelaide: Wakefield Press.
McGovern, P. (2003), Ancient *Wine: The Search for the Origins of Viticulture,* Princeton NJ: Princeton University Press.
McGovern, P. (2009), *Uncorking the Past: The Quest for Wine, Beer, and Other Alcoholic Beverages,* Berkeley CA: University of California Press.
McIntyre, J. (2012), *First Vintage: Wine in Colonial New South Wales,* Sydney: University of New South Wales Press.
McLeod, R. (2002), *Ex Ante and Ex Post Cost Benefit Analysis of the GWRDC's Project Portfolio*, Adelaide: Grape and Wine Research and Development Corporation.
Melitz, M.J. (2003), 'The Impact of Trade on Intra-industry Reallocations and Aggregate Industry Productivity', *Econometrica* 71(6): 1692-725.
Melitz, M.J. and G.I.P. Ottaviano (2008), 'Market Size, Trade and Productivity', *Review of Economic Studies* 75(1): 295-316, January.
Melitz, M.J. and S.J. Redding (2014), 'Missing Gains from Trade', *American Economic Review* 104(5): 317-21, May.
Meloni, G. and J. Swinnen (2013), 'The Political Economy of European Wine Regulations', *Journal of Wine Economics* 8(3): 244-84, Winter.
Meloni, G. and J. Swinnen (2014), 'The Rise and Fall of the World's Largest Wine Exporter — and its Institutional Legacy', *Journal of Wine Economics* 9(1): 3-33, Spring.
Mill, S. (1925), *Taxation in Australia,* London: Macmillan.

Mohammed, S.I. and J.G. Williamson (2004), 'Freight Rates and Productivity Gains in British Tramp Shipping 1869-1950', *Explorations in Economic History* 41(2): 172-203.

Moriondo, M., G.V. Jones, B. Bois, C. Dibari, R. Ferrise, G. Trombi and M. Bindi (2013), Projected Shifts of Wine Regions in Response to Climate Change, *Climatic Change* 119(3-4): 825-39. DOI 10.1007/s10584-013-0739-y

Nayak, A. (2011), 'Does Variety Fit the Quality Bill? Factor-Endowments Driven Differences in Trade, Export Margins, Prices and Production Techniques', mimeo, Purdue University, West Lafayette IN, May. www.auburn.edu\~azn0018

Nye, J.V.C. (2007), *War Wine, and Taxes: The Political Economy of Anglo-French Trade, 1689-1900,* Princeton NJ: Princeton University Press.

0'Mahony, B., J. Hall, L. Lockshin, L. Jago and G. Brown. (2006), 'Understanding the Impact of Wine Tourism on Post-tour Purchasing Behaviour', in Carslen and Charters (eds), *Global Wine Tourism: Research, Management and Marketing*, Oxford: Oxford University Press.

O'Rourke, K.H. and J.G. Williamson (2002), 'When Did Globalisation Begin?', *European Review of Economic History* 6(1): 23-50, April.

Olmstead, A.L. and P.W. Rhode (2007), 'Biological Globalization: The Other Grain Invasion', Ch. 5 in T.J. Hatton, K. H. O'Rourke and J.G. Williamson (eds), *The New Comparative Economic History: Essays in Honor of Jeffrey G. Williamson,* Cambridge MA: MIT Press.

Osmond, R. and K. Anderson (1998), *Trends and Cycles in the Australian Wine Industry, 1850 to 2000,* Adelaide: Centre for International Economic Studies, www.adelaide.edu.au/wine-econ/papers/Aust_Wine_Trends_and_Cycles_1998.pdf

Pardey, P.G., N.M. Beintema, S. Dehmer, and S. Wood (2006), *Agricultural Research: A Growing Global Divide?* IFPRI Food Policy Report, Washington DC: International Food Policy Research Institute.

Phylloxera Board (2013), *SA Winegrape Crush Survey: State Summary Report 2013*, Adelaide: Phylloxera and Grape Industry Board of South Australia.

Pinilla, V. (2014), 'Wine Historical Statistics: A Quantitative Approach to its Consumption, Production and Trade, 1840-1938', AAWE Working Paper No. 167**,** www.wine-economics.org/aawe/wp-content/uploads/2014/08/AAWE_WP167.pdf

Pinilla, V. and M.I. Ayuda (2002), 'The Political Economy of the Wine Trade: Spanish Exports and the International Market, 1890-1935', *European Review of Economic History* 6: 51-85.

Pinilla, V. and R. Serrano (2008), 'The Agricultural and Food Trade in the First Globalization: Spanish Table Wine Exports 1871 to 1935, A Case Study', *Journal of Wine Economics* 3(2): 132-48.

Pope, D. (1971), 'Viticulture and Phylloxera in North-East Victoria', *Australian Economic History Review* 10(1).

Powell, K.C. (1988), *Drinking and Alcohol in Colonial Australia, 1788-1901*, Canberra: Australian Government Publishing Service.

Productivity Commission (2011), *Rural Research and Development Corporations*, Final Inquiry Report 52, Canberra: Productivity Commission.

Pretorius, I.S. and P.B. Hoj (2005), 'Grape and Wine Biotechnology: Challenges, Opportunities and Potential Benefits', *Australia Journal of Grape and Wine Research* 11(2): 83-108.

Rabobank (2012), 'The Incredible Bulk: The Rise in Global Bulk Wine Trade', Rabobank Industry Note # 296, October.

Rabobank (2014), 'Charting the Course for the Wine Industry's Future', Rabobank Industry Note # 468, December.
Rankine, B. (1996), *Evolution of the Modern Australian Wine Industry: A Personal Appraisal*, Adelaide: Ryan Publications.
Robinson, J., J. Harding and J.F. Vouillamoz (2012), *Wine Grapes: A Complete Guide to 1,368 Vine Varieties, Including their Origins and Flavours,* London: Allen Lane.
Schamel, G. and K. Anderson (2003), 'Wine Quality and Varietal, Regional and Winery Reputations: Hedonic Prices for Australia and New Zealand', *The Economic Record* 79(246): 357-69, September.
Seppelt, J.E. (1951), *The House of Seppelt 1851-1951: Being an Historical Record of the Life and Times of the Seppelt Family Through Four Generations*, Adelaide: Berkelouw Rare Books Department.
Sieper, E. (1982), *Rationalizing Rustic Regulation,* Sydney: Centre for Independent Studies.
Silicon Valley Bank (2015), *State of the Wine Industry 2015,* Santa Clara CA: Silicon Valley Bank, January.
Simpson, J. (2011), *Creating Wine: The Emergence of a World Industry, 1840-1914,* Princeton NJ: Princeton University Press.
Sinclair, W.A. (2009), *Annual Estimates of Gross Domestic Product: Australian Colonies/States 1861-1976/77,* Monash University, Clayton, Vic. Database freely accessible at http://arrow.monash.edu.au/hdl/1959.1/88855
Stigler, G.J. and G.S. Becker (1977), 'De Gustibus Non Est Disputandum', *American Economic Review* 67(2): 76-90, March.
Unwin, T. (1991), *Wine and the Vine: An Historical Geography of Viticulture and the Wine Trade*, London and New York: Routledge.
Vanplew, W. (1987), *Australians: Historical Statistics*, Sydney: Fairfax, Syme and Weldon.
Venables, A.J. (2004), 'Small, Remote and Poor', *World Trade Review* 3(3): 453-57, November.
Ward, R. (1966), *The Australian Legend,* 2nd Edition, London and Melbourne: Oxford University Press.
Walker, A. (2014), *Vintage Tasmania: The Complete Book of Tasmanian Wine,* available from www.providoretasmania.com.au
Webb, L.B. (2006), *The Impact of Projected Greenhouse Gas-induced Climate Change on the Australian Wine Industry*, unpublished PhD thesis, University of Melbourne, Parkville, October.
Webb, L.B., P.H. Whetton and E.W.R. Barlow (2008), 'Climate Change Impacts on Australian Viticulture', pp. 99-105 in *Proceedings of the 13th Australian Wine Industry Technical Conference*, edited by R. Blair, P. Williams and S. Pretorius, Adelaide: AWITC Inc.
WFA (1999), *Vintage: the Australian Wine Yearbook,* Adelaide: Winemakers' Federation of Australia.
WFA (2014), *Vintage Report 2014,* Adelaide: Winemakers Federation of Australia, October.
WGGA (2013), *National Winegrape Grower Booklet*, Adelaide: Wine Grape Growers' Association, November.
Williams, A. (1995), *Flying Winemakers: The New World of Wine*, Adelaide: Winetitles.
Winetitles (2014 and earlier), *Australian and New Zealand Wine Industry Directory*, Adelaide: Winetitles, www.winebiz.com.au
Wittwer, G. and K. Anderson (1998a), *Tax Reform and the Australian Wine Industry***,** Adelaide: Centre for International Economic Studies.
Wittwer, G. and K. Anderson (1998b), 'Impact of Tax Reform on the Wine Industry', *Australian Grapegrower and Winemaker* 418: 62-66, October.

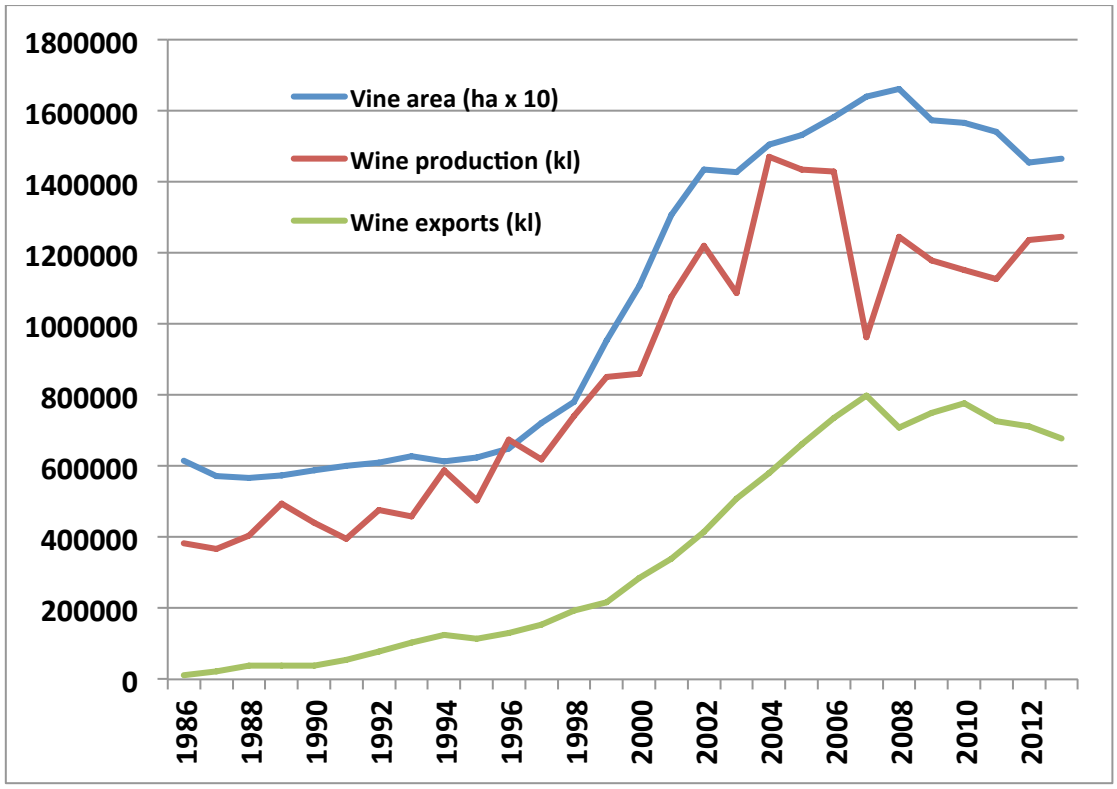
Wittwer, G. and K. Anderson (2001), 'Accounting for Growth in the Australian Wine Industry, 1987 to 2003', *Australian Economic Review* 34(2): 179-89, June.
Wittwer, G. and K. Anderson (2002), 'Impact of the GST and Wine Tax Reform on Australia's Wine Industry: A CGE Analysis', *Australian Economic Papers* 41(1): 69-81, March.
Wittwer, G., N. Berger and K. Anderson (2003), 'A Model of the World's Wine Markets', *Economic Modelling* 20(3): 487-506, May.
Wittwer, G. and M. Horridge (2010), 'Bringing Regional Detail to a CGE Model Using Census Data', *Spatial Economic Analysis* 5(2): 229-55.
Wood, D. and K. Anderson (2005), 'What Determines the Future Value of an Icon Wine? New Evidence from Australia', *Journal of Wine Economics* 1(2): 141-61, Fall.
Zhao, X., K. Anderson and G. Wittwer (2003), 'Who Gains from Australian Generic Wine Promotion and R&D?' *Australian Journal of Agricultural and Resource Economics* 47(2): 181-209, June.

Grape and wine market developments in 86 charts

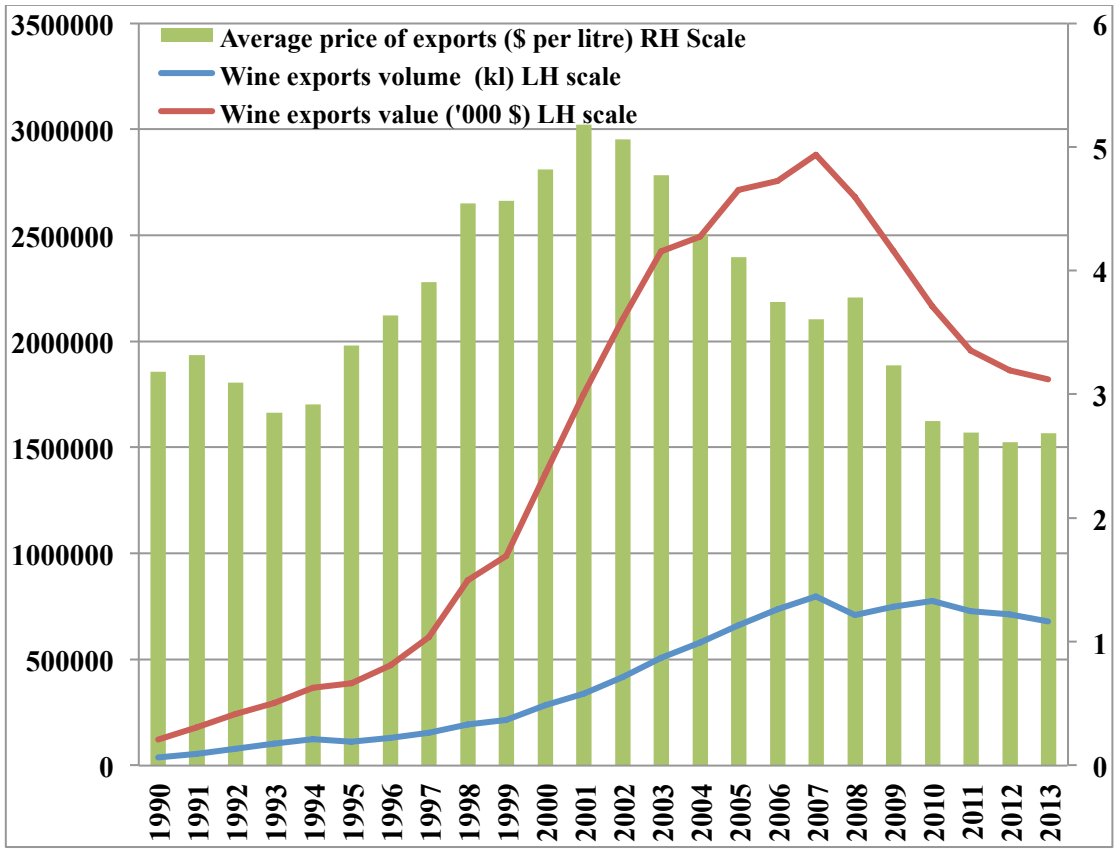
Section I — Charts:

Australian Grape and Wine Production, Consumption and Trade

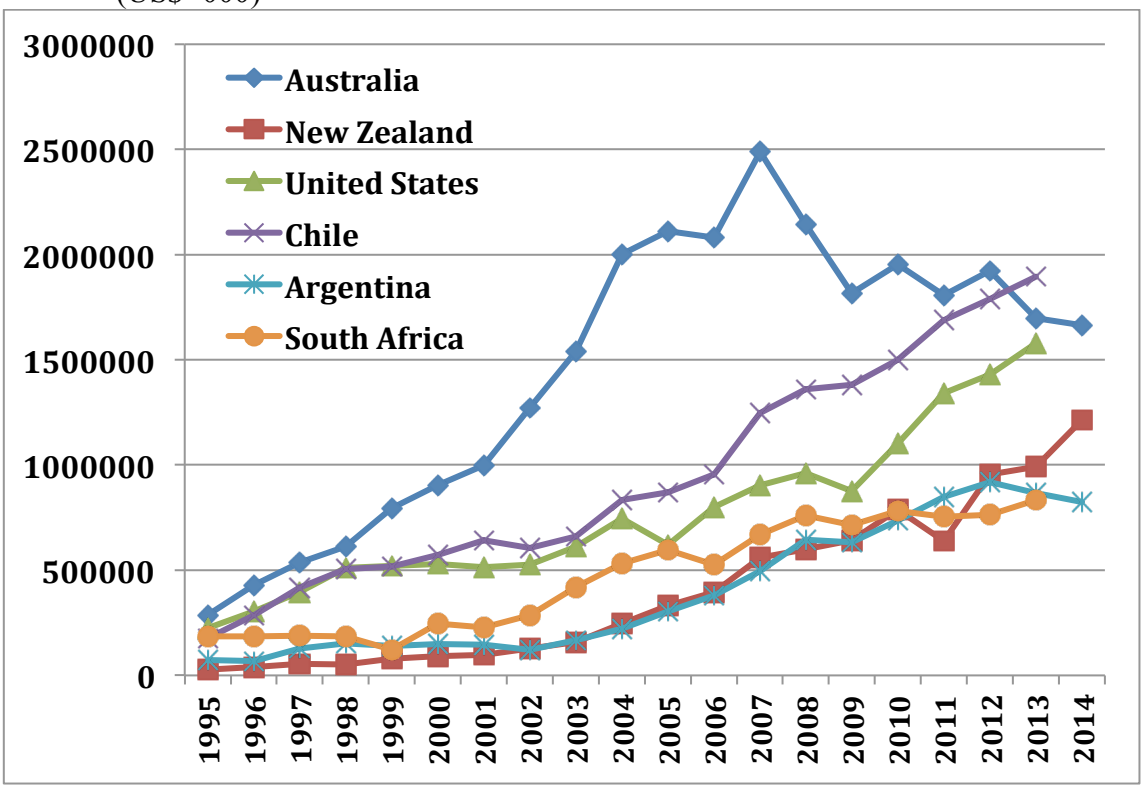
1. Bearing area of vineyards, wine production, and wine exports, 1986 to 2013



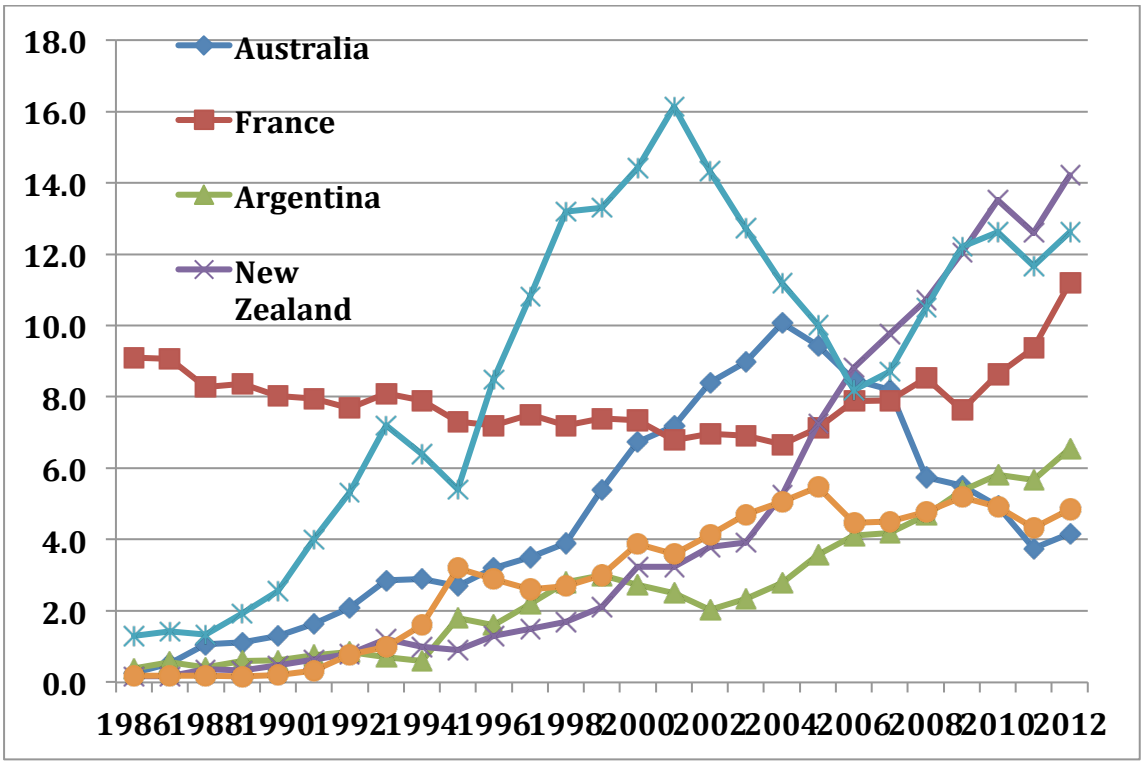
2. Volume, average A$ price and value of export sales of Australian wine, 1990 to 2013



3. Value of wine exports, Australia and other New World countries, 1995 to 2014 (US$ '000)



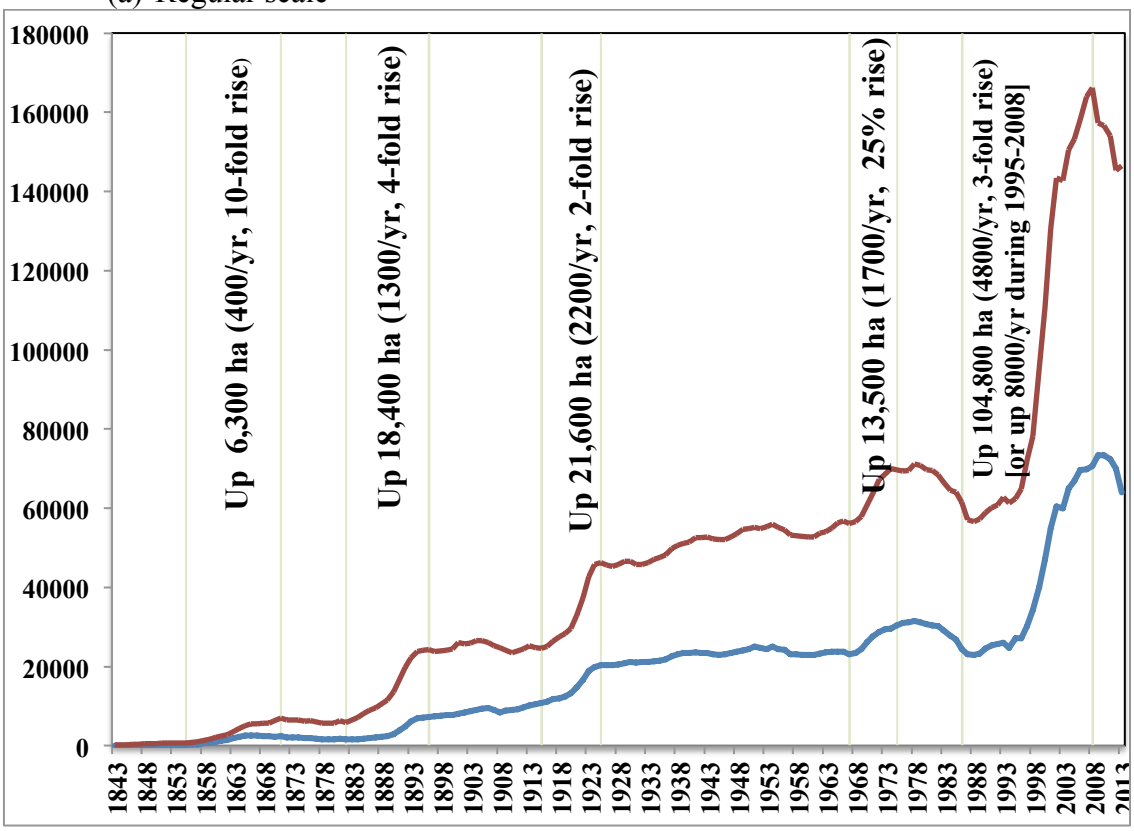
4. Index of revealed comparative advantage in wine, Australia and other key exporters, 1986 to 2012 (1.0 = world)



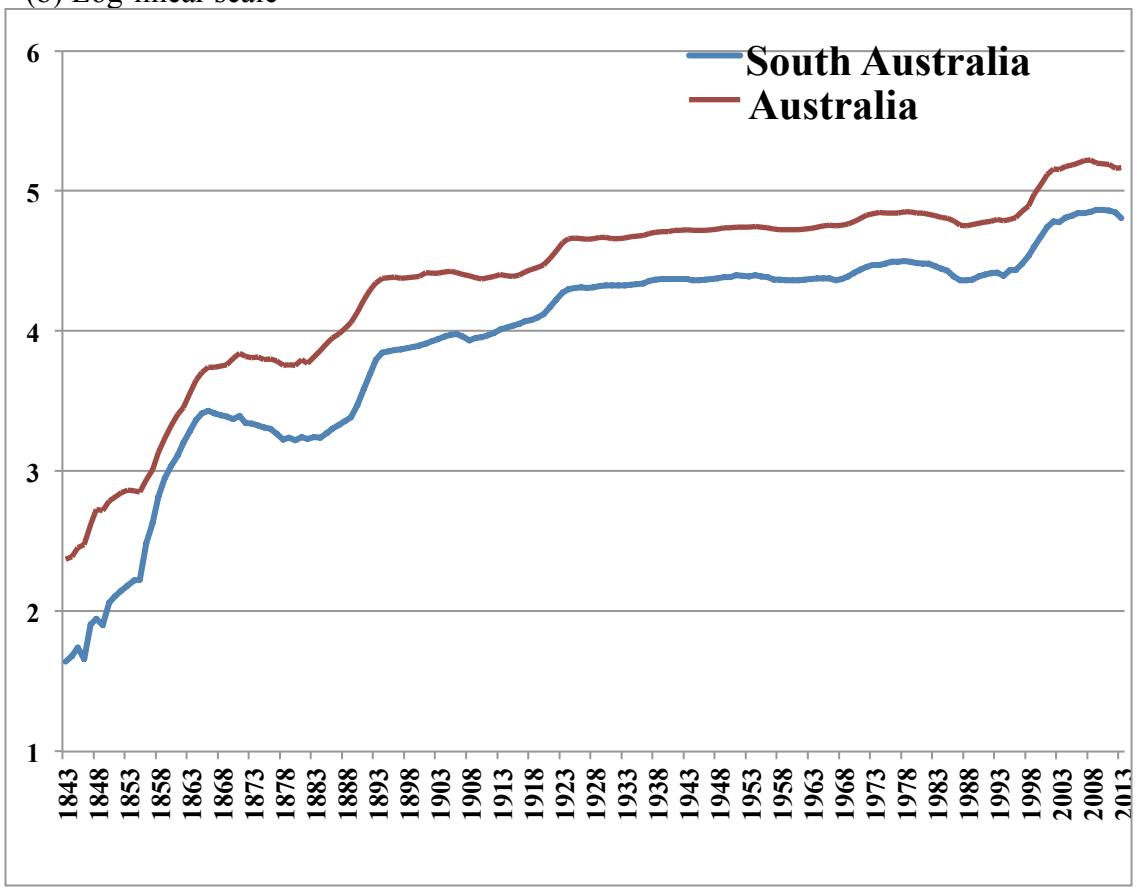
5. [a] Wine's share of a country's exports divided by wine's share of global exports.

5. Bearing area of vineyards, Australia and South Australia, 1843 to 2013 (ha)

(a) Regular scale

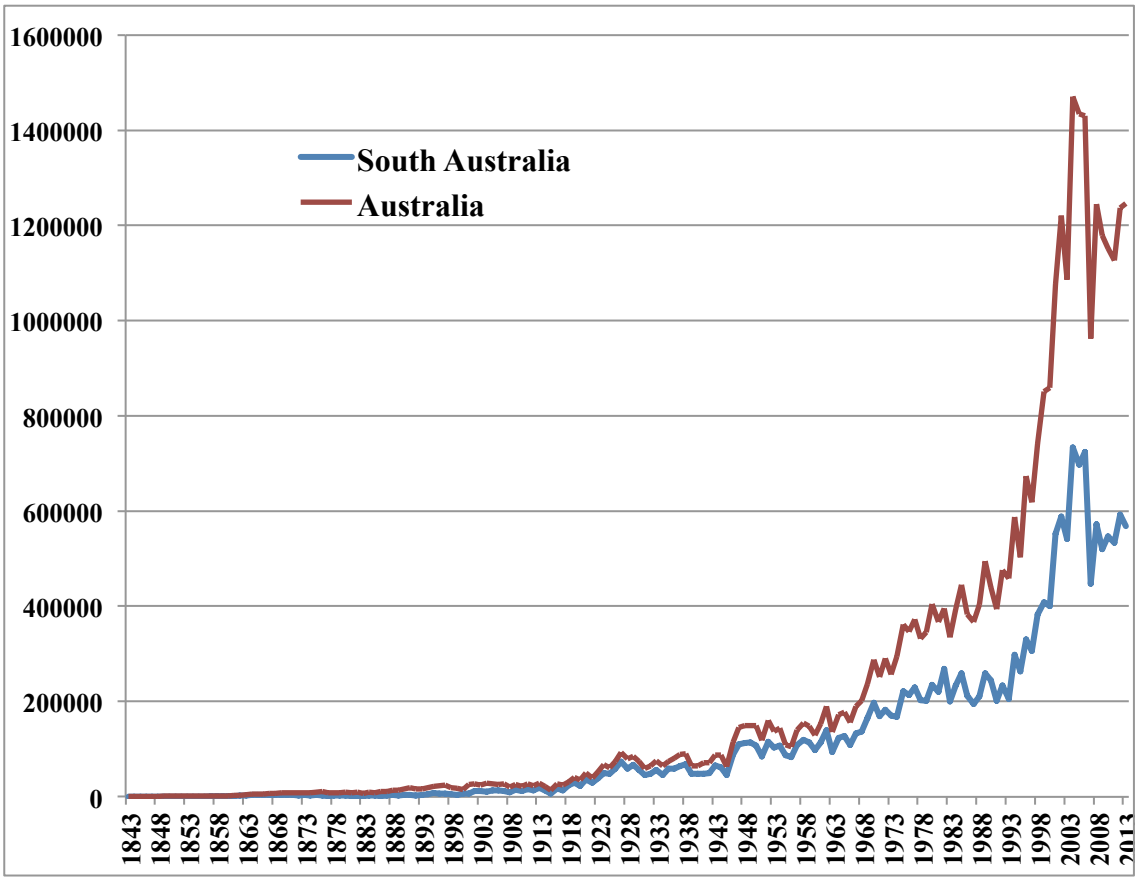


(b) Log-linear scale

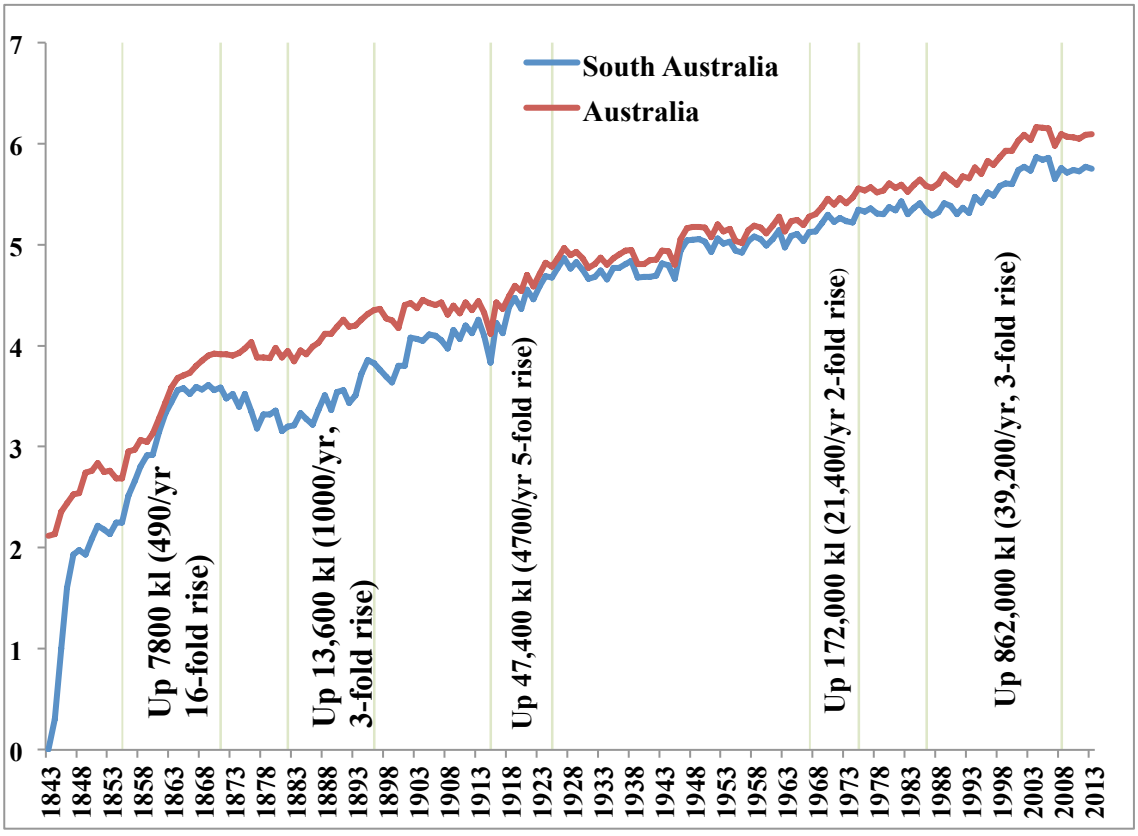


6. Wine production, Australia and South Australia, 1843 to 2013 (kl)

(a) Regular scale

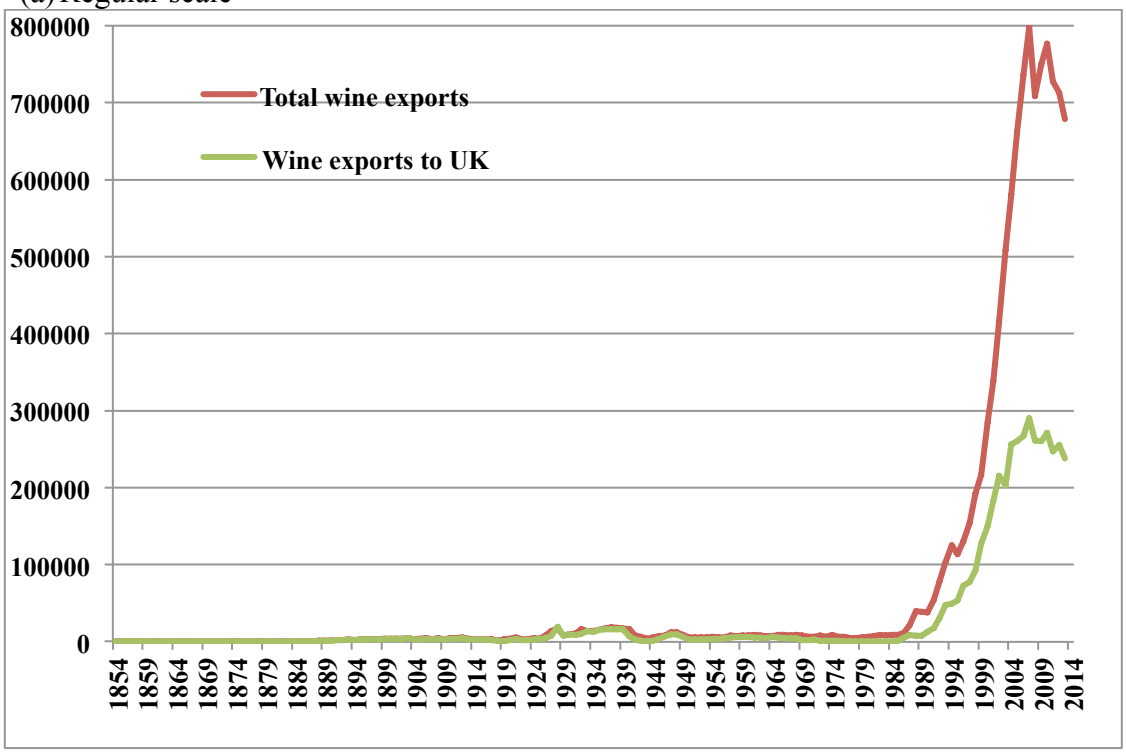


(b) Log-linear scale

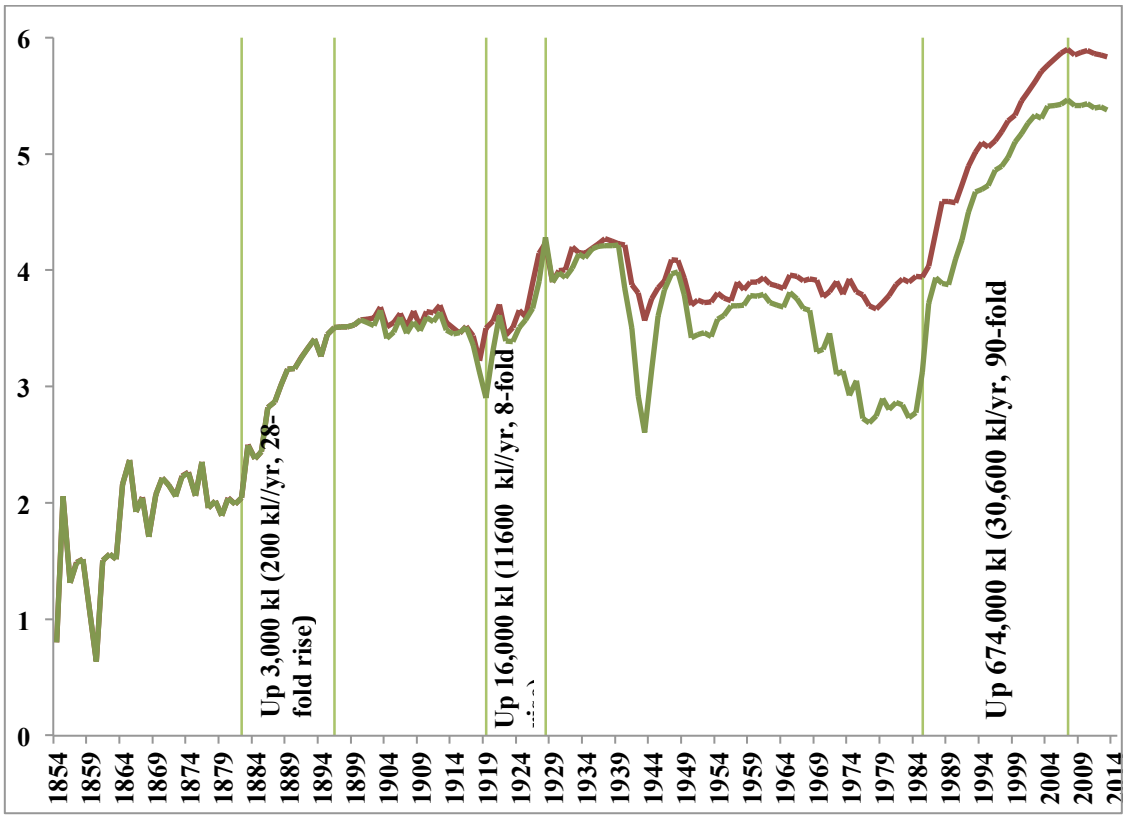


7. Volume of Australian wine exports to United Kingdom and world, 1854 to 2013 (kl)

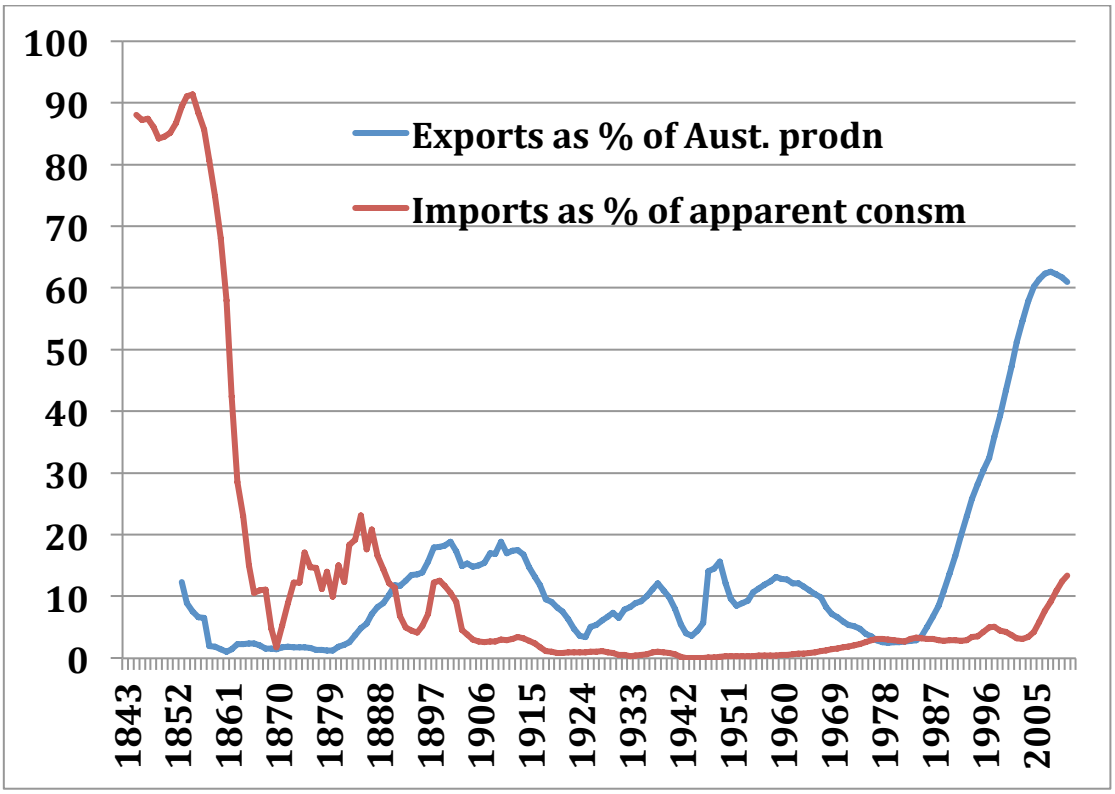
(a) Regular scale



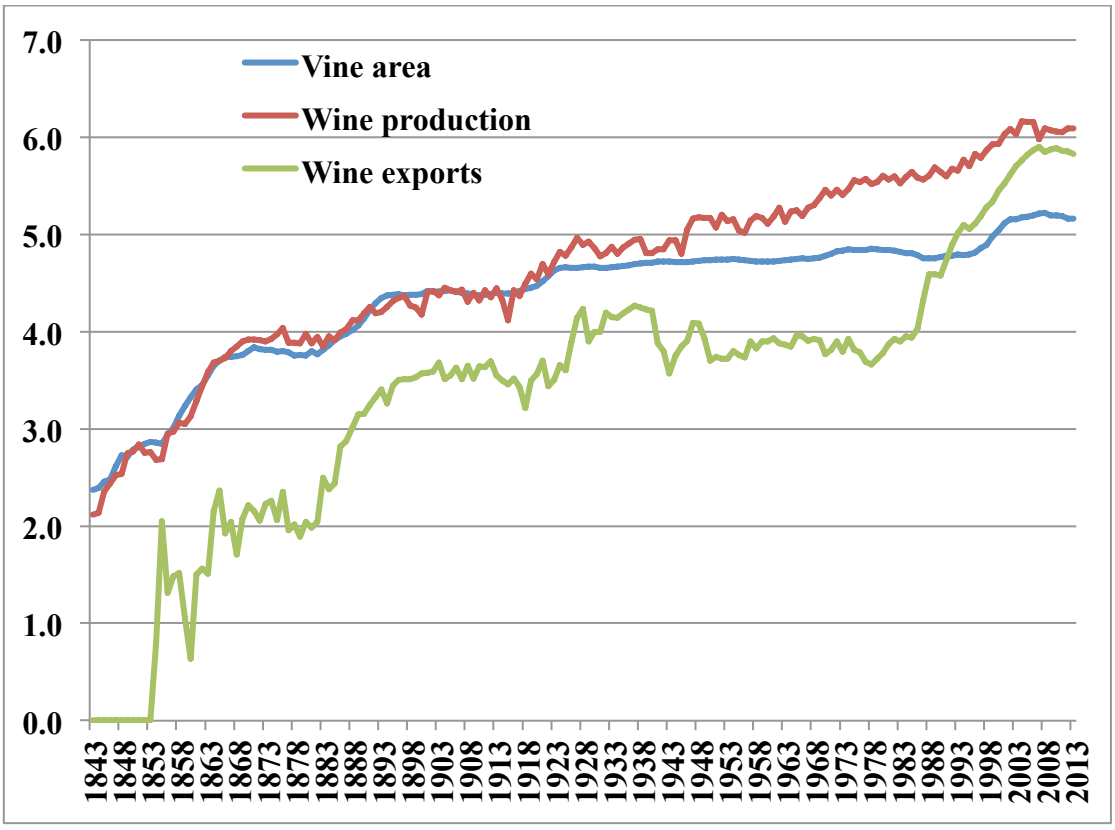
(b) Log-linear scale



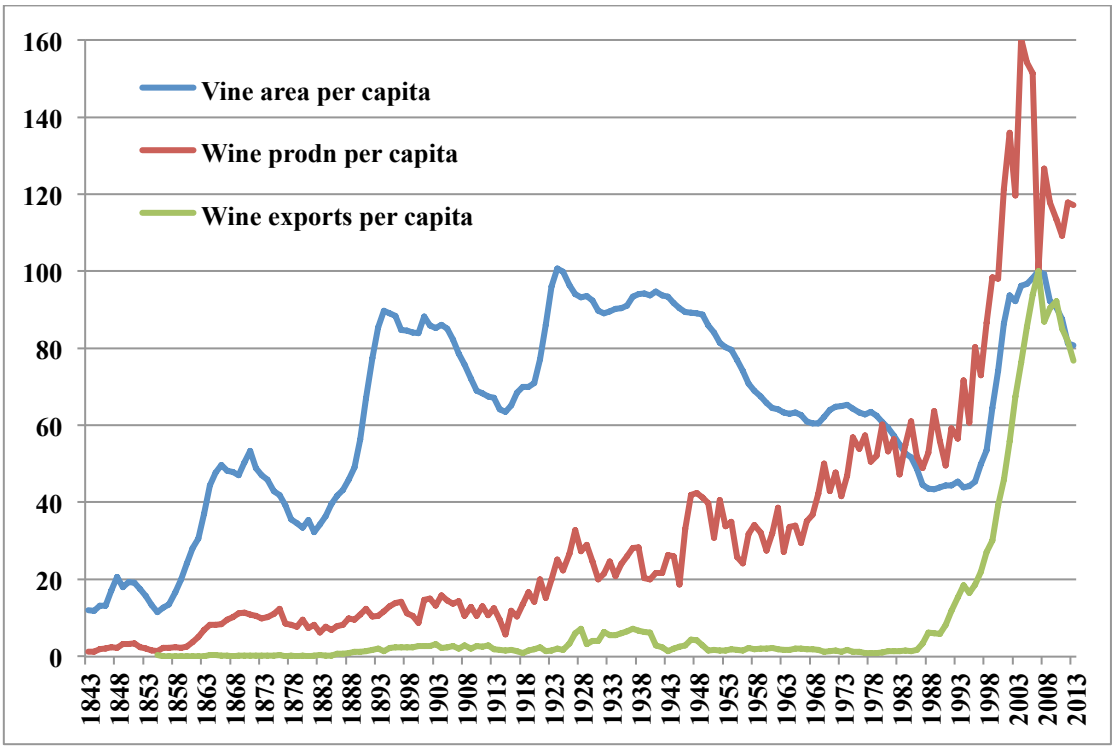
8. Exports as % of wine production and imports as % of apparent wine consumption, 1843 to 2013 (%, 3-year moving average)



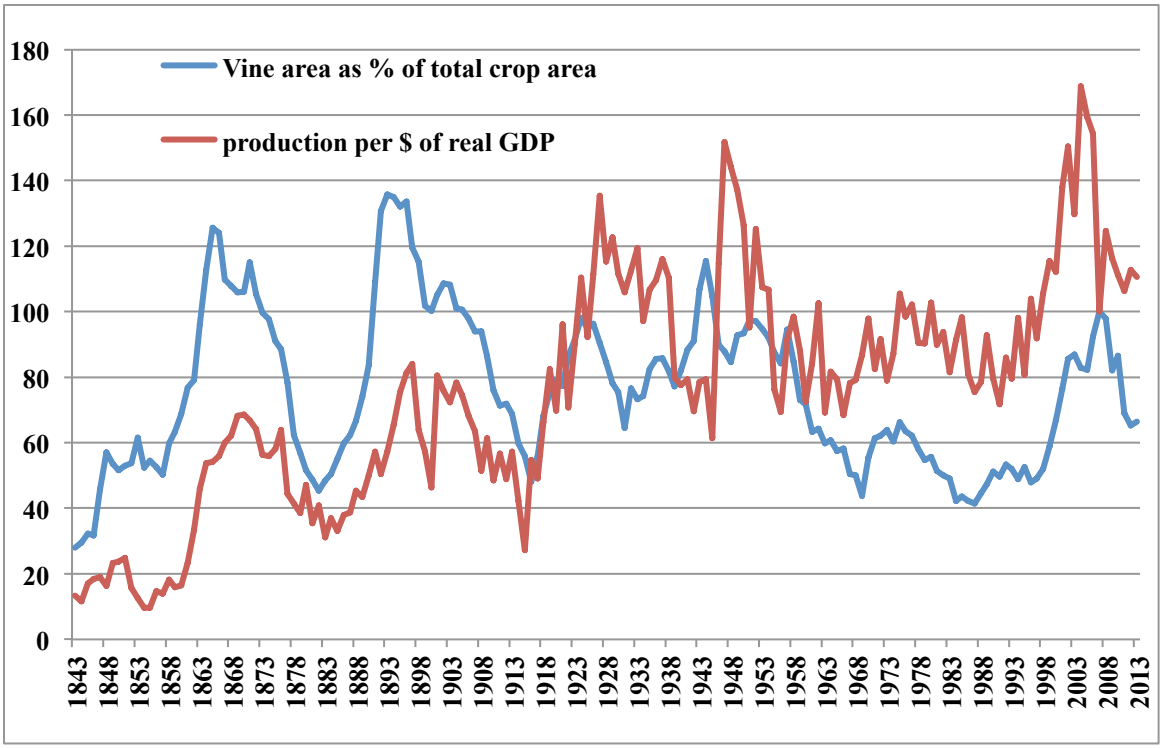
9. Vine area, wine production, and wine exports, 1843 to 2013 (log-linear scale)



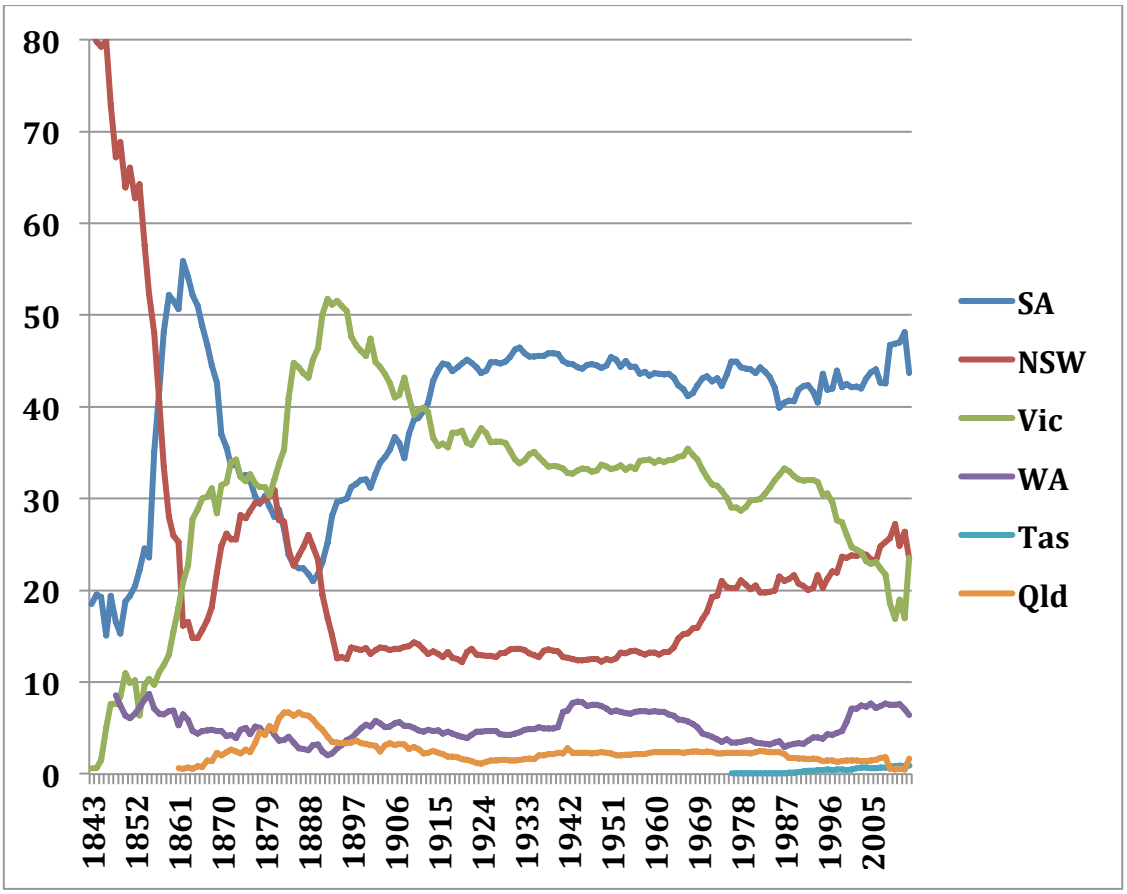
10. Indexes of vine area, wine production, and wine exports, per capita, 1843 to 2013 (2007 = 100)



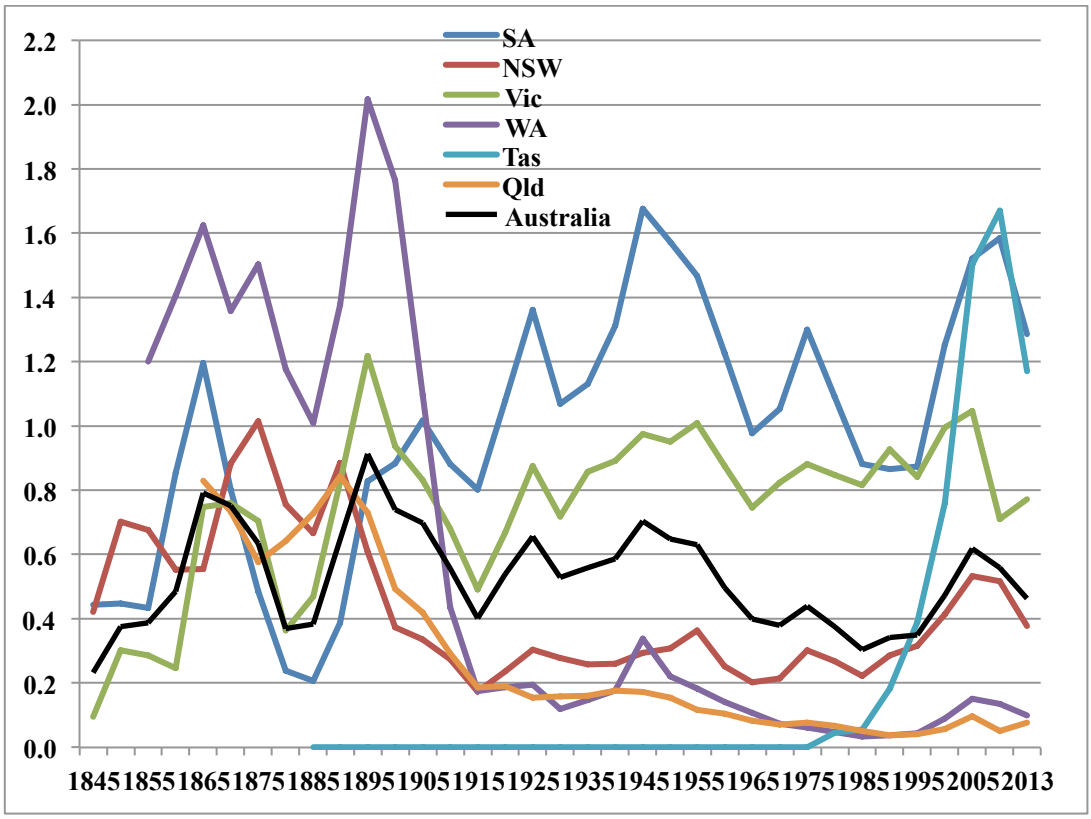
11. Vine area as a percentage of total crop area, and wine production per $ of real GDP, 1843 to 2013 (2007 = 100)



12. States' shares of Australian vine area, 1843 to 2013 (%)

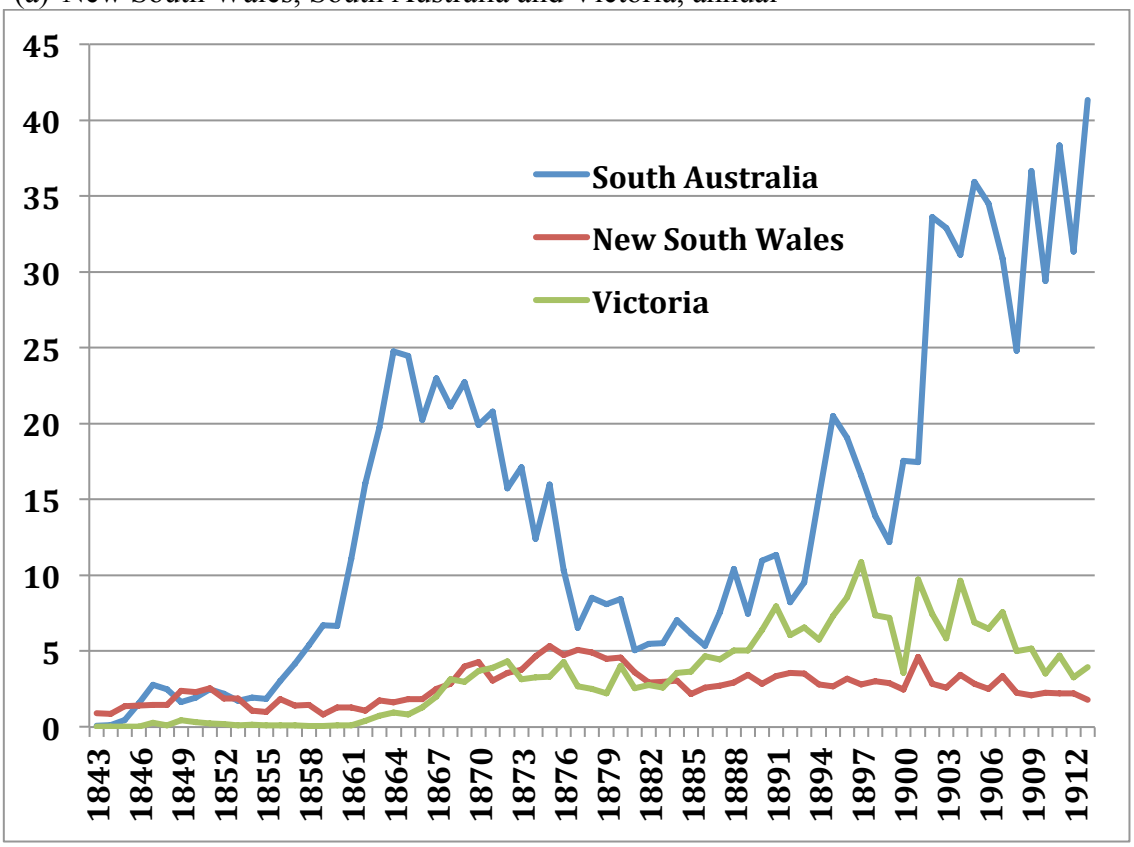


13. Vine's share of total cropped area, by State, 1843 to 2013 (%, 5-year averages)

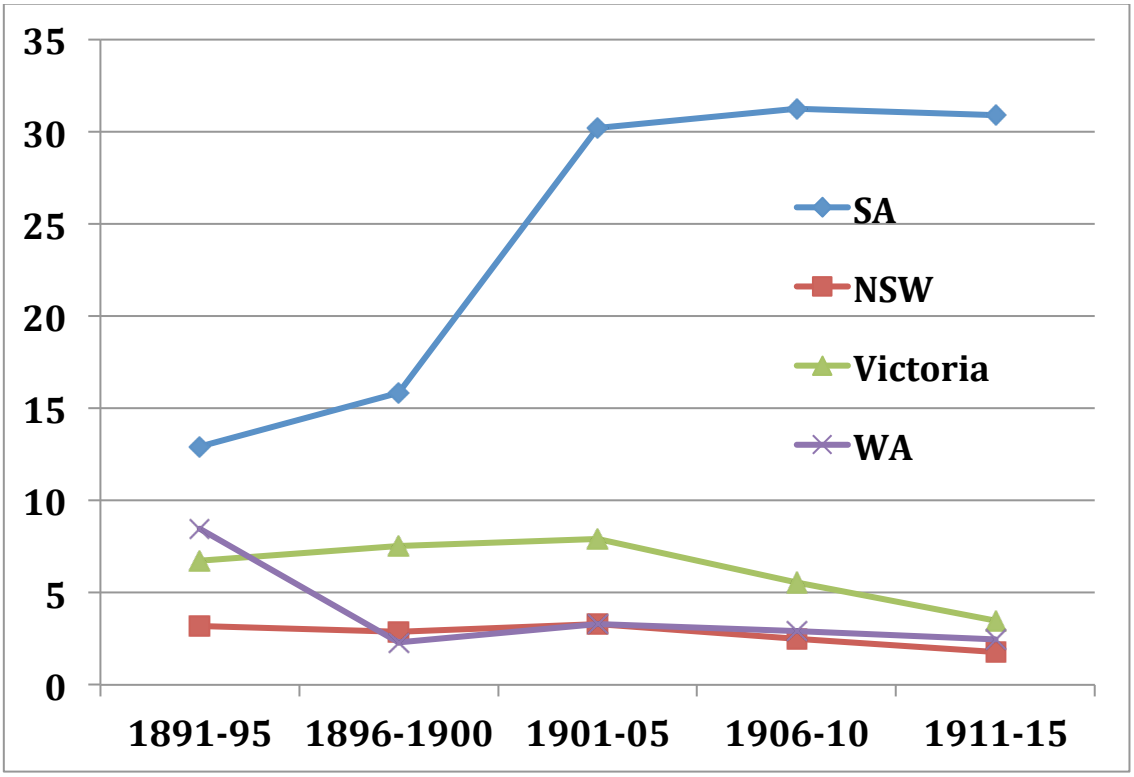


14. Wine production per capita, by State, 1843 to 1913 (litres/year)

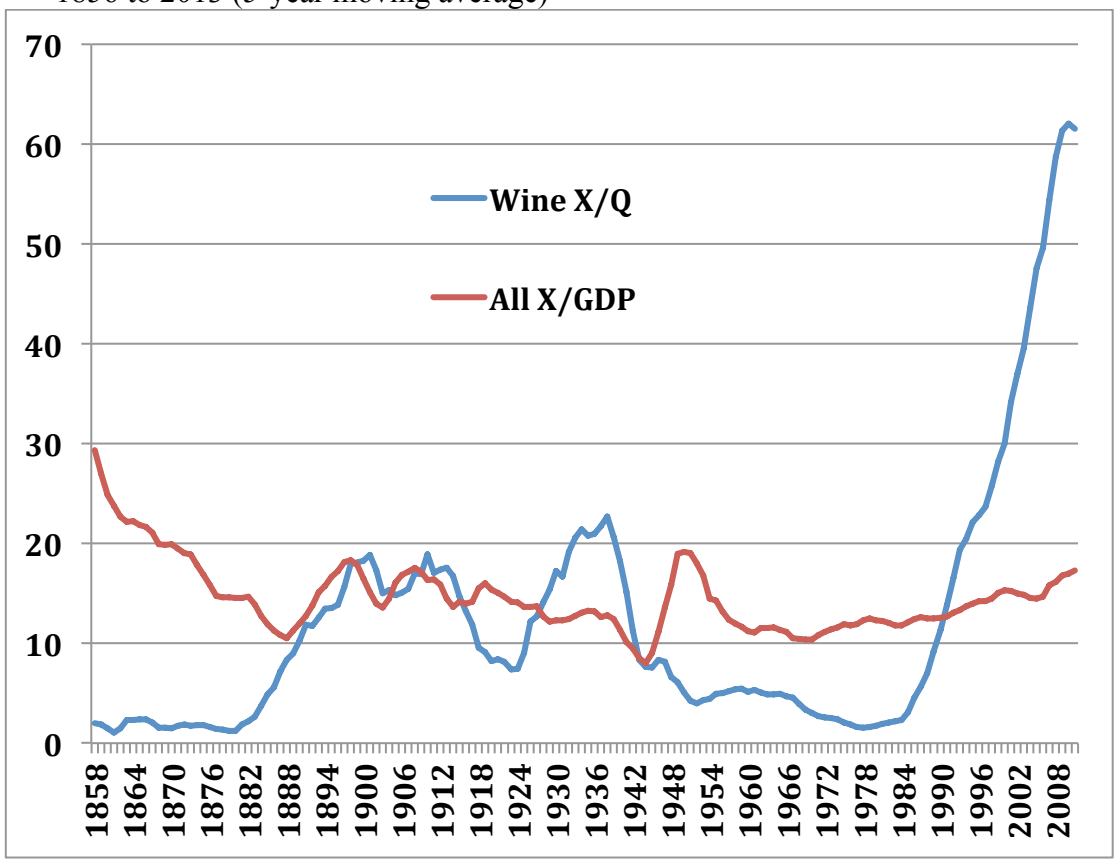
(a) New South Wales, South Australia and Victoria, annual



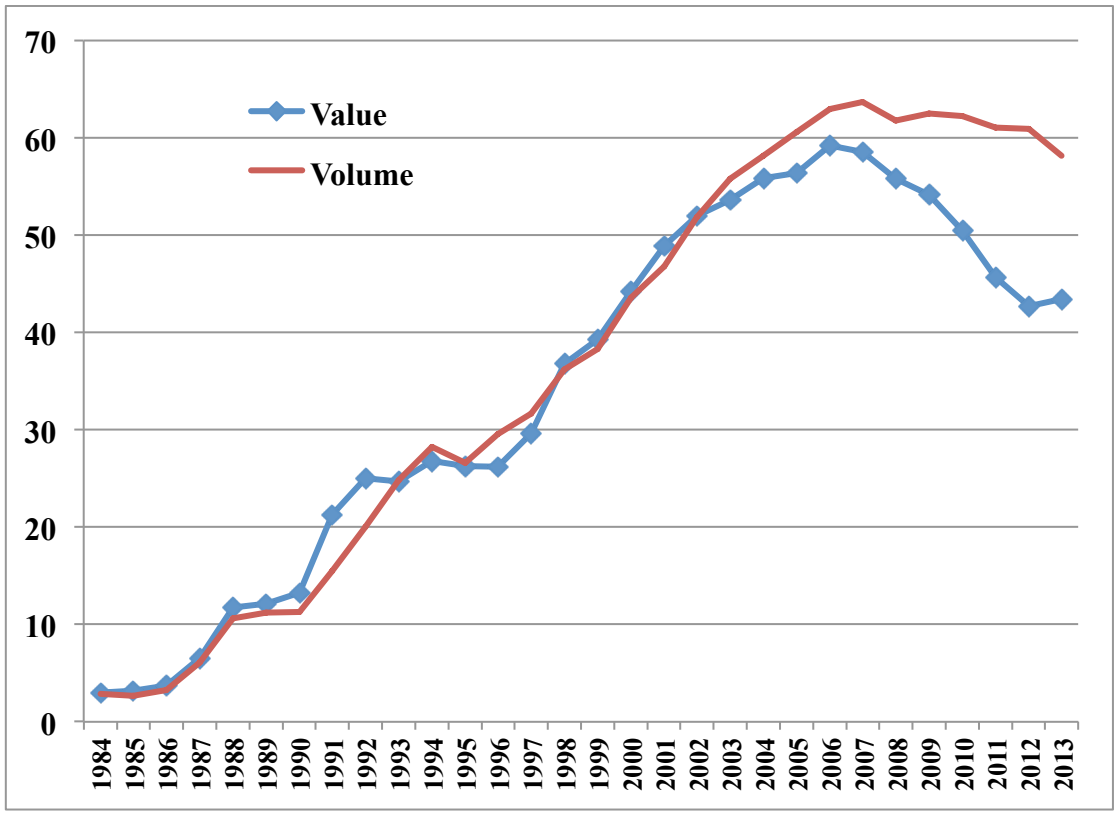
(b) NSW, SA, Vic and WA, 5-year averages



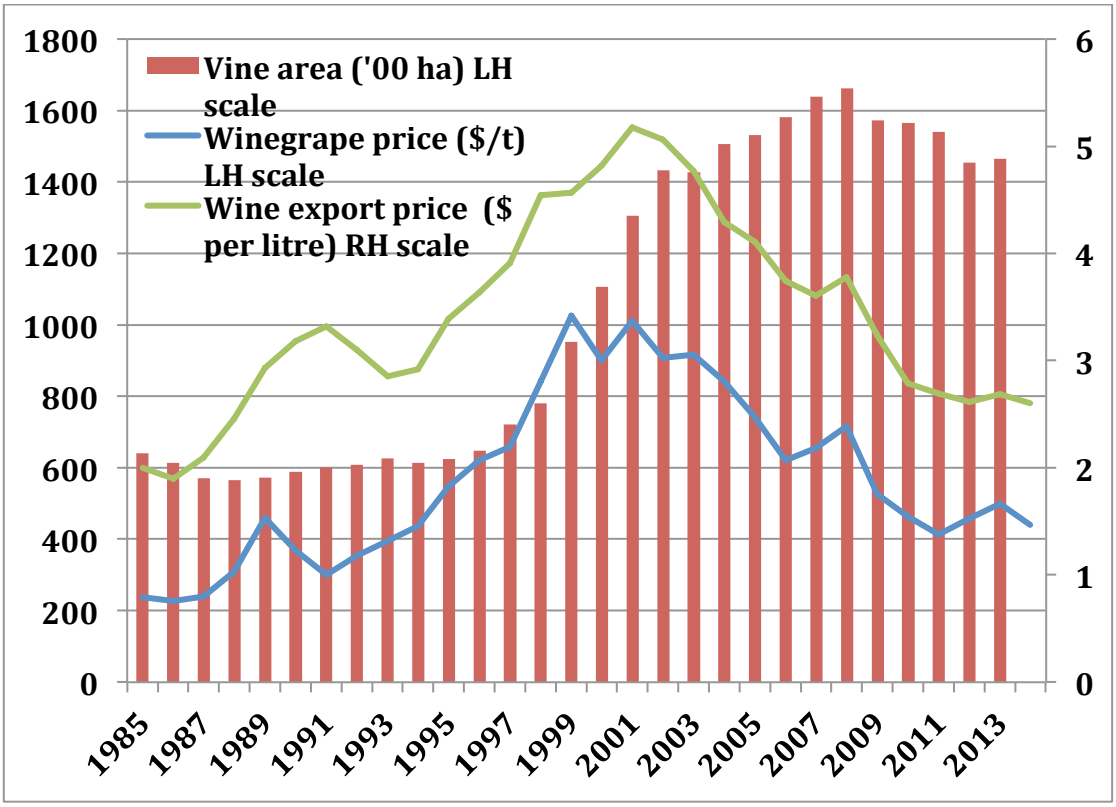
15. Share of wine production exported, and all merchandise exports as a share of GDP, 1856 to 2013 (5-year moving average)



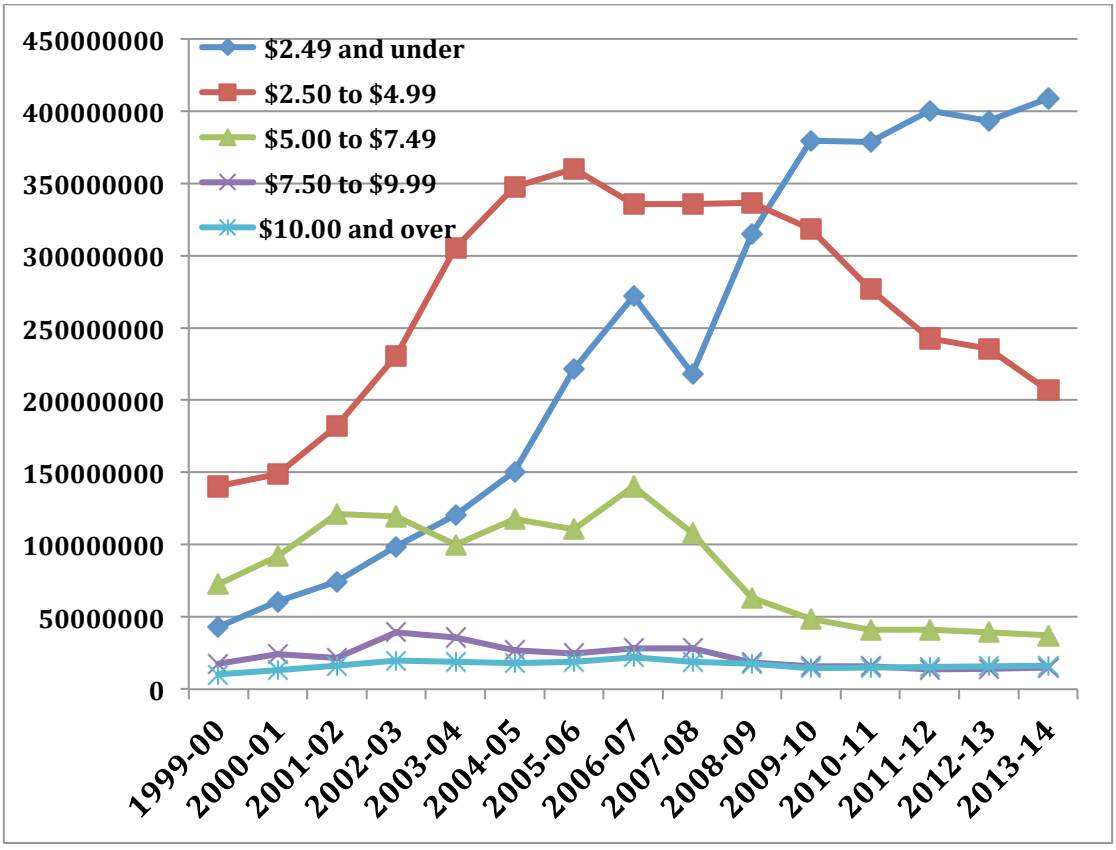
16. Volume and value shares of exports in sales of Australian wine, 1984 to 2013 (%)



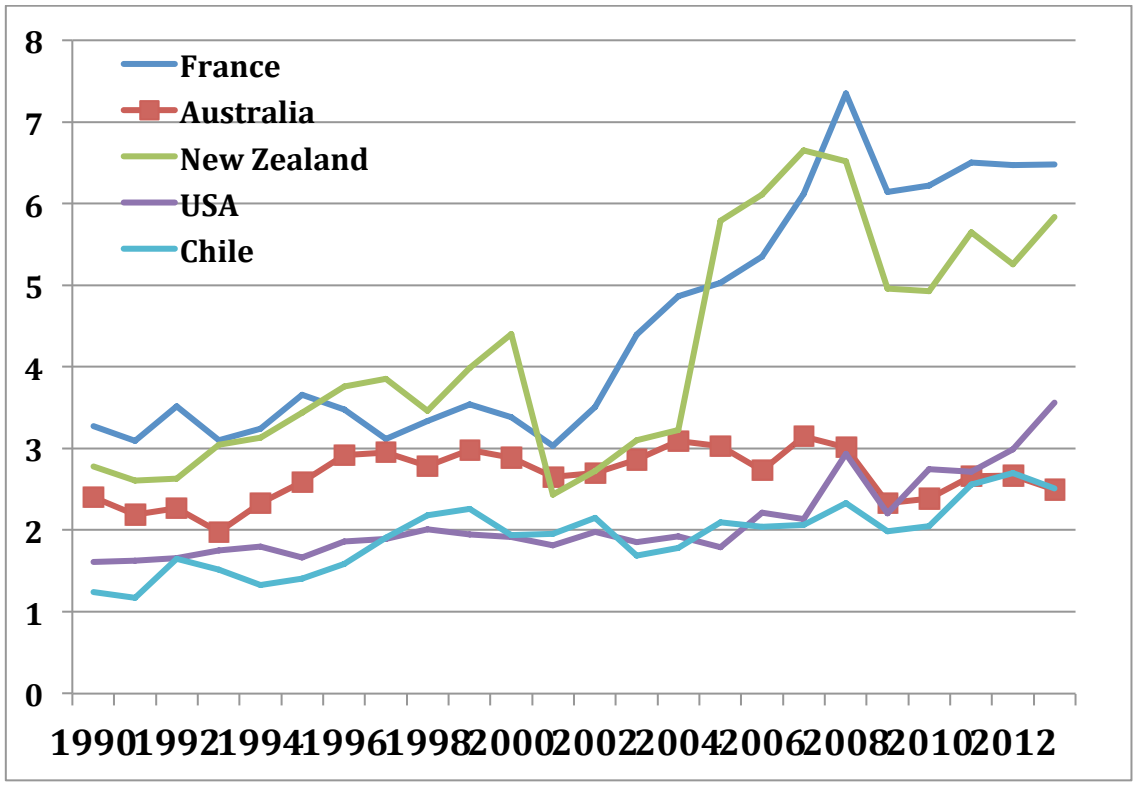
17. Average A$ price of winegrapes and of exports, and vine area, 1986 to 2014



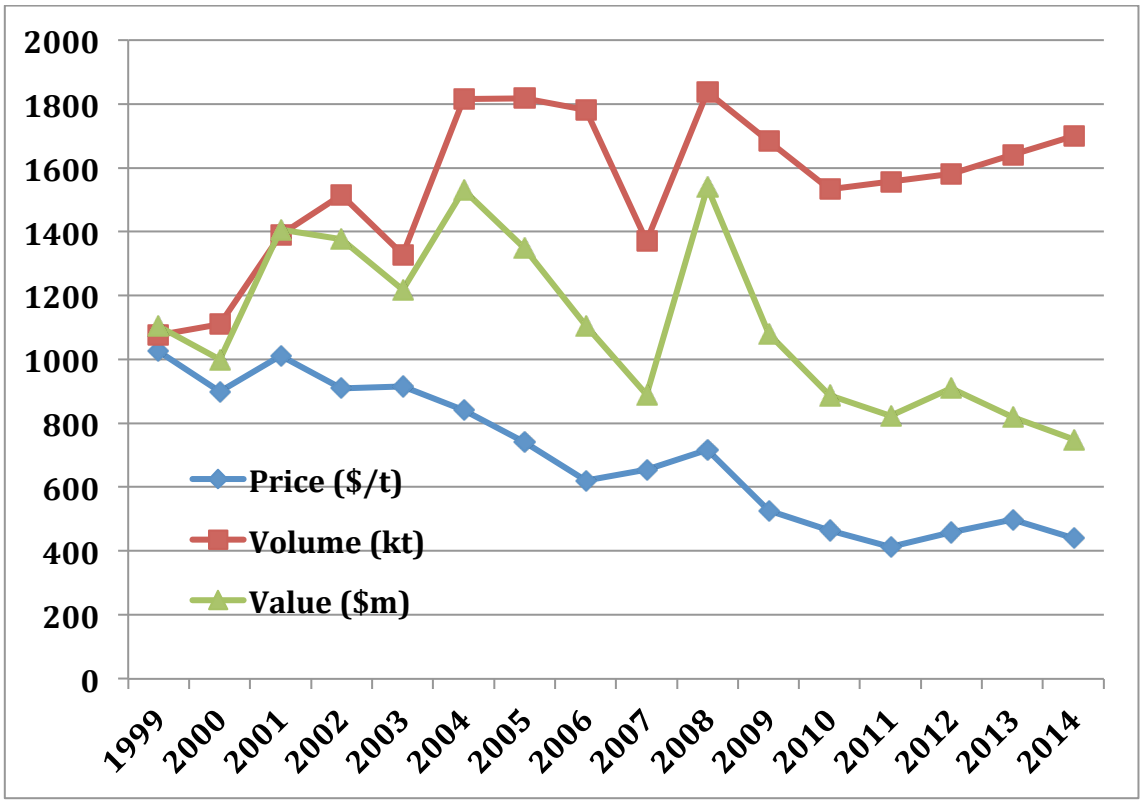
18. Volumes of wine exports by A$ price segment, 2000 to 2014 (litres)



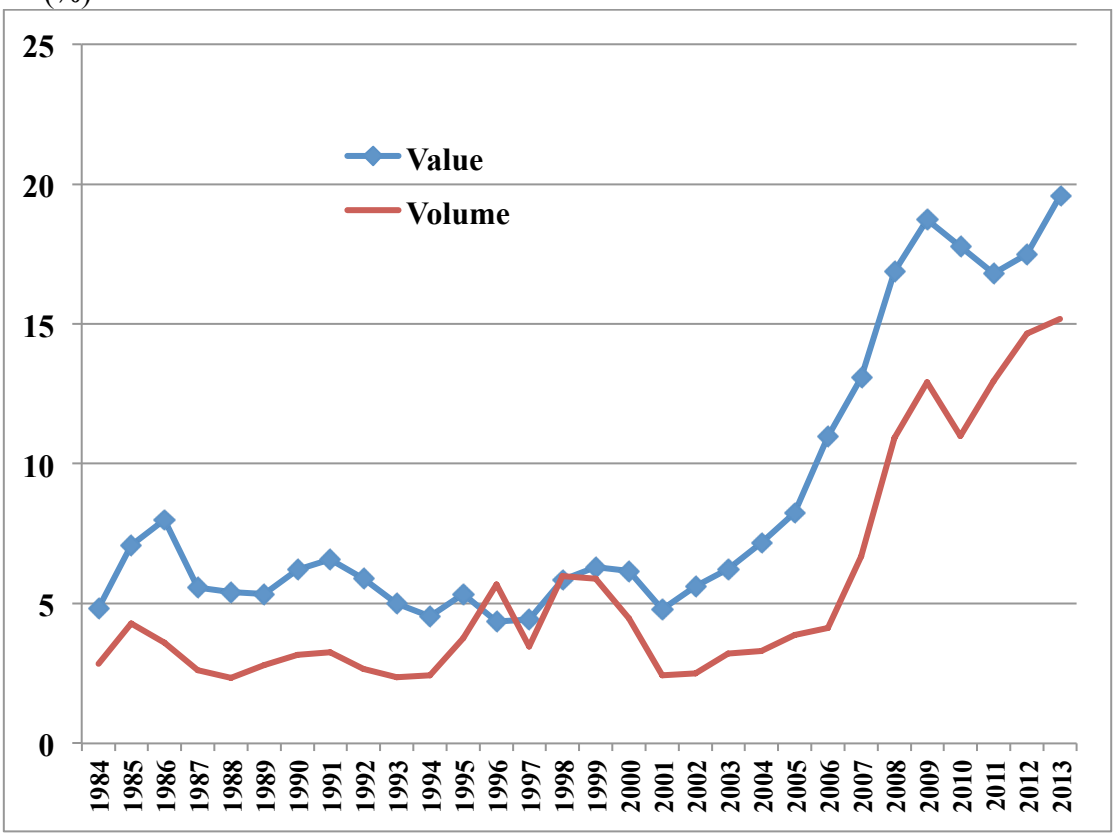
19. Unit value of wine exports, Australia and other New World countries, 1990 to 2013 (US$/litre)



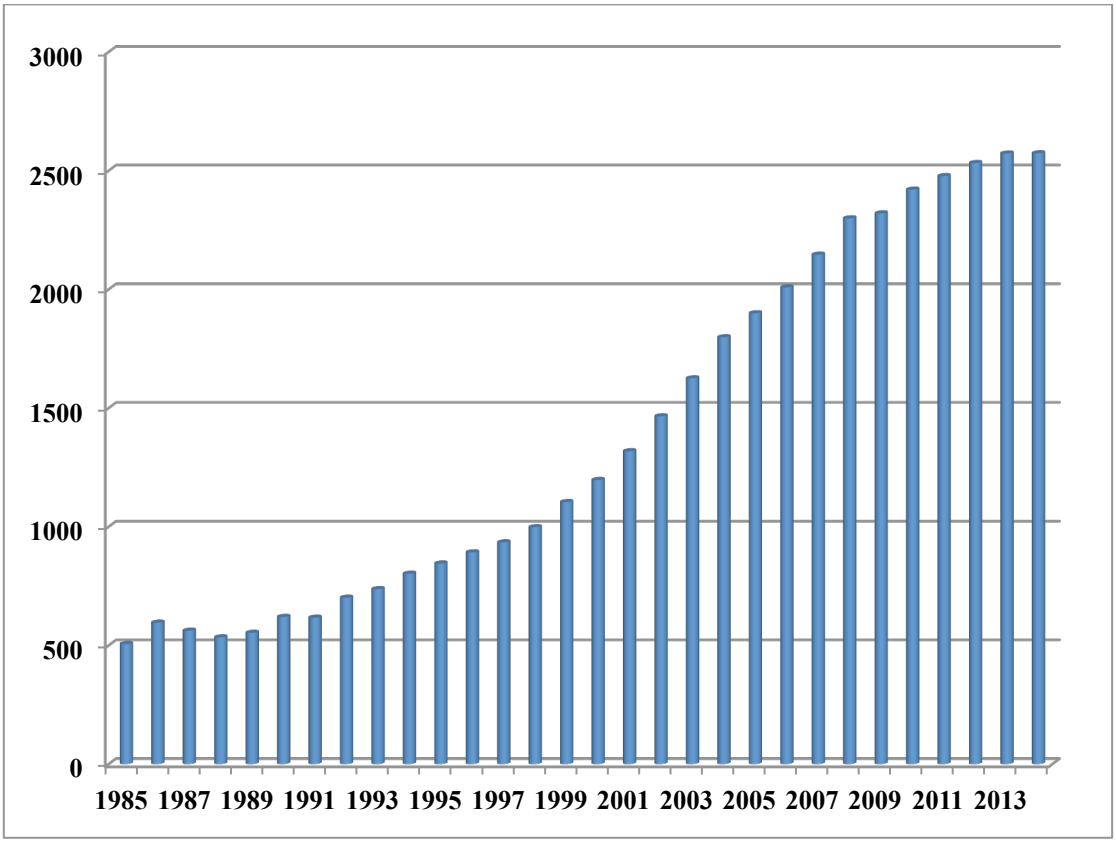
20. Winegrape price, and volume and value of winegrape production, 1999 to 2014



21. Volume and value shares of imports in wine consumption in Australia, 1984 to 2013 (%)

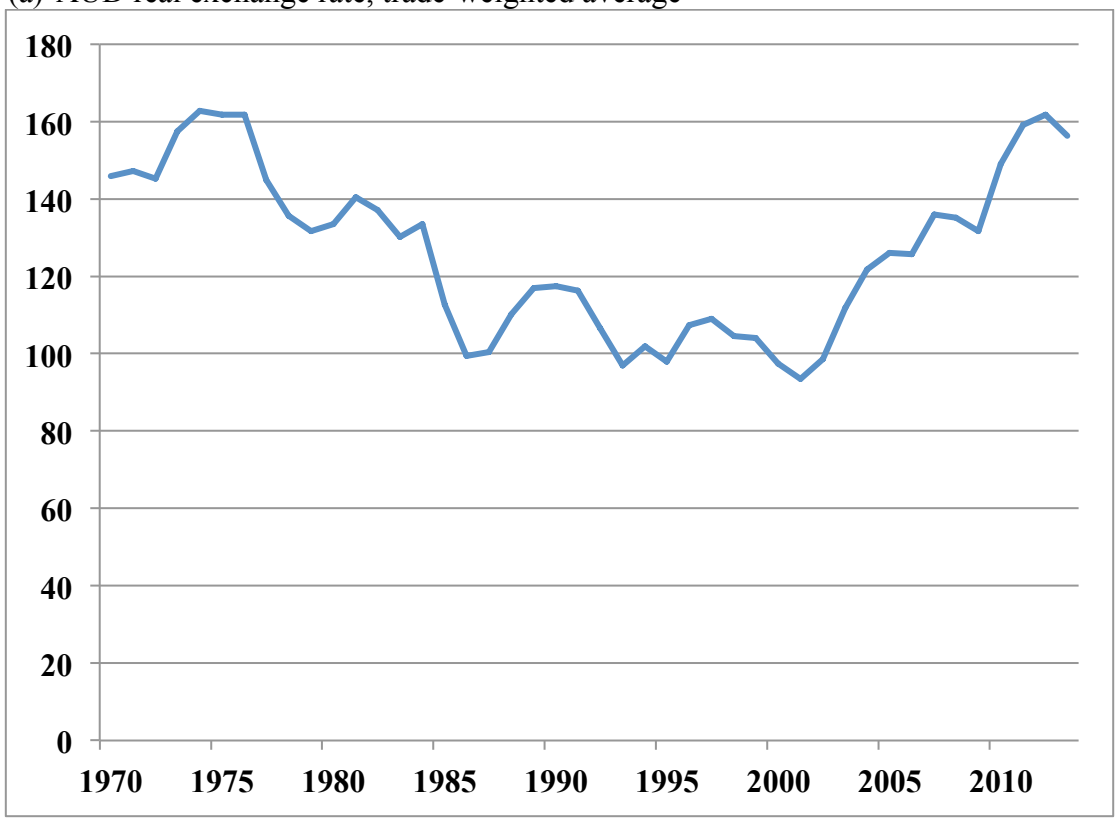


22. Number of wineries in Australia, 1985 to 2013

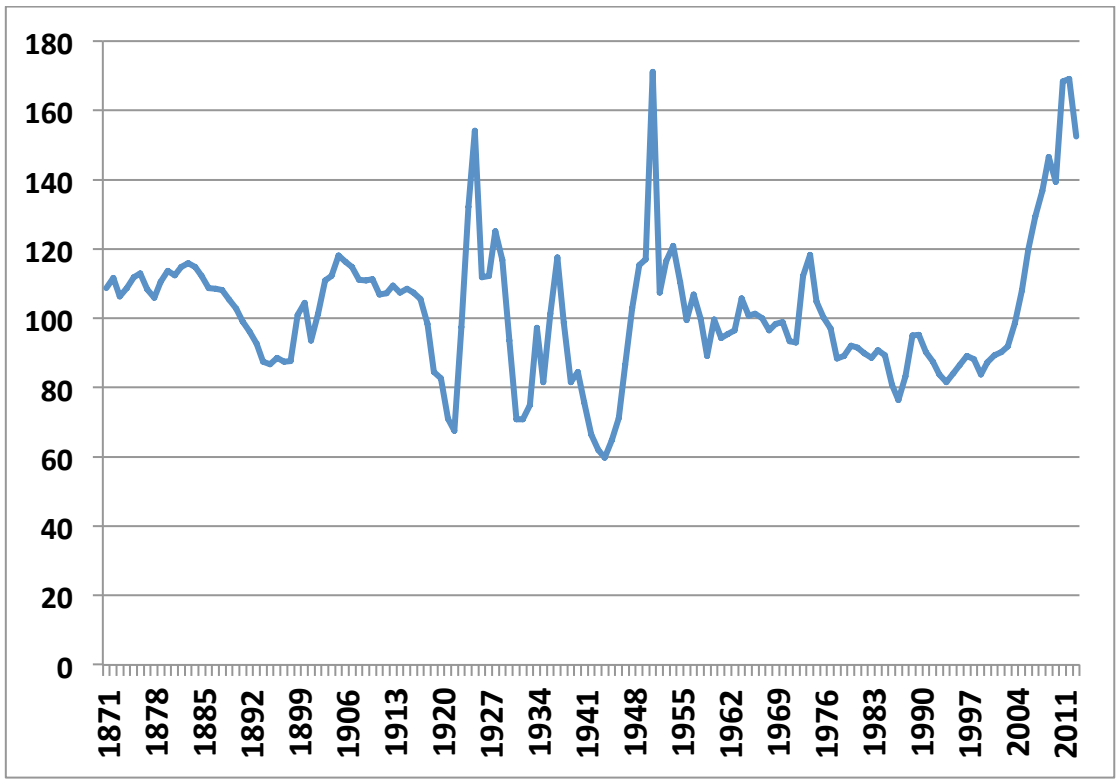


23. Real exchange rate, 1970 to 2013 and international terms of trade, 1871 to 2013

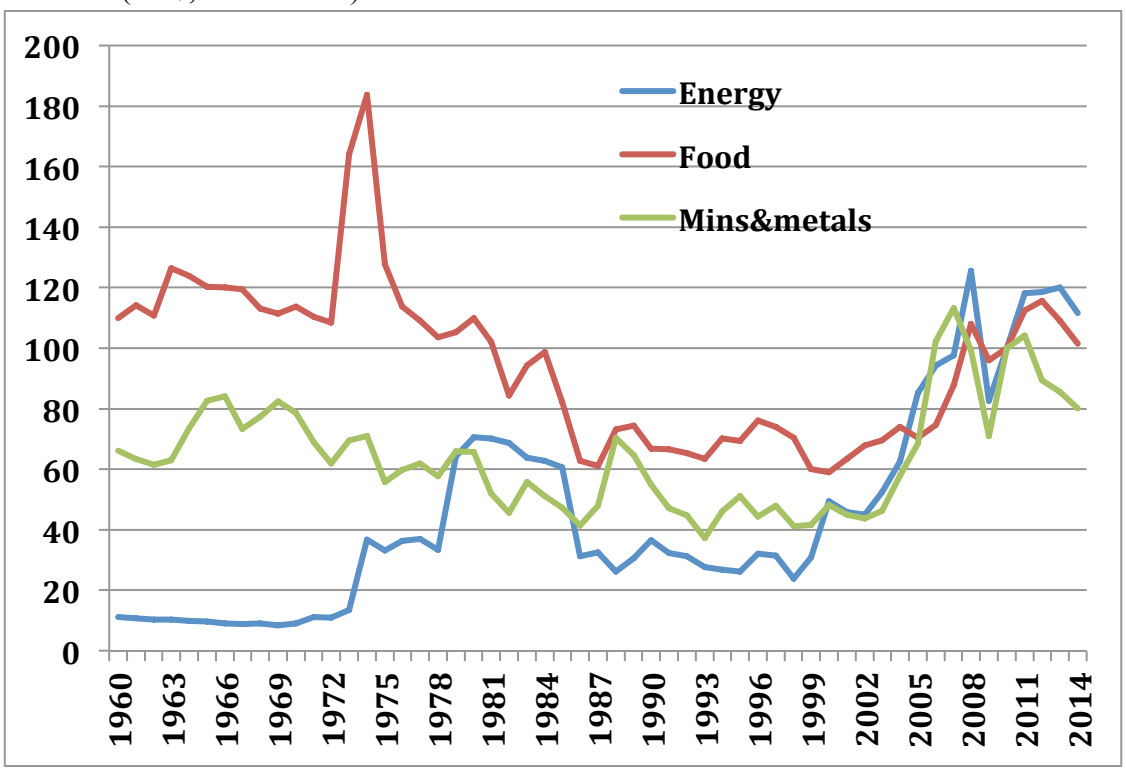
(a) AUD real exchange rate, trade-weighted average



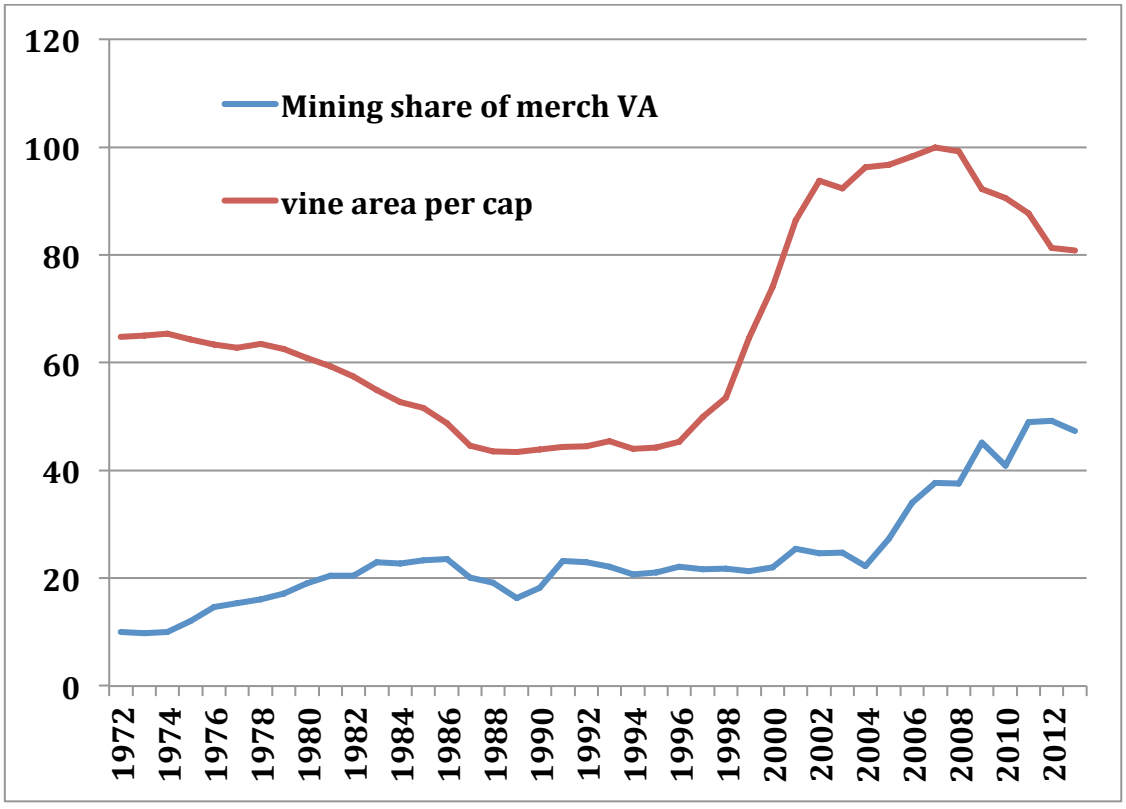
(b) Australia's international terms of trade



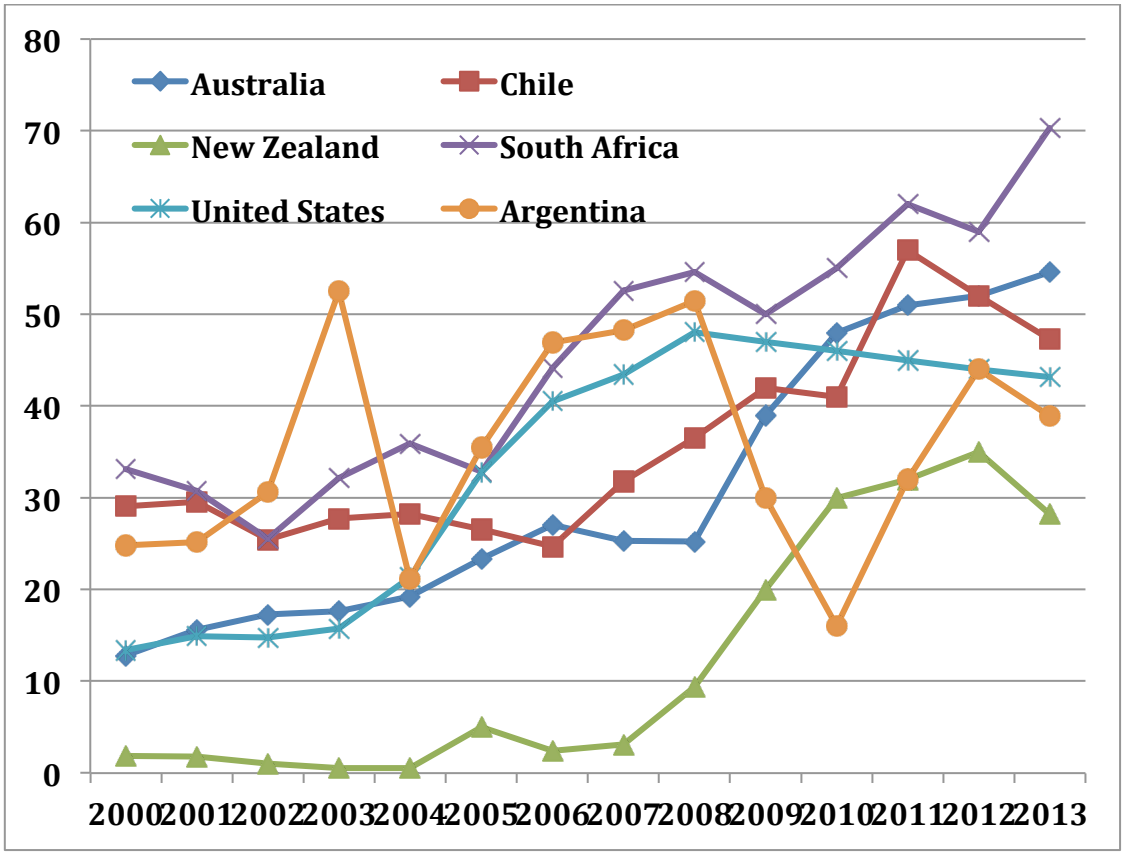
24. Indexes of real international prices of food, energy raw materials and minerals, 1960 to 2014 (US$, 2005 = 100)



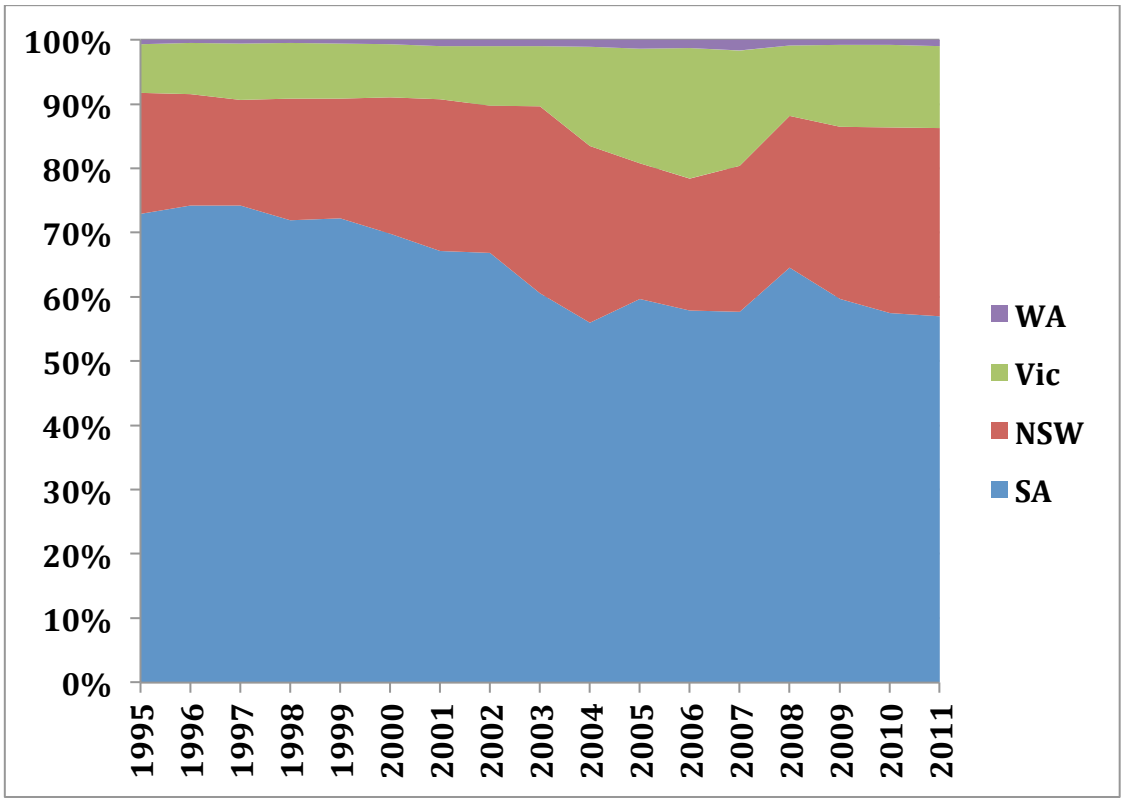
25. Mining share of merchandise value added and vine area per capita, 1972 to 2013 (% of GDP excluding services, and hectares)



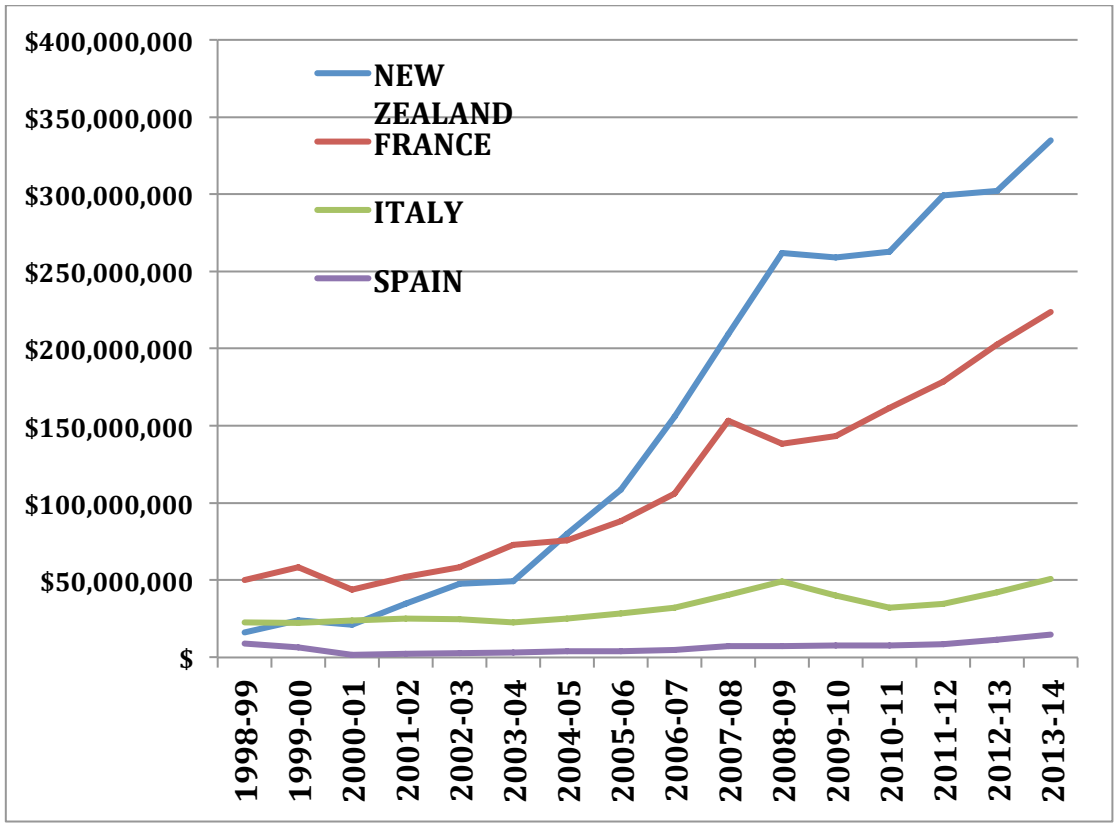
26. Share of bulk wine in volume of exports, Australia and other key exporters, 2000 to 2013 (%)



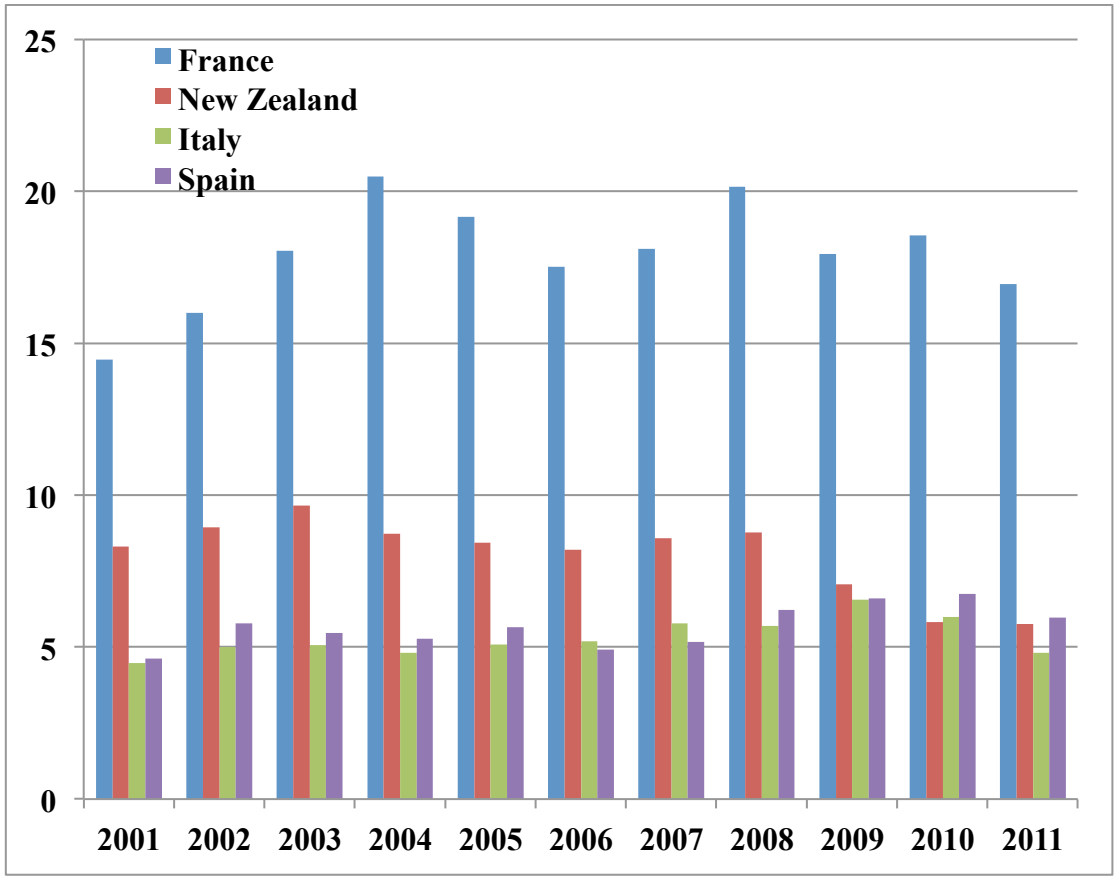
27. Shares of wine exports, by State of processing, 1995 to 2011 (%)



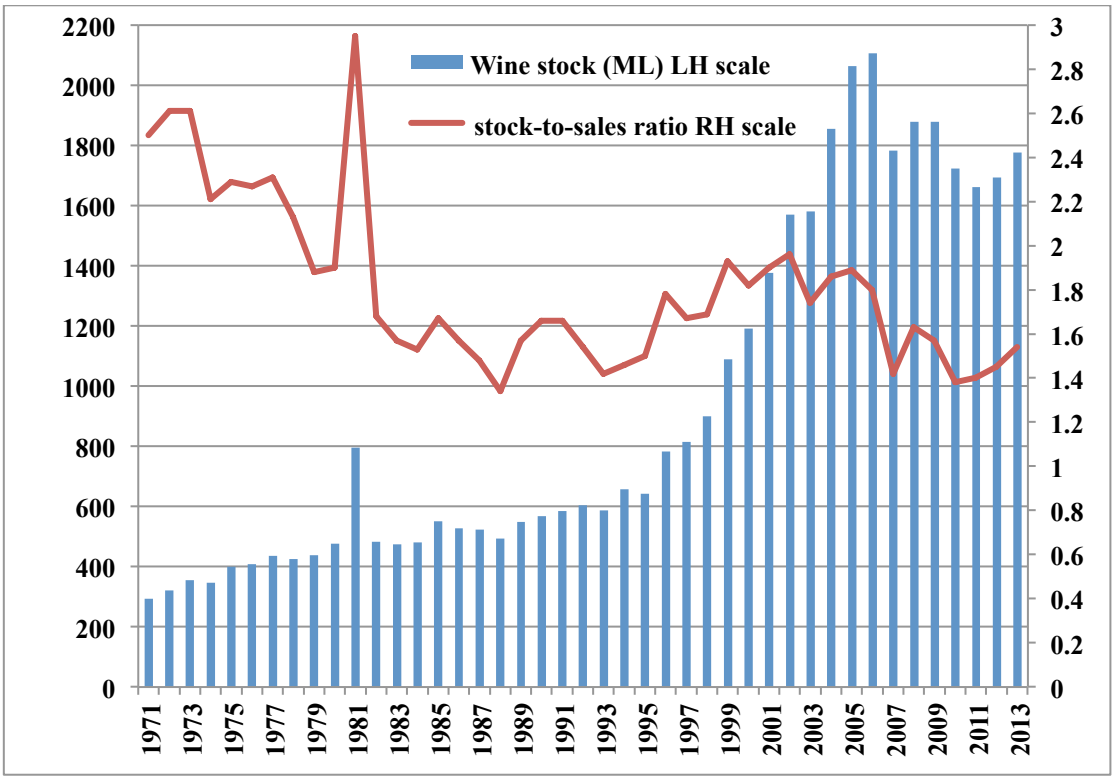
28. Total value of wine imports, by source, 1999 to 2014 (A$)



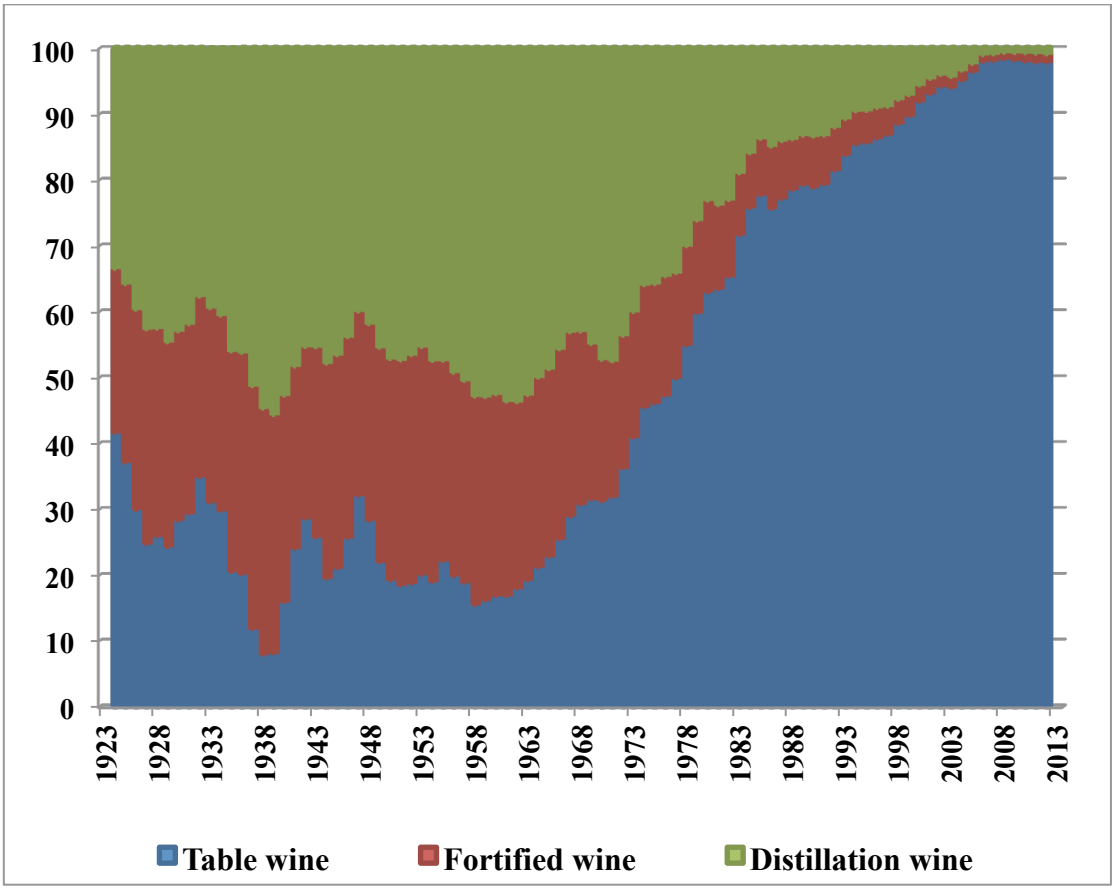
29. Unit value of wine imports, by source, 2001 to 2011 (US$/litre)



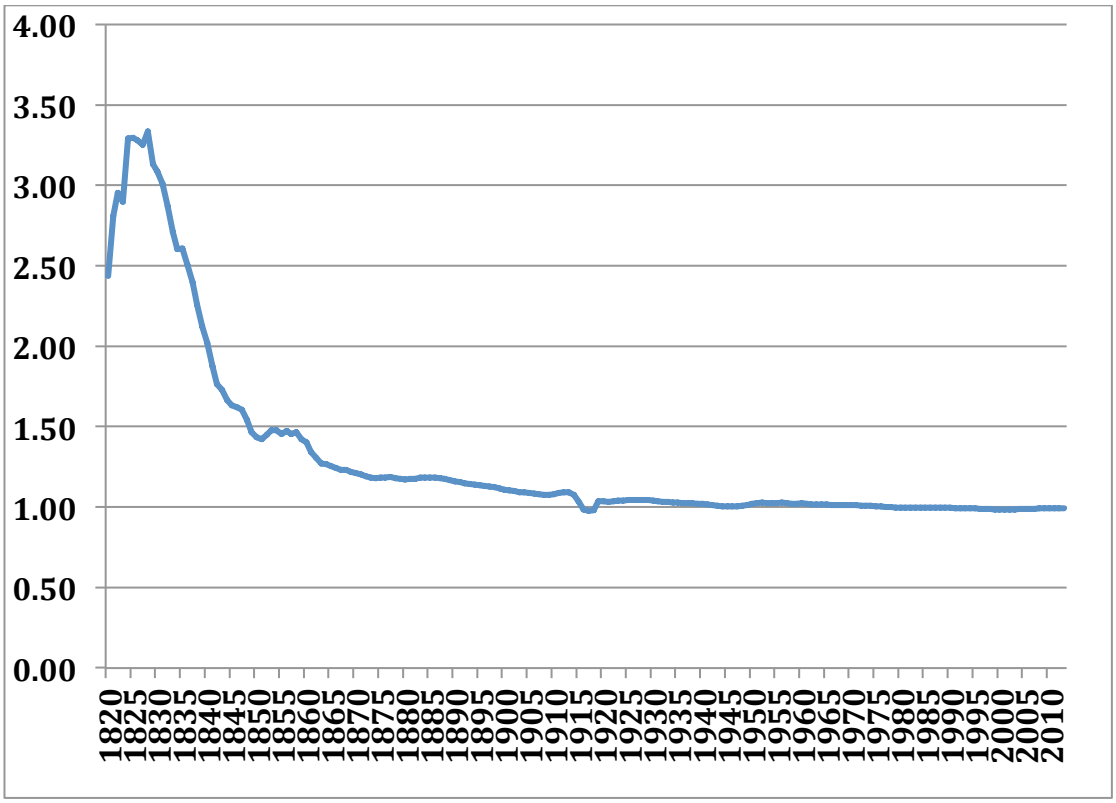
30. Closing stock and stocks-to-sales ratio, 1971 to 2013



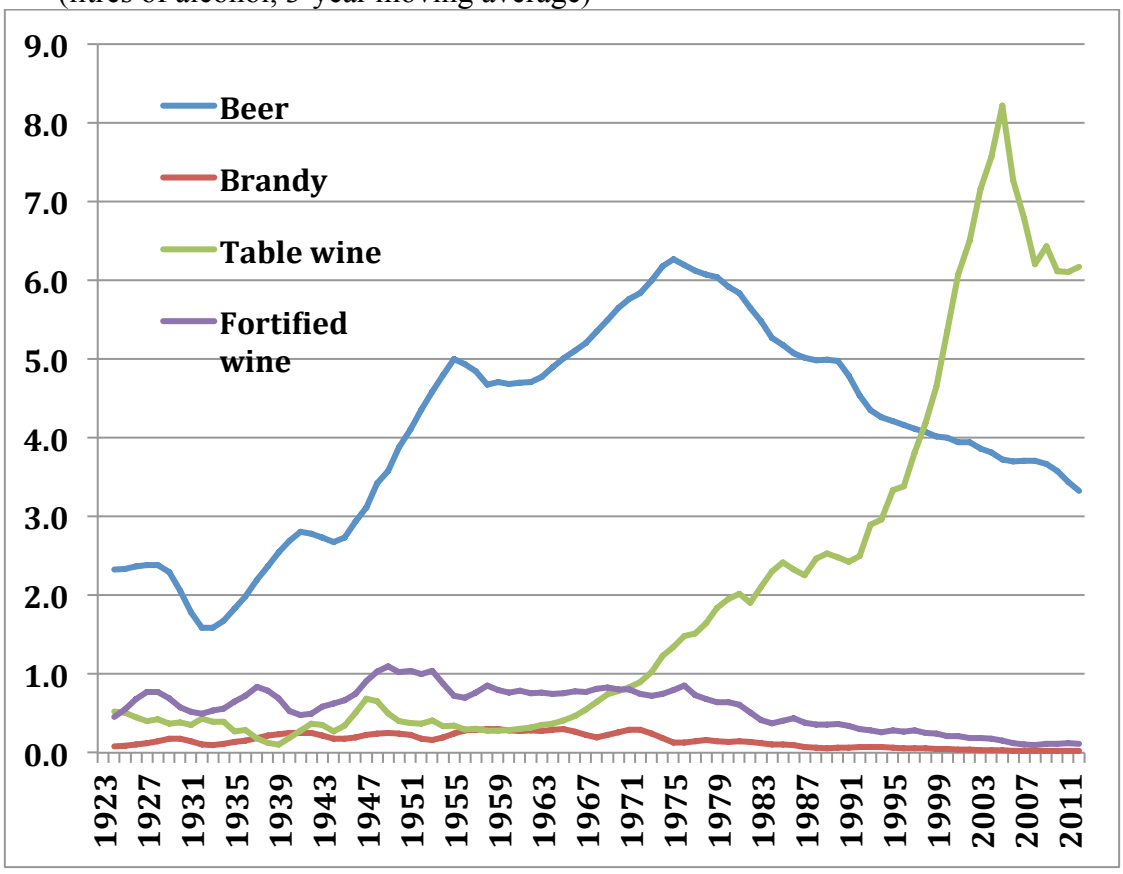
31. Shares of wine production destined for table wine, fortified wine and distillation, 1923 to 2013 (%)



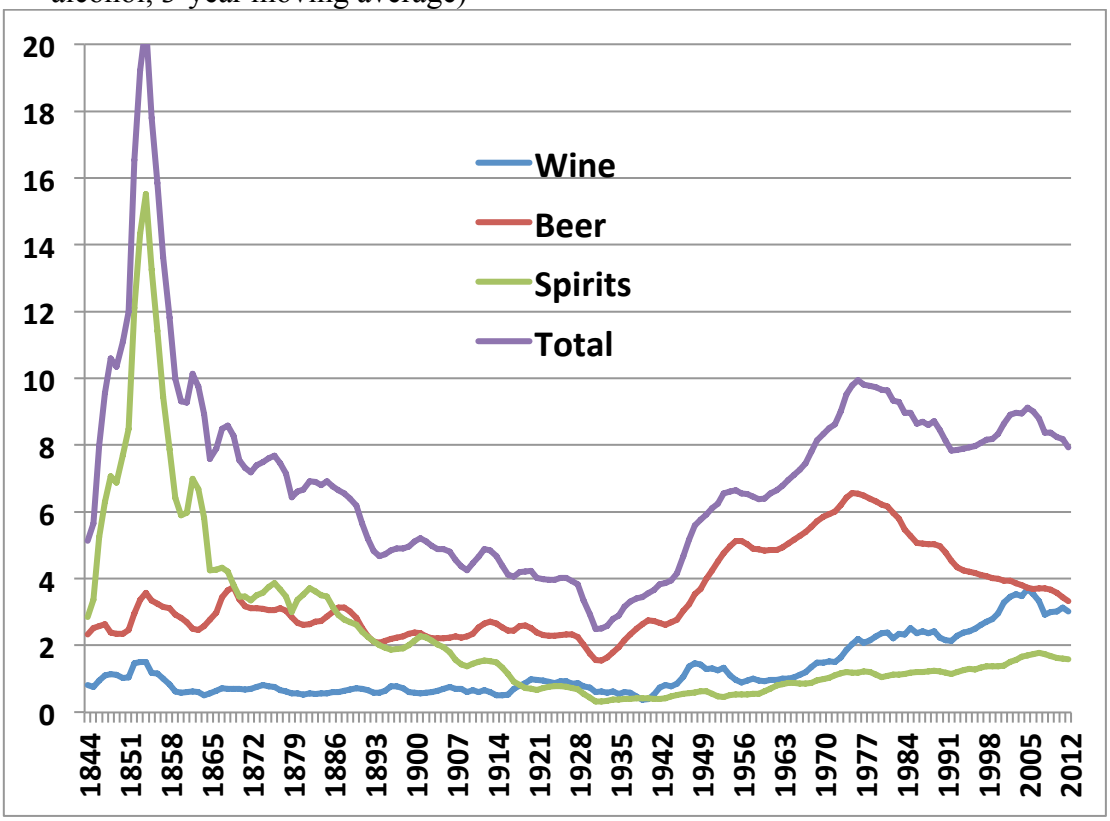
32. Gender ratio, 1820 to 1950 (males per female)



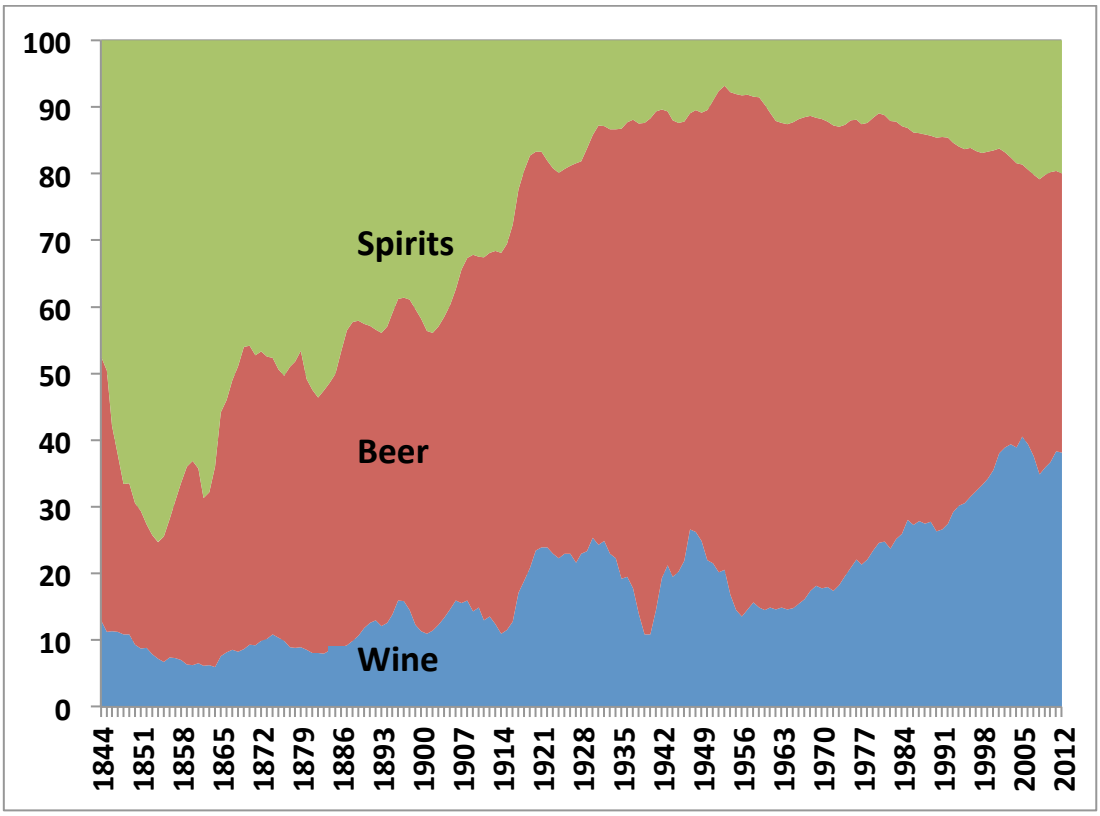
33. Per capita production of beer, table wine, fortified wine, and brandy, 1923 to 2012 (litres of alcohol, 3-year moving average)



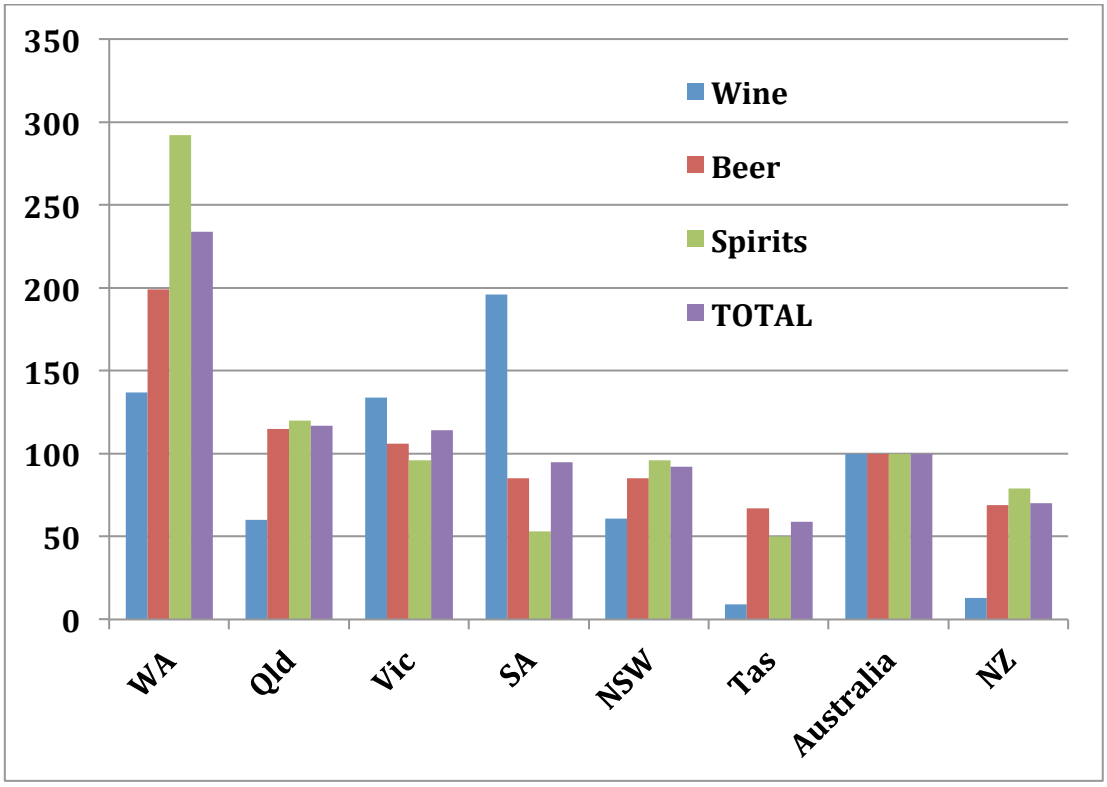
34. Per capita consumption of alcohol as wine, beer and spirits, 1843 to 2013 (litres of alcohol, 3-year moving average)



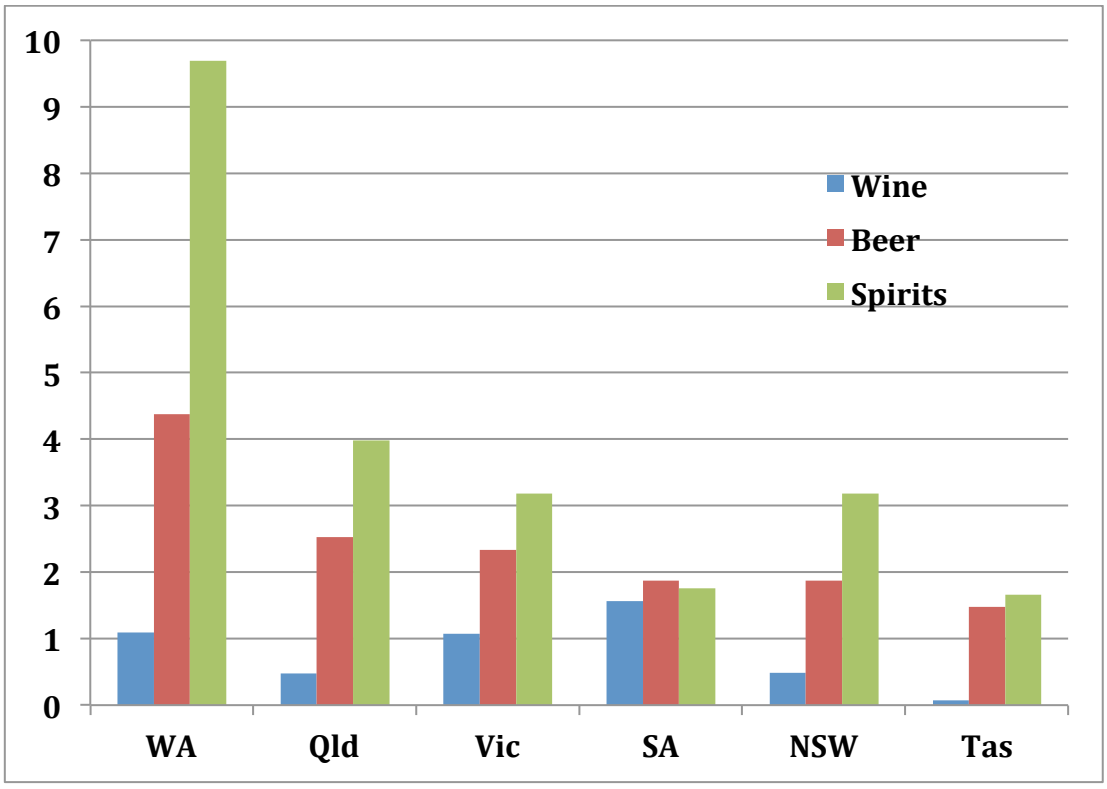
35. Shares of wine, beer and spirits in alcohol consumption, 1843 to 2013 (% alcohol, 3-year moving average)



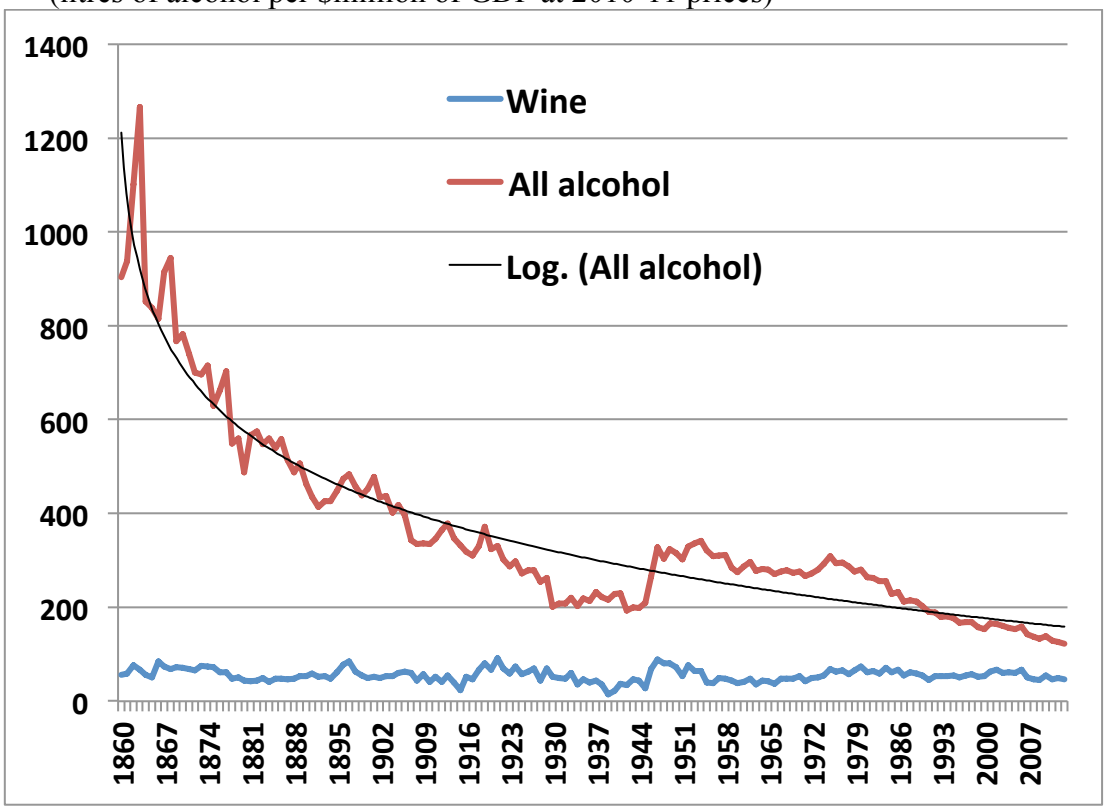
36. Late colonial per capita consumption of wine, beer and spirits, 1896
(a) Relative to Australian average (%)



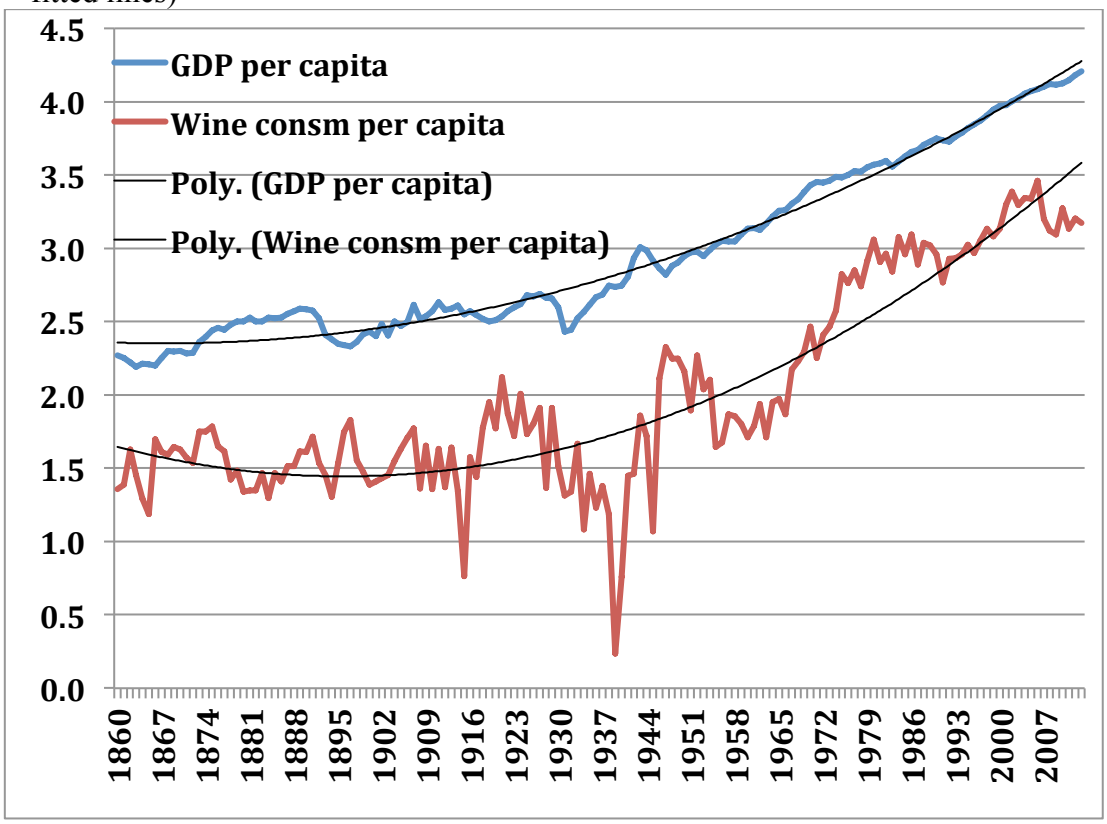
(b) Litres of alcohol



37. Wine and total alcohol consumption per $ of real GDP, 1860 to 2013 (litres of alcohol per $million of GDP at 2010-11 prices)

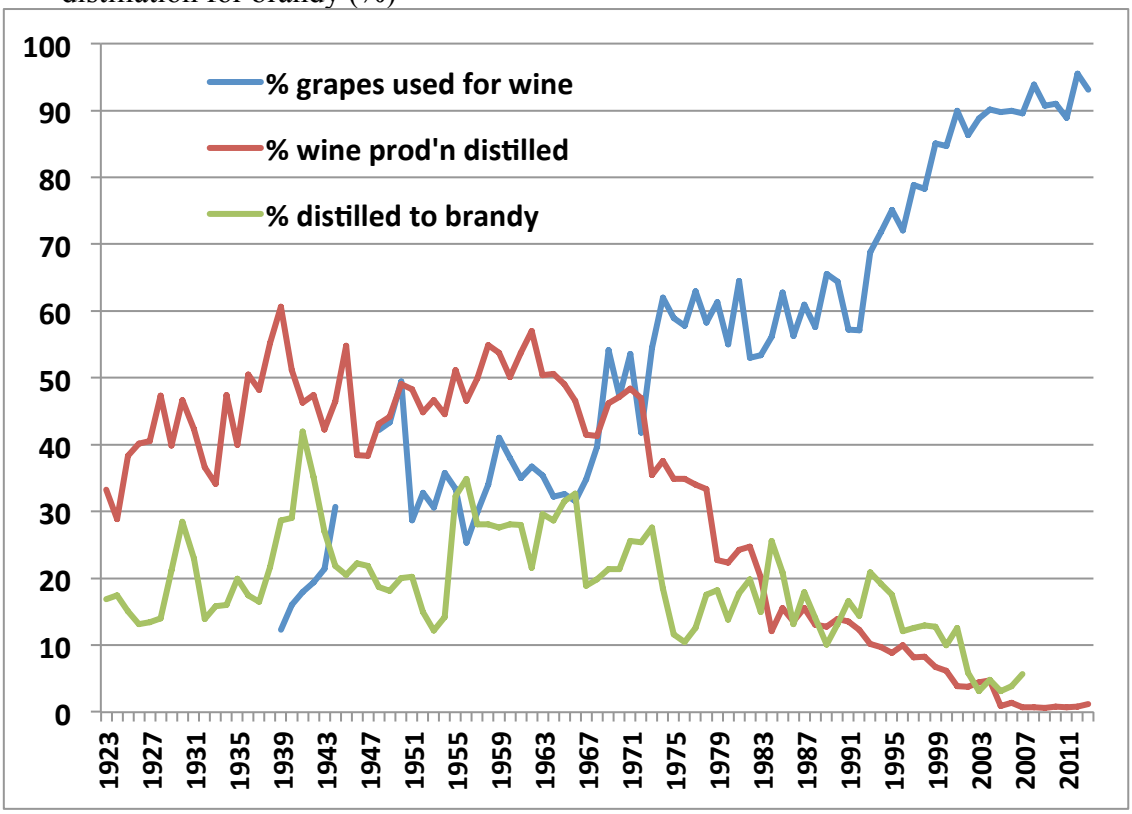


38. Wine consumption and real GDP, per capita, 1860 to 2013 (log-linear scale, polynomial fitted lines)

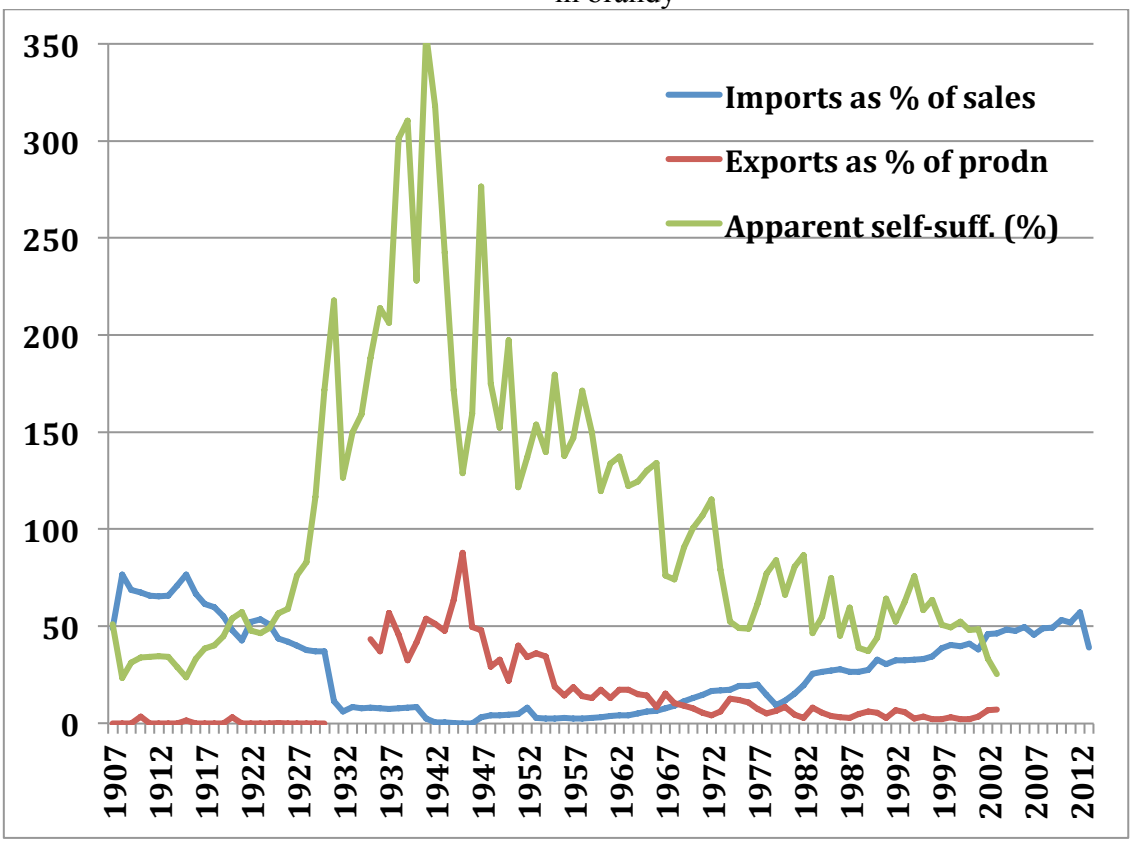


39. Structural changes to wine and brandy production, 1907 to 2013

(a) Shares of grape production for winemaking, wine production for distillation, and distillation for brandy (%)

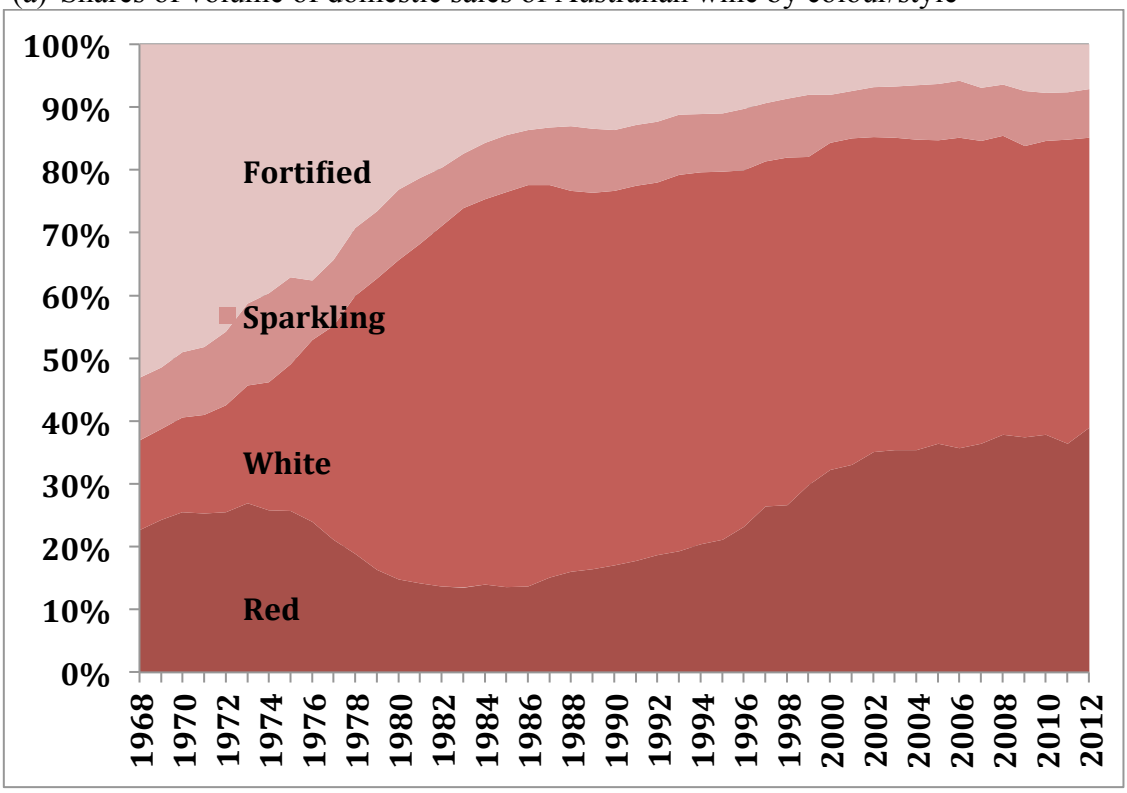


(b) Brandy exports as % of production, imports as % of consumption, and self-sufficiency in brandy

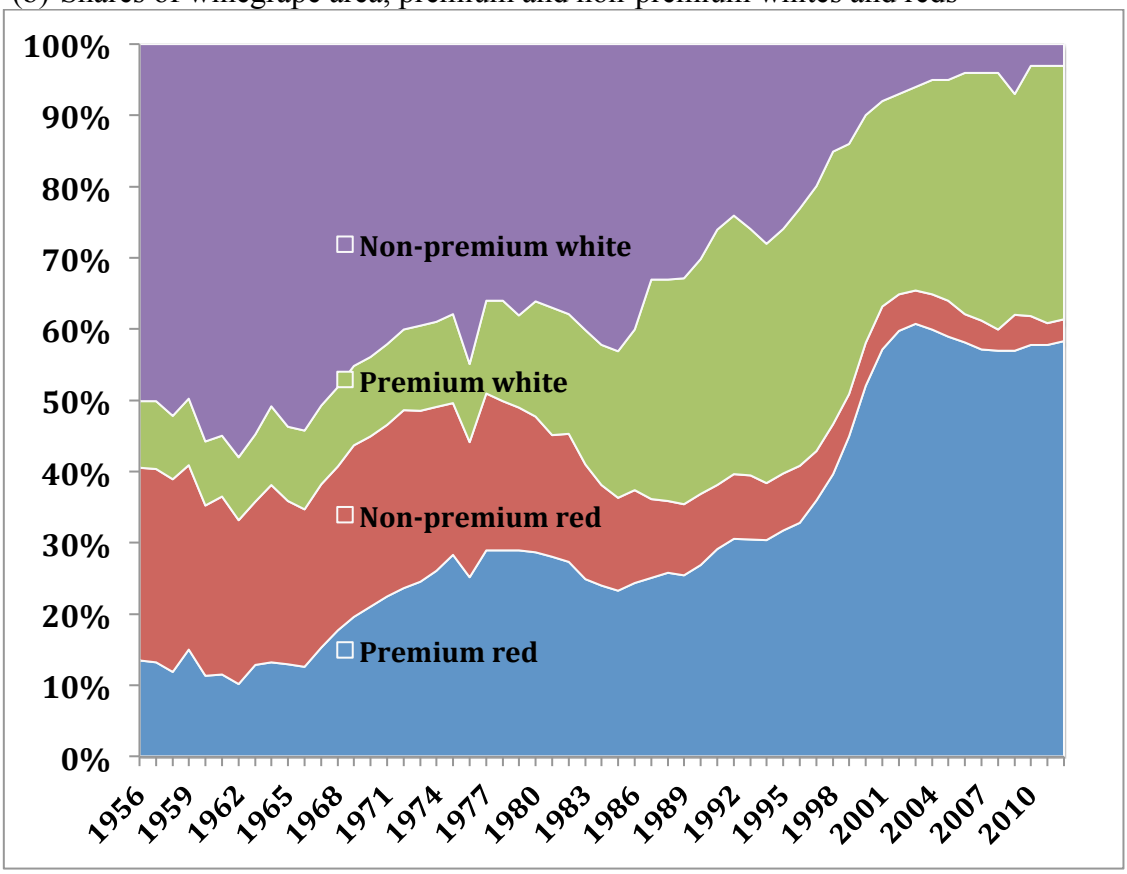


40. Evolution in consumption and plantings by colour/style, 1956 to 2012 (%)

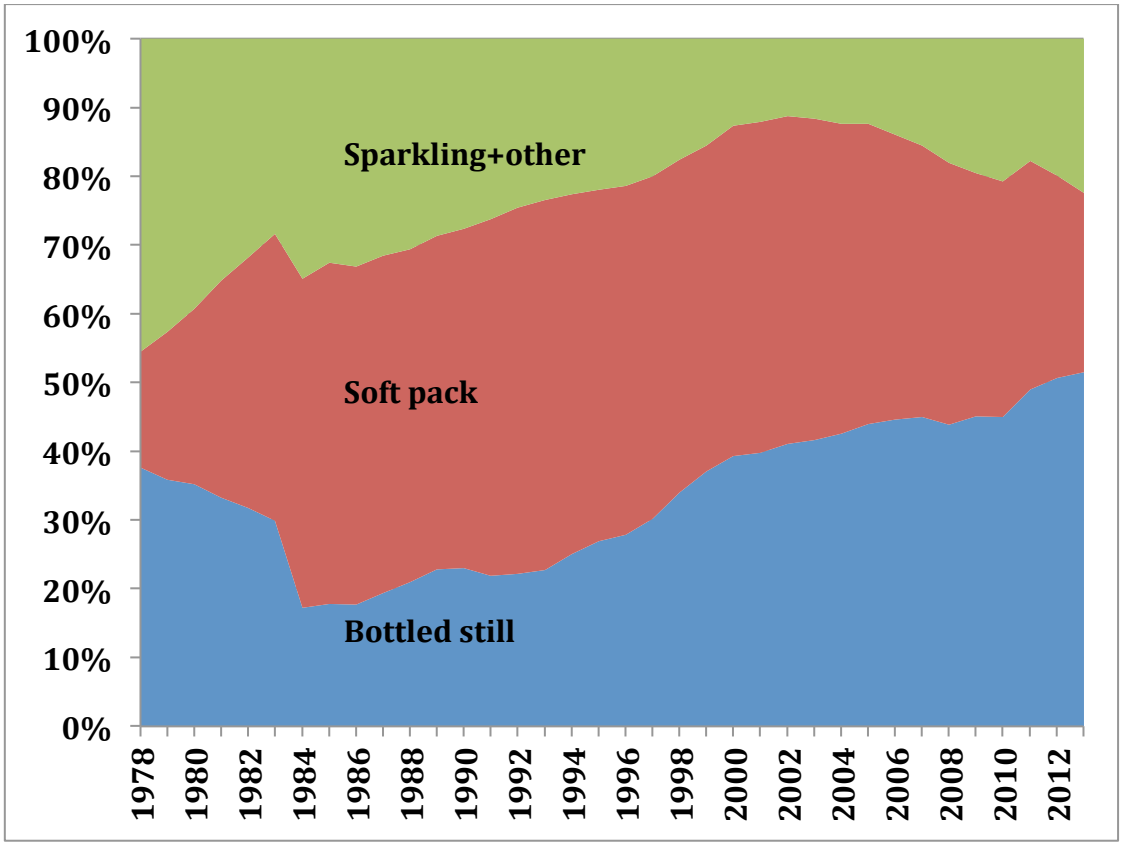
(a) Shares of volume of domestic sales of Australian wine by colour/style



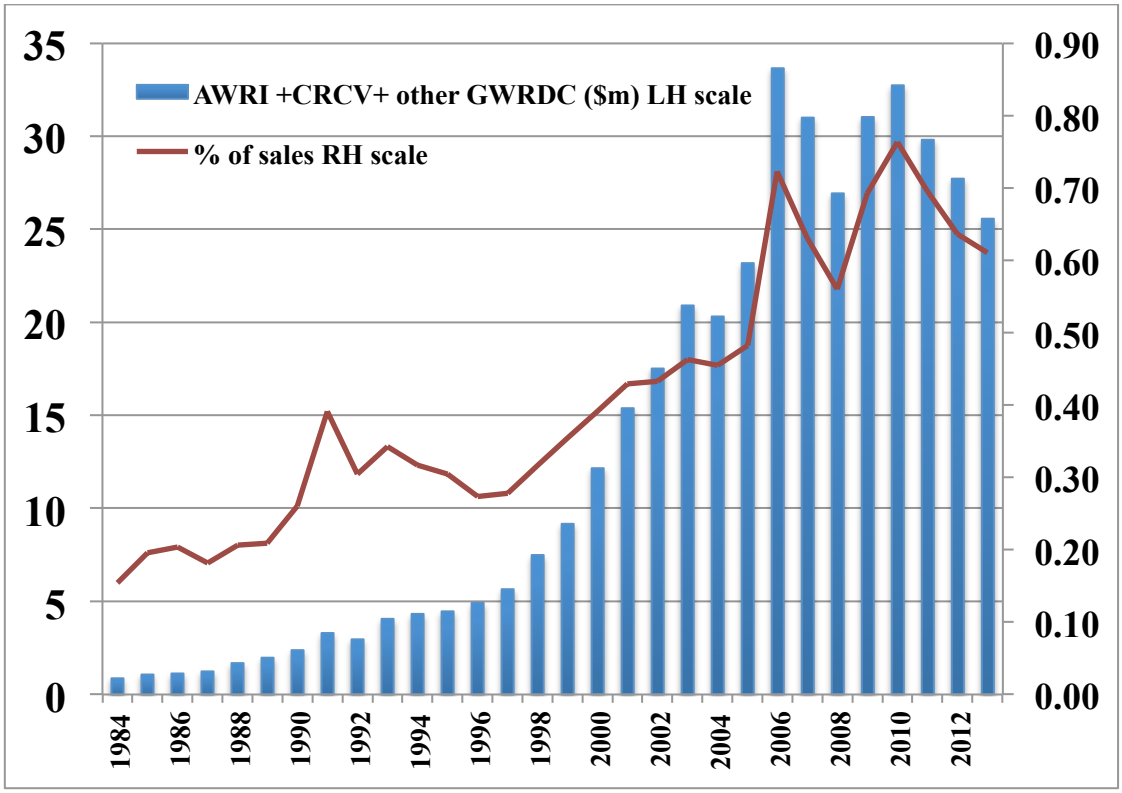
(b) Shares of winegrape area, premium and non-premium whites and reds



41. Shares of domestic wine sales, by container type, 1978 to 2013 (%)

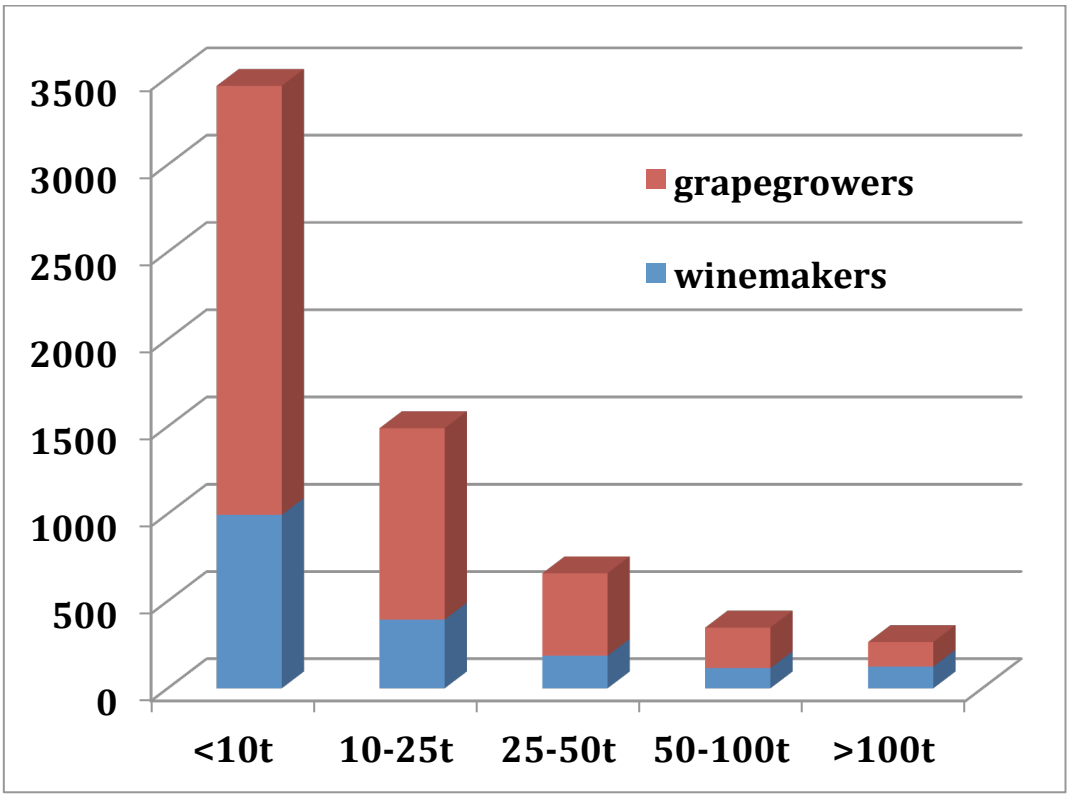


42. R&D investment, total and as a percentage of wine sales, 1984 to 2013

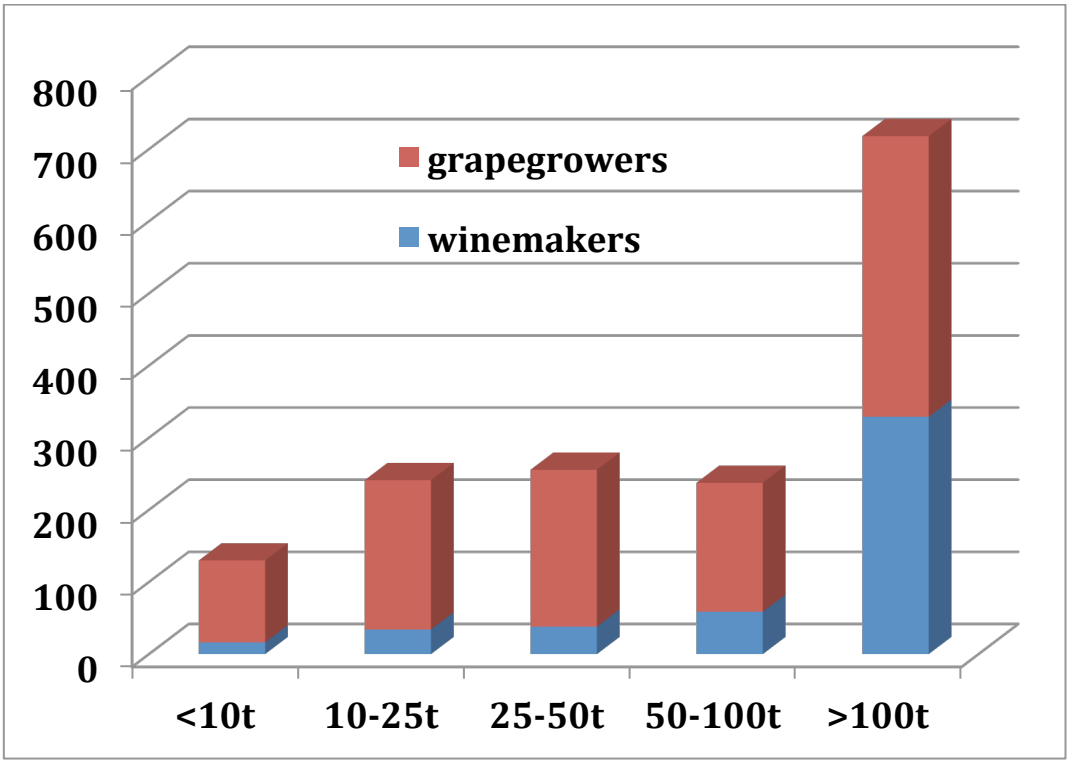


43. Number of producers and total output, by volume of grapes crushed, 2012

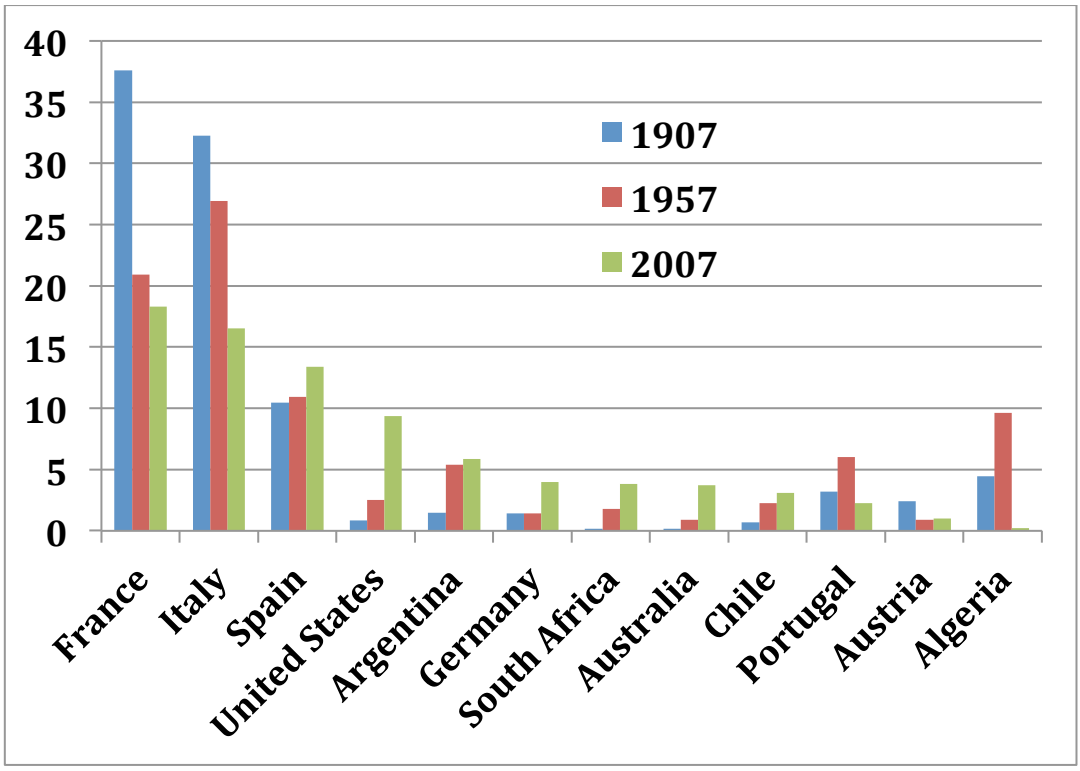
(a) Number of producers



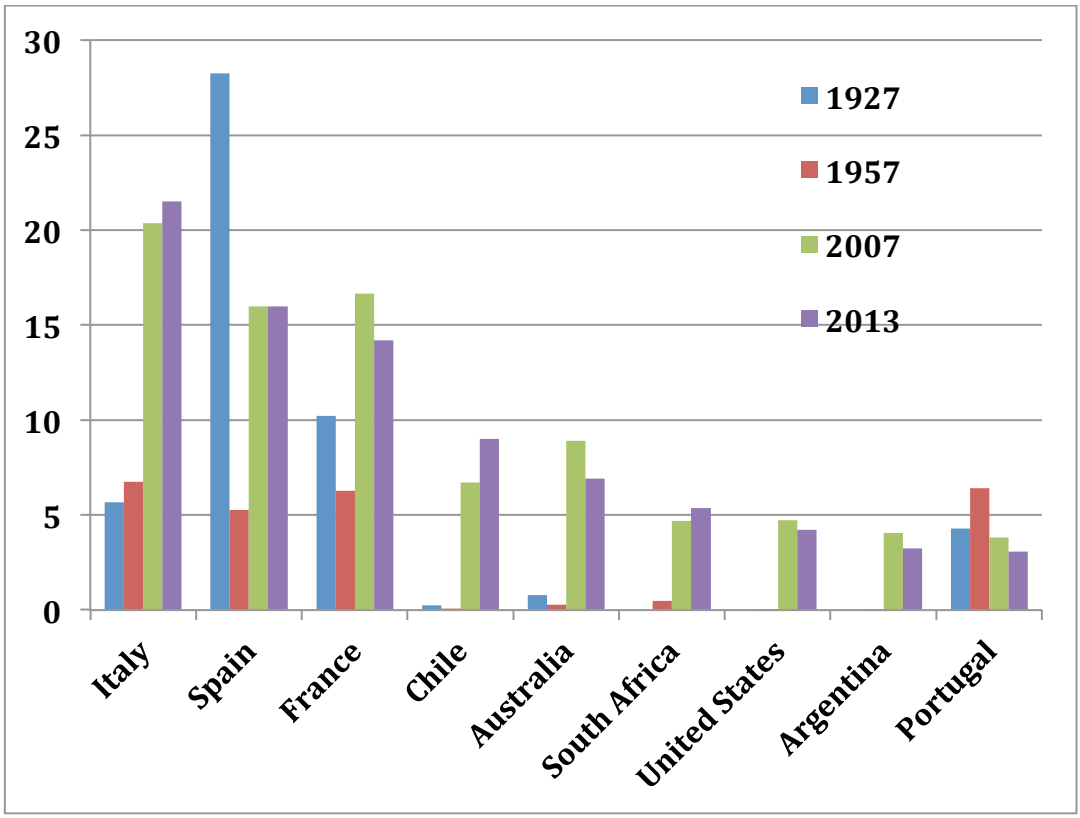
(b) Winegrape production (kt of grapes crushed)



44. National shares of global wine production volume, 1907 to 2007 (%)



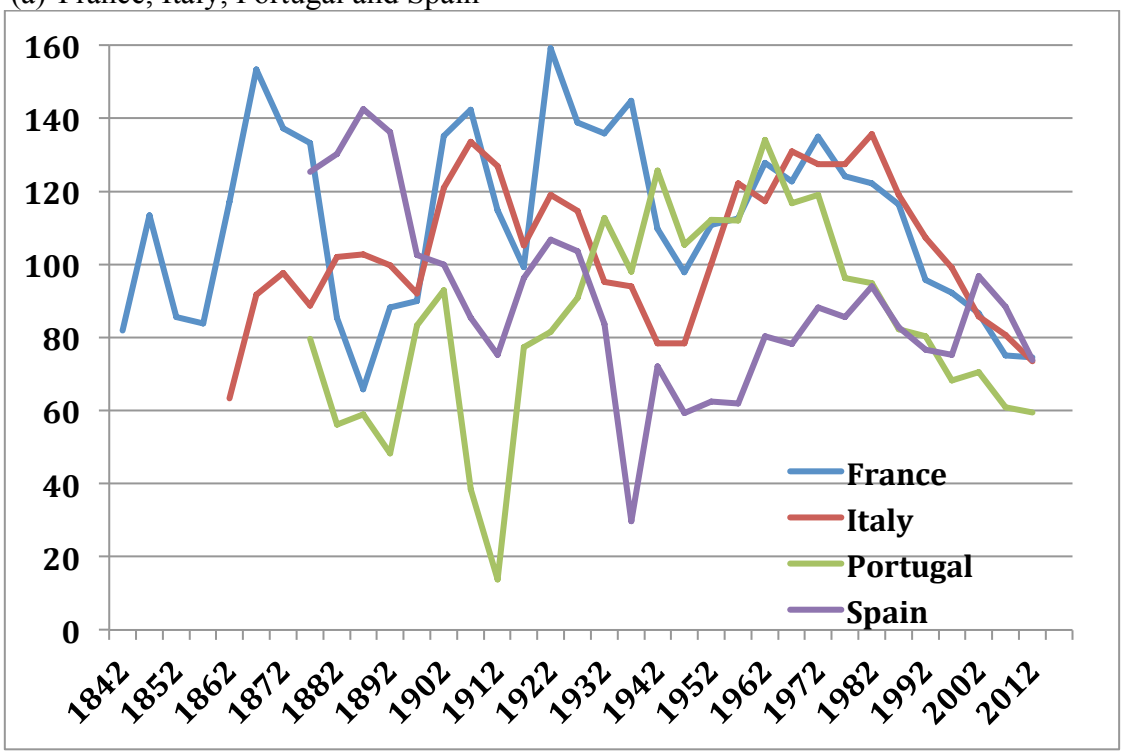
45. National shares of global wine export volumes, 1927 to 2013 (%)



[a] Algeria is not shown: its shares were 57% in 1907, 40% in 1957 and 0% in 2007 and 2013

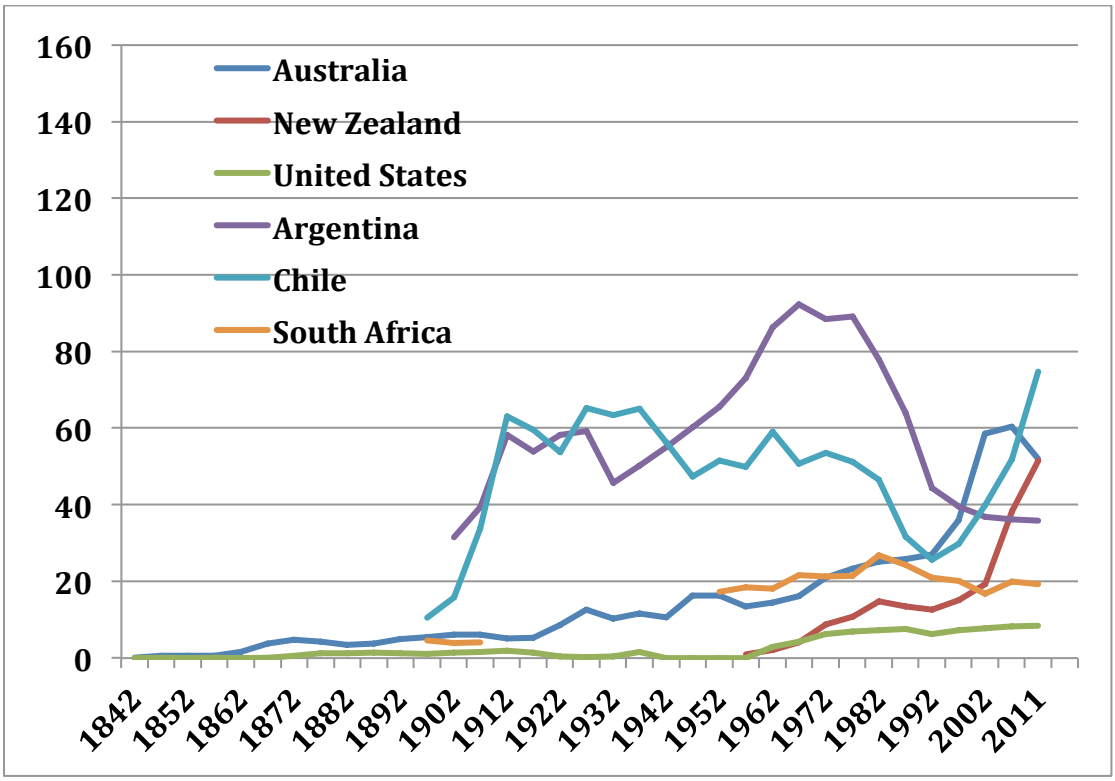
46. Wine production per capita, main Old and New World countries, 1840 to 2013
(litres/year, 5-year averages around year shown except '2012' = 2010-13)

(a) France, Italy, Portugal and Spain[a]



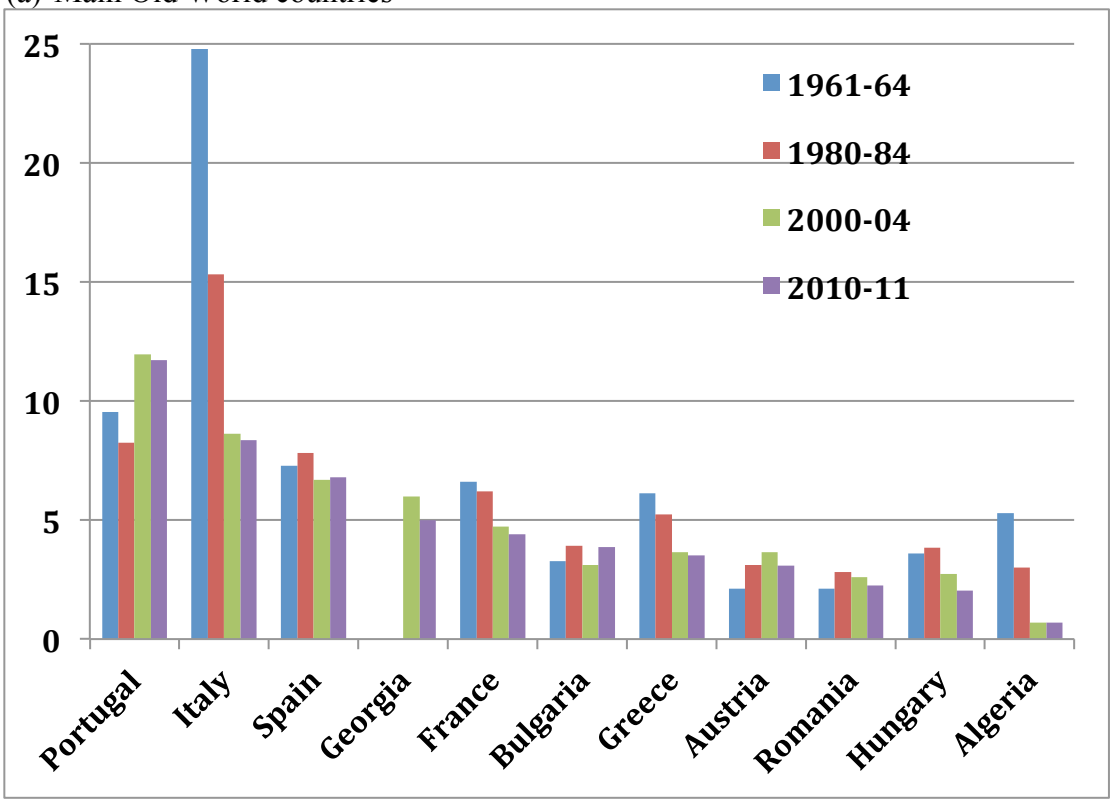
[a] Algeria is not shown: its production was more than 150 litres/capita during the 1950s but was only 30 in the 1970s, eight in the 1980s, and has been less than two since then.

(b) Argentina, Australia, Chile, New Zealand, South Africa, and United States



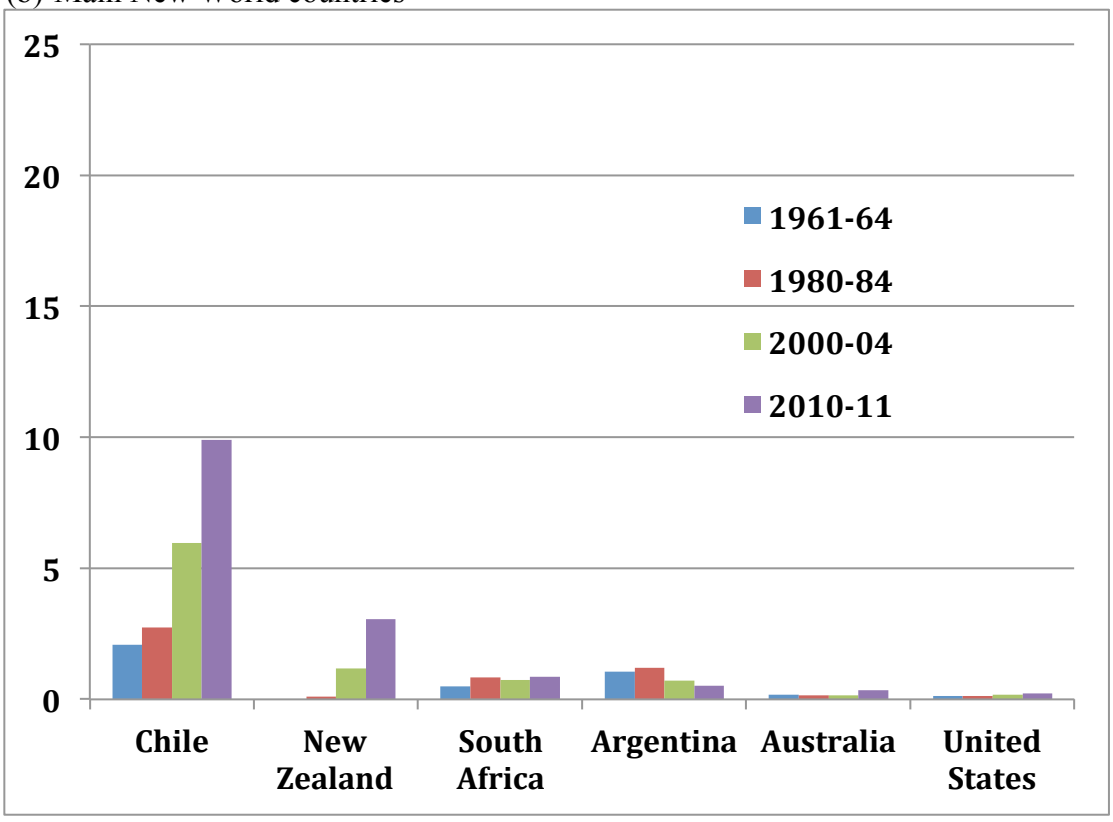
47. Vine area as a share of total crop area (%), main Old and New World countries, 1961 to 2011

(a) Main Old World countries[a]

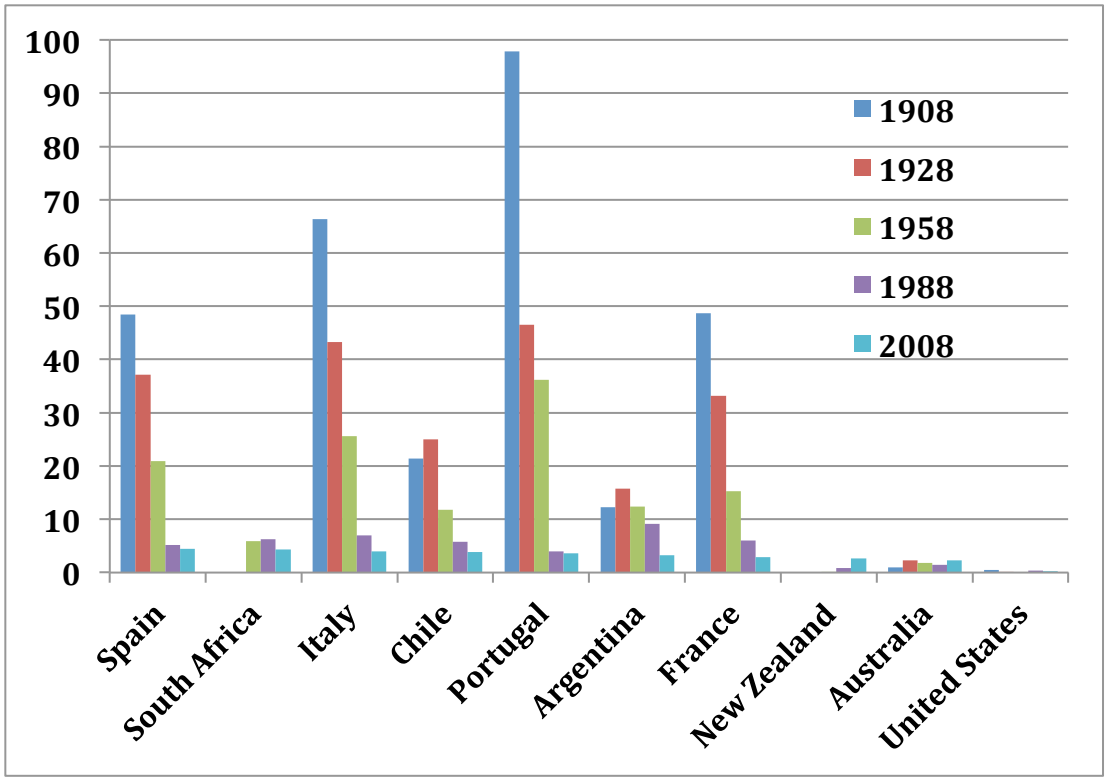


[a] Shares for Moldova averaged 7% over the 2000-09 period, the same as Spain.

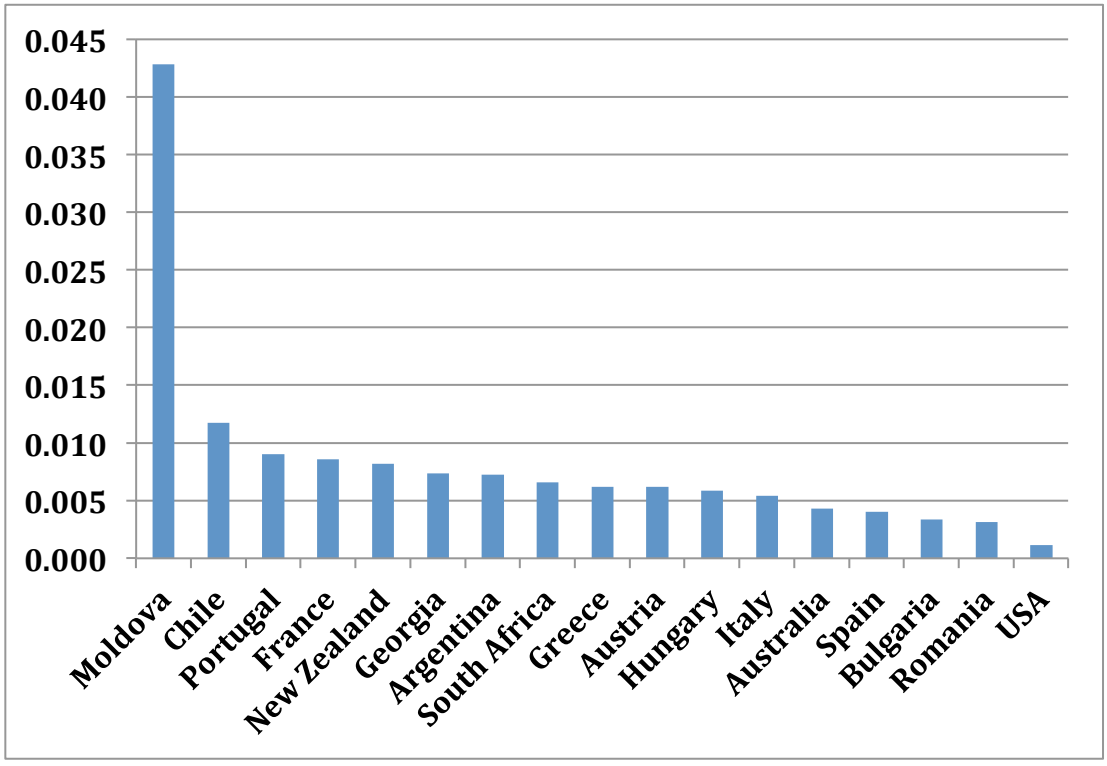
(b) Main New World countries



48. Wine production volume per $ of real GDP, main Old and New World countries, 1908 to 2008 (kl per million 1990 International Geary-Khamis dollars)

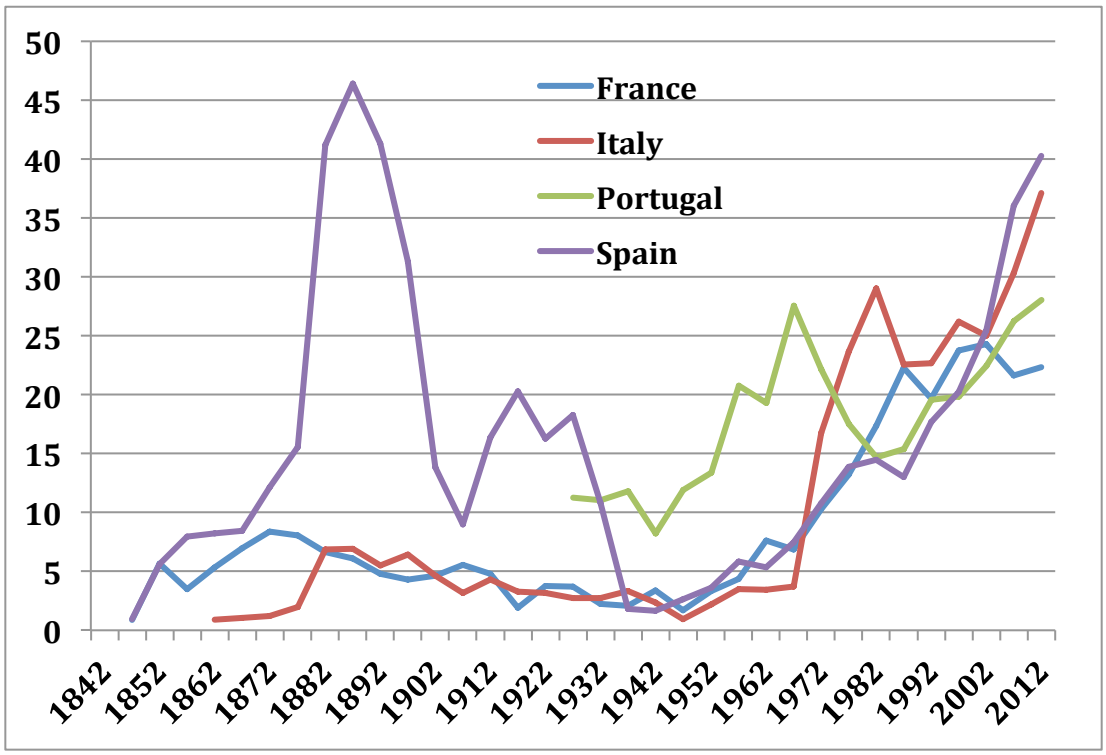


49. Wine production value as a share of GDP, main Old and New World countries, 2009 (%)



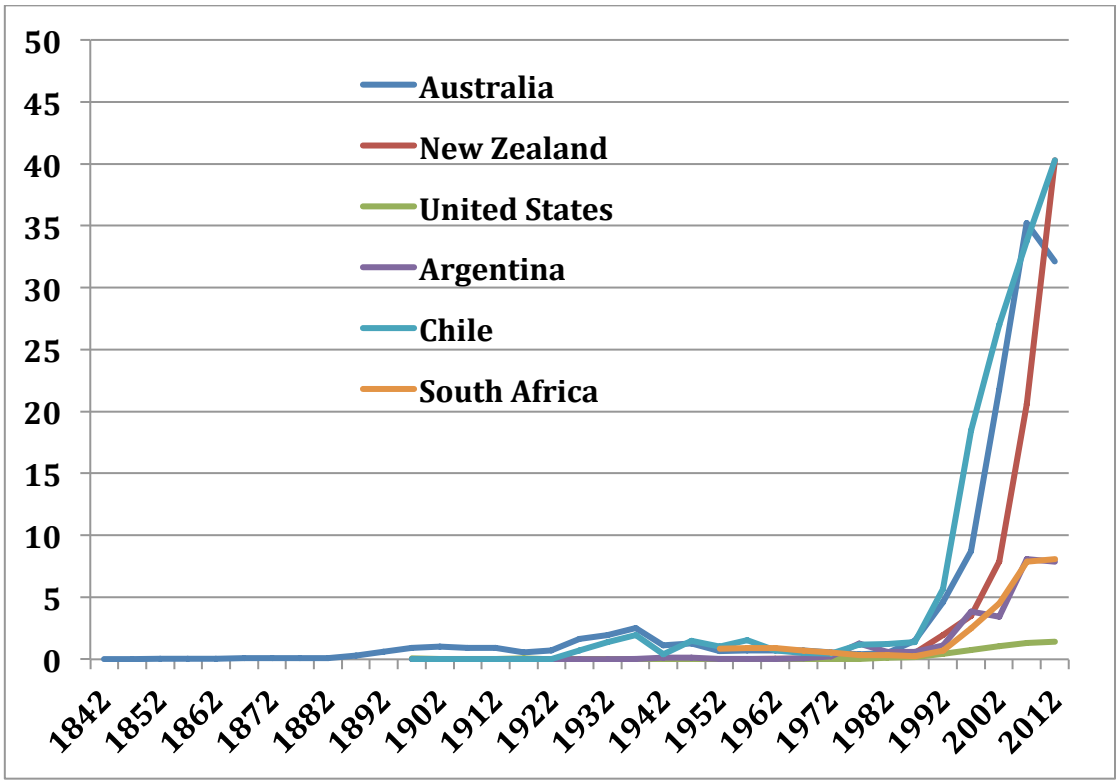
50. Wine exports per capita, main Old and New World countries, 1840 to 2013
(litres/year, 5-year averages around year shown except '2012' = 2010-13)

(a) France, Italy, Portugal and Spain[a]



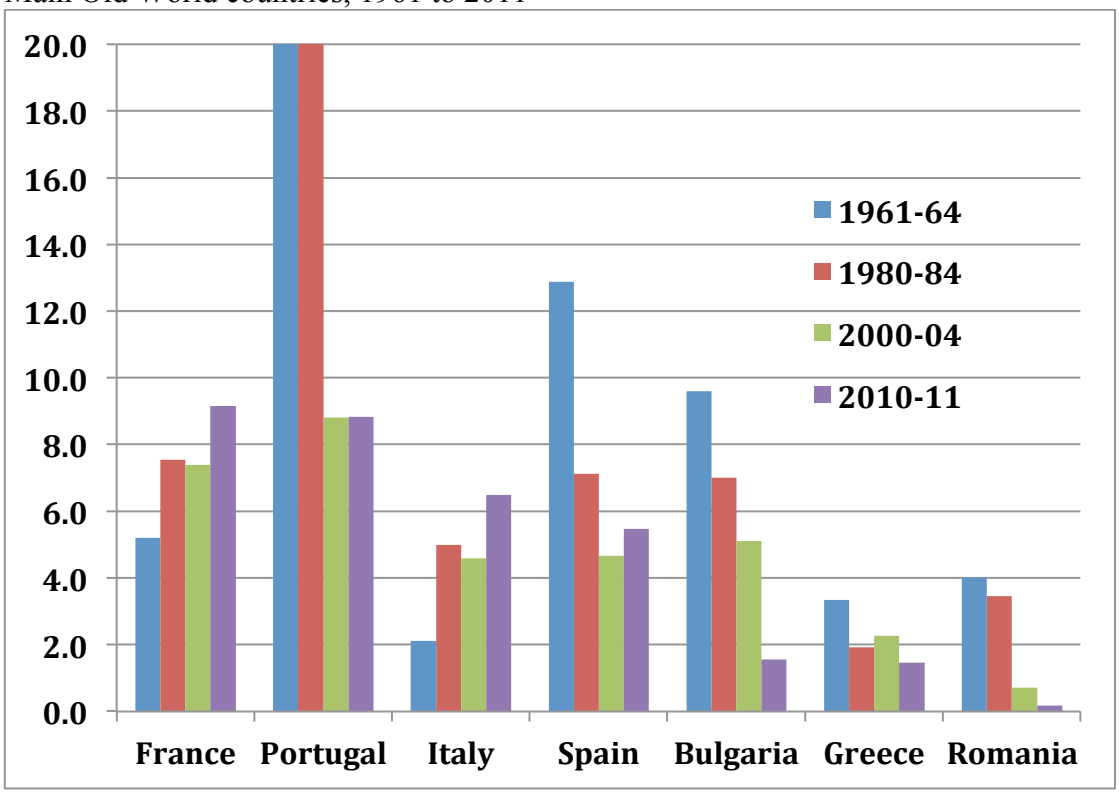
[a] Algeria is not shown: it exported more than 100 litres per capita per year during 1900-60 but only six litres in the 1980s and less than 0.5 litre since then.

(b) Argentina, Australia, Chile, New Zealand, South Africa, and United States



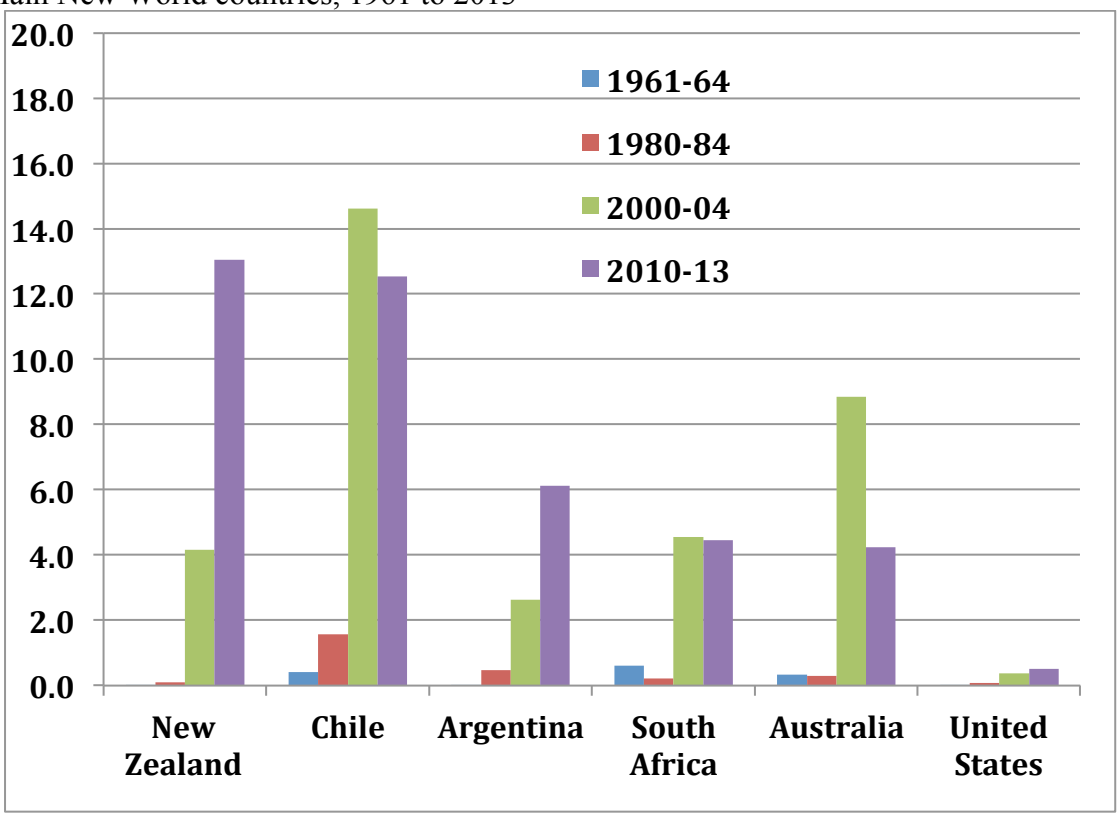
51. Wine comparative advantage index,[a] 1961 to 2013

(a) Main Old World countries, 1961 to 2011[b]



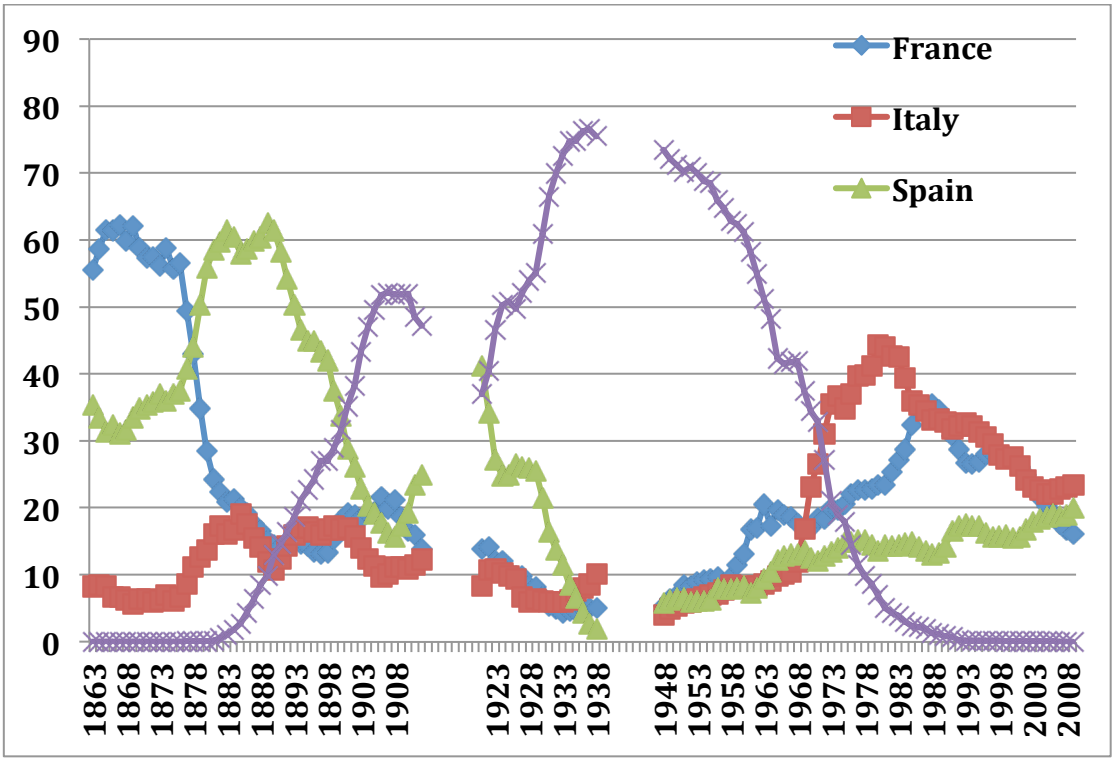
[b] Algeria, Tunisia, Georgia and Moldova are not shown: the indexes for Algeria and Tunisia in 1961-64 were 118 and 49, but were <0.5 from 1980; the indexes for Georgia and Moldova were 43 and 100 in 2000-04 and 14 and 42 in 2010-11.

(b) Main New World countries, 1961 to 2013

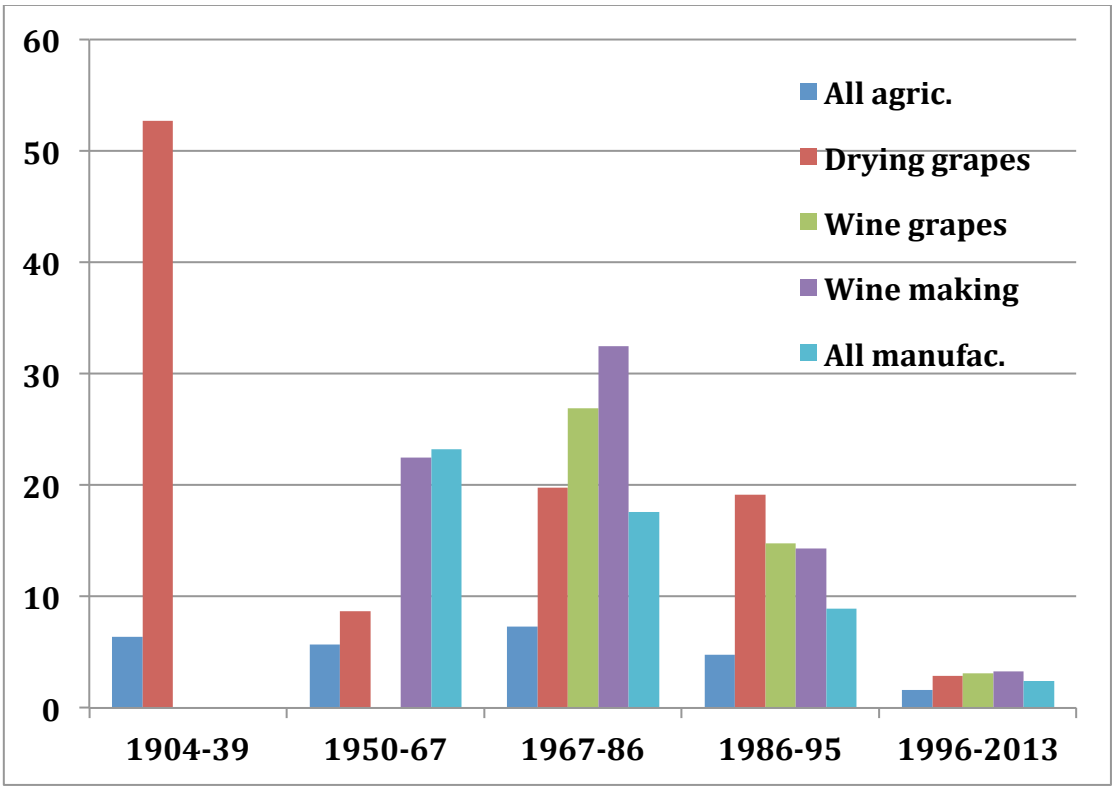


[a] Index is the share of wine in national merchandise exports divided by wine's share of global exports.

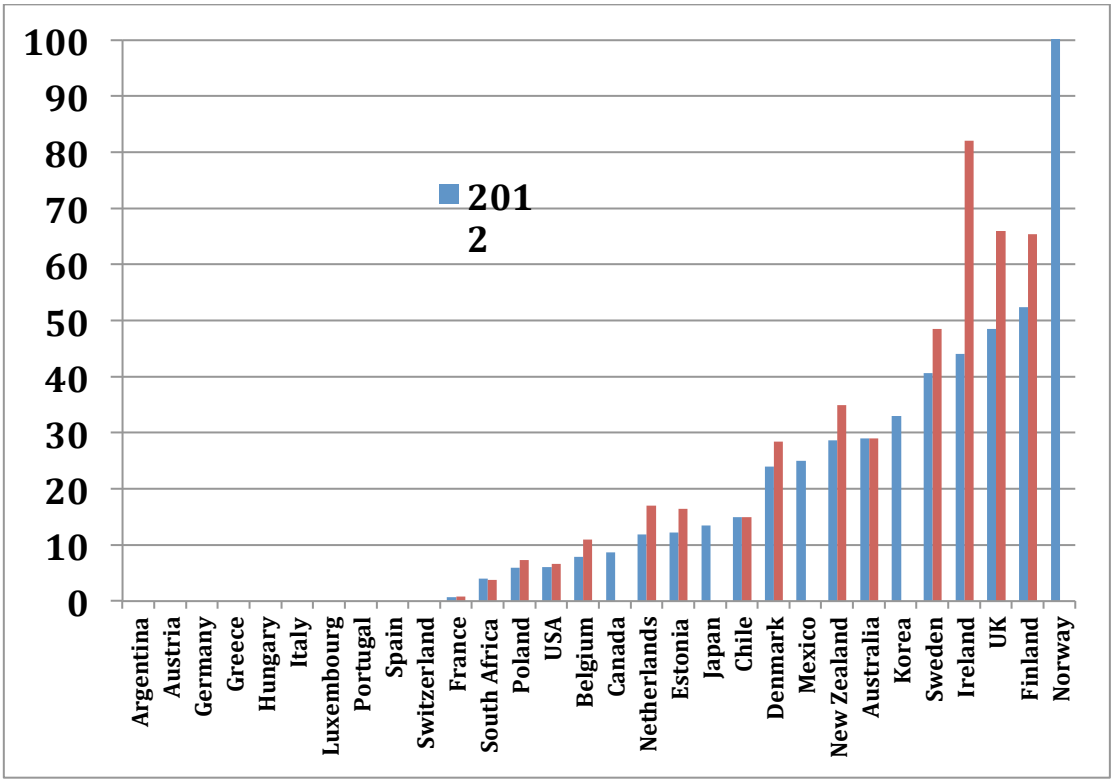
52. Share of volume of global wine exports, key Mediterranean countries, 1861 to 2011 (%, 5-year moving average)



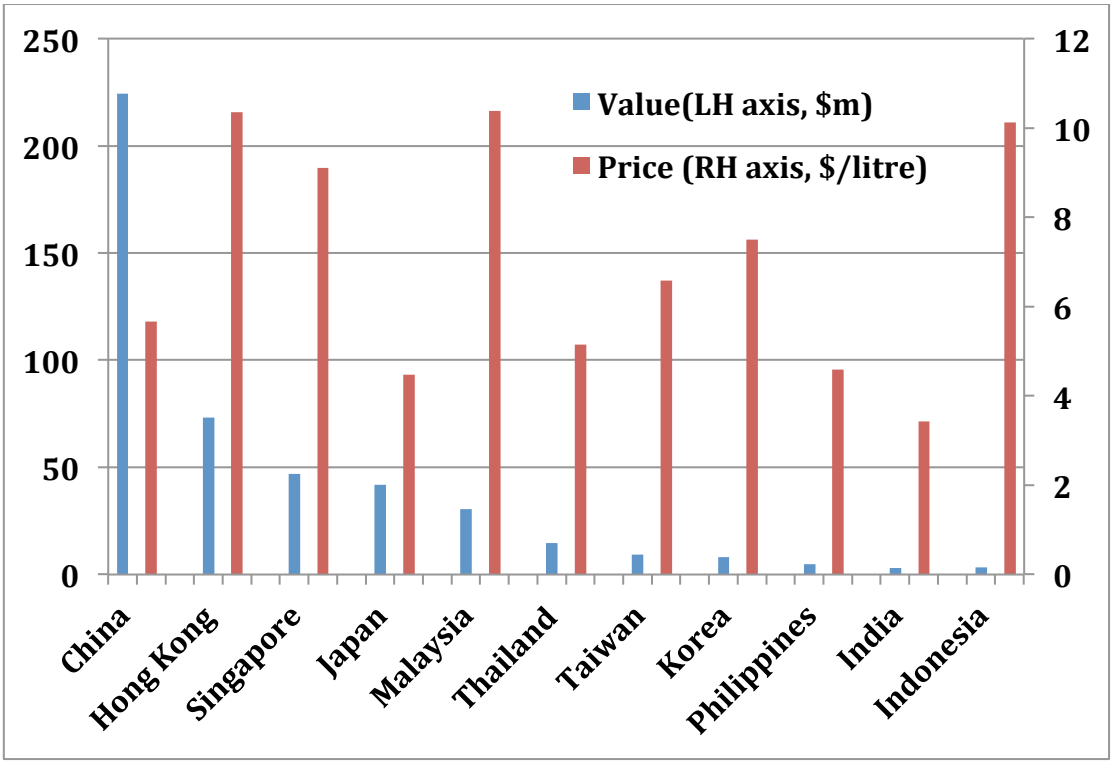
53. Nominal rates of assistance to grape growing, winemaking, all agriculture, and all manufacturing, 1904 to 2013



54. Ad valorem consumer tax equivalent of excise in commercial premium wines, various countries, 2012 and 2014



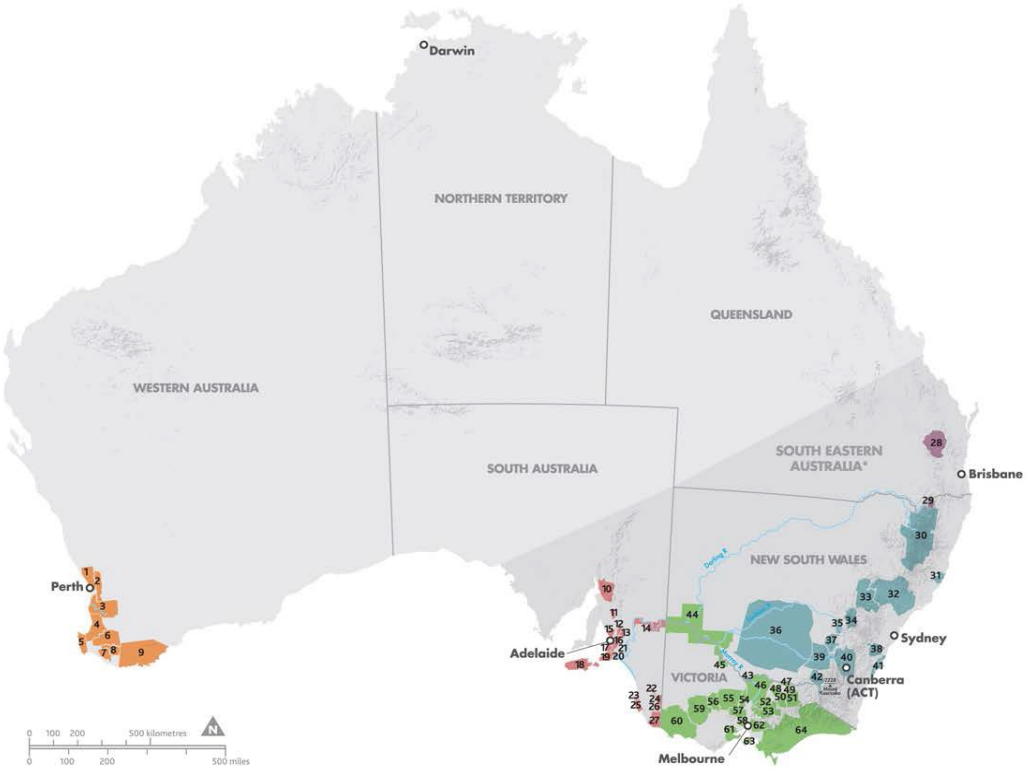
55. Total and unit value of Australia's wine export to Asia, 2011to 2014 (A$m/year and A$/litre, July 2011 to June 2014)



Section II — Charts:

Regional grape and wine developments from the late 20th century

56. Map of Australia's 65 wine regions



WESTERN AUSTRALIA
1 Swan District
2 Perth Hills
3 Peel
4 Geographe
5 Margaret River
6 Blackwood Valley
7 Pemberton
8 Manjimup
9 Great Southern

SOUTH AUSTRALIA
10 Southern Flinders Ranges
11 Clare Valley
12 Barossa Valley
13 Eden Valley
14 Riverland
15 Adelaide Plains
16 Adelaide Hills
17 McLaren Vale
18 Kangaroo Island
19 Southern Fleurieu
20 Currency Creek
21 Langhorne Creek
22 Padthaway
23 Mount Benson
24 Wrattonbully
25 Robe
26 Coonawarra
27 Mount Gambier

QUEENSLAND
28 South Burnett
29 Granite Belt

NEW SOUTH WALES
30 New England Australia
31 Hastings River
32 Hunter
33 Mudgee
34 Orange
35 Cowra
36 Riverina
37 Hilltops
38 Southern Highlands
39 Gundagai
40 Canberra District
41 Shoalhaven Coast
42 Tumbarumba
43 Perricoota

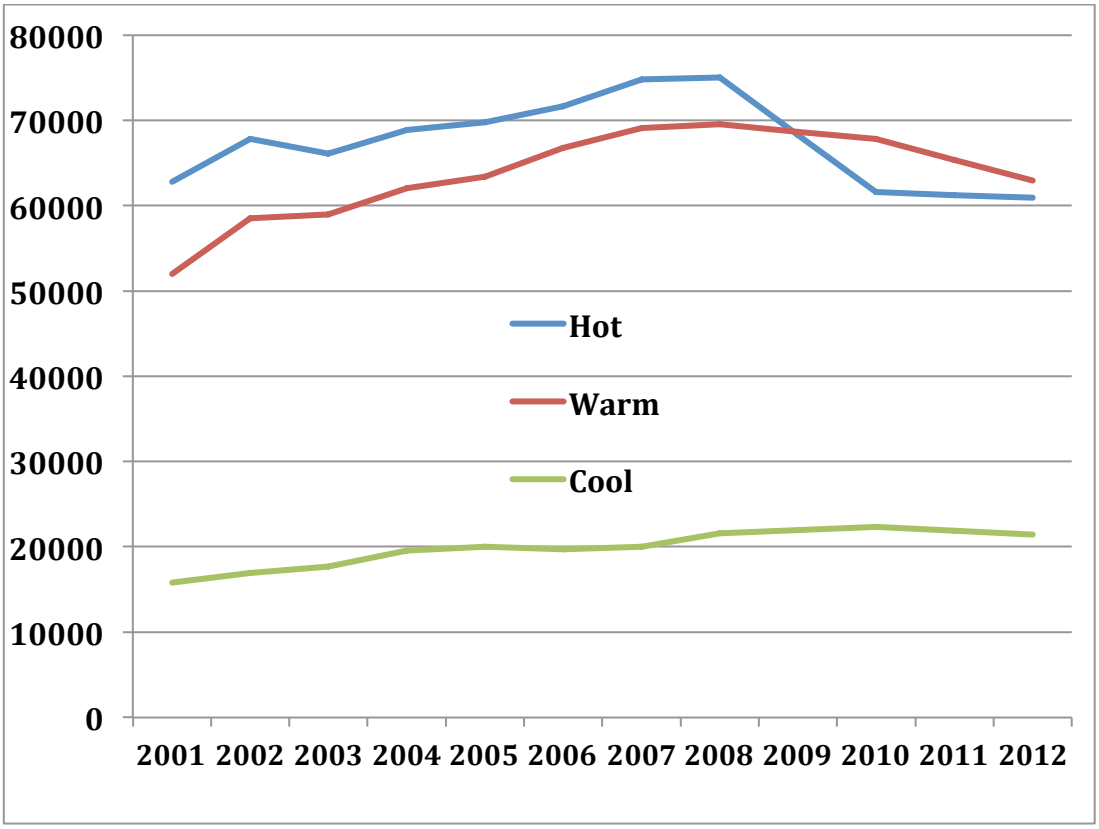
VICTORIA
44 Murray Darling
45 Swan Hill
46 Goulburn Valley
47 Rutherglen
48 Glenrowan
49 Beechworth
50 King Valley
51 Alpine Valleys
52 Strathbogie Ranges
53 Upper Goulburn
54 Heathcote
55 Bendigo
56 Pyrenees
57 Macedon Ranges
58 Sunbury
59 Grampians
60 Henty
61 Geelong
62 Yarra Valley
63 Mornington Peninsula
64 Gippsland*

TASMANIA
65 Tasmania*

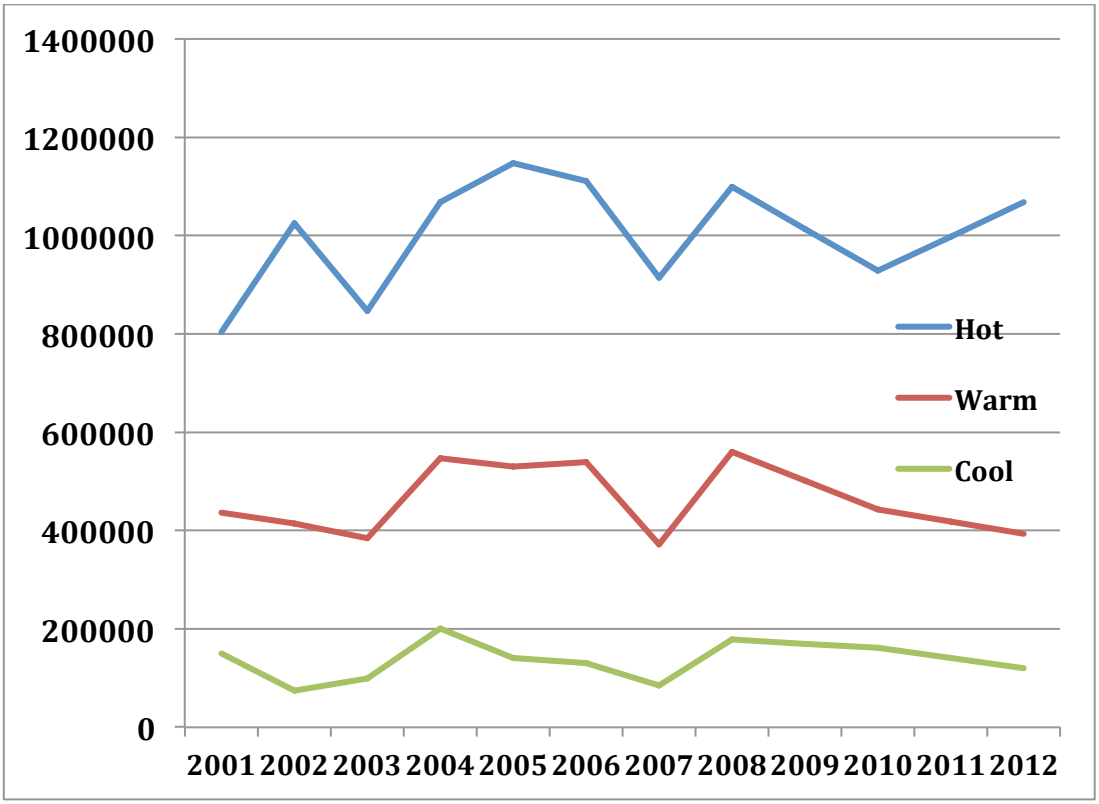
*South Eastern Australia and Gippsland are zones, Tasmania is a state.

Source: Australian Grape and Wine Authority

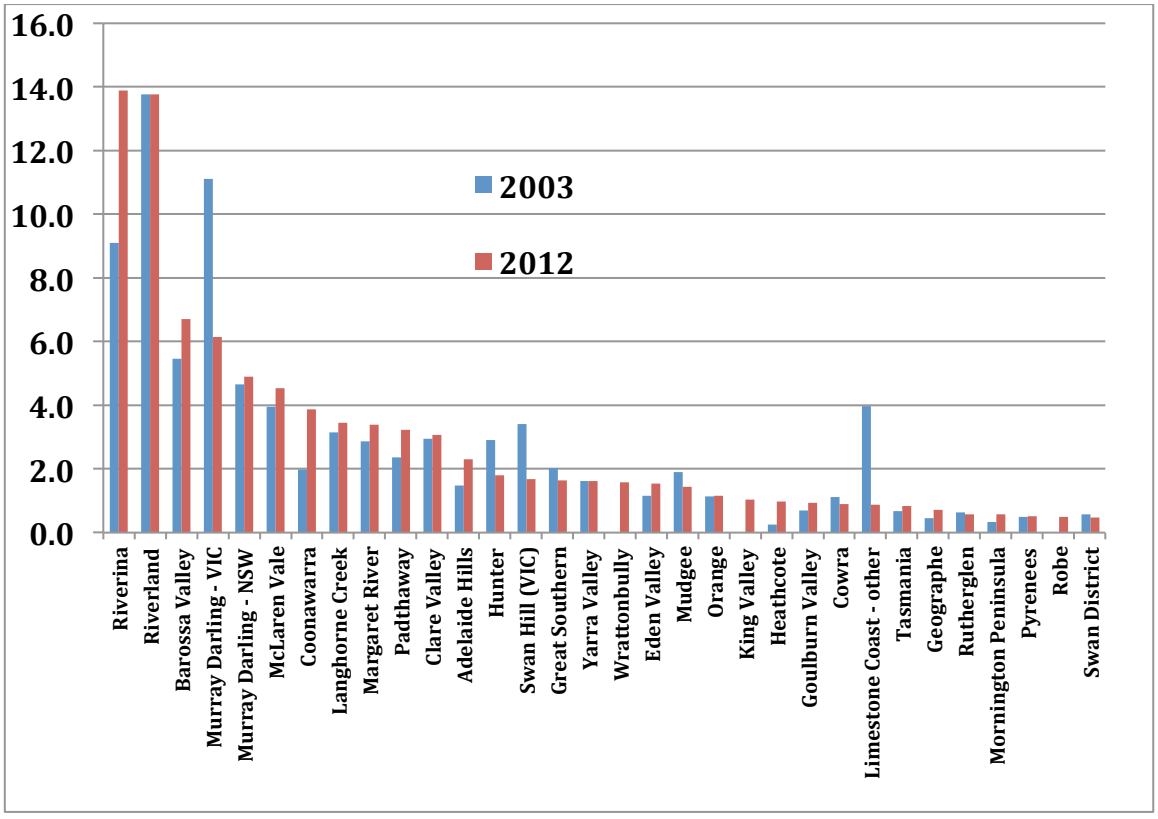
57. Winegrape bearing area and winegrape production, by climate zone, 2001 to 2012 (a) Bearing area (ha)



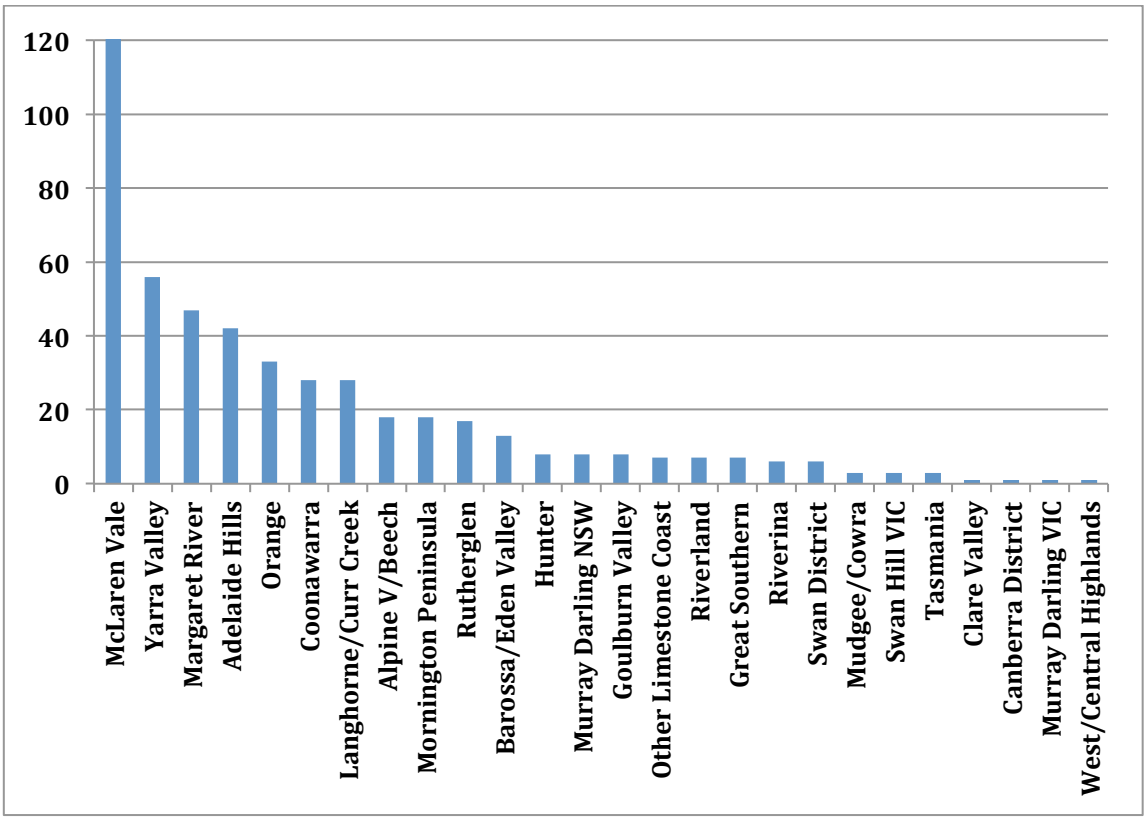
(b) Winegrape production (tonnes)



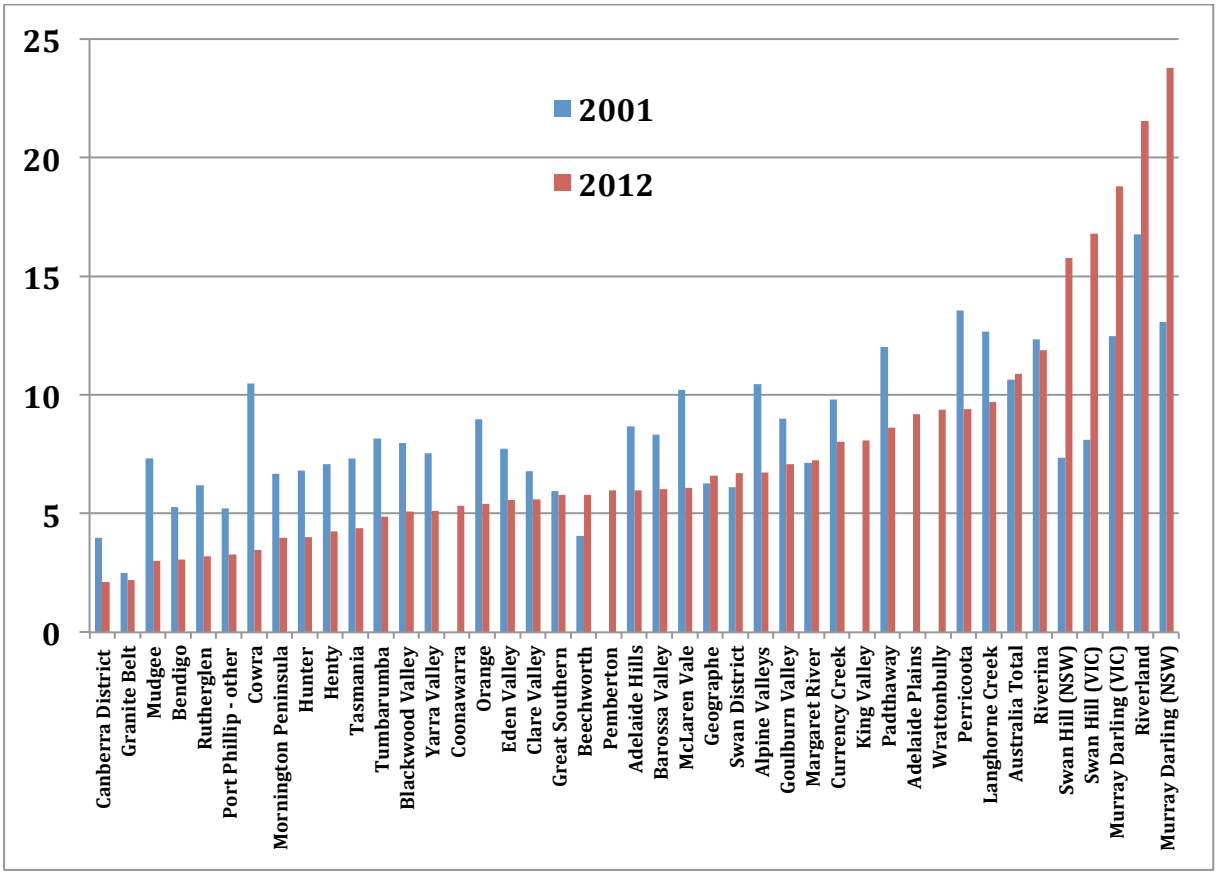
58. Regional shares of national winegrape bearing area, 2003 and 2012 (%)



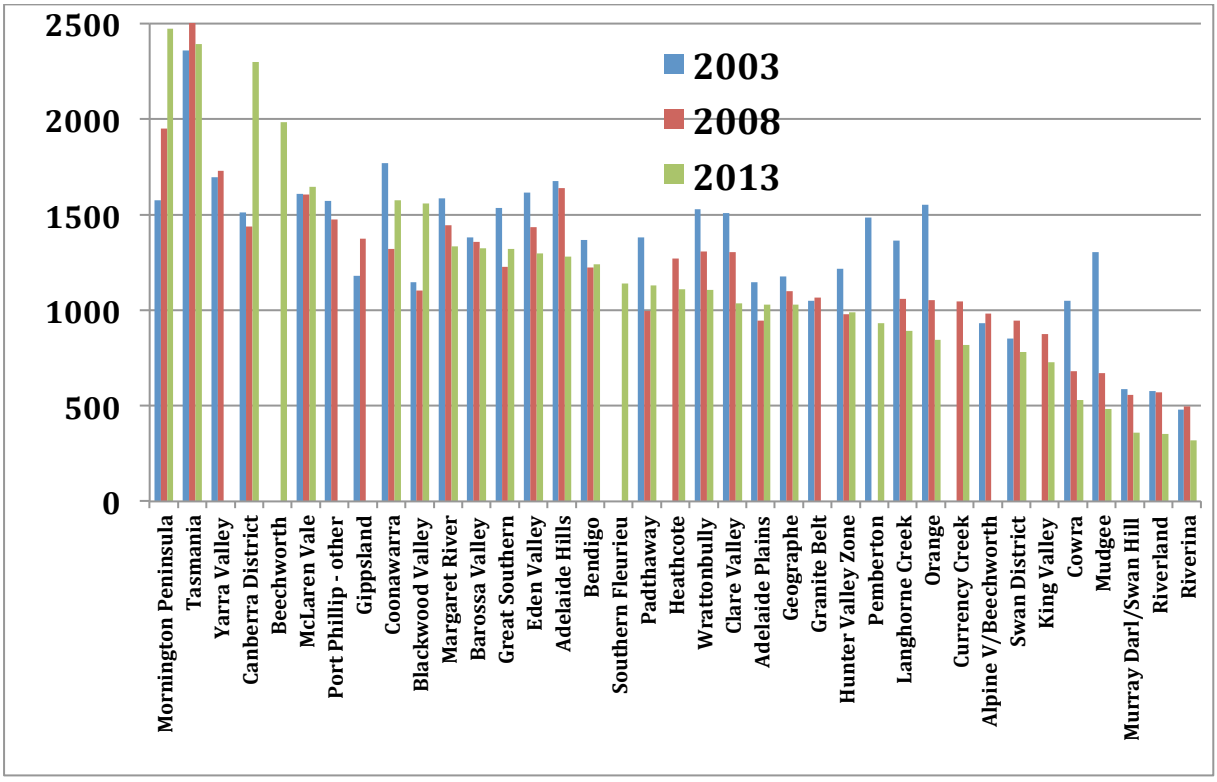
59. Regional diversity in terms of vine intensity of cropping, 2006



60. Regional diversity in terms of winegrape yield per hectare, 2001 and 2012 (t/ha)

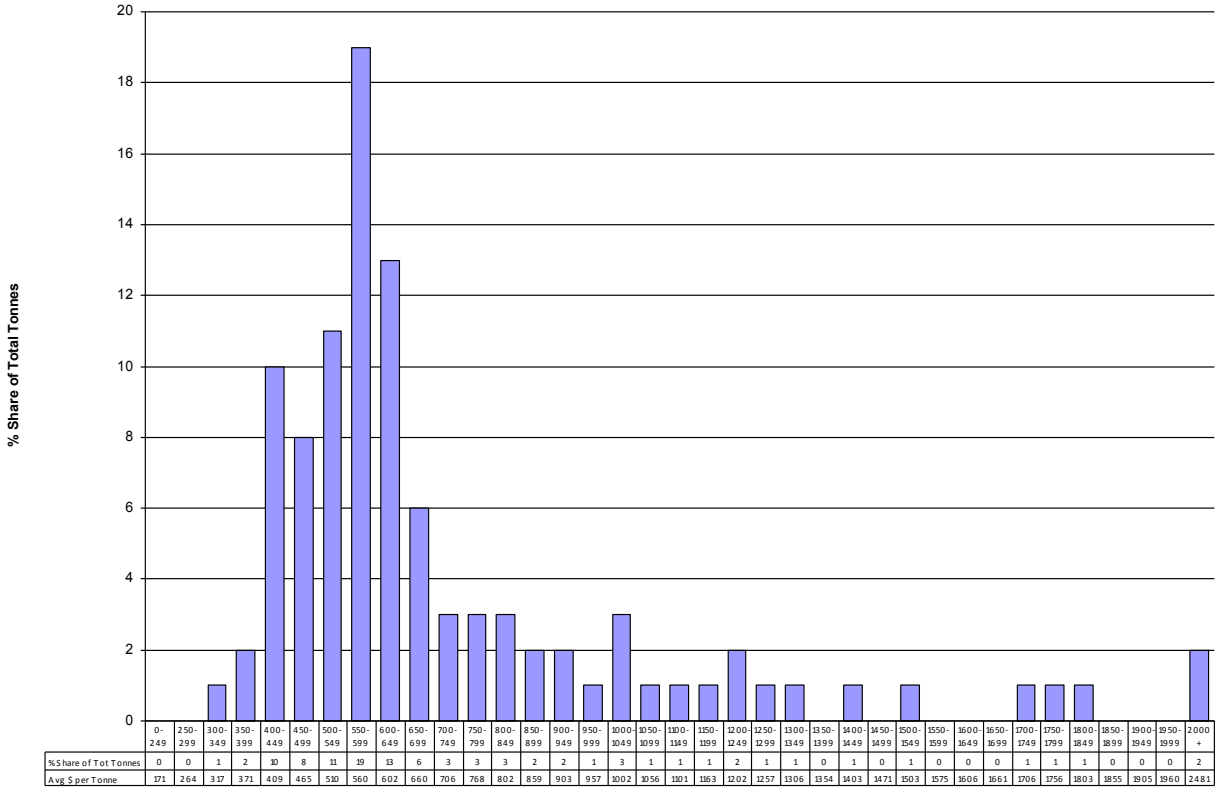


61. Average price of winegrapes, by region, 2003, 2008 and 2013 (A$/tonne)



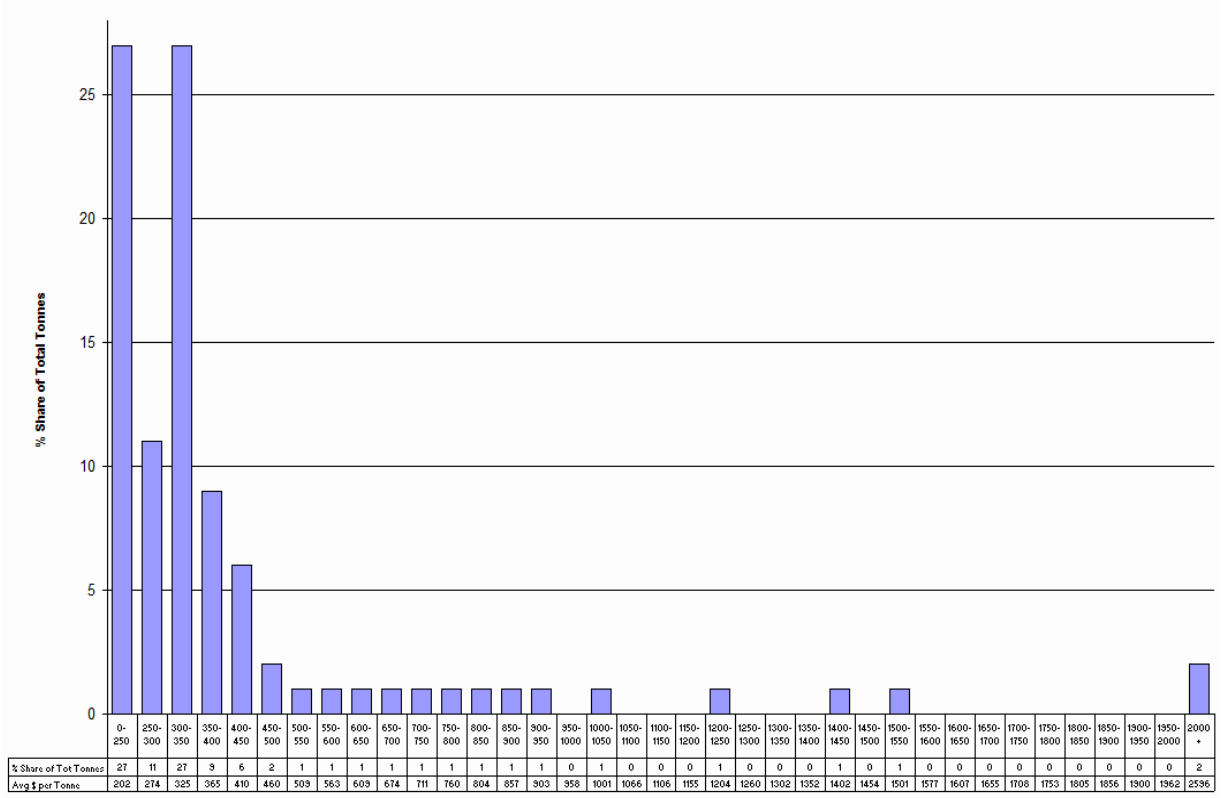
62. Distribution of winegrape prices across price points nationally, 2008 and 2014 (% of total tonnes crushed, from AGWA (2014) and the earlier 2008 report)

(a) 2008, all varieties



	0-249	250-299	300-349	350-399	400-449	450-499	500-549	550-599	600-649	650-699	700-749	750-799	800-849	850-899	900-949	950-999	1000-1049	1050-1099	1100-1149	1150-1199	1200-1249	1250-1299	1300-1349	1350-1399	1400-1449	1450-1499	1500-1549	1550-1599	1600-1649	1650-1699	1700-1749	1750-1799	1800-1849	1850-1899	1900-1949	1950-1999	2000+
% Share of Tot Tonnes	0	0	1	2	10	8	11	19	13	6	3	3	3	2	2	1	3	1	1	1	2	1	1	0	1	0	1	0	0	0	1	1	1	0	0	0	2
Avg $ per Tonne	171	264	317	371	409	465	510	560	602	660	706	768	802	859	903	957	1002	1056	1101	1163	1202	1257	1306	1354	1403	1471	1503	1575	1606	1661	1706	1756	1803	1855	1905	1960	2481

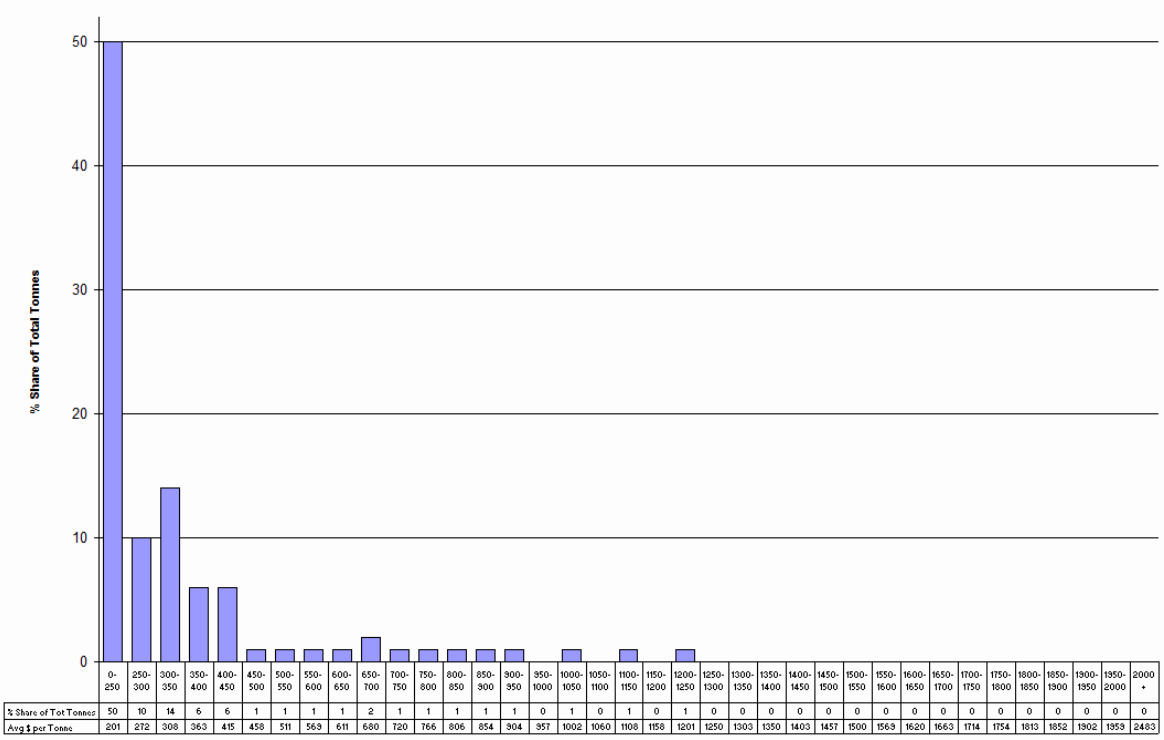
(b) 2014, all varieties



	0-250	250-300	300-350	350-400	400-450	450-500	500-550	550-600	600-650	650-700	700-750	750-800	800-850	850-900	900-950	950-1000	1000-1050	1050-1100	1100-1150	1150-1200	1200-1250	1250-1300	1300-1350	1350-1400	1400-1450	1450-1500	1500-1550	1550-1600	1600-1650	1650-1700	1700-1750	1750-1800	1800-1850	1850-1900	1900-1950	1950-2000	2000+
% Share of Tot Tonnes	27	11	27	9	6	2	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Avg $ per Tonne	202	274	325	365	410	460	509	563	609	674	711	760	804	857	903	958	1001	1066	1106	1155	1204	1260	1302	1352	1402	1454	1501	1577	1607	1655	1708	1753	1805	1856	1900	1962	2586

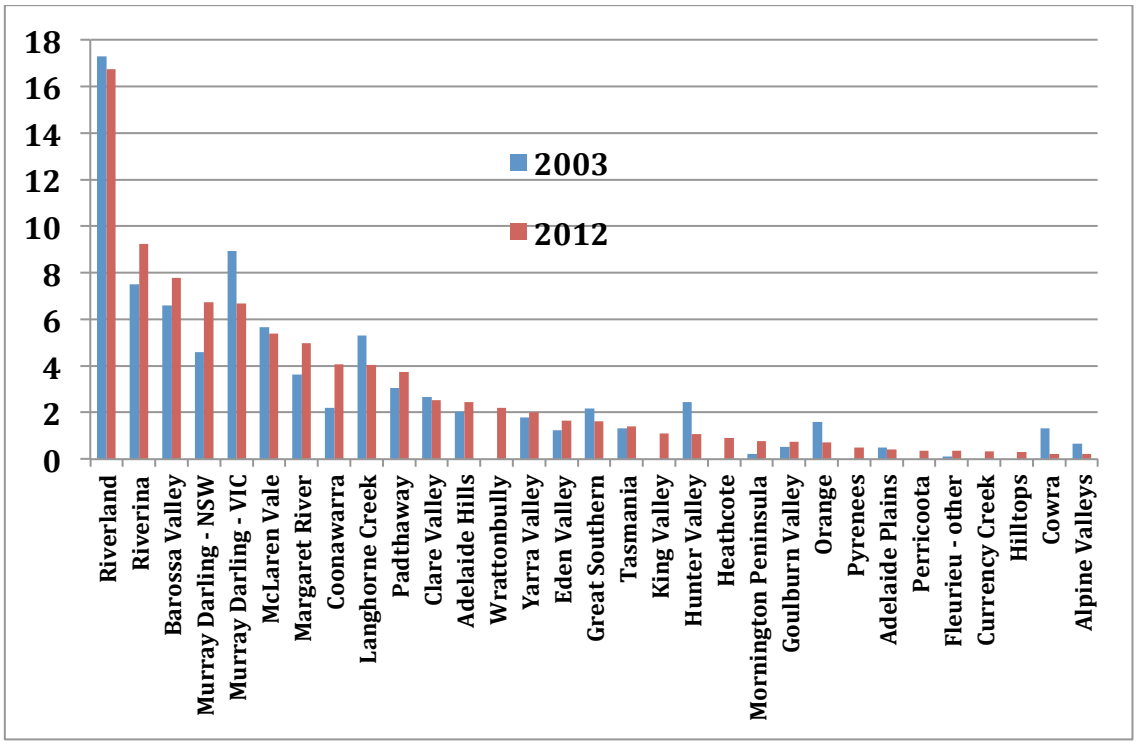
62 (cont.) Distribution of winegrape prices across price points nationally, 2008 and 2014 (% of total tonnes crushed, from AGWA (2014))

(c) 2014, white varieties



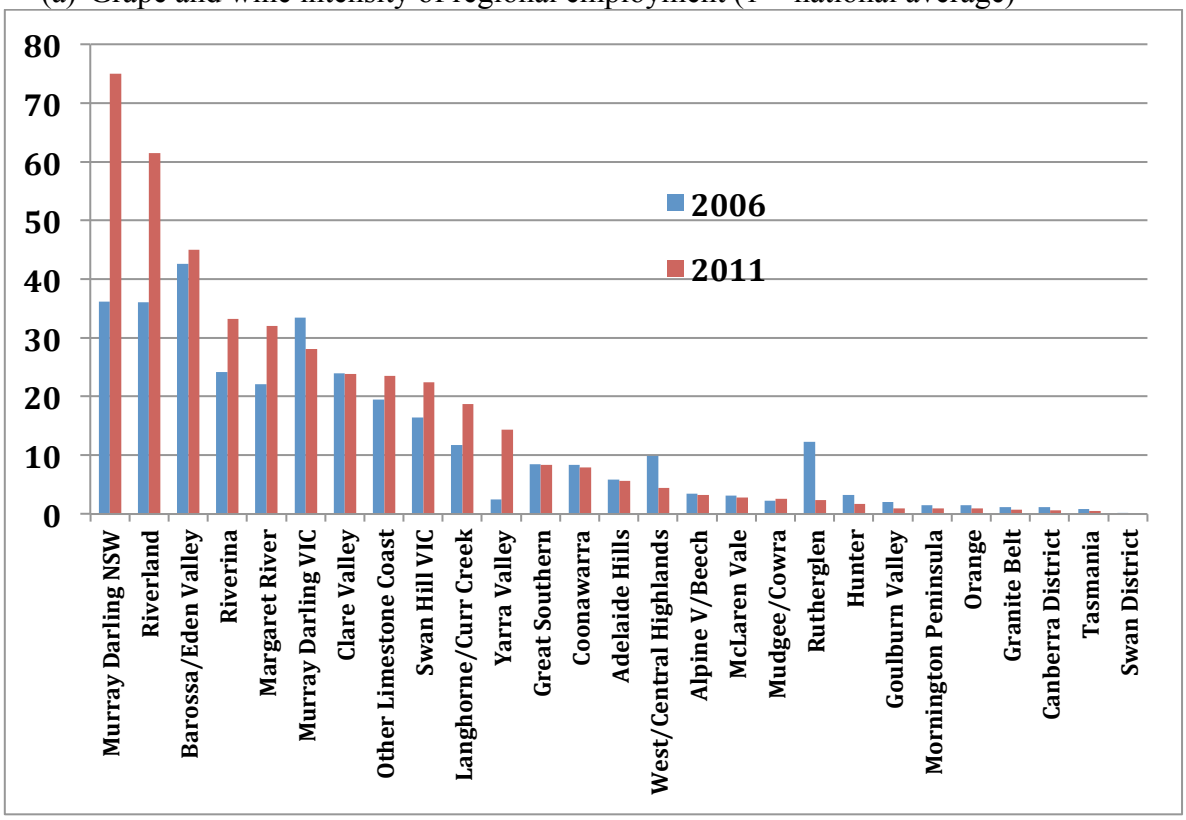
	0-250	250-300	300-350	350-400	400-450	450-500	500-550	550-600	600-650	650-700	700-750	750-800	800-850	850-900	900-950	950-1000	1000-1050	1050-1100	1100-1150	1150-1200	1200-1250	1250-1300	1300-1350	1350-1400	1400-1450	1450-1500	1500-1550	1550-1600	1600-1650	1650-1700	1700-1750	1750-1800	1800-1850	1850-1900	1900-1950	1950-2000	2000+
% Share of Tot Tonnes	50	10	14	6	6	1	1	1	1	2	1	1	1	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg $ per Tonne	201	272	308	363	415	458	511	563	611	680	720	766	806	854	904	957	1002	1060	1108	1158	1201	1250	1303	1350	1403	1457	1500	1563	1620	1663	1714	1754	1813	1852	1902	1959	2483

63. Regional shares of national winegrape production value, 2003 and 2012 (%)

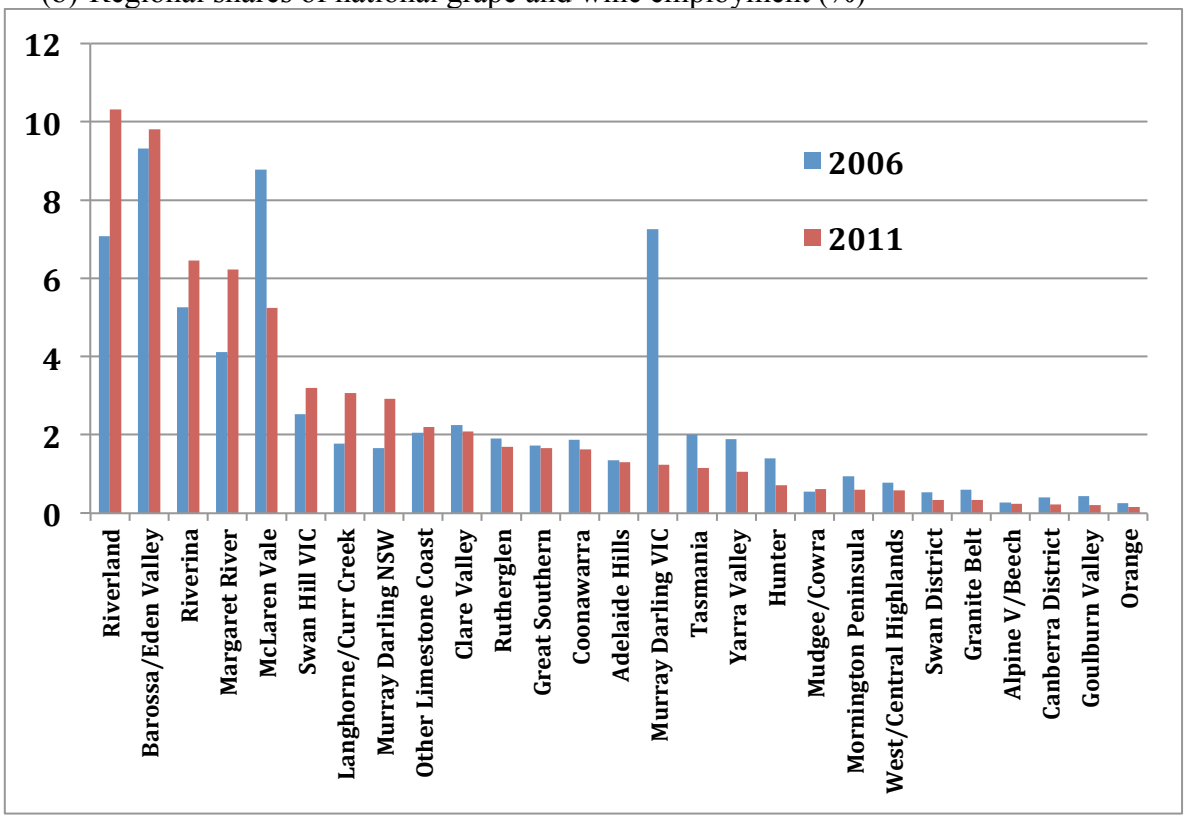


64. Regional diversity in terms of grape and wine industry employment, 2006 and 2011

(a) Grape and wine intensity of regional employment (1 = national average)

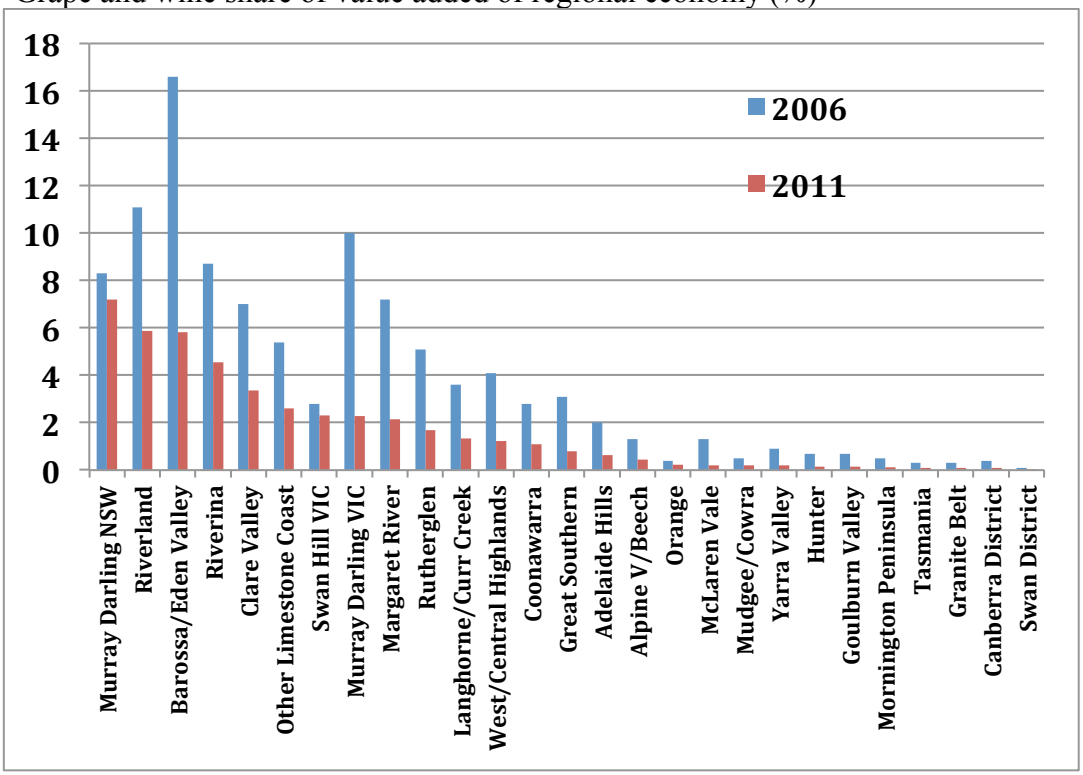


(b) Regional shares of national grape and wine employment (%)

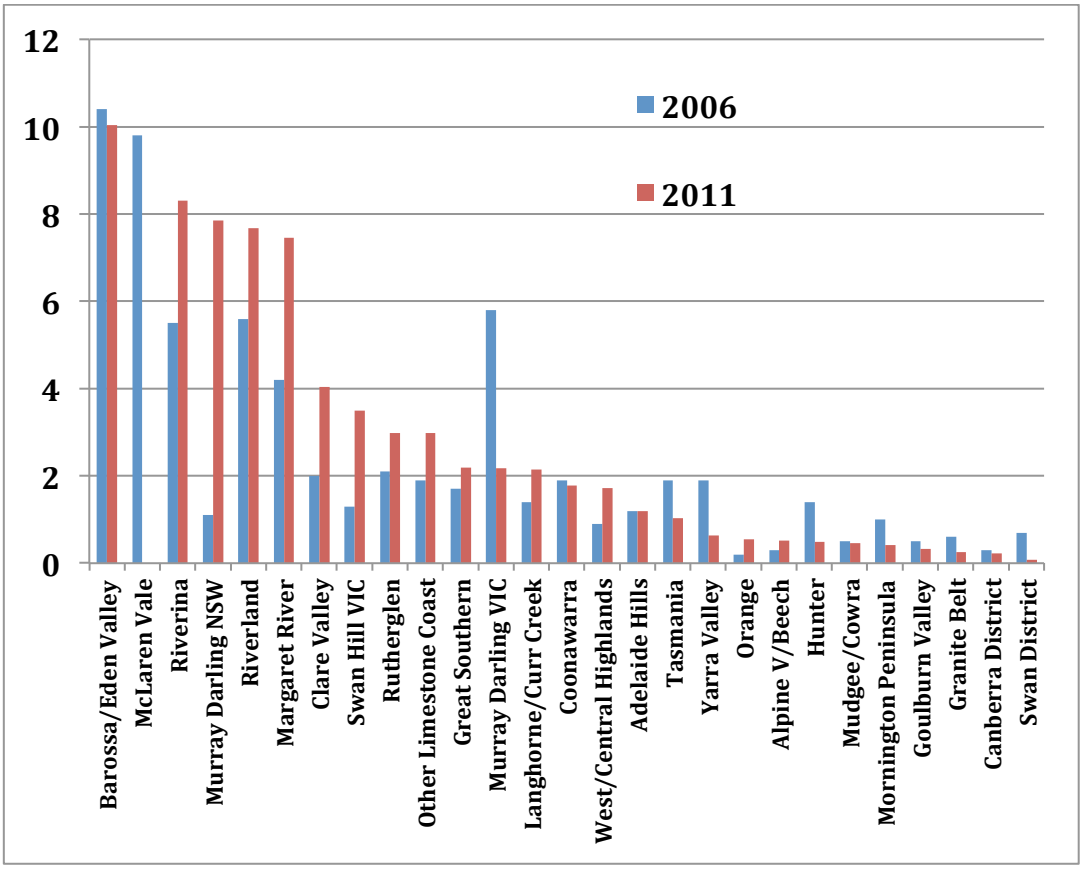


65. Regional diversity in terms of grape and wine value added, 2006 and 2011

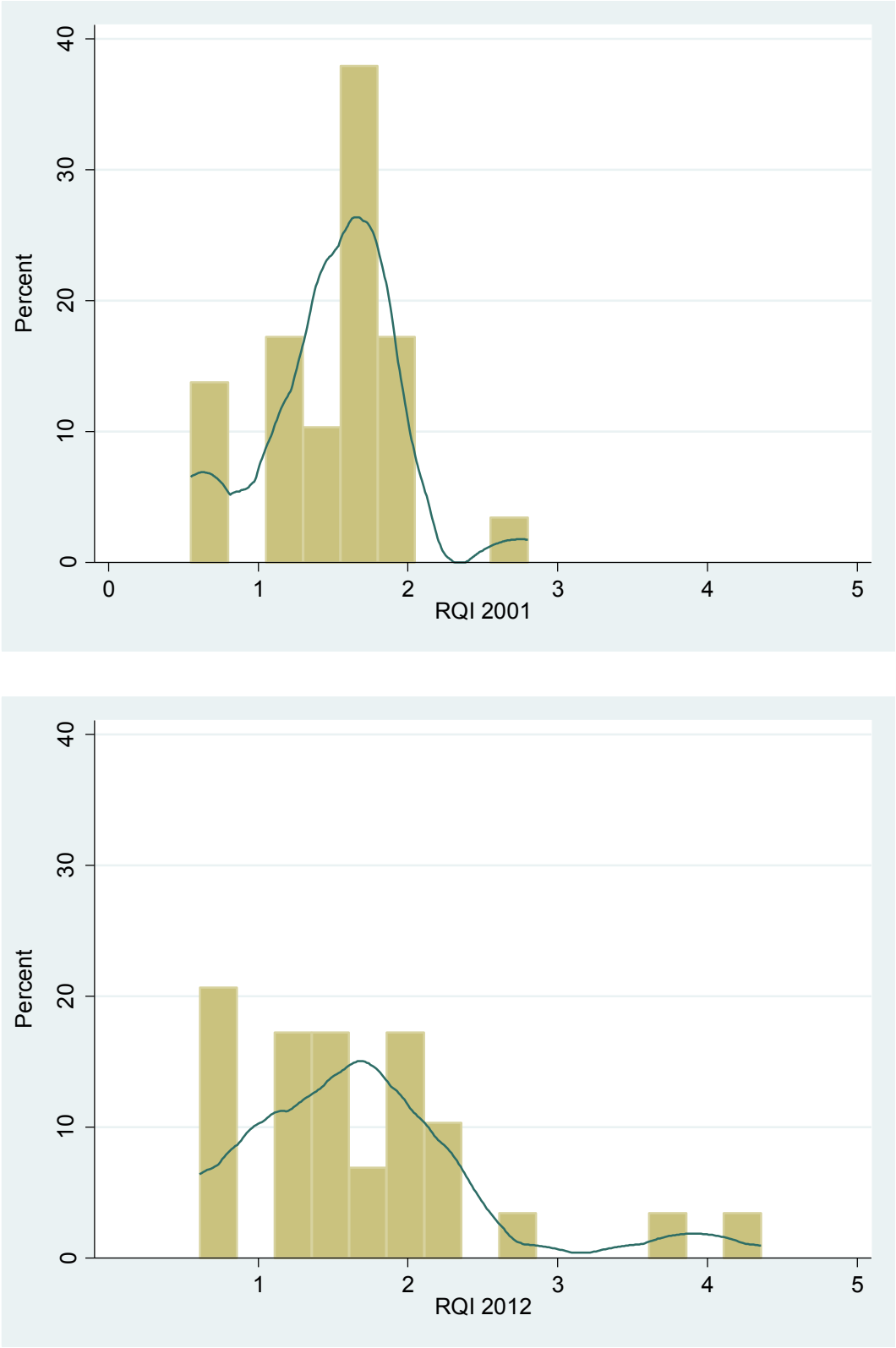
(a) Grape and wine share of value added of regional economy (%)



(b) Region's share of national grape and wine value added (%)



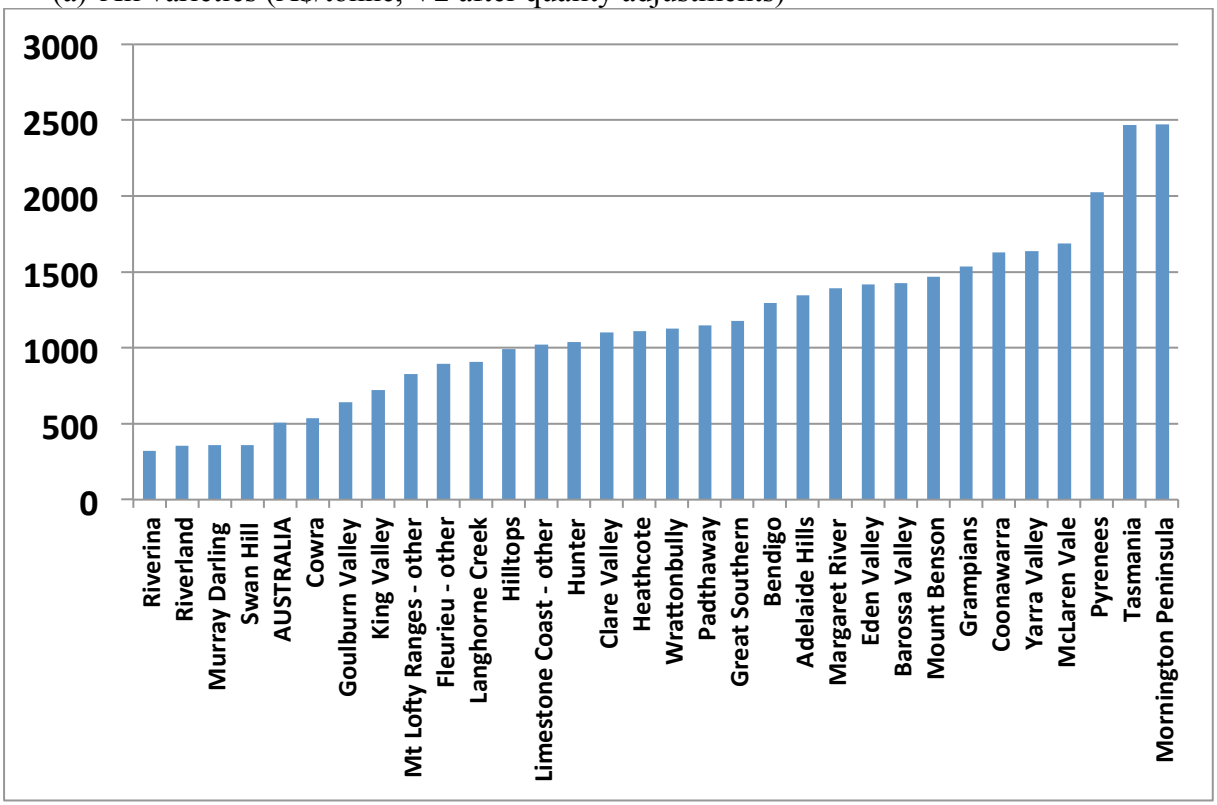
66. Regional Quality Index[a] dispersion, 2001 and 2012



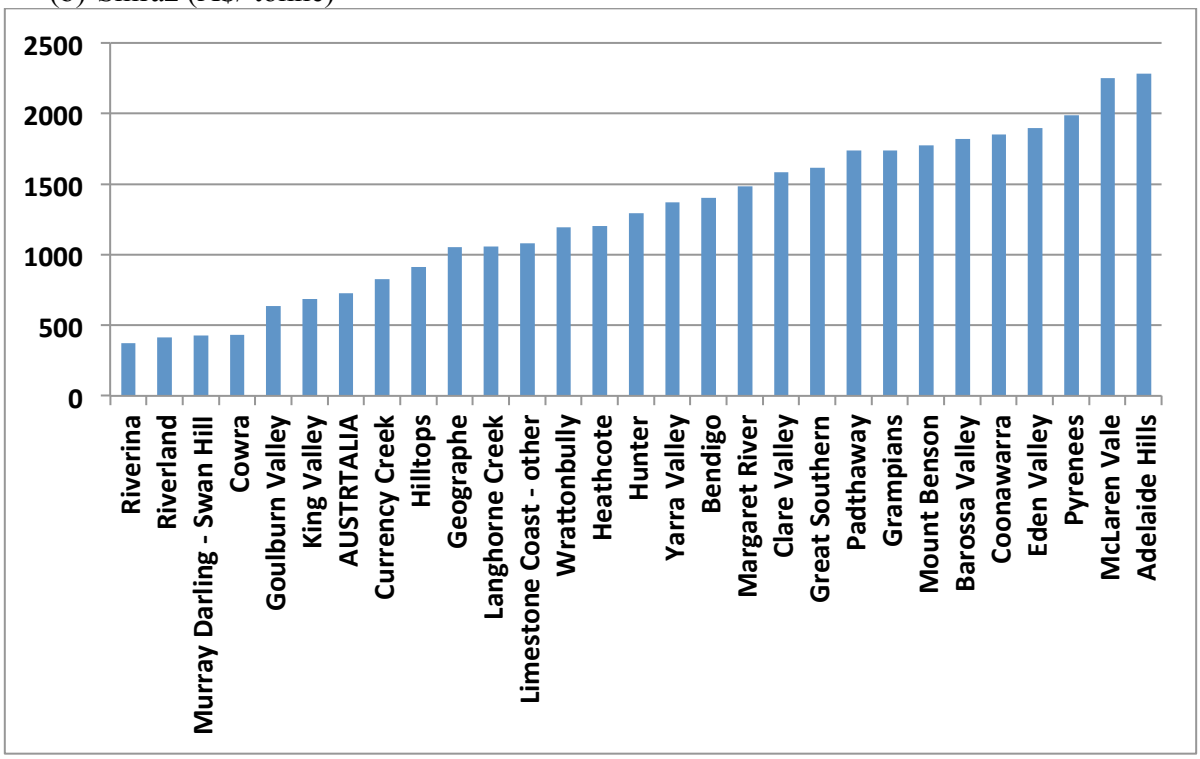
[a] Regional Quality Index is defined as the ratio of the regional average price for all varieties to the national average price for all winegrapes.

67. Average price of winegrapes, by region, Australia, 2013

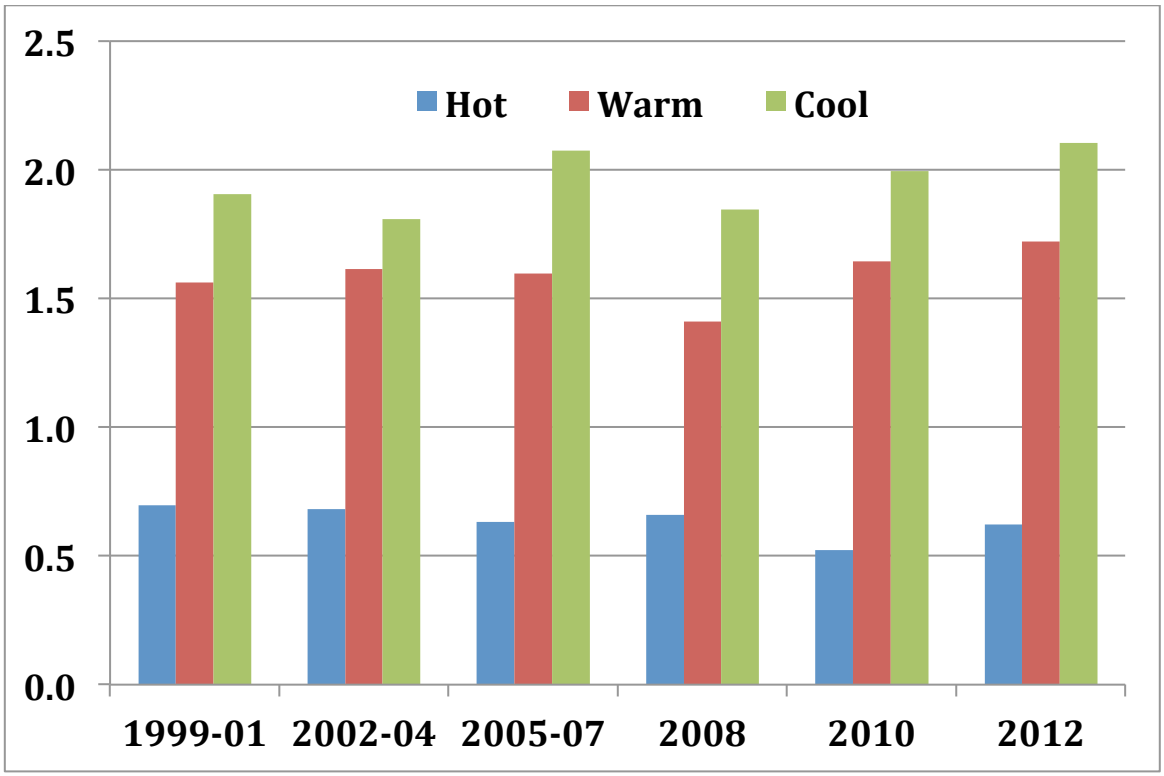
(a) All varieties (A$/tonne, V2 after quality adjustments)



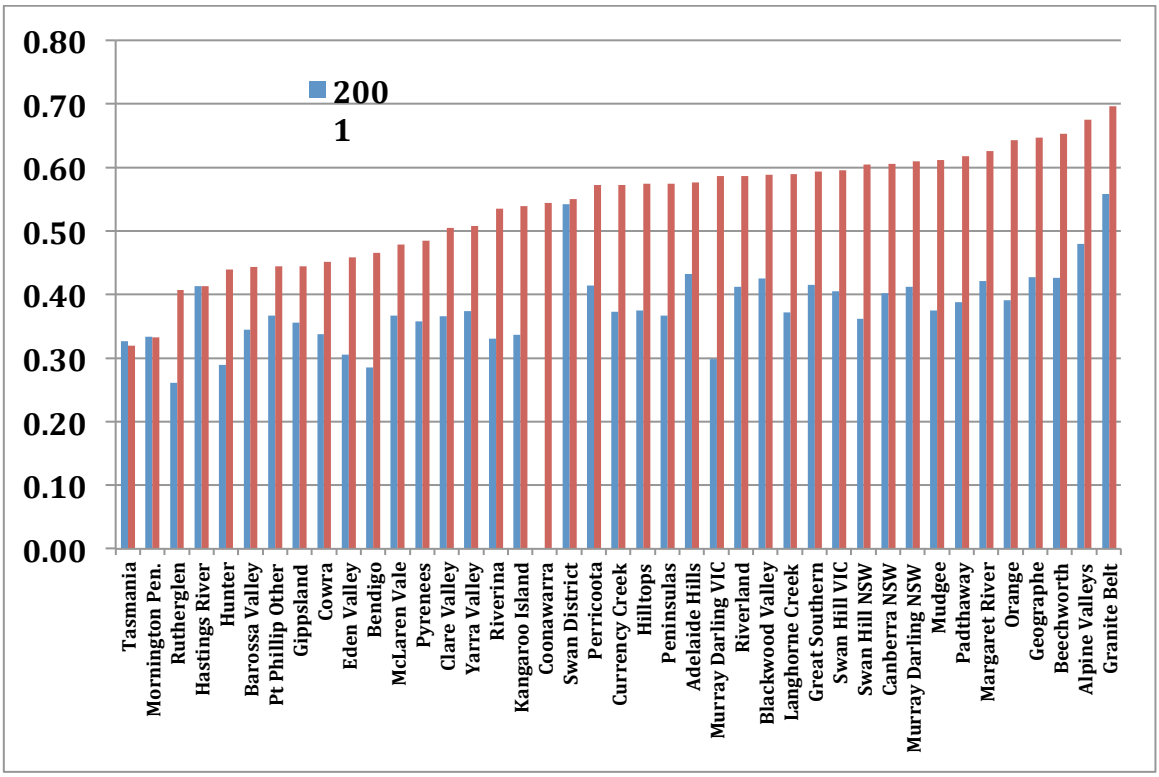
(b) Shiraz (A$/ tonne)



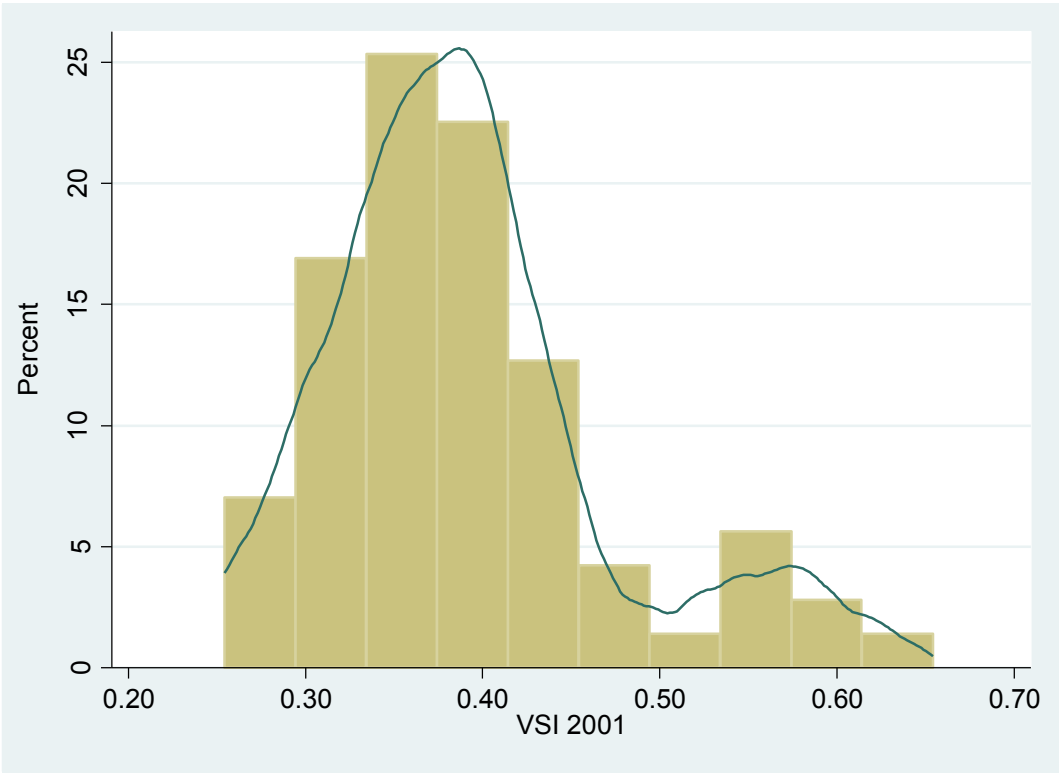
68. Regional Quality Index diversity across climate zones, 1999 to 2012

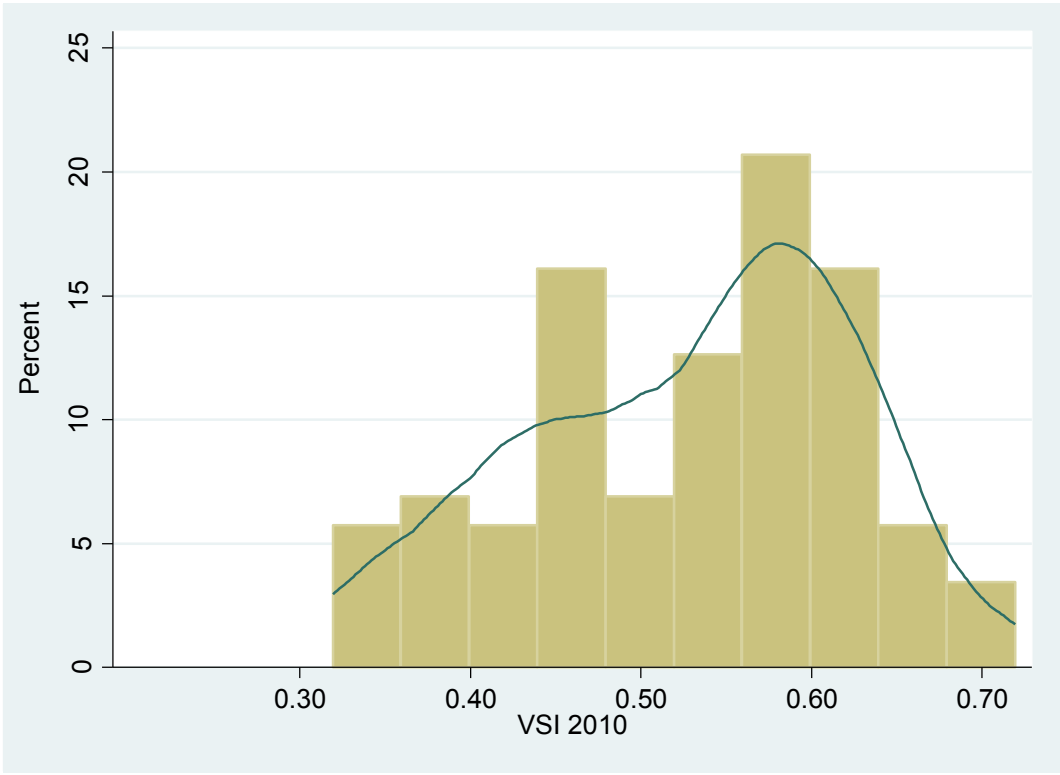


69. Regional diversity in terms of winegrape varieties (Varietal Similarity Index), 2001 and 2012

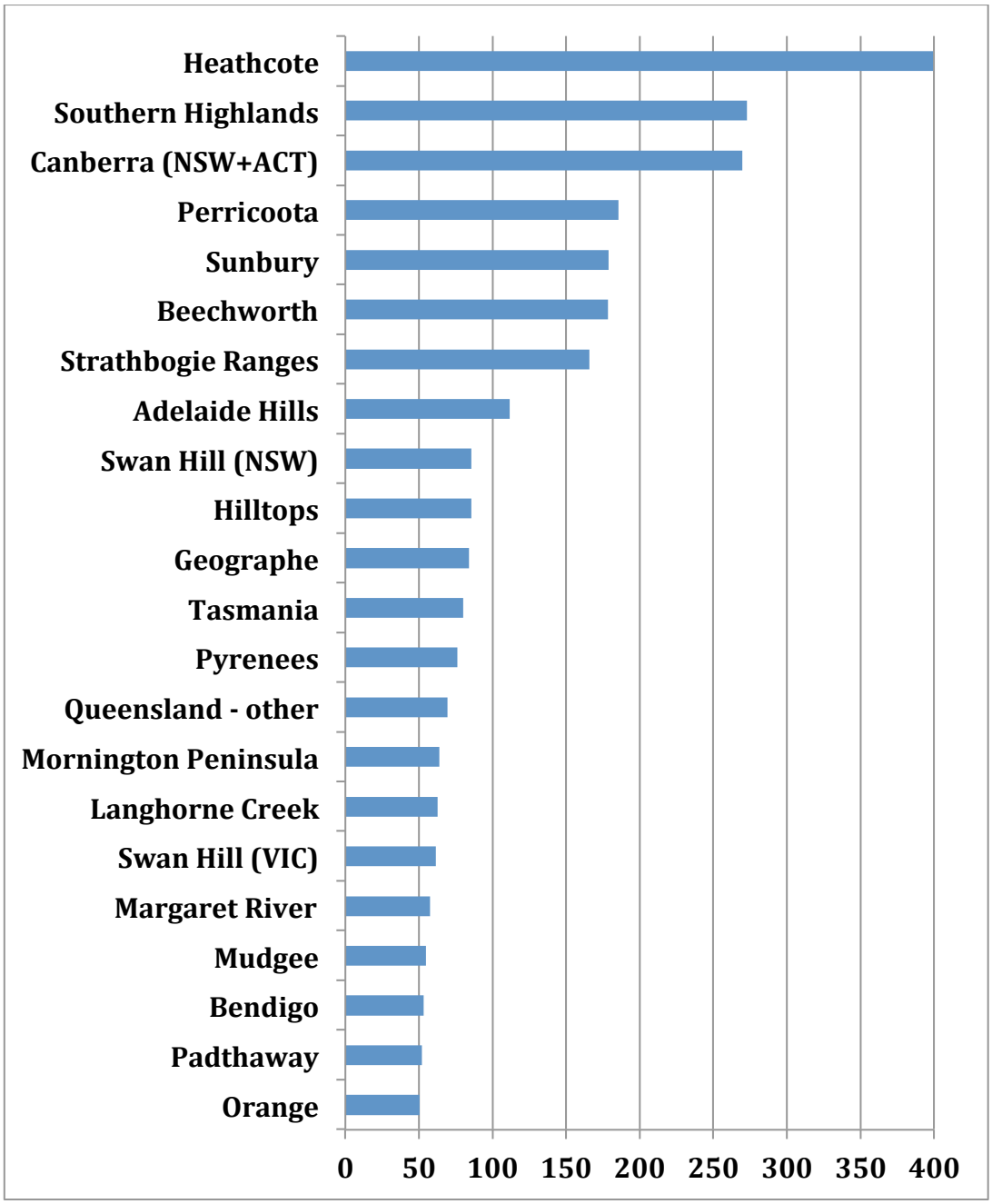


70. Varietal Similarity Index[a] dispersion, 2001 and 2010



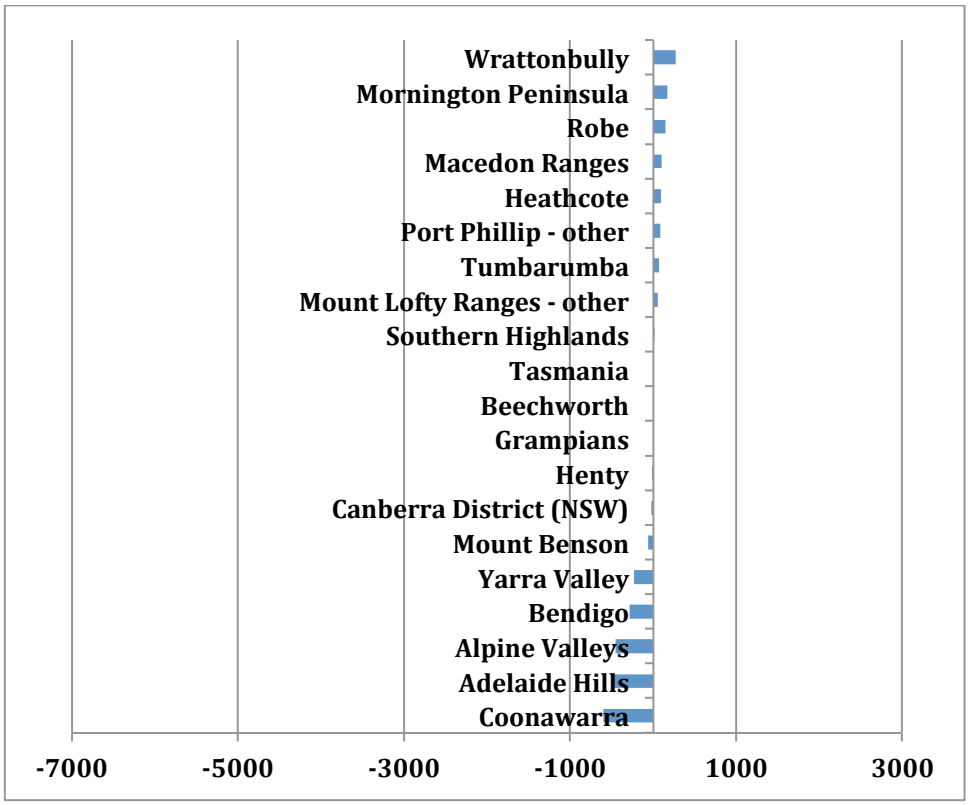


71. Percentage change in winegrape bearing area, by region, 2001 to 2008 (%)

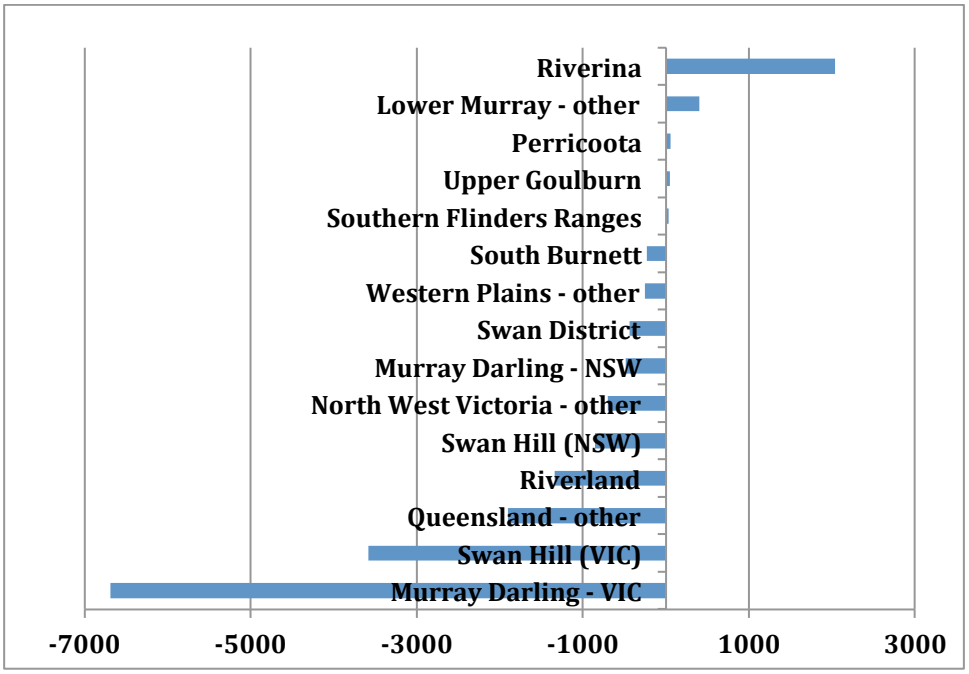


72. Change in winegrape bearing area, by region, 2008 to 2012 (ha)

(a) Cool regions

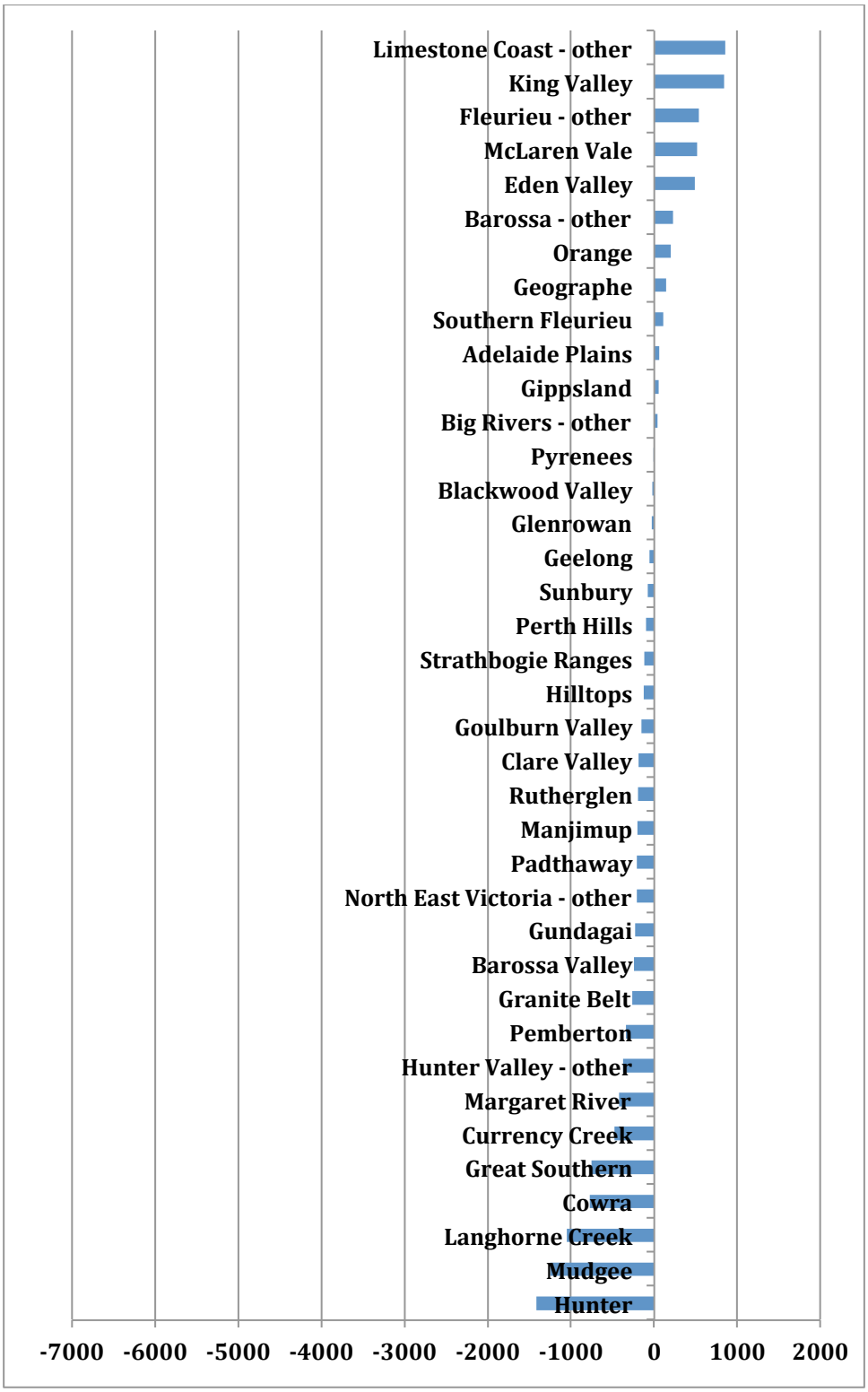


(b) Hot regions



72 (cont.) Change in winegrape bearing area, by region, 2008 to 2012 (ha)

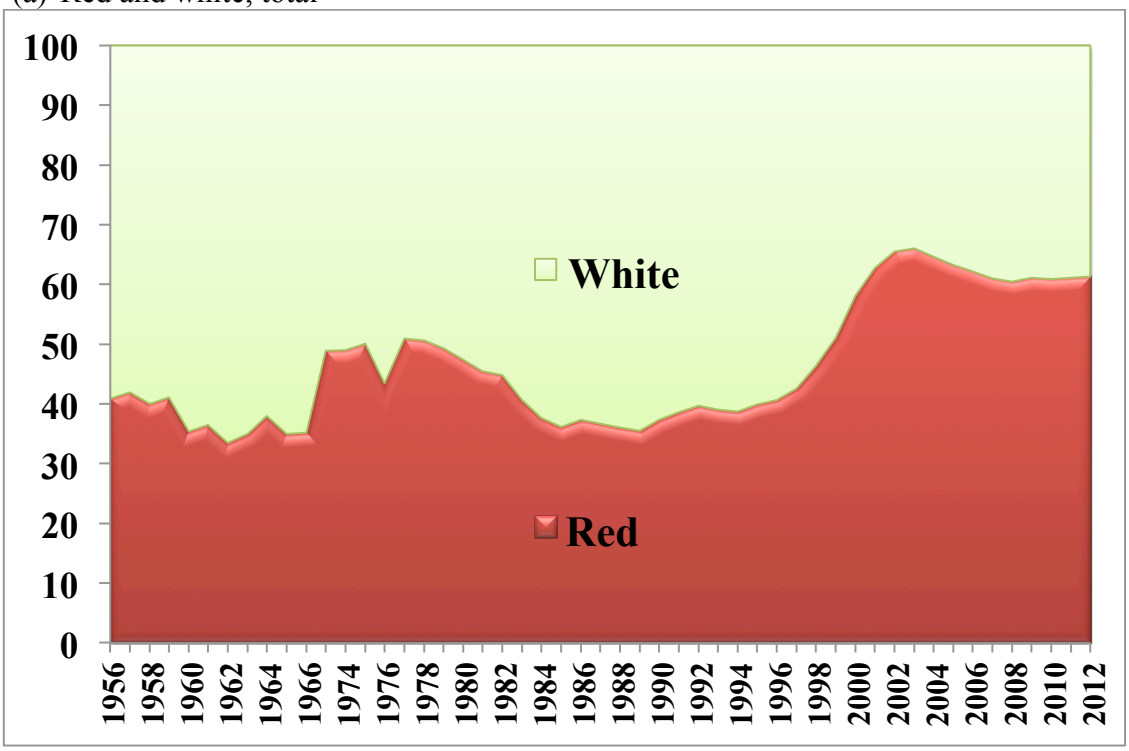
(c) Warm regions



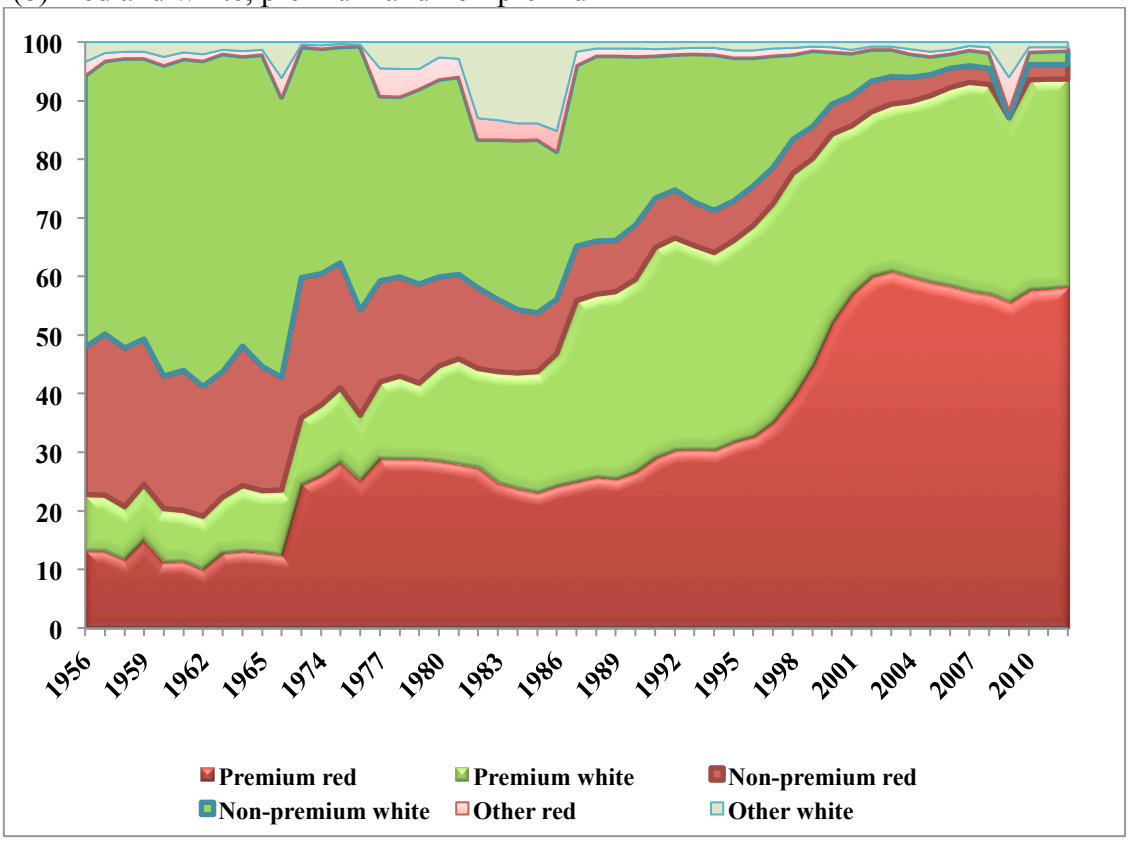
Section III — Charts:
Winegrape varietal developments since the mid-1950s

73. Shares of Australian winegrape area, by varietal colour and quality, 1956 to 2012

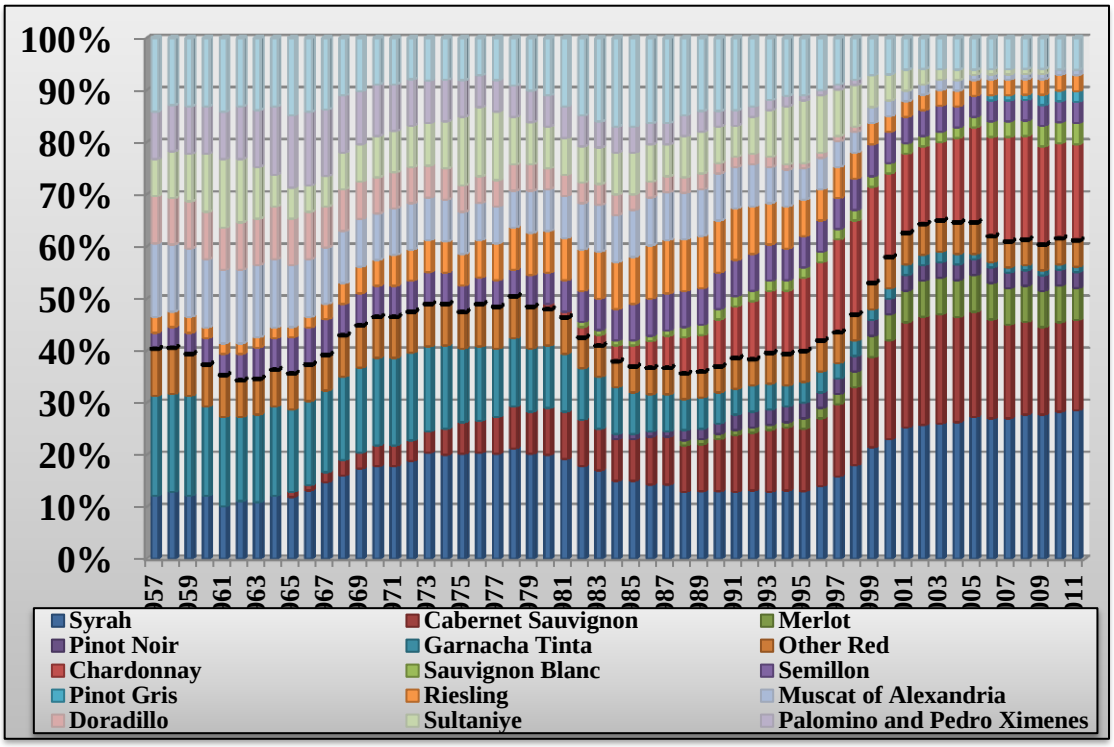
(a) Red and white, total



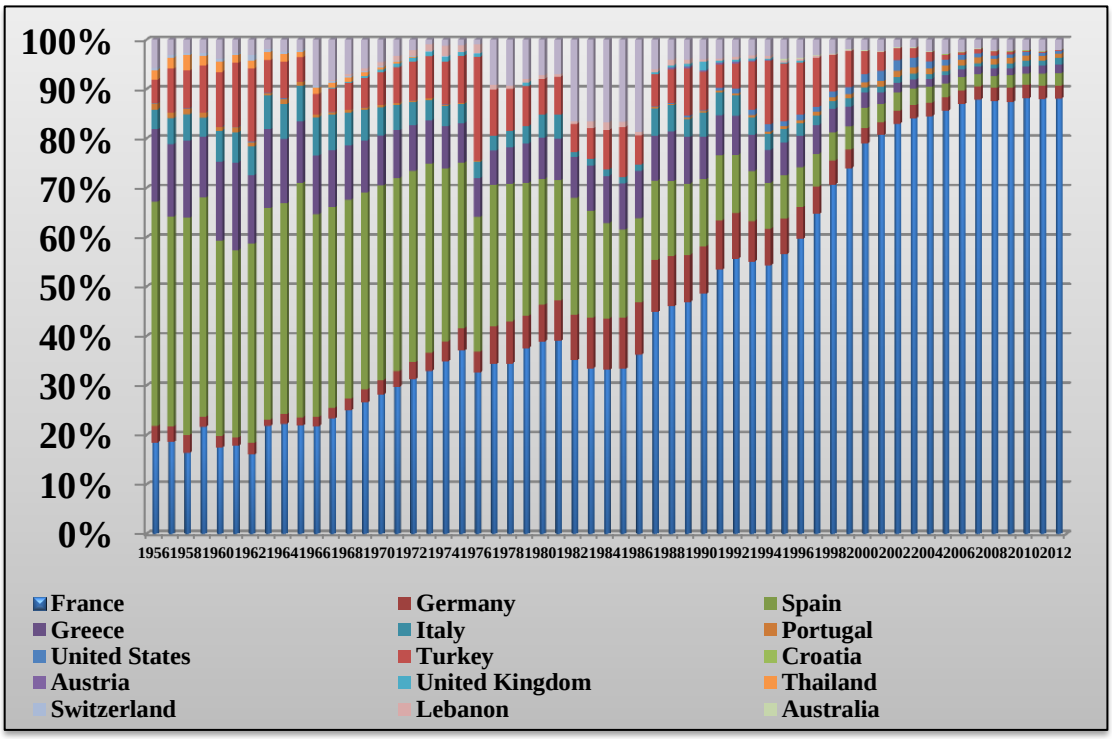
(b) Red and white, premium and non-premium



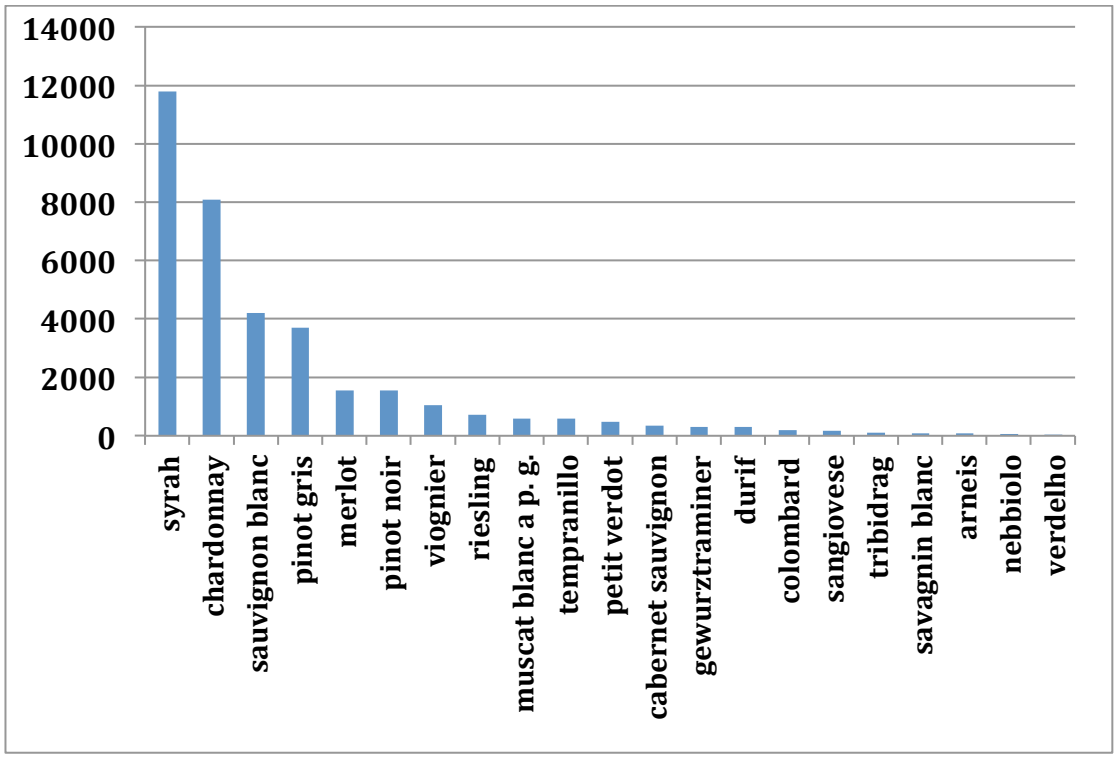
74. Shares of winegrape bearing area, by variety, 1956 to 2012 (%, 3-year moving average)



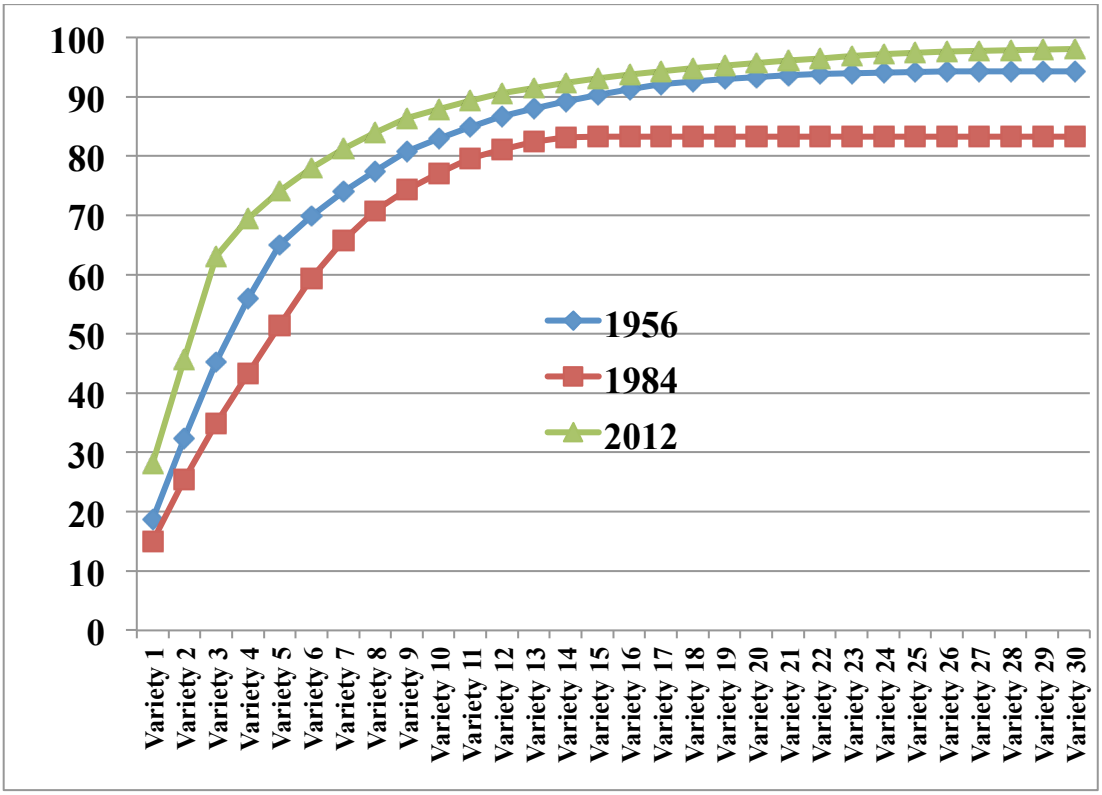
75. Shares of winegrape bearing area, by varietal country of origin, 1956 to 2012 (%)



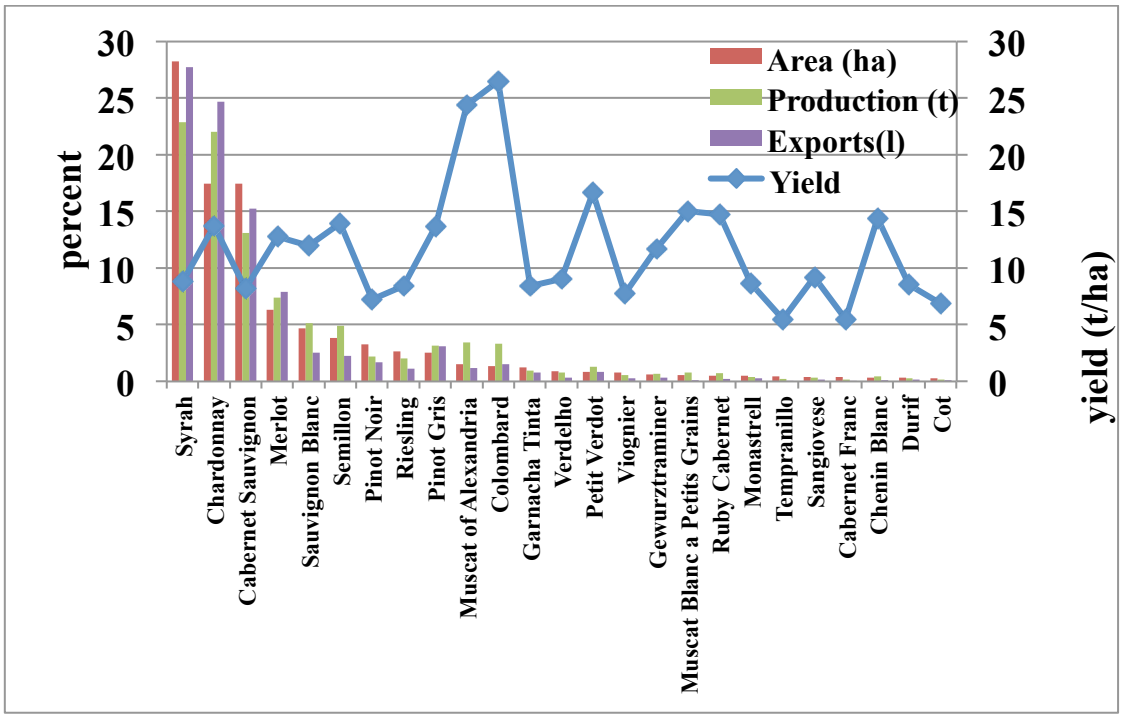
76. Change in bearing area for most expanded varieties, Australia, 2001 to 2012 (ha)



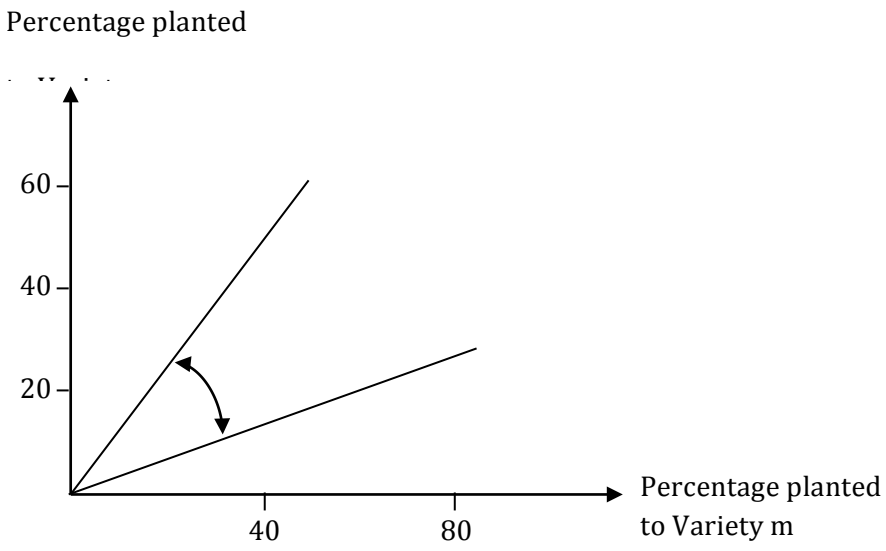
77. Cumulative shares of Australian winegrape area, by main varieties, 1956, 1984 and 2012 (%)



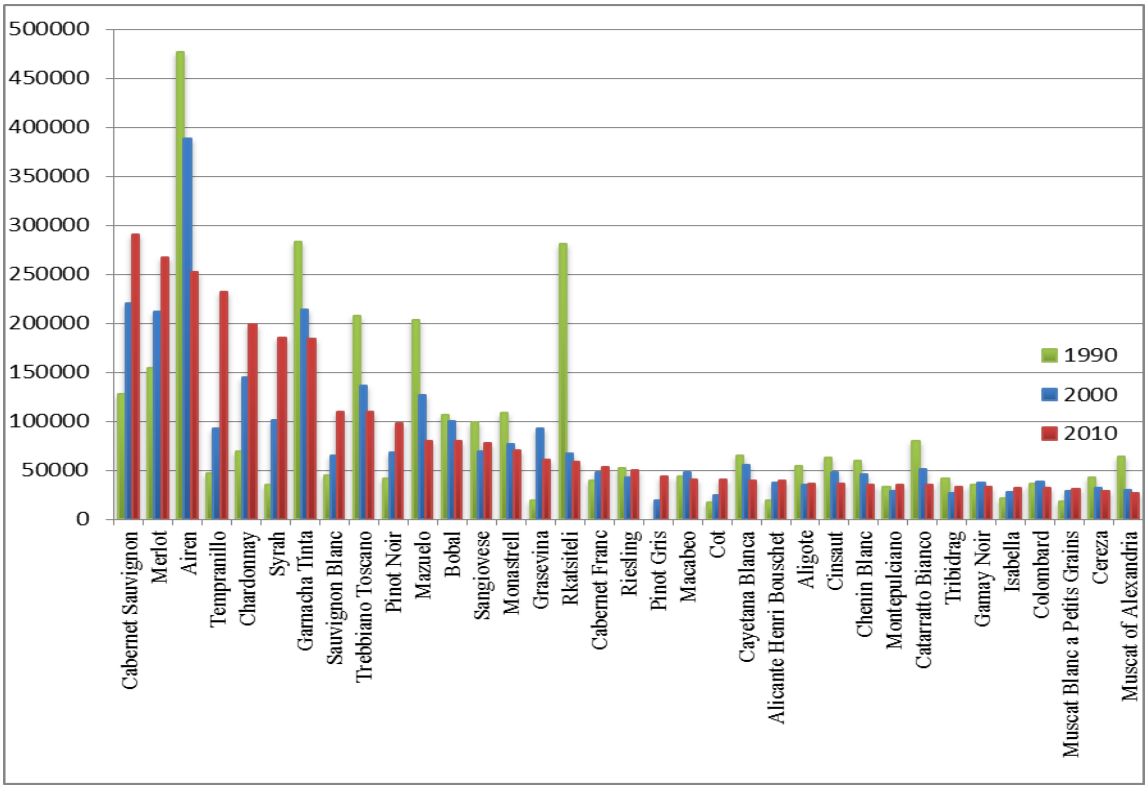
78. Shares of national wine area, production and exports of key varieties, and yield per ha, 2012



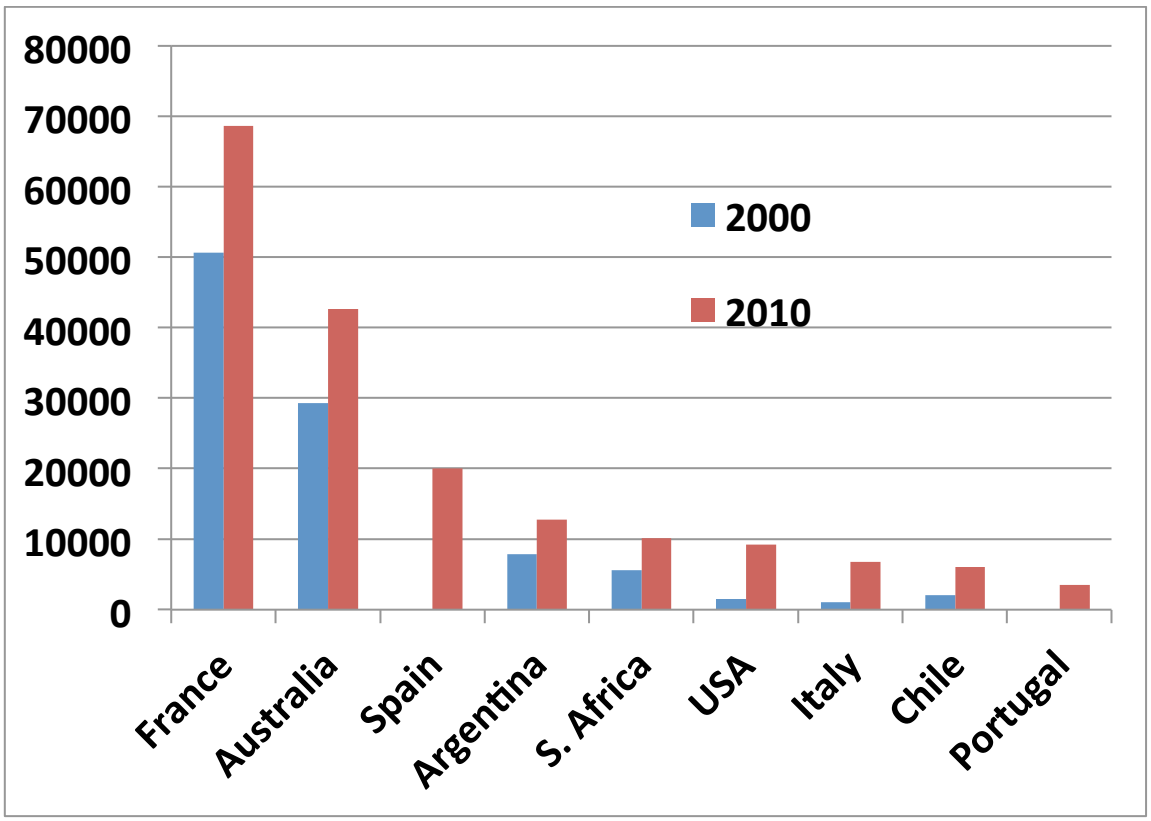
79. Angular separation between two regions, each growing two grape varieties



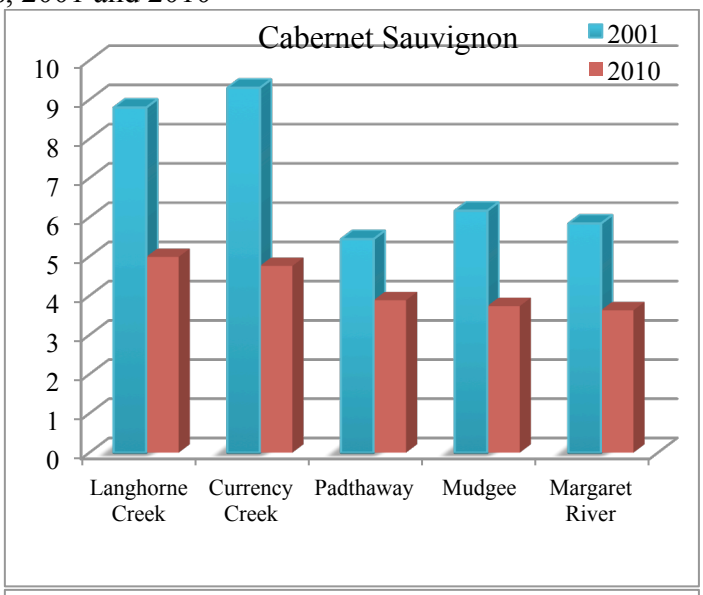
80. World's top 35 varieties in 2010, compared with 1990 and 2000 (hectares)

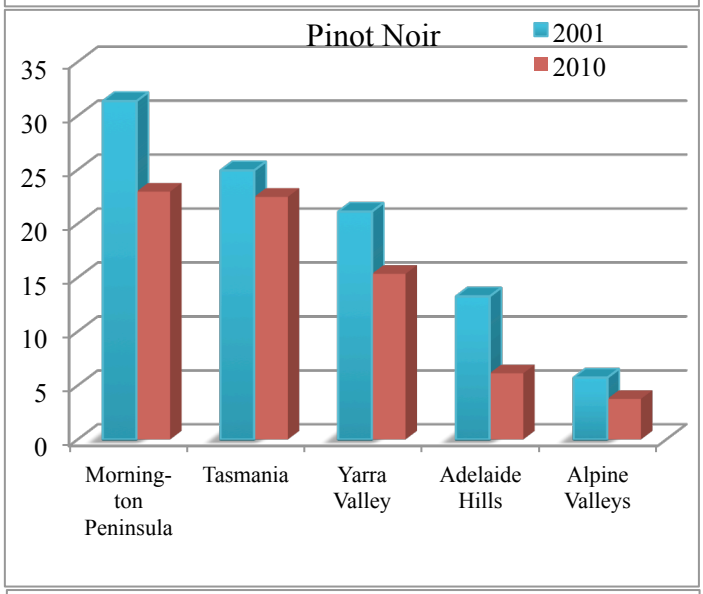


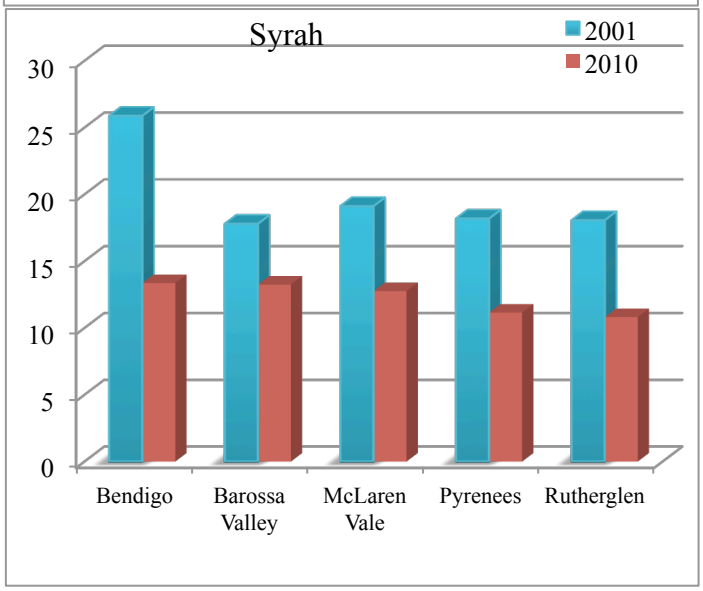
81. Bearing area of Syrah, key producing countries, 2000 and 2010 (hectares)



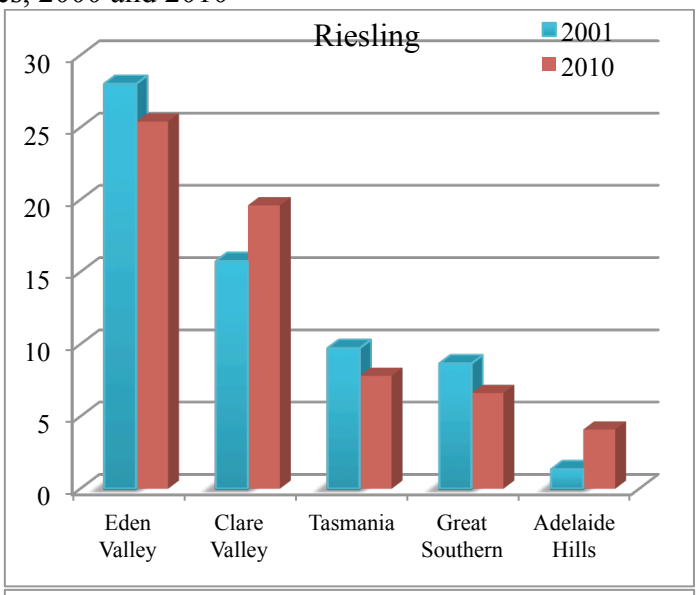
82. Australian regions with largest Varietal Intensity Index relative to global average, key red varieties, 2001 and 2010

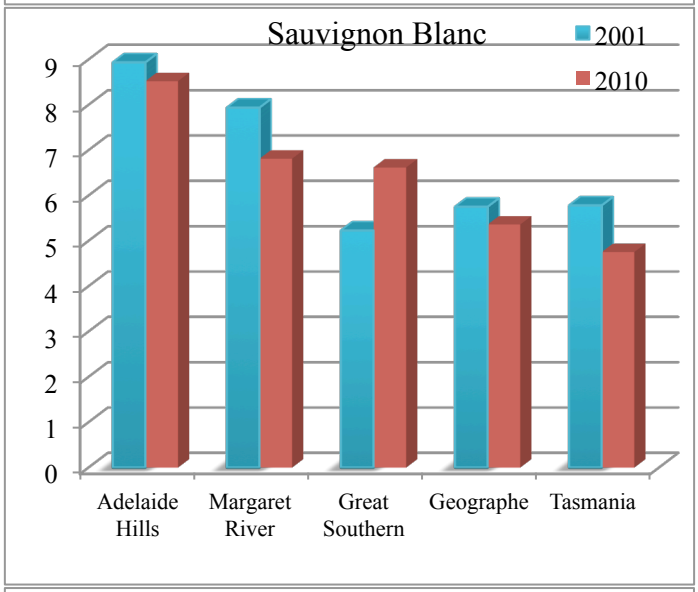


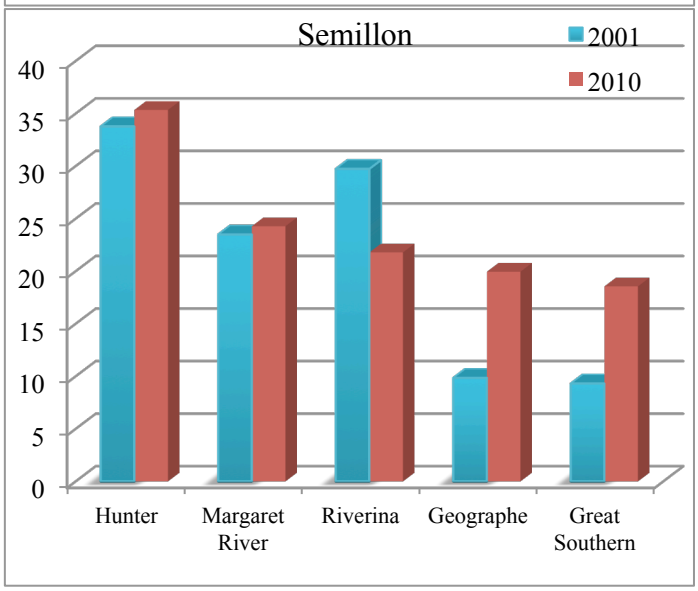




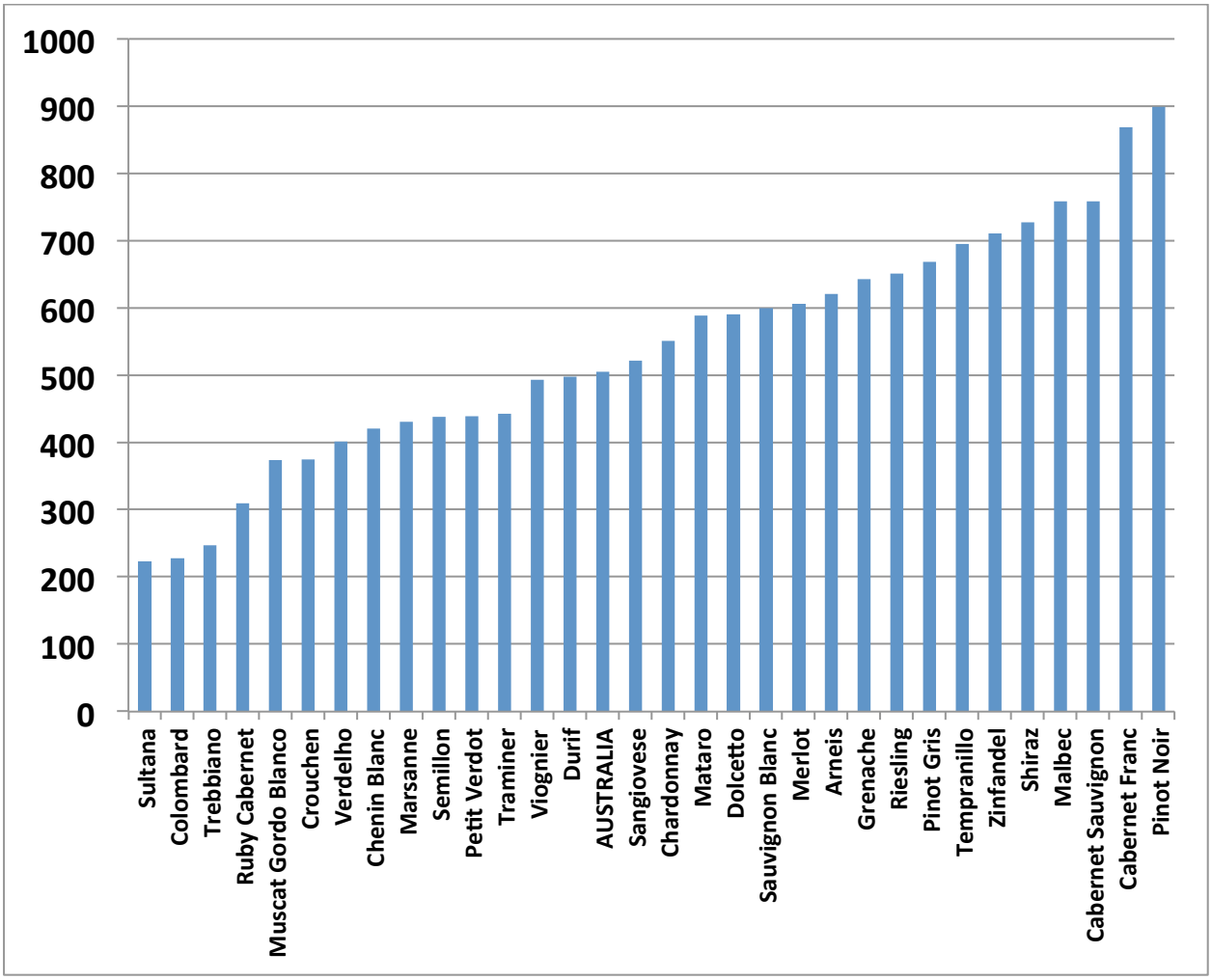
83. Australian regions with largest Varietal Intensity Index relative to global average, key white varieties, 2000 and 2010





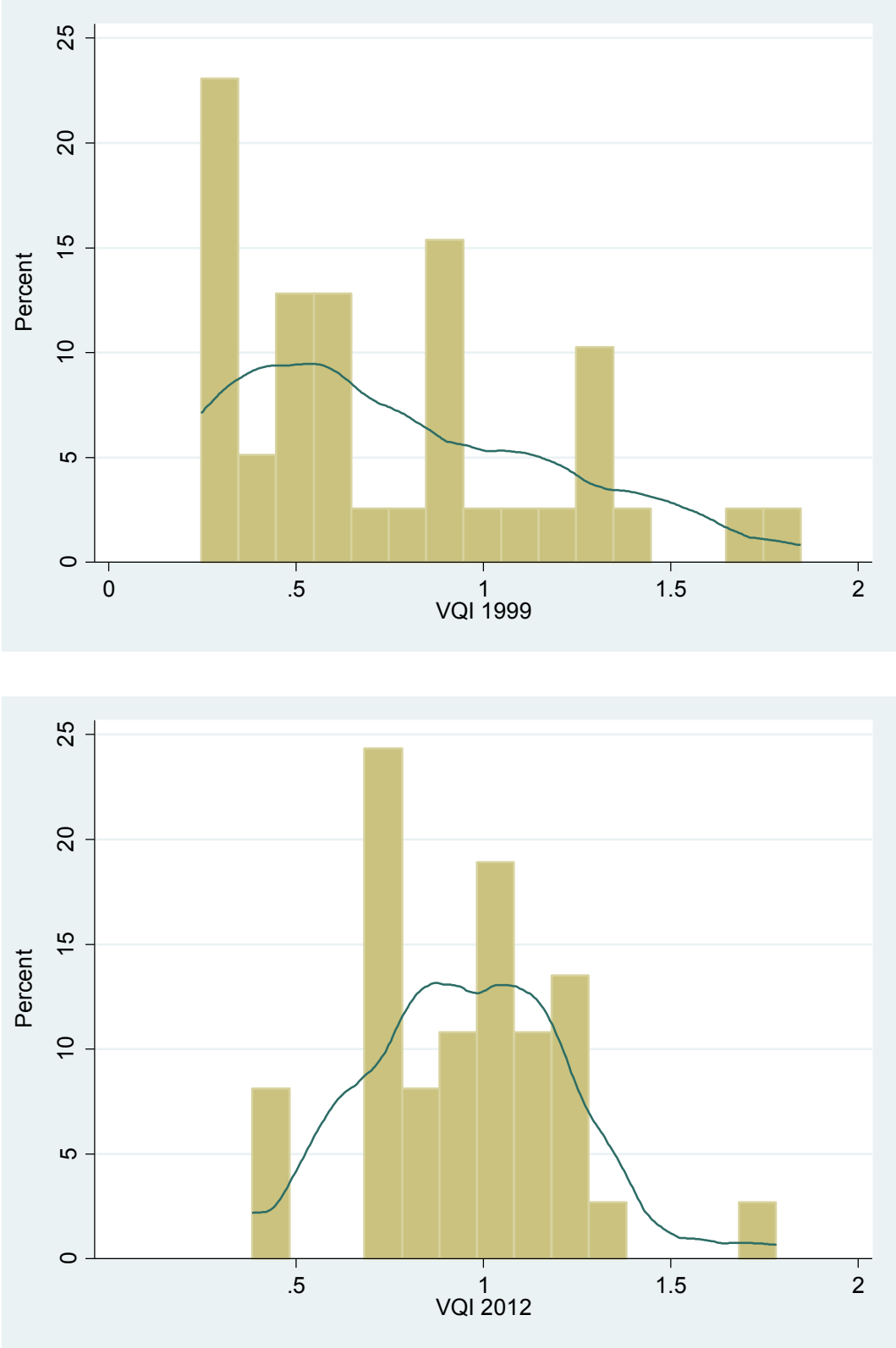


84. National average prices of main winegrape varieties,[a] 2013
(A$/tonne)



[a] These are the varieties with the largest bearing area in Australia, using the varietal names most commonly used in Australia (as distinct from the prime varietal names used above).

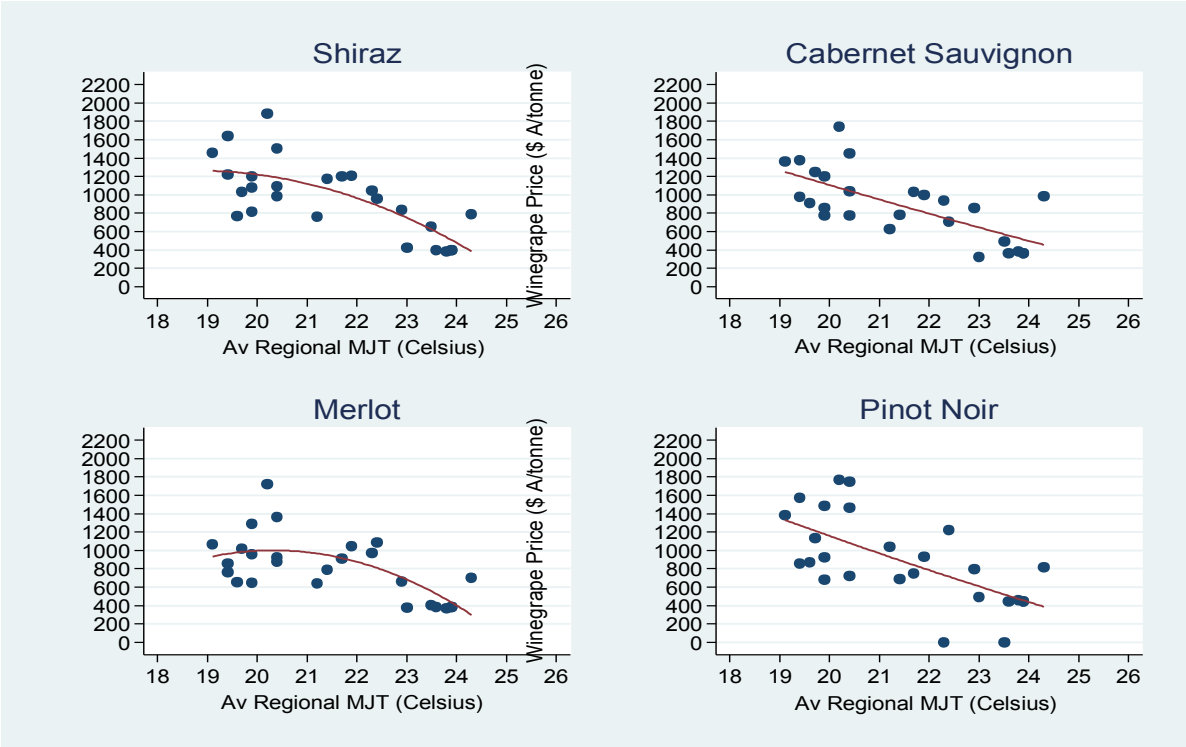
85. Varietal Quality Index[a] dispersion, Australia, 1999 and 2012



[a] The Varietal Quality Index is defined as the ratio of the national average price for a variety to the national average price of all winegrape varieties.

86. Winegrape price and mean January temperature, select varieties, 2006 (A$/tonne)

(a) Key red varieties



(b) Key white varieties

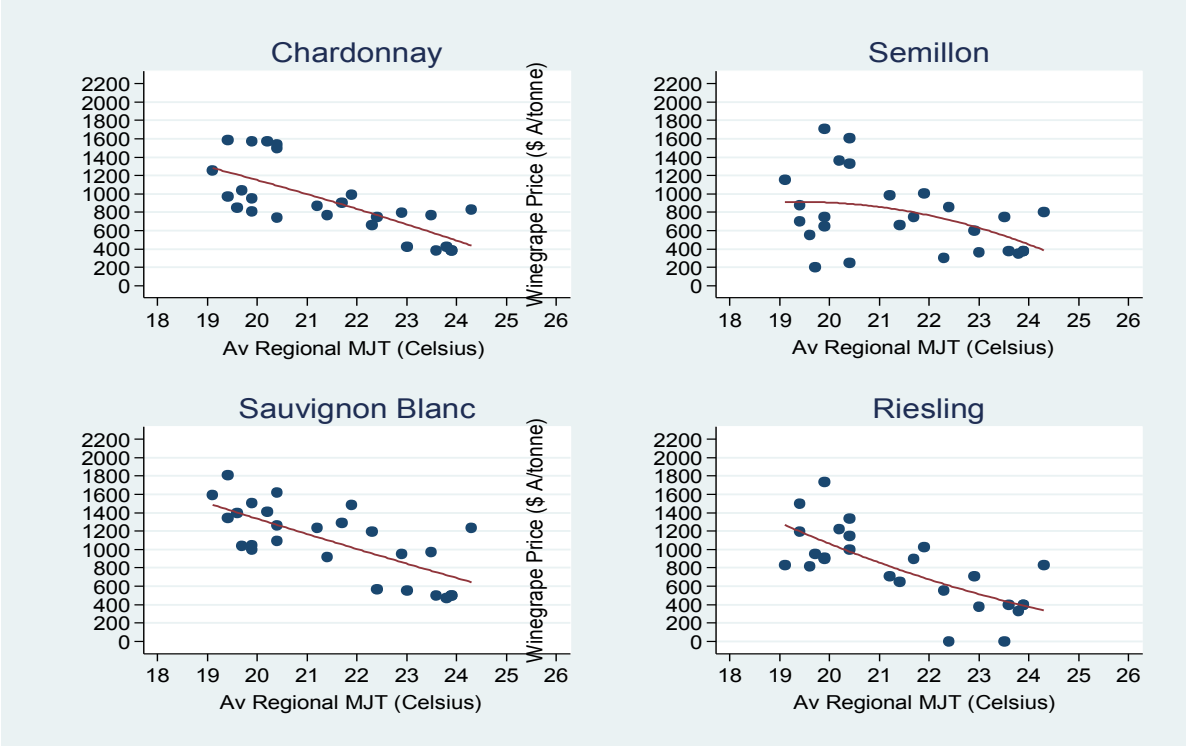


Table Sections

Section I — Tables:
Grape and Wine Production, Consumption and Trade since 1843

Table 1: Timing of booms and plateaus in the wine industry's development, 1843 to 2013

Vintages:	Boom/ plateau/ cycle	No. of years	Annual proportional increase (% pa) in: Vine area	Wine prod-uction	Wine export volume	Vine area per cap	Vine area/ total crop area	Wine prod'n per cap	Wine prod'n per real $GDP	Wine exports per capita	% wine prod'n exported
1855 to 1871	1st boom	16	13.9	17.3	16.7	9.9	5.8	13.4	12.6	12.7	1.9
1871 to 1882	1st plateau	11	-1.2	-0.3	-5.0	-4.3	-9.4	-3.4	-5.4	-8.1	1.5
1855 to 1882	**1st cycle**	**27**	**6.3**	**8.9**	**7.8**	**2.8**	**-0.4**	**5.4**	**3.9**	**4.3**	**1.7**
1882 to 1896	2nd boom	14	11.2	7.9	19.7	8.4	9.4	5.6	6.9	17.3	9.5
1896 to 1915	2nd plateau	19	-0.3	0.1	0.4	-1.8	-3.6	-1.2	-3.0	-1.5	17.1
1882 to 1915	**2nd cycle**	**33**	**3.6**	**3.0**	**7.0**	**1.7**	**0.4**	**1.2**	**0.9**	**5.1**	**13.9**
1915 to 1925	3rd boom	10	7.3	10.6	5.2	5.8	7.0	8.3	7.0	2.6	8.4
1925 to 1967	3rd plateau	42	0.5	2.6	-1.7	-1.1	-0.6	0.9	-0.9	-3.4	10.6
1915 to 1967	**3rd cycle**	**52**	**1.1**	**3.1**	**1.0**	**-0.5**	**-0.1**	**1.6**	**0.0**	**-0.7**	**10.2**
1967 to 1975	4th boom	8	4.0	6.1	-1.4	0.0	5.1	4.2	1.9	-3.7	2.8
1975 to 1986	4th plateau	11	-1.0	1.5	7.8	-2.9	-4.4	0.1	-1.2	5.8	2.3
1967 to 1986	**4th cycle**	**19**	0.5	3.2	1.2	-1.3	-1.2	1.7	0.1	-0.4	**2.5**
1986 to 2007	5th boom	21	6.4	6.4	17.5	5.5	4.0	5.9	3.5	16.4	28.2
2007 to 2???	5th plateau	?									61.0[c]
Average boom		*14*	*8.6*	*9.7*	*11.5*	*5.9*	*6.3*	*7.5*	*6.4*	*9.1*	*10.2*
Average plateau		*21*	*-0.5*	*1.0*	*0.4*	*-2.5*	*-4.5*	*-0.9*	*-2.6*	*-1.8*	*7.9*
Average cycle		*35*	*2.9*	*4.6*	*4.2*	*0.7*	*-0.3*	*2.5*	*1.2*	*2.1*	*7.1*
1843 to 2013		***170***	***2.8***	***4.3***	***5.0***[a]	***0.6***	***-0.1***	**2.2**	***0.8***[b]	***3.1***[a]	***12.9***[a]

[a] 160-year from 1854 to 2013 inclusive

[b] 157-year from 1854 to 2010 inclusive

[c] 2007-2013

Table 2 : Grapevine bearing area, by State, 1843 to 2013 (ha)

Year	SA	NSW	Vic	WA	Tas	Qld	Total	Annual growth (%)
1843	*43*	*190*	1				*235*	
1844	*48*	196	2				*246*	5
1845	*55*	226	4				*285*	16
1846	45	240	15				*301*	5
1847	80	301	32				*413*	37
1848	89	359	41	46			535	30
1849	80	359	44	*39*			*521*	-2
1850	115	390	67	*39*			*610*	17
1851	127	433	65	*40*			*655*	7
1852	140	429	70	*45*			*684*	4
1853	153	444	44	*50*			*690*	1
1854	166	389	66	*55*			*676*	-2
1855	167	369	73	62			707	5
1856	305	417	84	62			868	23
1857	427	412	113	67			1019	17
1858	658	457	162	89			1366	34
1859	891	478	221	117			1707	25
1860	*1090*	548	328	147			2113	24
1861	1287	641	461	136		16	2540	20
1862	1586	457	592	185		16	2836	12
1863	1933	591	812	210		25	3571	26
1864	2339	664	1245	209		26	4483	26
1865	2575	748	1454	224		45	5047	13
1866	2683	860	1650	257		45	5494	9
1867	2574	923	1664	261		82	5504	0
1868	2513	1025	1756	273		79	5645	3
1869	2454	1261	1637	270		135	5758	2
1870	2356	1581	2003	298		131	6370	11
1871	2481	1823	2212	287		168	6971	9
1872	2208	1680	2235	280		174	6577	-6
1873	2195	1655	2220	254		158	6482	-1
1874	2111	1840	2113	314		147	6526	1
1875	2044	1743	1998	315		167	6268	-4
1876	2012	1804	2056	273		152	6298	0
1877	1843	1804	1928	317		212	6104	-3
1878	1685	1693	1788	289		265	5720	-6
1879	1739	1715	1794	248		245	5741	0
1880	1666	1726	1734	291		301	5717	0
1881	1755	1942	2015	267		299	6279	10
1882	1700	1630	1992	213		360	5896	-6
1883	1745	1800	2320	246		442	6552	11
1884	1732	1772	2965	293		485	7247	11
1885	1858	1855	3659	278		520	8170	13
1886	2000	2123	3956	253		600	8932	9
1887	2142	2363	4172	263		614	9555	7
1888	2285	2730	4530	272		671	10487	10
1889	2428	2862	5215	361		689	11555	10
1890	2975	3184	6338	440		713	13651	18

Table 2 (cont.) Grapevine bearing area, by State, 1843 to 2013 (ha)

Year	SA	NSW	Vic	WA	Tas	Qld	Total	Annual growth (%)
1891	3859	3255	8371	414		802	16701	22
1892	4983	3351	10237	406		805	19782	18
1893	6239	3344	11352	493		772	22201	12
1894	7049	2985	12252	665		809	23760	7
1895	7172	3066	12265	754		804	24061	1
1896	7296	3043	12252	897		818	24305	1
1897	7419	3262	11305	928		817	23732	-2
1898	7592	3271	11210	1074		877	24025	1
1899	7753	3269	11156	1198		817	24195	1
1900	7866	3350	11149	1313		811	24489	1
1901	8158	3416	12397	1346		817	26133	7
1902	8442	3483	11571	1494		805	25795	-1
1903	8778	3557	11483	1428		631	25877	0
1904	9153	3618	11539	1345		837	26492	2
1905	9393	3577	11338	1381		888	26577	0
1906	9552	3543	10685	1433		827	26039	-2
1907	9140	3448	10463	1427		838	25316	-3
1908	8531	3433	10710	1308		798	24780	-2
1909	8916	3339	9886	1263		654	24059	-3
1910	9082	3371	9214	1180		686	23533	-2
1911	9288	3367	9475	1131		661	23923	2
1912	9707	3331	9791	1142		555	24525	3
1913	10201	3303	9947	1218		578	25248	3
1914	10606	3299	9079	1159		622	24766	-2
1915	10871	3231	8823	1182		573	24680	0
1916	11236	3190	9046	1113		556	25141	2
1917	11808	3507	9415	1227		508	26464	5
1918	12044	3478	10213	1212		516	27463	4
1919	12555	3537	10551	1188		521	28352	3
1920	13267	3611	11105	1204		487	29674	5
1921	14836	4364	11839	1299		508	32846	11
1922	16764	5092	13425	1599		518	37399	14
1923	18919	5558	15739	1966		503	42685	14
1924	19952	5892	17239	2119		514	45715	7
1925	20348	5964	17186	2157		639	46294	1
1926	20475	5854	16476	2133		670	45607	-1
1927	20344	5779	16435	2134		681	45373	-1
1928	20503	6022	16587	2007		713	45832	1
1929	20964	6151	16821	2000		723	46659	2
1930	21177	6309	16428	2009		708	46630	0
1931	21138	6217	15669	2010		683	45717	-2
1932	21245	6216	15465	2080		708	45714	0
1933	21238	6250	15841	2230		756	46315	1
1934	21400	6169	16384	2307		794	47053	2
1935	21594	6128	16665	2322		779	47489	1
1936	21942	6134	16625	2449		1000	48149	1
1937	22712	6694	16954	2471		1012	49843	4

Table 2 (cont.) Grapevine bearing area, by State, 1843 to 2013 (ha)

Year	SA	NSW	Vic	WA	Tas	Qld	Total	Annual growth (%)
1938	23235	6859	16949	2512		1099	50655	2
1939	23480	6871	17173	2540		1130	51195	1
1940	23562	6873	17237	2613		1182	51467	1
1941	23640	6668	17498	3578		1175	52559	2
1942	23488	6655	17221	3647		1492	52502	0
1943	23554	6597	17253	4098		1230	52732	0
1944	23173	6475	17285	4144		1213	52290	-1
1945	23037	6431	17367	4094		1227	52156	0
1946	23245	6468	17338	3878		1215	52145	0
1947	23561	6612	17380	3989		1192	52734	1
1948	23830	6694	17719	4057		1249	53549	2
1949	24203	6705	18457	4053		1321	54739	2
1950	24384	6852	18367	3916		1269	54787	0
1951	25079	6846	18338	3747		1232	55241	1
1952	24772	6899	18319	3787		1141	54918	-1
1953	24525	7287	18603	3736		1136	55287	1
1954	25140	7336	18525	3724		1167	55892	1
1955	24529	7367	18517	3648		1172	55234	-1
1956	24225	7324	18137	3685		1180	54552	-1
1957	23233	7039	18171	3641		1180	53264	-2
1958	23245	6873	18117	3651		1142	53028	0
1959	22966	6982	18130	3594		1231	52902	0
1960	23008	6975	17858	3622		1248	52711	0
1961	23025	6875	18069	3587		1259	52815	0
1962	23405	7125	18253	3649		1296	53729	2
1963	23579	7165	18479	3515		1310	54047	1
1964	23747	7574	18818	3492		1326	54956	2
1965	23819	8281	19423	3363		1335	56221	2
1966	23768	8617	19675	3325		1323	56707	1
1967	23099	8603	19896	3215		1337	56151	-1
1968	23524	8966	19719	3102		1376	56687	1
1969	24513	9206	19818	2942		1420	57900	2
1970	26239	10289	20169	2691		1463	60851	5
1971	27659	11247	20612	2715		1556	63784	5
1972	28769	12936	21225	*2726*		1596	67252	5
1973	29528	13274	21526	2614		1560	68502	2
1974	29602	14718	21597	2477		1594	69988	2
1975	30366	*14153*	*20963*	*2653*		*1600*	69743	0
1976	31161	*14036*	*20160*	*2362*	51	*1600*	69377	-1
1977	31244	*14070*	*20208*	*2367*	*50*	*1600*	69542	0
1978	31543	15000	20400	2500	*50*	*1650*	71143	2
1979	31277	14600	20600	2600	*50*	*1650*	70777	-1
1980	30734	14000	20800	2600	*50*	*1550*	69734	-1
1981	30418	14300	20800	2400	*50*	*1650*	69618	0
1982	30324	13500	20500	2300	*50*	*1750*	68424	-2
1983	29106	13100	20300	2200	*50*	*1650*	66406	-3
1984	27864	12800	20100	2100	*50*	*1550*	64464	-3

Table 2 (cont.) Grapevine bearing area, by State, 1843 to 2013 (ha)

Year	SA	NSW	Vic	WA	Tas	Qld	Total	Annual growth (%)
1985	26955	12800	20500	2200	*50*	*1550*	64055	-1
1986	24523	13200	20000	2200	46	*1450*	61423	-4
1987	23103	12000	19000	1700	59	*1240*	57103	-7
1988	23033	12000	18700	1800	76	*1000*	56633	-1
1989	23273	12400	18600	1900	98	*1000*	57273	1
1990	24647	12200	18900	2000	127	*1000*	58847	3
1991	25423	12300	19200	2000	196	*1000*	60123	2
1992	25784	12200	19500	2200	220	*1000*	60884	1
1993	26134	12700	20100	2500	248	*1050*	62734	3
1994	24842	13288	19535	2435	260	*1001*	61362	-2
1995	27237	12626	18989	2415	293	894	62454	2
1996	27153	13768	19821	2803	324	967	64845	4
1997	30270	15898	21338	3106	341	1048	72119	11
1998	34324	17108	21609	3521	379	1041	78090	8
1999	40188	22525	26149	4453	460	1378	95301	22
2000	47015	26058	28871	6276	524	1669	110623	16
2001	54996	31043	32301	9271	680	1984	130591	18
2002	60526	34005	35035	10260	909	2092	143373	10
2003	59956	34291	34446	10730	978	1996	142793	0
2004	64961	35975	34929	11068	1048	2150	150561	5
2005	66979	35777	35049	11747	981	2307	153204	2
2006	69771	36632	36597	11375	999	2449	158167	3
2007	69860	40672	36746	12200	1196	2925	163951	4
2008	70757	41958	36094	12746	1224	3090	166197	1
2009	73477	40367	29192	11831	1371	954	157290	-5
2010	73409	42621	26498	11822	1388	782	156632	0
2011	72384	38295	29232	11737	1401	883	154030	-2
2012	69970	38363	24713	10316	1229	690	145382	-6
2013	64019	34372	34541	9470	1382	2525	133000	-9

Table 3: Share of national grapevine bearing area, by State, 1843 to 2013 (%)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1843	18.5	80.9	0.6				100
1844	19.6	79.8	0.7				100
1845	19.3	79.2	1.5				100
1846	15.1	79.8	5.1				100
1847	19.4	72.9	7.6				100
1848	16.6	67.1	7.6	8.6			100
1849	15.3	68.8	8.4	7.5			100
1850	18.8	63.9	10.9	6.4			100
1851	19.4	66.1	10.0	6.1			100
1852	20.5	62.7	10.2	6.6			100
1853	22.2	64.3	6.3	7.2			100
1854	24.5	57.6	9.7	8.1			100
1855	23.6	52.3	10.4	8.8			100
1856	35.1	48.0	9.7	7.1			100
1857	41.9	40.5	11.1	6.6			100
1858	48.2	33.5	11.9	6.5			100
1859	52.2	28.0	13.0	6.9			100
1860	51.6	25.9	15.5	7.0			100
1861	50.7	25.2	18.1	5.3		0.6	100
1862	55.9	16.1	20.9	6.5		0.6	100
1863	54.1	16.5	22.7	5.9		0.7	100
1864	52.2	14.8	27.8	4.7		0.6	100
1865	51.0	14.8	28.8	4.4		0.9	100
1866	48.8	15.7	30.0	4.7		0.8	100
1867	46.8	16.8	30.2	4.7		1.5	100
1868	44.5	18.2	31.1	4.8		1.4	100
1869	42.6	21.9	28.4	4.7		2.3	100
1870	37.0	24.8	31.4	4.7		2.1	100
1871	35.6	26.1	31.7	4.1		2.4	100
1872	33.6	25.5	34.0	4.3		2.7	100
1873	33.9	25.5	34.2	3.9		2.4	100
1874	32.4	28.2	32.4	4.8		2.3	100
1875	32.6	27.8	31.9	5.0		2.7	100
1876	31.9	28.7	32.6	4.3		2.4	100
1877	30.2	29.5	31.6	5.2		3.5	100
1878	29.5	29.6	31.3	5.0		4.6	100
1879	30.3	29.9	31.3	4.3		4.3	100
1880	29.1	30.2	30.3	5.1		5.3	100
1881	28.0	30.9	32.1	4.3		4.8	100
1882	28.8	27.6	33.8	3.6		6.1	100
1883	26.6	27.5	35.4	3.7		6.7	100
1884	23.9	24.4	40.9	4.0		6.7	100
1885	22.7	22.7	44.8	3.4		6.4	100
1886	22.4	23.8	44.3	2.8		6.7	100
1887	22.4	24.7	43.7	2.7		6.4	100
1888	21.8	26.0	43.2	2.6		6.4	100
1889	21.0	24.8	45.1	3.1		6.0	100

Table 3 (cont.) Share of national grapevine bearing area, by State, 1843 to 2013 (%)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1890	21.8	23.3	46.4	3.2		5.2	100
1891	23.1	19.5	50.1	2.5		4.8	100
1892	25.2	16.9	51.7	2.1		4.1	100
1893	28.1	15.1	51.1	2.2		3.5	100
1894	29.7	12.6	51.6	2.8		3.4	100
1895	29.8	12.7	51.0	3.1		3.3	100
1896	30.0	12.5	50.4	3.7		3.4	100
1897	31.3	13.7	47.6	3.9		3.4	100
1898	31.6	13.6	46.7	4.5		3.7	100
1899	32.0	13.5	46.1	5.0		3.4	100
1900	32.1	13.7	45.5	5.4		3.3	100
1901	31.2	13.1	47.4	5.1		3.1	100
1902	32.7	13.5	44.9	5.8		3.1	100
1903	33.9	13.7	44.4	5.5		2.4	100
1904	34.5	13.7	43.6	5.1		3.2	100
1905	35.3	13.5	42.7	5.2		3.3	100
1906	36.7	13.6	41.0	5.5		3.2	100
1907	36.1	13.6	41.3	5.6		3.3	100
1908	34.4	13.9	43.2	5.3		3.2	100
1909	37.1	13.9	41.1	5.3		2.7	100
1910	38.6	14.3	39.2	5.0		2.9	100
1911	38.8	14.1	39.6	4.7		2.8	100
1912	39.6	13.6	39.9	4.7		2.3	100
1913	40.4	13.1	39.4	4.8		2.3	100
1914	42.8	13.3	36.7	4.7		2.5	100
1915	44.1	13.1	35.7	4.8		2.3	100
1916	44.7	12.7	36.0	4.4		2.2	100
1917	44.6	13.3	35.6	4.6		1.9	100
1918	43.9	12.7	37.2	4.4		1.9	100
1919	44.3	12.5	37.2	4.2		1.8	100
1920	44.7	12.2	37.4	4.1		1.6	100
1921	45.2	13.3	36.0	4.0		1.5	100
1922	44.8	13.6	35.9	4.3		1.4	100
1923	44.3	13.0	36.9	4.6		1.2	100
1924	43.6	12.9	37.7	4.6		1.1	100
1925	44.0	12.9	37.1	4.7		1.4	100
1926	44.9	12.8	36.1	4.7		1.5	100
1927	44.8	12.7	36.2	4.7		1.5	100
1928	44.7	13.1	36.2	4.4		1.6	100
1929	44.9	13.2	36.1	4.3		1.5	100
1930	45.4	13.5	35.2	4.3		1.5	100
1931	46.2	13.6	34.3	4.4		1.5	100
1932	46.5	13.6	33.8	4.5		1.5	100
1933	45.9	13.5	34.2	4.8		1.6	100
1934	45.5	13.1	34.8	4.9		1.7	100
1935	45.5	12.9	35.1	4.9		1.6	100
1936	45.6	12.7	34.5	5.1		2.1	100

Table 3 (cont.) Share of national grapevine bearing area, by State, 1843 to 2013 (%)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1937	45.6	13.4	34.0	5.0		2.0	100
1938	45.9	13.5	33.5	5.0		2.2	100
1939	45.9	13.4	33.5	5.0		2.2	100
1940	45.8	13.4	33.5	5.1		2.3	100
1941	45.0	12.7	33.3	6.8		2.2	100
1942	44.7	12.7	32.8	6.9		2.8	100
1943	44.7	12.5	32.7	7.8		2.3	100
1944	44.3	12.4	33.1	7.9		2.3	100
1945	44.2	12.3	33.3	7.8		2.4	100
1946	44.6	12.4	33.2	7.4		2.3	100
1947	44.7	12.5	33.0	7.6		2.3	100
1948	44.5	12.5	33.1	7.6		2.3	100
1949	44.2	12.2	33.7	7.4		2.4	100
1950	44.5	12.5	33.5	7.1		2.3	100
1951	45.4	12.4	33.2	6.8		2.2	100
1952	45.1	12.6	33.4	6.9		2.1	100
1953	44.4	13.2	33.6	6.8		2.1	100
1954	45.0	13.1	33.1	6.7		2.1	100
1955	44.4	13.3	33.5	6.6		2.1	100
1956	44.4	13.4	33.2	6.8		2.2	100
1957	43.6	13.2	34.1	6.8		2.2	100
1958	43.8	13.0	34.2	6.9		2.2	100
1959	43.4	13.2	34.3	6.8		2.3	100
1960	43.6	13.2	33.9	6.9		2.4	100
1961	43.6	13.0	34.2	6.8		2.4	100
1962	43.6	13.3	34.0	6.8		2.4	100
1963	43.6	13.3	34.2	6.5		2.4	100
1964	43.2	13.8	34.2	6.4		2.4	100
1965	42.4	14.7	34.5	6.0		2.4	100
1966	41.9	15.2	34.7	5.9		2.3	100
1967	41.1	15.3	35.4	5.7		2.4	100
1968	41.5	15.8	34.8	5.5		2.4	100
1969	42.3	15.9	34.2	5.1		2.5	100
1970	43.1	16.9	33.1	4.4		2.4	100
1971	43.4	17.6	32.3	4.3		2.4	100
1972	42.8	19.2	31.6	4.1		2.4	100
1973	43.1	19.4	31.4	3.8		2.3	100
1974	42.3	21.0	30.9	3.5		2.3	100
1975	43.5	20.3	30.1	3.8		2.3	100
1976	44.9	20.2	29.1	3.4	0.1	2.3	100
1977	44.9	20.2	29.1	3.4	0.1	2.3	100
1978	44.3	21.1	28.7	3.5	0.1	2.3	100
1979	44.2	20.6	29.1	3.7	0.1	2.3	100
1980	44.1	20.1	29.8	3.7	0.1	2.2	100
1981	43.7	20.5	29.9	3.4	0.1	2.4	100
1982	44.3	19.7	30.0	3.4	0.1	2.6	100
1983	43.8	19.7	30.6	3.3	0.1	2.5	100

Table 3 (cont.) Share of national grapevine bearing area, by State, 1843 to 2013 (%)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1984	43.2	19.9	31.2	3.3	0.1	2.4	100
1985	42.1	20.0	32.0	3.4	0.1	2.4	100
1986	39.9	21.5	32.6	3.6	0.1	2.4	100
1987	40.5	21.0	33.3	3.0	0.1	2.2	100
1988	40.7	21.2	33.0	3.2	0.1	1.8	100
1989	40.6	21.7	32.5	3.3	0.2	1.7	100
1990	41.9	20.7	32.1	3.4	0.2	1.7	100
1991	42.3	20.5	31.9	3.3	0.3	1.7	100
1992	42.3	20.0	32.0	3.6	0.4	1.6	100
1993	41.7	20.2	32.0	4.0	0.4	1.7	100
1994	40.5	21.7	31.8	4.0	0.4	1.6	100
1995	43.6	20.2	30.4	3.9	0.5	1.4	100
1996	41.9	21.2	30.6	4.3	0.5	1.5	100
1997	42.0	22.0	29.6	4.3	0.5	1.5	100
1998	44.0	21.9	27.7	4.5	0.5	1.3	100
1999	42.2	23.6	27.4	4.7	0.5	1.4	100
2000	42.5	23.6	26.1	5.7	0.5	1.5	100
2001	42.1	23.8	24.7	7.1	0.5	1.5	100
2002	42.2	23.7	24.4	7.2	0.6	1.5	100
2003	42.0	24.0	24.1	7.5	0.7	1.4	100
2004	43.1	23.9	23.2	7.4	0.7	1.4	100
2005	43.7	23.4	22.9	7.7	0.6	1.5	100
2006	44.1	23.2	23.1	7.2	0.6	1.5	100
2007	42.6	24.8	22.4	7.4	0.7	1.8	100
2008	42.6	25.2	21.7	7.7	0.7	1.9	100
2009	46.7	25.7	18.6	7.5	0.9	0.6	100
2010	46.9	27.2	16.9	7.5	0.9	0.5	100
2011	47.0	24.9	19.0	7.6	0.9	0.6	100
2012	48.1	26.4	17.0	7.1	0.8	0.5	100
2013	43.7	23.5	23.6	6.5	0.9	1.7	100

Table 4: Grapevine bearing area as a share of total crop area, by State, 1843 to 2013 (%)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1843	0.37	0.35	0.03				0.19
1844	0.44	0.38	0.02				0.21
1845	0.52	0.40	0.04				0.22
1846	0.34	0.39	0.13				0.22
1847	0.54	0.58	0.25				0.32
1848	0.45	0.72	0.28				0.40
1849	0.44	0.65	0.27				0.37
1850	0.44	0.71	0.36	1.38			0.36
1851	0.48	0.74	0.31	1.41			0.37
1852	0.43	0.69	0.30	1.59			0.37
1853	0.39	0.84	0.29	1.54			0.43
1854	0.36	0.70	0.47	1.36			0.36
1855	0.32	0.70	0.33	1.09			0.38
1856	0.58	0.60	0.18	1.09			0.37
1857	0.52	0.55	0.16	0.92			0.35
1858	0.69	0.61	0.17	1.22			0.42
1859	0.83	0.53	0.18	1.38			0.44
1860	0.88	0.55	0.23	1.40			0.48
1861	0.89	0.64	0.29	1.34		1.33	0.53
1862	0.98	0.43	0.36	1.69		1.00	0.55
1863	1.13	0.52	0.47	1.85		1.02	0.67
1864	1.30	0.55	0.68	1.57		0.59	0.79
1865	1.29	0.59	0.86	1.54		0.92	0.88
1866	1.21	0.58	0.91	1.67		0.79	0.86
1867	1.05	0.52	0.82	1.50		0.84	0.76
1868	0.90	0.63	0.81	1.47		0.61	0.75
1869	0.88	0.74	0.70	1.34		0.86	0.74
1870	0.81	0.83	0.73	1.50		0.69	0.74
1871	0.76	1.15	0.79	1.29		0.80	0.80
1872	0.65	1.06	0.77	1.19		0.72	0.73
1873	0.59	0.96	0.79	1.18		0.63	0.69
1874	0.54	1.06	0.74	1.49		0.57	0.68
1875	0.48	1.00	0.71	1.73		0.59	0.63
1876	0.45	1.09	0.69	1.41		0.49	0.62
1877	0.37	0.97	0.59	1.70		0.61	0.55
1878	0.29	0.84	0.43	1.40		0.65	0.43
1879	0.27	0.75	0.39	1.18		0.54	0.40
1880	0.23	0.73	0.35	1.28		0.67	0.36
1881	0.21	0.76	0.32	1.03		0.65	0.34
1882	0.19	0.69	0.32	0.99		0.71	0.32
1883	0.20	0.67	0.36	1.06		0.72	0.34
1884	0.19	0.62	0.42	1.25		0.76	0.35
1885	0.20	0.62	0.50	0.92		0.69	0.38
1886	0.21	0.71	0.52	1.04		0.75	0.42
1887	0.23	0.70	0.55	0.77		0.72	0.43
1888	0.25	0.79	0.55	1.02		0.88	0.46
1889	0.27	0.89	0.63	1.35		0.88	0.52

Table 4 (cont.) Grapevine bearing area as a share of total crop area, by State, 1843 to 2013 (%)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1890	0.33	0.83	0.75	1.49		0.76	0.58
1891	0.46	0.94	1.02	1.46		0.88	0.76
1892	0.64	0.98	1.19	1.57		0.82	0.91
1893	0.76	0.82	1.25	1.52		0.77	0.95
1894	0.80	0.61	1.29	1.96		0.82	0.94
1895	0.83	0.57	1.25	2.30		0.72	0.92
1896	0.86	0.56	1.25	2.26		0.71	0.93
1897	0.89	0.49	1.05	2.05		0.63	0.83
1898	0.90	0.44	1.01	2.00		0.58	0.80
1899	0.87	0.37	0.86	1.72		0.56	0.71
1900	0.87	0.34	0.87	1.74		0.48	0.70
1901	0.85	0.34	0.98	1.65		0.44	0.73
1902	0.93	0.38	0.96	1.70		0.41	0.76
1903	0.97	0.39	0.87	1.53		0.57	0.75
1904	1.00	0.35	0.84	1.17		0.36	0.70
1905	1.02	0.33	0.84	1.04		0.41	0.70
1906	1.05	0.31	0.82	0.97		0.39	0.68
1907	1.05	0.30	0.78	0.76		0.37	0.65
1908	0.93	0.33	0.82	0.65		0.37	0.65
1909	0.95	0.30	0.71	0.53		0.30	0.60
1910	0.89	0.26	0.62	0.40		0.28	0.53
1911	0.84	0.25	0.59	0.33		0.24	0.50
1912	0.81	0.23	0.66	0.26		0.26	0.50
1913	0.82	0.22	0.60	0.25		0.21	0.48
1914	0.83	0.18	0.51	0.19		0.21	0.42
1915	0.82	0.17	0.47	0.16		0.18	0.39
1916	0.74	0.14	0.39	0.13		0.19	0.34
1917	0.80	0.17	0.48	0.15		0.14	0.39
1918	0.97	0.19	0.61	0.18		0.17	0.47
1919	1.00	0.22	0.66	0.18		0.24	0.53
1920	1.07	0.24	0.69	0.18		0.21	0.55
1921	1.13	0.24	0.65	0.18		0.16	0.54
1922	1.23	0.28	0.73	0.21		0.16	0.60
1923	1.31	0.29	0.80	0.21		0.14	0.64
1924	1.38	0.30	0.91	0.23		0.15	0.68
1925	1.41	0.30	0.89	0.20		0.15	0.66
1926	1.41	0.32	0.92	0.18		0.16	0.67
1927	1.29	0.31	0.86	0.16		0.18	0.63
1928	1.21	0.30	0.83	0.13		0.17	0.59
1929	1.11	0.28	0.75	0.12		0.17	0.54
1930	1.05	0.28	0.73	0.11		0.17	0.53
1931	0.96	0.23	0.58	0.10		0.15	0.45
1932	1.01	0.30	0.71	0.13		0.14	0.53
1933	1.02	0.24	0.77	0.13		0.15	0.51
1934	1.04	0.24	0.77	0.14		0.15	0.52
1935	1.15	0.27	0.88	0.15		0.15	0.57
1936	1.21	0.26	0.93	0.16		0.19	0.60

Table 4 (cont.) Grapevine bearing area as a share of total crop area, by State, 1843 to 2013 (%)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1937	1.23	0.28	0.95	0.16		0.17	0.60
1938	1.22	0.26	0.90	0.15		0.17	0.57
1939	1.23	0.24	0.85	0.13		0.16	0.54
1940	1.28	0.27	0.85	0.15		0.17	0.57
1941	1.37	0.26	0.97	0.22		0.17	0.62
1942	1.46	0.28	0.90	0.23		0.22	0.63
1943	1.69	0.31	1.10	0.36		0.17	0.74
1944	2.01	0.33	1.21	0.37		0.17	0.80
1945	1.75	0.31	0.97	0.36		0.17	0.73
1946	1.47	0.26	0.78	0.33		0.16	0.63
1947	1.45	0.25	0.82	0.27		0.18	0.61
1948	1.48	0.23	0.85	0.25		0.17	0.59
1949	1.54	0.29	0.93	0.24		0.17	0.65
1950	1.61	0.30	0.98	0.22		0.15	0.65
1951	1.63	0.36	1.00	0.20		0.15	0.68
1952	1.60	0.36	1.00	0.20		0.14	0.68
1953	1.60	0.37	1.02	0.19		0.12	0.66
1954	1.54	0.33	0.97	0.20		0.12	0.64
1955	1.43	0.34	0.97	0.18		0.11	0.61
1956	1.42	0.32	0.93	0.17		0.11	0.59
1957	1.34	0.46	1.15	0.17		0.12	0.66
1958	1.36	0.34	1.01	0.16		0.11	0.59
1959	1.28	0.25	0.89	0.14		0.11	0.51
1960	1.29	0.24	0.92	0.14		0.11	0.50
1961	1.05	0.21	0.76	0.13		0.10	0.44
1962	1.15	0.21	0.80	0.13		0.10	0.45
1963	1.06	0.20	0.72	0.12		0.09	0.42
1964	0.98	0.21	0.76	0.12		0.09	0.42
1965	0.99	0.20	0.74	0.11		0.08	0.40
1966	0.97	0.24	0.78	0.09		0.08	0.41
1967	0.88	0.17	0.73	0.09		0.07	0.35
1968	0.90	0.17	0.78	0.08		0.07	0.35
1969	0.79	0.15	0.62	0.07		0.07	0.31
1970	1.15	0.21	0.91	0.07		0.07	0.39
1971	1.26	0.25	0.95	0.07		0.08	0.43
1972	1.16	0.29	0.86	0.07		0.07	0.43
1973	1.31	0.29	0.92	0.07		0.07	0.44
1974	1.11	0.29	0.84	0.06		0.08	0.42
1975	1.25	0.32	0.93	0.07		0.08	0.46
1976	1.39	0.31	0.87	0.05	0.04	0.08	0.44
1977	1.45	0.30	0.84	0.05	0.04	0.08	0.43
1978	1.19	0.29	0.82	0.05	0.04	0.07	0.40
1979	1.05	0.28	0.77	0.05	0.03	0.07	0.38
1980	1.11	0.27	0.93	0.05	0.06	0.07	0.39
1981	1.05	0.27	0.78	0.04	0.03	0.06	0.36
1982	1.06	0.24	0.94	0.04	0.06	0.06	0.35
1983	1.02	0.25	0.91	0.03	0.05	0.06	0.34

Table 4 (cont.) Grapevine bearing area as a share of total crop area, by State, 1843 to 2013 (%)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1984	0.90	0.19	0.76	0.03	0.05	0.05	0.29
1985	0.93	0.22	0.80	0.03	0.05	0.05	0.30
1986	0.81	0.22	0.79	0.04	0.05	0.04	0.29
1987	0.75	0.23	0.82	0.03	0.08	0.04	0.29
1988	0.80	0.24	0.87	0.03	0.09	0.03	0.31
1989	0.82	0.27	0.93	0.04	0.12	0.04	0.33
1990	0.96	0.30	0.95	0.04	0.15	0.04	0.36
1991	0.87	0.30	0.93	0.04	0.26	0.03	0.35
1992	0.88	0.32	0.96	0.04	0.29	0.04	0.37
1993	0.85	0.33	0.89	0.04	0.34	0.05	0.36
1994	0.84	0.32	0.84	0.04	0.33	0.04	0.34
1995	0.91	0.37	0.83	0.04	0.38	0.04	0.37
1996	0.84	0.29	0.81	0.04	0.43	0.04	0.33
1997	0.92	0.28	0.84	0.04	0.47	0.04	0.34
1998	1.04	0.30	0.84	0.05	0.49	0.04	0.36
1999	1.10	0.36	0.95	0.06	0.61	0.05	0.41
2000	1.28	0.43	0.94	0.08	0.68	0.05	0.47
2001	1.38	0.46	1.06	0.12	0.86	0.07	0.53
2002	1.45	0.51	1.18	0.14	1.17	0.08	0.60
2003	1.38	0.57	1.05	0.14	1.30	0.09	0.61
2004	1.46	0.50	1.00	0.14	1.44	0.08	0.58
2005	1.52	0.47	0.98	0.14	1.38	0.09	0.57
2006	1.67	0.53	1.13	0.15	1.47	0.10	0.64
2007	1.57	0.61	1.07	0.18	1.93	0.13	0.70
2008	1.66	0.62	0.99	0.17	2.35	0.14	0.68
2009	1.64	0.53	0.70	0.14	1.88	0.03	0.57
2010	1.80	0.61	0.66	0.14	2.10	0.03	0.60
2011	1.44	0.42	0.65	0.12	1.05	0.03	0.48
2012	1.39	0.42	0.56	0.10	0.96	0.02	0.45
2013	1.29	0.38	0.77	0.10	1.17	0.08	0.46

Table 5 : Vine intensity of cropping, by State relative to nation, 1843 to 2013 (%)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1843	193	181	0				100
1844	215	184	0				100
1845	231	180	0				100
1846	153	178	1				100
1847	171	182	1				100
1848	113	181	1				100
1849	117	175	1				100
1850	122	197	1	384			100
1851	131	200	1	383			100
1852	114	185	1	424			100
1853	91	195	1	360			100
1854	99	191	1	373			100
1855	84	183	1	288			100
1856	158	164	0	298			100
1857	149	157	0	262			100
1858	166	147	0	292			100
1859	189	120	0	313			100
1860	183	114	0	291			100
1861	166	120	1	250		249	100
1862	177	77	1	307		181	100
1863	169	78	1	276		152	100
1864	165	71	1	200		75	100
1865	148	68	1	176		105	100
1866	140	68	1	193		91	100
1867	138	68	1	196		110	100
1868	120	84	1	195		81	100
1869	120	100	1	181		116	100
1870	109	113	1	204		93	100
1871	95	144	1	161		100	100
1872	89	145	1	163		98	100
1873	85	138	1	171		91	100
1874	79	156	1	219		84	100
1875	76	157	1	273		93	100
1876	73	177	1	228		79	100
1877	68	177	1	312		111	100
1878	66	194	1	322		151	100
1879	69	190	1	299		135	100
1880	64	204	1	356		186	100
1881	61	225	1	305		192	100
1882	62	218	1	314		223	100
1883	58	200	1	316		215	100
1884	53	177	1	356		217	100
1885	52	163	1	239		179	100
1886	52	171	1	250		180	100
1887	53	161	1	178		166	100
1888	54	170	1	219		189	100
1889	51	172	1	262		171	100

Table 5 (cont.) Vine intensity of cropping, by State relative to nation, 1843 to 2013 (%)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1890	56	142	1	256		130	100
1891	60	124	1	193		116	100
1892	70	107	1	172		90	100
1893	80	86	1	161		81	100
1894	85	65	1	208		87	100
1895	90	62	1	250		79	100
1896	93	60	1	243		76	100
1897	107	58	1	246		75	100
1898	112	55	1	249		73	100
1899	122	52	1	243		78	100
1900	124	49	1	250		68	100
1901	116	47	1	226		60	100
1902	123	50	1	225		54	100
1903	129	52	1	203		75	100
1904	142	50	1	166		52	100
1905	145	47	1	149		58	100
1906	153	45	1	142		57	100
1907	160	46	1	117		56	100
1908	142	50	1	100		57	100
1909	158	51	1	89		50	100
1910	167	49	1	76		53	100
1911	168	49	1	66		49	100
1912	162	45	1	53		52	100
1913	172	46	1	52		45	100
1914	198	43	1	45		49	100
1915	210	43	1	40		46	100
1916	220	41	1	37		56	100
1917	207	43	1	39		36	100
1918	204	41	1	38		37	100
1919	190	43	1	35		47	100
1920	194	43	1	33		39	100
1921	211	45	1	33		30	100
1922	204	47	1	35		26	100
1923	205	46	1	34		23	100
1924	202	44	1	33		21	100
1925	213	45	1	30		22	100
1926	210	47	1	27		24	100
1927	205	49	1	25		28	100
1928	205	51	1	23		28	100
1929	204	51	1	21		31	100
1930	201	54	1	21		32	100
1931	214	50	1	23		33	100
1932	188	56	1	24		27	100
1933	199	48	1	25		29	100
1934	201	47	1	26		29	100
1935	201	46	2	26		26	100

Table 5 (cont.) Vine intensity of cropping, by State relative to nation, 1843 to 2013 (%)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1936	204	44	2	27		31	100
1937	205	46	2	26		28	100
1938	213	46	2	26		29	100
1939	228	45	2	25		30	100
1940	224	47	1	26		30	100
1941	223	42	2	36		27	100
1942	230	44	1	37		34	100
1943	227	41	1	48		23	100
1944	250	41	2	46		21	100
1945	240	43	1	50		23	100
1946	234	42	1	52		26	100
1947	237	41	1	45		30	100
1948	252	39	1	42		28	100
1949	239	45	1	37		26	100
1950	247	46	2	34		23	100
1951	240	52	1	29		22	100
1952	237	54	1	29		21	100
1953	243	56	2	29		18	100
1954	240	52	2	31		19	100
1955	235	55	2	29		18	100
1956	242	55	2	29		19	100
1957	204	70	2	26		18	100
1958	230	58	2	27		18	100
1959	251	50	2	28		21	100
1960	259	48	2	28		21	100
1961	239	48	2	29		23	100
1962	257	47	2	28		22	100
1963	255	48	2	28		22	100
1964	232	49	2	29		21	100
1965	246	49	2	28		21	100
1966	240	58	2	23		20	100
1967	251	49	2	26		20	100
1968	259	49	2	24		20	100
1969	258	48	2	24		21	100
1970	296	53	2	18		17	100
1971	295	60	2	16		18	100
1972	268	67	2	16		17	100
1973	294	64	2	15		17	100
1974	264	69	2	14		20	100
1975	271	70	2	15		17	100
1976	313	70	2	12	8	17	100
1977	335	69	2	12	8	17	100
1978	295	72	2	12	10	18	100
1979	275	73	2	13	9	18	100
1980	286	69	2	13	16	17	100
1981	292	74	2	12	9	18	100
1982	303	67	3	11	16	18	100

Table 5 (cont.) Vine intensity of cropping, by State relative to nation, 1843 to 2013 (%)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1983	298	74	3	10	15	18	100
1984	305	66	3	11	17	18	100
1985	306	73	3	11	17	17	100
1986	274	75	3	13	18	15	100
1987	261	78	3	10	26	14	100
1988	258	79	3	11	29	11	100
1989	249	83	3	11	36	11	100
1990	268	84	3	11	43	11	100
1991	251	87	3	11	76	10	100
1992	238	85	3	11	78	12	100
1993	235	90	2	12	94	13	100
1994	248	93	2	12	98	12	100
1995	248	100	2	11	104	12	100
1996	252	87	2	13	129	12	100
1997	271	83	2	13	137	11	100
1998	289	84	2	13	134	11	100
1999	269	89	2	14	148	11	100
2000	275	92	2	18	146	11	100
2001	259	87	2	23	162	13	100
2002	243	86	2	23	196	13	100
2003	228	94	2	23	215	15	100
2004	253	86	2	24	249	14	100
2005	266	81	2	25	241	15	100
2006	260	82	2	23	228	15	100
2007	225	87	2	26	277	19	100
2008	244	90	1	25	345	21	100
2009	286	92	1	25	329	6	100
2010	298	102	1	23	349	6	100
2011	299	87	1	25	219	5	100
2012	306	91	1	23	211	5	100
2013	277	82	2	21	253	17	100

Table 6: Grapevine area per capita, by State, 1843 to 2013 (hectares per thousand people)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1843	2.5	1.3	0.1				0.9
1844	2.5	1.3	0.1				0.9
1845	2.5	1.4	0.1				1.0
1846	1.8	1.5	0.5				1.0
1847	2.6	1.8	0.8				1.3
1848	2.3	2.1	0.8	10.0			1.6
1849	1.5	1.9	0.7	8.4			1.4
1850	1.8	2.1	0.9	6.6			1.5
1851	1.9	2.2	0.7	5.6			1.5
1852	2.0	2.1	0.4	5.2			1.3
1853	1.9	2.0	0.2	5.4			1.1
1854	1.8	1.6	0.2	4.7			1.0
1855	1.7	1.4	0.2	4.9			0.9
1856	2.8	1.4	0.2	4.7			1.0
1857	3.9	1.3	0.2	5.0			1.1
1858	5.5	1.4	0.3	6.1			1.3
1859	7.3	1.5	0.4	7.9			1.6
1860	8.8	1.6	0.6	9.7			1.9
1861	10.0	1.8	0.9	8.7		0.5	2.2
1862	11.9	1.3	1.1	11.0		0.4	2.4
1863	13.8	1.6	1.5	11.3		0.5	2.9
1864	15.9	1.7	2.1	10.5		0.4	3.5
1865	16.5	1.9	2.4	10.7		0.6	3.7
1866	16.2	2.1	2.6	11.7		0.5	3.9
1867	15.1	2.1	2.6	11.5		0.8	3.8
1868	14.4	2.3	2.7	11.5		0.8	3.7
1869	13.7	2.7	2.4	11.0		1.3	3.7
1870	12.9	3.2	2.8	12.0		1.2	3.9
1871	13.3	3.6	3.0	11.4		1.4	4.2
1872	11.6	3.2	3.0	10.9		1.4	3.8
1873	11.3	3.0	2.9	9.8		1.2	3.7
1874	10.5	3.3	2.7	12.0		1.0	3.6
1875	9.9	3.0	2.5	11.8		1.0	3.3
1876	9.3	3.0	2.6	10.0		0.9	3.3
1877	8.0	2.9	2.4	11.3		1.1	3.1
1878	6.9	2.6	2.2	10.2		1.3	2.8
1879	6.7	2.5	2.1	8.6		1.2	2.7
1880	6.2	2.4	2.0	9.9		1.4	2.6
1881	6.2	2.6	2.3	8.9		1.4	2.8
1882	5.9	2.1	2.3	7.0		1.6	2.5
1883	5.9	2.2	2.6	7.8		1.7	2.7
1884	5.7	2.0	3.2	8.9		1.7	2.8
1885	6.0	2.0	3.9	8.0		1.7	3.1
1886	6.5	2.2	4.0	6.6		1.8	3.3
1887	6.9	2.4	4.1	6.2		1.8	3.4
1888	7.4	2.7	4.3	6.2		1.9	3.6
1889	7.8	2.7	4.8	8.1		1.8	3.8

Table 6 (cont.) Grapevine area per capita, by State, 1843 to 2013 (hectares per thousand people)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1890	9.4	2.9	5.7	9.4		1.8	4.4
1891	12.0	2.9	7.3	8.2		2.0	5.2
1892	15.1	2.9	8.8	7.3		2.0	6.0
1893	18.3	2.8	9.7	8.0		1.9	6.7
1894	20.3	2.4	10.4	9.1		1.9	7.0
1895	20.5	2.5	10.4	8.3		1.8	7.0
1896	20.7	2.4	10.4	7.6		1.8	6.9
1897	21.1	2.5	9.6	6.2		1.8	6.6
1898	21.5	2.5	9.5	6.6		1.9	6.6
1899	21.7	2.5	9.4	7.1		1.7	6.6
1900	21.8	2.5	9.4	7.5		1.7	6.5
1901	22.5	2.5	10.3	7.2		1.6	6.9
1902	23.7	2.5	9.6	7.3		1.6	6.7
1903	24.7	2.5	9.5	6.5		1.2	6.6
1904	25.6	2.5	9.6	5.7		1.6	6.7
1905	26.1	2.4	9.4	5.6		1.7	6.6
1906	26.3	2.4	8.8	5.6		1.5	6.4
1907	24.9	2.2	8.5	5.6		1.5	6.1
1908	22.6	2.2	8.6	5.1		1.4	5.9
1909	23.0	2.1	7.8	4.8		1.1	5.6
1910	22.8	2.1	7.2	4.4		1.2	5.4
1911	22.6	2.0	7.2	3.9		1.1	5.3
1912	22.9	1.9	7.2	3.8		0.9	5.3
1913	23.3	1.8	7.1	3.9		0.9	5.2
1914	23.8	1.8	6.4	3.6		0.9	5.0
1915	24.4	1.7	6.2	3.7		0.8	5.0
1916	25.4	1.7	6.4	3.6		0.8	5.1
1917	26.7	1.8	6.7	4.0		0.7	5.3
1918	26.7	1.8	7.2	3.9		0.7	5.5
1919	26.8	1.8	7.2	3.7		0.7	5.5
1920	27.3	1.7	7.3	3.6		0.7	5.5
1921	29.9	2.1	7.7	3.9		0.7	6.0
1922	33.2	2.4	8.5	4.7		0.7	6.7
1923	36.7	2.5	9.8	5.6		0.6	7.5
1924	37.9	2.6	10.5	5.8		0.6	7.9
1925	37.7	2.6	10.3	5.8		0.8	7.8
1926	37.0	2.5	9.7	5.6		0.8	7.5
1927	36.0	2.4	9.5	5.4		0.8	7.3
1928	35.9	2.4	9.5	4.9		0.8	7.3
1929	36.6	2.5	9.5	4.8		0.8	7.3
1930	36.9	2.5	9.2	4.7		0.8	7.2
1931	36.7	2.4	8.7	4.6		0.7	7.0
1932	36.8	2.4	8.6	4.8		0.8	6.9
1933	36.6	2.4	8.7	5.1		0.8	7.0
1934	36.7	2.4	9.0	5.2		0.8	7.0
1935	36.9	2.3	9.1	5.2		0.8	7.1
1936	37.3	2.3	9.0	5.4		1.0	7.1

Table 6 (cont.) Grapevine area per capita, by State, 1843 to 2013 (hectares per thousand people)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1937	38.5	2.5	9.1	5.4		1.0	7.3
1938	39.2	2.5	9.1	5.4		1.1	7.3
1939	39.3	2.5	9.1	5.4		1.1	7.3
1940	39.3	2.5	9.1	5.5		1.2	7.3
1941	39.3	2.4	9.1	7.5		1.1	7.4
1942	38.6	2.4	8.8	7.7		1.4	7.3
1943	38.4	2.3	8.7	8.6		1.2	7.3
1944	37.4	2.2	8.7	8.6		1.1	7.2
1945	36.7	2.2	8.7	8.4		1.1	7.1
1946	36.6	2.2	8.6	7.9		1.1	7.0
1947	36.4	2.2	8.5	7.9		1.1	7.0
1948	36.0	2.2	8.5	7.9		1.1	6.9
1949	35.6	2.2	8.6	7.6		1.1	6.9
1950	34.4	2.1	8.3	7.0		1.1	6.7
1951	34.2	2.1	8.1	6.5		1.0	6.6
1952	32.8	2.1	7.8	6.3		0.9	6.4
1953	31.6	2.2	7.8	6.0		0.9	6.3
1954	31.6	2.1	7.6	5.8		0.9	6.2
1955	29.9	2.1	7.3	5.6		0.9	6.0
1956	28.5	2.1	7.0	5.5		0.9	5.8
1957	26.6	1.9	6.8	5.3		0.8	5.5
1958	25.9	1.9	6.7	5.2		0.8	5.4
1959	24.9	1.9	6.5	5.0		0.8	5.3
1960	24.4	1.8	6.3	5.0		0.8	5.1
1961	23.7	1.8	6.2	4.9		0.8	5.0
1962	23.7	1.8	6.1	4.8		0.8	5.0
1963	23.3	1.8	6.1	4.5		0.8	4.9
1964	22.9	1.8	6.1	4.3		0.8	4.9
1965	22.3	2.0	6.1	4.1		0.8	4.9
1966	21.7	2.0	6.1	3.9		0.8	4.9
1967	20.8	2.0	6.1	3.7		0.8	4.8
1968	21.0	2.1	5.9	3.4		0.8	4.7
1969	21.5	2.1	5.8	3.1		0.8	4.7
1970	22.6	2.3	5.8	2.7		0.8	4.9
1971	23.5	2.4	5.9	2.6		0.9	5.0
1972	23.7	2.7	5.8	2.5		0.8	5.1
1973	24.0	2.7	5.8	2.4		0.8	5.1
1974	23.8	3.0	5.8	2.2		0.8	5.1
1975	24.0	2.9	5.5	2.3		0.8	5.0
1976	24.4	2.8	5.3	2.0	0.1	0.8	4.9
1977	24.3	2.8	5.3	2.0	0.1	0.8	4.9
1978	24.3	3.0	5.3	2.0	0.1	0.8	5.0
1979	24.0	2.9	5.3	2.1	0.1	0.7	4.9
1980	23.5	2.7	5.3	2.0	0.1	0.7	4.7
1981	23.0	2.7	5.2	1.8	0.1	0.7	4.6
1982	22.7	2.5	5.1	1.7	0.1	0.7	4.5
1983	21.5	2.4	5.0	1.6	0.1	0.7	4.3

Table 6 (cont.) Grapevine area per capita, by State, 1843 to 2013 (hectares per thousand people)

Year	*SA*	*NSW*	*Vic*	*WA*	*Tas*	*Qld*	*Total*
1984	20.4	2.4	4.9	1.5	0.1	0.6	4.1
1985	19.6	2.3	5.0	1.5	0.1	0.6	4.0
1986	17.7	2.4	4.8	1.5	0.1	0.5	3.8
1987	16.5	2.1	4.5	1.1	0.1	0.5	3.5
1988	16.3	2.1	4.4	1.2	0.2	0.4	3.4
1989	16.3	2.1	4.3	1.2	0.2	0.3	3.4
1990	17.1	2.1	4.3	1.2	0.3	0.3	3.4
1991	17.5	2.1	4.3	1.2	0.4	0.3	3.5
1992	17.7	2.0	4.4	1.3	0.5	0.3	3.5
1993	17.9	2.1	4.5	1.5	0.5	0.3	3.5
1994	17.0	2.2	4.4	1.4	0.5	0.3	3.4
1995	18.6	2.1	4.2	1.4	0.6	0.3	3.4
1996	18.4	2.2	4.4	1.6	0.7	0.3	3.5
1997	20.5	2.5	4.7	1.7	0.7	0.3	3.9
1998	23.1	2.7	4.7	1.9	0.8	0.3	4.2
1999	26.9	3.5	5.6	2.4	1.0	0.4	5.0
2000	31.3	4.0	6.1	3.3	1.1	0.5	5.8
2001	36.5	4.7	6.7	4.8	1.4	0.5	6.7
2002	39.9	5.2	7.2	5.3	1.9	0.6	7.3
2003	39.3	5.2	7.0	5.5	2.0	0.5	7.2
2004	42.4	5.4	7.0	5.5	2.2	0.6	7.5
2005	43.4	5.3	7.0	5.8	2.0	0.6	7.5
2006	44.7	5.4	7.2	5.5	2.0	0.6	7.7
2007	44.3	5.9	7.1	5.7	2.4	0.7	7.8
2008	44.3	6.0	6.8	5.8	2.4	0.7	7.7
2009	45.4	5.7	5.4	5.2	2.7	0.2	7.2
2010	45.0	5.9	4.8	5.1	2.7	0.2	7.1
2011	44.0	5.3	5.2	4.9	2.7	0.2	6.8
2012	42.1	5.2	4.3	4.2	2.4	0.1	6.3
2013	38.2	4.6	6.0	3.7	2.7	0.5	6.3

Table 7: Winegrape area, production, and yield/ha, and share of total vine area, by State, 1974 to 2013

	SA			NSW			Vic		
Year	Area (ha)	Prod'n (t)	yield (t/ha)	Area (ha)	Prod'n (t)	Yield (t/ha)	Area (ha)	Prod'n (t)	Yield (t/ha)
1974		206210			79229			36547	
1975		272007			92015			54109	
1976		256503			96435			59189	
1977		280099			107558			63252	
1978		269449			98320			56224	
1979		279129			114401			65201	
1980		308475			113927			72483	
1981		284181			115733			65076	
1982		328747			104972			57699	
1983		254439			102843			64900	
1984		287648			115960			82973	
1985		321225			132032			96807	
1986		280420			135514			68086	
1987		283721			117800			67133	
1988		247413			126782			78407	
1989		310427			139940			104274	
1990		316423			118598			85225	
1991		290832			108457			78674	
1992		327839			120519			104398	
1993		274856			140676			118444	
1994		338558			141145			167083	
1995		320169			104687			137613	
1996		395835			167556			199141	
1997		367792			174265			161772	
1998		455531			175321			214462	
1999		491621			270236			277869	
2000		478355			287954			301908	
2001	54997	670757	12.2	31031	323687	10.4	32323	327554	10.1
2002	60526	689943	11.4	34005	415026	12.2	35035	338536	9.7
2003	59957	612095	10.2	34273	362526	10.6	34465	282439	8.2
2004	64961	880075	13.5	35947	450516	12.5	34957	384896	11.0
2005	66979	856038	12.8	35748	475974	13.3	35080	392963	11.2
2006	69772	881346	12.6	36605	473580	12.9	36625	354796	9.7
2007	69859	583340	8.4	40644	402777	9.9	36774	308501	8.4
2008	70757	809113	11.4	41934	535989	12.8	36119	394551	10.9
2009	73477	747592	10.2	40367	534322	13.2	29192	329499	11.3
2010	71542	730628	10.2	40903	442608	10.8	25879	284055	11.0
2011		740475			439752			303270	
2012	69970	768919	11.0	38334	460802	12.0	24742	277754	11.2
2013		716181			499890			358719	

Table 7 (cont.): Winegrape area, production, and yield/ha, and share of total vine area, by State, 1974 to 2013

	WA			Qld			Tas			Australia		
Year	Area (ha)	Prod'n (t)	Yield (t/ha)	Area (ha)	Prod'n (t)	Yield (t/ha)	Area (ha)	Prod'n (t)	Yield (t/ha)	Area (ha)	Prod'n (t)	Yield (t/ha)
1974		5938								38545	327976	8.5
1975		6248								40114	422327	10.5
1976		6023								48005	419907	8.7
1977		6273								43925	457182	10.4
1978		6076								43996	430069	9.8
1979		6572								45027	465427	10.3
1980		7221								44290	501389	11.3
1981		7541			466			112		44433	472529	10.6
1982		7942			380			151		42457	499777	11.8
1983		8496			462			164		41605	430678	10.4
1984		7841			388			241		41790	494786	11.8
1985		8410			467			100		41986	558573	13.3
1986		6570			481			118		37324	491189	13.2
1987		7705			389			148		35178	478773	13.6
1988		7001			334			211		35802	460146	12.9
1989		7645			315			340		37055	555783	15.0
1990		8911			416			693		37339	531726	14.2
1991		7809			360			766		36413	489450	13.4
1992		9763			464			629		38731	563657	14.6
1993		10167			593			1087		43081	545824	12.7
1994		12959			413			1125		47259	661787	14.0
1995		12314			380			2200		49300	574994	11.7
1996		17234			618			1988		51559	782368	15.2
1997		17295			746			1497		59028	743382	12.6
1998		21406			693			3136		65673	870627	13.3
1999		32067			1264			3121		83848	1076207	12.8
2000		37547			1919			3367		98593	1111136	11.3
2001	9272	61537	6.6	1984	2449	1.2	680	4974	7.3	119172	1391082	11.7
2002	10260	63559	6.2	2092	4363	2.1	909	3147	3.5	129168	1514501	11.7
2003	10730	62683	5.8	1996	3211	1.6	978	6390	6.5	129361	1329600	10.3
2004	11068	87523	7.9	2150	5162	2.4	1048	7861	7.5	139411	1816556	13.0
2005	11747	79948	6.8	2307	6689	2.9	981	6136	6.3	142025	1818431	12.8
2006	11375	60840	5.3	2449	4764	1.9	999	5571	5.6	145261	1781668	12.3
2007	12200	68252	5.6	2925	2205	0.8	1196	5058	4.2	151673	1370690	9.0
2008	12746	82197	6.4	3090	3307	1.1	1224	10749	8.8	156257	1837034	11.8
2009	11831	62688	5.3	954	2752	2.9	1371	6239	4.6	157290	1683643	10.7
2010	11346	66467	5.9	758	1452	1.9	1251	3841	3.1	151789	1533246	10.1
2011		70488			1074			7388		148586	1557648	10.5
2012	10317	68022	6.6	690	1129	1.6	1229	5379	4.4	145382	1582049	10.9
2013		54427			1507			10885		133425	1641679	12.3

Table 8: Volume and share of grape production for winemaking and other uses, by State, 1937 to 2013

	SA				NSW			
	Wine making		Other uses	Total	Wine making		Other uses	Total
Year	tonnes	Share %	tonnes	tonnes	tonnes	Share %	tonnes	tonnes
1974	206210	94.0	13142	219352	79229	66.8	39441	118670
1975	272007	93.6	18555	290562	92015	69.3	40811	132826
1976	256503	95.1	13145	269648	96435	69.6	42180	138615
1977	280099	95.4	13390	293489	107558	72.8	40252	147810
1978	269449	90.9	26934	296383	98320	64.9	53262	151582
1979	279129	93.6	19074	298203	114401	72.1	44340	158741
1980	308475	94.7	17434	325909	113927	68.4	52627	166554
1981	284181	95.6	12940	297121	115733	69.1	51790	167523
1982	328747	93.1	24462	353209	104972	63.2	61206	166178
1983	254439	93.5	17619	272058	102843	65.0	55411	158254
1984	287648	92.4	23502	311150	115960	67.7	55350	171310
1985	321225	94.6	18325	339550	132032	73.5	47703	179735
1986	280420	88.6	35916	316336	135514	69.4	59882	195396
1987	283721	91.1	27761	311482	117800	70.5	49241	167041
1988	247413	91.0	24605	272018	126782	69.3	56233	183015
1989	310427	94.8	17118	327545	139940	73.6	50132	190072
1990	316423	92.9	24360	340783	118598	71.7	46881	165479
1991	290832	91.8	26037	316869	108457	66.7	54186	162643
1992	327839	92.6	26172	354011	120519	65.6	63140	183659
1993	274856	96.1	11282	286138	140676	79.8	35531	176207
1994	338558	96.5	12378	350936	141145	75.3	46340	187485
1995	320169	97.1	9628	329797	104687	75.3	34263	138950
1996	395835	97.3	10997	406832	167556	74.4	57528	225084
1997	367792	98.2	6797	374589	174265	83.0	35636	209901
1998	455531	98.8	5726	461257	175321	80.4	42666	217987
1999	491621	99.0	4913	496534	270236	89.0	33265	303501
2000	478355	99.0	4958	483313	287954	88.2	38664	326618
2001	670757	99.2	5190	675947	323687	92.8	25022	348709
2002	689943	98.9	7807	697750	415026	91.8	37271	452297
2003	612095	99.2	4897	616992	362526	93.7	24361	386887
2004	880075	99.3	5924	885999	450516	93.4	32047	482563
2005	856038	99.4	5480	861518	475974	93.6	32312	508286
2006	881346	99.5	4468	885814	473580	92.9	36323	509903
2007	583340	99.5	2648	585988	402777	93.9	26018	428795
2008	809113	99.7	2402	811515	535989	96.7	18421	554410
2009	747592				534322			
2010	730628				442608	75.5	143711	586319
2011	740475				439752	75.8	140116	579868
2012	768919				460802	89.4	54492	515294
2013	716181	99.1	6719.53	722900.9	499890	96.9	16155.79	516,046

Table 8 (cont.): Volume and share of grape production for winemaking and other uses, by State, 1937 to 2013

	Vic				**WA**			
	Wine making		Other uses	Total	Wine making		Other uses	Total
Year	tonnes	Share %	tonnes	tonnes	tonnes	Share %	tonnes	tonnes
1974	36547	18	161969	198516	5938	56	4650	10588
1975	54109	19	233401	287510	6248	52	5766	12014
1976	59189	21	226424	285613	6023	58	4349	10372
1977	63252	23	208541	271793	6273	63	3696	9969
1978	56224	24	173857	230081	6076	61	3851	9927
1979	65201	27	177623	242824	6572	63	3916	10488
1980	72483	20	283752	356235	7221	64	4049	11270
1981	65076	25	196927	262003	7541	67	3715	11256
1982	57699	16	292125	349824	7942	70	3369	11311
1983	64900	20	254118	319018	8496	66	4348	12844
1984	82973	24	259160	342133	7841	65	4136	11977
1985	96807	27	255631	352438	8410	66	4241	12651
1986	68086	19	288376	356462	6570	67	3180	9750
1987	67133	23	221481	288614	7705	69	3419	11124
1988	78407	24	250789	329196	7001	70	3029	10030
1989	104274	32	221921	326195	7645	71	3076	10721
1990	85225	28	215284	300509	8911	75	2916	11827
1991	78674	22	276748	355422	7809	71	3256	11065
1992	104398	24	327378	431776	9763	78	2804	12567
1993	118444	38	192286	310730	10167	73	3675	13842
1994	167083	47	192150	359233	12959	77	3822	16781
1995	137613	50	139822	277435	12314	74	4227	16541
1996	199141	47	227550	426691	17234	79	4686	21920
1997	181772	55	147915	329687	17295	79	4501	21796
1998	214462	54	182534	396996	21406	81	5008	26414
1999	277869	67	139179	417048	32067	88	4280	36347
2000	301908	67	147125	449033	37547	91	3492	41039
2001	327554	74	112136	439690	61537	92	5134	66671
2002	338536	66	175583	514119	63559	91	6422	69981
2003	282439	70	122970	405409	62683	92	5153	67836
2004	384896	72	147355	532251	87523	95	4547	92070
2005	392963	71	158251	551214	79948	94	5104	85052
2006	354796	71	142378	497174	60840	93	4517	65357
2007	308501	74	110993	419494	68252	94	4172	72424
2008	394551	83	82291	476842	82197	95	4224	86421
2009	329499				62688			
2010	284055				66467	95	3792	70259
2011	303270				70488			
2012	277754	91	27971	305725	68022			
2013	358719	82	76972	435691	54427	95	3143	57570

Table 8 (cont.): Volume and share of grape production for winemaking and other uses, by State, 1937 to 2013

	Qld				**Tas**			
	Wine making		Other uses	Total	Wine making		Other uses	Total
Year	tonnes	Share %	tonnes	tonnes	tonnes	Share %	tonnes	tonnes
1981	466	9	4925	5391	112	100	0	112
1982	380	9	3832	4212	151	100	0	151
1983	462	8	5244	5706	164	100	0	164
1984	388	10	3646	4034	241	100	0	241
1985	467	9	4642	5109	100	100	0	100
1986	481	10	4535	5016	118	100	0	118
1987	389	9	3802	4191	148	100	0	148
1988	334	8	3856	4190	211	100	0	211
1989	315	8	3627	3942	340	100	0	340
1990	416	10	3807	4223	693	100	0	693
1991	360	10	3193	3553	766	100	0	766
1992	464	13	3148	3612	629	100	0	629
1993	593	13	4143	4736	1087	100	0	1087
1994	413	10	3636	4049	1125	100	0	1125
1995	380	10	3523	3903	2200	100	0	2200
1996	618	16	3366	3984	1988	100	1	1989
1997	746	16	3784	4530	1497	100	0	1497
1998	693	14	4113	4806	3136	100	0	3136
1999	1264	18	5586	6850	3121	100	0	3121
2000	1919	29	4790	6709	3367	100	0	3367
2001	2449	33	5055	7504	4974	100	0	4974
2002	4363	35	8012	12375	3147	100	1	3148
2003	3211	30	7649	10860	6390	100	0	6390
2004	5162	41	7351	12513	7861	100	0	7861
2005	6689	55	5460	12149	6136	100	0	6136
2006	4764	32	10300	15064	5571	100	0	5571
2007	2205	13	14590	16795	5058	100	0	5058
2008	3307	23	11305	14612	10749	100	0	10749
2009	2752				6239	100	0	6239
2010	1452				3841	100	0	3841
2011	1074				7388	100	0	7388
2012	1129				5379	100	0	5379
2013	1507	7.9	17561	19069	10885	100	0	10885

Table 8 (cont.): Volume and share of grape production for winemaking and other uses, by State, 1937 to 2013

	Australia								
	Wine making		Other uses	Total		Wine making		Other uses	Total
Year	tonnes	Share %	tonnes	tonnes	Year	tonnes	Share %	tonnes	tonnes
1937	105700				1976	413100	58	301500	714600
1938	105500				1977	458300	63	270100	728400
1939	59400	12	423600	483000	1978	423700	58	303000	726700
1940	70400	16	367600	438000	1979	466100	61	294300	760400
1941	84700	18	387300	472000	1980	503200	55	410800	914000
1942	94600	19	393400	488000	1981	486800	64	268000	754800
1943	114500	21	421500	536000	1982	499900	53	443000	942900
1944	114700	31	259300	374000	1983	431300	53	376000	807300
1945	77700				1984	495100	56	386000	881100
1946	144900				1985	559000	63	331000	890000
1947	168600				1986	509900	56	396700	906600
1948	181400	42	248600	430000	1987	523500	61	335700	859200
1949	187600	43	245400	433000	1988	498000	58	366400	864400
1950	175700	49	179300	355000	1989	640600	66	336500	977100
1951	138100	29	343900	482000	1990	602600	64	333500	936100
1952	186800	33	382200	569000	1991	487300	57	363800	851100
1953	164500	31	372500	537000	1992	564100	57	423100	987200
1954	169900	36	305100	475000	1993	544500	69	246700	791200
1955	128400	33	256600	385000	1994	661282	72	258326	919608
1956	127200	25	374800	502000	1995	577363	75	191464	768827
1957	167300	30	391700	559000	1996	782381	72	304128	1086509
1958	185300	34	359700	545000	1997	743382	79	199731	943113
1959	184400	41	264600	449000	1998	870627	78	241543	1112170
1960	151300				1999	1076207	85	189329	1265536
1961	187000	35	347000	534000	2000	1111137	85	200245	1311382
1962	234500	37	403500	638000	2001	1391074	90	154928	1546002
1963	169300	35	309700	479000	2002	1514501	86	239387	1753888
1964	214300	32	451000	665300	2003	1329595	89	167344	1496939
1965	225400	33	465100	690500	2004	1816556	90	198409	2014965
1966	186700	32	404800	591500	2005	1818426	90	208074	2026500
1967	241500	35	453200	694700	2006	1781668	90	199530	1981198
1968	253400	40	385200	638600	2007	1370690	90	159749	1530439
1969	299600	54	253800	553400	2008	1837034	94	119760	1956794
1970	357700	47	399900	757600	2009	1683643	91	172357	1856000
1971	293600	54	254400	548000	2010	1533246	91	151054	1684300
1972	345400	42	481600	827000	2011	1563009	89	194691	1757700
1973	330500	55	275800	606300	2012	1582049	95	74551	1656600
1974	344000	62	211200	555200	2013	1641678	93	120894	1762572
1975	432500	59	301100	733600					

Table 9: Wine production volume, by State, 1843 to 2013 (kl)

Year	*SA*	*NSW*	*Victoria*	*WA*	*Tas*	*Qld*	*Total*	*Annual growth (%)*
1843	1	*130*	0				131	
1844	2	135	0				137	5
1845	*10*	218	0				228	67
1846	*40*	233	1				274	20
1847	86	238	12				336	22
1848	95	246	6				347	3
1849	85	442	29				556	60
1850	122	436	24				582	5
1851	164	505	21				689	19
1852	150	386	29				565	-18
1853	136	422	20				578	2
1854	177	261	44				483	-17
1855	178	263	44				486	1
1856	326	526	43				894	84
1857	457	435	50				941	5
1858	641	492	26				1159	23
1859	820	264	35				1119	-3
1860	828	437	63				1341	20
1861	1418	454	55				1927	44
1862	2149	388	216				2762	43
1863	2757	659	418				3833	39
1864	3631	623	550				4803	25
1865	3819	733	500				5052	5
1866	3341	764	804				***5387***	7
1867	3926	1101	1291				6323	17
1868	3692	*1297*	2087				7080	12
1869	4072	*1875*	2039				7998	13
1870	3645	*2092*	2624				*8366*	5
1871	3875	*1558*	2860				8292	-1
1872	2989	*1879*	3244				8215	-1
1873	3334	*2052*	2398			189	7992	-3
1874	2492	2628	2558			320	8459	6
1875	3309	3110	2625			352	9400	11
1876	2242	2872	3432			426	10875	16
1877	1513	3185	2189			396	7698	-29
1878	2083	3220	2080			293	7676	0
1879	2089	3112	1865			476	7542	-2
1880	2277	3334	3428			389	9516	26
1881	1423	2736	2200	453		328	7603	-20
1882	1579	2336	2451	na		402	8819	16
1883	1630	2473	2349	na		542	6996	-21
1884	2152	2682	3289	372		434	8929	28
1885	1899	2014	3458	270		606	8247	-8
1886	1643	2523	4563	447		670	9846	19
1887	2318	2736	4482	565		540	10641	8
1888	3218	3027	5309	618		655	13127	23
1889	2322	3664	5497	935		748	13165	0

Table 9 (cont.) Wine production volume, by State, 1843 to 2013 (kl)

Year	*SA*	*NSW*	*Victoria*	*WA*	*Tas*	*Qld*	*Total*	*Annual growth (%)*
1890	3471	3132	7175	886		860	15525	18
1891	3648	3827	9130	758		766	18128	17
1892	2703	4150	7064	731		879	15527	-14
1893	3243	4232	7703	352		461	15992	3
1894	*5268*	3405	6774	345		802	18131	13
1895	*7176*	3323	8682	362		1083	20625	14
1896	6703	4027	10123	344		776	22409	9
1897	5838	3609	12828	117		945	23337	4
1898	4918	3932	8724	405		610	18590	-20
1899	4342	3841	8555	517		*600*	17856	-4
1900	6319	3364	4242	395		*600*	14919	-16
1901	6314	6314	11720	543		602	25493	71
1902	11963	3948	9007	844		676	26440	4
1903	11699	3664	7033	722		458	23576	-11
1904	11116	4940	11597	629		175	28459	21
1905	12937	4219	8330	841		274	26603	-7
1906	12529	3781	7848	950		304	25412	-4
1907	11344	5182	9296	889		296	27008	6
1908	9374	3539	6208	699		410	20230	-25
1909	14239	3347	6533	602		353	25075	24
1910	11682	3677	4509	639		416	20923	-17
1911	15775	3662	6194	699		338	26667	27
1912	13282	3865	4471	739		261	22617	-15
1913	18070	3269	5483	678		248	27748	23
1914	12545	2551	5098	949		268	21411	-23
1915	6852	2496	2753	737		233	13071	-39
1916	16865	2596	6275	758		268	26763	105
1917	13415	2859	5922	1002		105	23304	-13
1918	24235	2447	3637	712		178	31209	34
1919	29750	2527	6134	905		202	39518	27
1920	23121	3264	7431	738		220	34774	-12
1921	35883	3065	10103	695		325	50071	44
1922	28959	2851	6069	692		263	38835	-22
1923	39339	3506	7808	1056		242	51951	34
1924	48899	6636	9897	1060		169	66662	28
1925	47744	5325	6222	1017		151	60459	-9
1926	59438	5641	7443	1085		179	73787	22
1927	73462	7390	10666	1327		150	92995	26
1928	58283	10433	7908	1858		175	78658	-15
1929	67412	6736	8832	1407		169	84557	7
1930	56398	8791	6199	1444		219	73050	-14
1931	46056	6073	5703	1398		222	59454	-19
1932	48481	7227	6956	1658		188	64510	9
1933	55738	9436	7322	1978		160	74635	16
1934	45606	8343	7689	1943		145	63726	-15
1935	58711	6998	5801	2256		173	73939	16
1936	59205	11673	7651	1959		103	80591	9

Table 9 (cont.) Wine production volume, by State, 1843 to 2013 (kl)

Year	*SA*	*NSW*	*Victoria*	*WA*	*Tas*	*Qld*	*Total*	*Annual growth (%)*
1937	64633	13386	8269	1531		132	87950	9
1938	68904	12230	6517	1765		77	89493	2
1939	47548	11373	3751	1942		203	64817	-28
1940	47839	9503	5120	1474		194	64131	-1
1941	48003	14680	5494	2071		158	70406	10
1942	49491	14149	5282	1804		146	70872	1
1943	65828	12369	6282	2271		200	86951	23
1944	62258	16047	5999	2449		121	86875	0
1945	45741	11723	3568	2036		100	63169	-27
1946	87843	13491	8709	3207		159	113409	80
1947	110368	17750	14009	3309		136	145572	28
1948	112418	20457	13448	3021		126	149470	3
1949	113433	18763	14004	2828		163	149191	0
1950	107749	23572	14684	2330		205	148539	0
1951	84608	19875	10718	2964		196	118361	-20
1952	115898	24846	15785	3591		149	160269	35
1953	103346	19319	10303	3323		192	136484	-15
1954	106819	23028	10580	3259		268	143954	5
1955	87320	10324	7328	3691		279	108942	-24
1956	83661	10682	6100	3574		167	104184	-4
1957	109277	15743	10770	4026		174	139991	34
1958	120013	18868	11740	3183		96	153900	10
1959	114248	19990	10702	2926		222	148088	-4
1960	98084	17457	9759	3642		170	129112	-13
1961	113926	22292	13733	3527		146	153625	19
1962	140157	29287	16387	3943		165	189938	24
1963	94488	26629	11062	3807		129	136114	-28
1964	123204	27415	16842	4315		150	171926	26
1965	127387	29111	16622	3698		109	176927	3
1966	108578	29271	14326	3828		109	156112	-12
1967	133307	35883	16161	4200		170	189721	22
1968	136630	37958	23549	3768		140	202045	6
1969	164502	39082	28372	4801		144	236899	17
1970	196846	52411	32963	4615		140	286975	21
1971	169261	47171	30079	4541		147	251199	-12
1972	183276	66545	35835	*3782*		na	290240	16
1973	170820	57702	24508	na		na	256717	-12
1974	167611	76541	46090	na		na	294666	15
1975	222236	71843	52967	na		na	361177	23
1976	214114	71145	56556	na		na	346255	-4
1977	229973	75579	63843	na		na	372269	8
1978	203219	70873	56167	na		na	332304	-11
1979	202050	78503	na	na		na	345392	4
1980	234547	94326	na	na		na	404893	17
1981	220384	89416	na	na		na	366413	-10
1982	268685	72394	na	na		na	394738	8
1983	200283	73770	na	na		na	334557	-15

Table 9 (cont.) Wine production volume, by State, 1843 to 2013 (kl)

Year	*SA*	*NSW*	*Victoria*	*WA*	*Tas*	*Qld*	*Total*	*Annual growth (%)*
1984	233307	84670	na	5019		na	393675	18
1985	259094	105701	na	4935	110	na	444572	13
1986	211770	113184	na	4543	94	na	383082	-14
1987	194362	111509	na	5012	121	na	366541	-4
1988	210359	121380	na	4633	188	na	403325	10
1989	259127	135240	na	4916	296	na	494235	23
1990	244993	120788	69996	na	557	na	439264	-11
1991	200774	120661	70386	na	575	na	394289	-10
1992	234061	149918	79740	na	462	na	475586	21
1993	205833	171728	76360	na	712	na	457799	-4
1994	297991	166552	111022	6648	663	289	587377	28
1995	262629	138575	89797	6647	733	196	502796	-14
1996	330863	206089	120742	9580	812	433	673445	34
1997	306772	193746	105912	10617	485	505	618037	-8
1998	383589	220386	123823	12722	1027	227	741774	20
1999	408319	278138	143524	20173	989	270	851413	15
2000	400777	295849	139267	22200	1074	335	859502	1
2001	552081	323360	161899	37178	1618	401	1076537	25
2002	588697	411829	179043	39118	553	1133	1220373	13
2003	541607	348320	155471	38032	1831	724	1085985	-11
2004	733683	456976	221589	55768	2397	814	1471227	35
2005	697449	464720	218511	50503	2167	476	1433826	-3
2006	724160	481745	177053	43124	1892	1815	1429789	0
2007	447624	325535	143442	43113	1888	370	961972	-33
2008	572870	428336	196003	42658	4401	510	1244778	29
2009	519425	436782	185370	33760	3027	827	1179191	-5
2010	546935	376600	159724	43836	4433	800	1151656	-2
2011	533829	371576	157170	44638	4675	400	1125986	-2
2012	593106	363170	206649	45764	4420	800	1236145	10
2013	568196	388733	238874	43725	5174	900	1245602	1

Table 10: Wine production volume per capita, by State, 1843 to 2013 (litres)

Year	*SA*	*NSW*	*Victoria*	*WA*	*Tas*	*Qld*	*Total*
1843	0.1	0.9	0.0				0.5
1844	0.1	0.9	0.0				0.5
1845	0.4	1.4	0.0				0.8
1846	1.5	1.4	0.0				0.9
1847	2.8	1.4	0.3				1.1
1848	2.5	1.4	0.1				1.0
1849	1.6	2.4	0.5				1.5
1850	1.9	2.3	0.3				1.4
1851	2.5	2.6	0.2				1.6
1852	2.2	1.9	0.2				1.1
1853	1.7	1.9	0.1				1.0
1854	1.9	1.1	0.2				0.7
1855	1.8	1.0	0.1				0.6
1856	3.0	1.8	0.1				1.0
1857	4.2	1.4	0.1				1.0
1858	5.4	1.5	0.1				1.1
1859	6.7	0.8	0.1				1.0
1860	6.7	1.3	0.1				1.2
1861	11.1	1.3	0.1				1.7
1862	16.1	1.1	0.4				2.3
1863	19.7	1.8	0.7				3.1
1864	24.7	1.6	0.9				3.7
1865	24.5	1.8	0.8				3.7
1866	20.2	1.8	1.3				3.8
1867	23.0	2.5	2.0				4.3
1868	21.1	2.9	3.2				4.7
1869	22.7	4.0	3.0				5.1
1870	19.9	4.3	3.7				5.2
1871	20.8	3.1	3.9				5.0
1872	15.7	3.6	4.3				4.8
1873	17.1	3.8	3.1			1.4	4.5
1874	12.4	4.7	3.3			2.2	4.6
1875	16.0	5.3	3.3			2.2	5.0
1876	10.3	4.8	4.3			2.4	5.6
1877	6.5	5.1	2.7			2.1	3.9
1878	8.5	4.9	2.5			1.5	3.7
1879	8.1	4.5	2.2			2.3	3.5
1880	8.4	4.6	4.0			1.9	4.3
1881	5.1	3.6	2.5	15.2		1.5	3.4
1882	5.5	2.9	2.8	na		1.7	3.8
1883	5.5	3.0	2.6	na		2.1	2.9
1884	7.0	3.1	3.6	11.3		1.5	3.5
1885	6.1	2.2	3.6	7.8		2.0	3.1
1886	5.3	2.6	4.7	11.7		2.1	3.6
1887	7.5	2.7	4.4	13.4		1.6	3.8
1888	10.4	2.9	5.0	14.1		1.8	4.5
1889	7.4	3.5	5.0	20.9		2.0	4.4

Table 10 (cont.) Wine production volume per capita, by State, 1843 to 2013 (litres)

Year	*SA*	*NSW*	*Victoria*	*WA*	*Tas*	*Qld*	*Total*
1890	11.0	2.9	6.4	18.8		2.2	5.0
1891	11.3	3.4	8.0	14.9		1.9	5.7
1892	8.2	3.6	6.1	13.1		2.2	4.7
1893	9.5	3.5	6.6	5.7		1.1	4.8
1894	15.2	2.8	5.7	4.7		1.9	5.3
1895	20.5	2.7	7.3	4.0		2.5	6.0
1896	19.0	3.2	8.6	2.9		1.7	6.4
1897	16.6	2.8	10.9	0.8		2.1	6.5
1898	13.9	3.0	7.4	2.5		1.3	5.1
1899	12.2	2.9	7.2	3.1		1.2	4.8
1900	17.5	2.5	3.6	2.3		1.2	4.0
1901	17.4	4.6	9.7	2.9		1.2	6.7
1902	33.6	2.8	7.5	4.1		1.3	6.9
1903	32.9	2.6	5.8	3.3		0.9	6.1
1904	31.1	3.4	9.6	2.7		0.3	7.2
1905	35.9	2.9	6.9	3.4		0.5	6.6
1906	34.5	2.5	6.5	3.7		0.6	6.3
1907	30.9	3.4	7.6	3.5		0.5	6.5
1908	24.8	2.2	5.0	2.7		0.7	4.8
1909	36.7	2.1	5.2	2.3		0.6	5.9
1910	29.4	2.3	3.5	2.4		0.7	4.8
1911	38.3	2.2	4.7	2.4		0.5	5.9
1912	31.3	2.2	3.3	2.5		0.4	4.9
1913	41.3	1.8	3.9	2.2		0.4	5.8
1914	28.2	1.4	3.6	2.9		0.4	4.3
1915	15.3	1.3	1.9	2.3		0.3	2.6
1916	38.2	1.4	4.4	2.4		0.4	5.4
1917	30.4	1.5	4.2	3.3		0.2	4.7
1918	53.7	1.3	2.6	2.3		0.3	6.2
1919	63.5	1.3	4.2	2.8		0.3	7.6
1920	47.5	1.6	4.9	2.2		0.3	6.5
1921	72.2	1.5	6.6	2.1		0.4	9.2
1922	57.4	1.3	3.9	2.0		0.3	7.0
1923	76.3	1.6	4.9	3.0		0.3	9.1
1924	92.8	3.0	6.0	2.9		0.2	11.5
1925	88.4	2.3	3.7	2.7		0.2	10.2
1926	107.3	2.4	4.4	2.8		0.2	12.2
1927	130.0	3.1	6.2	3.4		0.2	15.0
1928	102.1	4.2	4.5	4.6		0.2	12.5
1929	117.8	2.7	5.0	3.3		0.2	13.2
1930	98.4	3.5	3.5	3.4		0.2	11.3
1931	80.0	2.4	3.2	3.2		0.2	9.1
1932	83.9	2.8	3.8	3.8		0.2	9.8
1933	95.9	3.6	4.0	4.5		0.2	11.3
1934	78.2	3.2	4.2	4.4		0.2	9.5
1935	100.3	2.6	3.2	5.0		0.2	11.0
1936	100.7	4.4	4.1	4.3		0.1	11.9

Table 10 (cont.) Wine production volume per capita, by State, 1843 to 2013 (litres)

Year	*SA*	*NSW*	*Victoria*	*WA*	*Tas*	*Qld*	*Total*
1937	109.6	5.0	4.5	3.3		0.1	12.9
1938	116.1	4.5	3.5	3.8		0.1	13.0
1939	79.6	4.1	2.0	4.1		0.2	9.3
1940	79.8	3.4	2.7	3.1		0.2	9.1
1941	79.8	5.2	2.8	4.4		0.2	9.9
1942	81.2	5.0	2.7	3.8		0.1	9.9
1943	107.3	4.3	3.2	4.8		0.2	12.0
1944	100.5	5.6	3.0	5.1		0.1	11.9
1945	72.9	4.0	1.8	4.2		0.1	8.5
1946	138.3	4.6	4.3	6.5		0.1	15.2
1947	170.7	5.9	6.8	6.6		0.1	19.2
1948	170.0	6.8	6.4	5.9		0.1	19.4
1949	166.7	6.1	6.5	5.3		0.1	18.9
1950	151.9	7.4	6.6	4.2		0.2	18.2
1951	115.5	6.1	4.7	5.1		0.2	14.1
1952	153.5	7.4	6.7	6.0		0.1	18.6
1953	133.1	5.7	4.3	5.4		0.1	15.5
1954	134.1	6.7	4.3	5.1		0.2	16.0
1955	106.5	3.0	2.9	5.6		0.2	11.8
1956	98.6	3.0	2.4	5.3		0.1	11.1
1957	125.0	4.3	4.1	5.9		0.1	14.5
1958	133.8	5.1	4.3	4.5		0.1	15.6
1959	124.0	5.3	3.8	4.1		0.2	14.7
1960	103.8	4.6	3.4	5.0		0.1	12.6
1961	117.4	5.7	4.7	4.8		0.1	14.6
1962	141.9	7.3	5.5	5.1		0.1	17.7
1963	93.5	6.6	3.6	4.8		0.1	12.4
1964	118.8	6.7	5.4	5.3		0.1	15.4
1965	119.4	7.0	5.3	4.5		0.1	15.5
1966	99.2	6.9	4.4	4.5		0.1	13.5
1967	120.1	8.3	4.9	4.8		0.1	16.1
1968	121.7	8.7	7.1	4.1		0.1	16.8
1969	144.3	8.8	8.4	5.0		0.1	19.3
1970	169.9	11.6	9.6	4.6		0.1	22.9
1971	143.9	10.2	8.6	4.4		0.1	19.7
1972	150.9	13.9	9.8	3.5		na	21.8
1973	139.0	11.9	6.6	na		na	19.0
1974	134.9	15.6	12.3	na		na	21.5
1975	175.7	14.6	14.0	na		na	26.0
1976	168.0	14.3	14.8	na		na	24.7
1977	178.8	15.1	16.6	na		na	26.2
1978	156.8	14.0	14.5	na		na	23.1
1979	155.3	15.4	na	na		na	23.8
1980	179.3	18.2	na	na		na	27.5
1981	166.3	17.0	na	na		na	24.3
1982	200.8	13.6	na	na		na	25.8
1983	148.0	13.7	na	na		na	21.6

Table 10 (cont.) Wine production volume per capita, by State, 1843 to 2013 (litres)

Year	*SA*	*NSW*	*Victoria*	*WA*	*Tas*	*Qld*	*Total*
1984	170.9	15.6	na	3.6		na	25.1
1985	188.2	19.2	na	3.4	0.2	na	28.0
1986	152.6	20.3	na	3.1	0.2	na	23.7
1987	138.9	19.7	na	3.3	0.3	na	22.4
1988	148.9	21.1	na	3.0	0.4	na	24.2
1989	181.8	23.3	na	3.1	0.6	na	29.2
1990	170.3	20.6	15.9	na	1.2	na	25.6
1991	138.4	20.4	15.9	na	1.2	na	22.7
1992	160.6	25.1	17.9	na	1.0	na	27.1
1993	140.9	28.5	17.1	na	1.5	na	25.8
1994	203.5	27.4	24.8	3.9	1.4	0.1	32.8
1995	179.1	22.6	19.9	3.8	1.5	0.1	27.8
1996	224.8	33.2	26.5	5.4	1.7	0.1	36.7
1997	207.4	30.9	23.1	5.9	1.0	0.1	33.4
1998	258.0	34.8	26.7	6.9	2.2	0.1	39.7
1999	273.1	43.4	30.7	10.8	2.1	0.1	45.0
2000	267.2	45.6	29.4	11.7	2.3	0.1	44.9
2001	366.1	49.3	33.8	19.4	3.4	0.1	55.5
2002	388.4	62.4	37.0	20.2	1.2	0.3	62.3
2003	355.2	52.5	31.7	19.3	3.8	0.2	54.8
2004	478.7	68.5	44.7	28.0	4.9	0.2	73.4
2005	451.5	69.2	43.5	24.9	4.4	0.1	70.6
2006	463.8	71.0	34.7	20.8	3.8	0.4	69.3
2007	283.6	47.3	27.6	20.2	3.8	0.1	45.8
2008	358.5	61.2	36.9	19.3	8.8	0.1	58.0
2009	320.9	61.5	34.2	14.9	6.0	0.2	53.9
2010	335.0	52.5	29.1	18.9	8.7	0.2	51.9
2011	324.1	51.2	28.2	18.7	9.1	0.1	50.0
2012	356.8	49.4	36.4	18.5	8.6	0.2	53.9
2013	339.3	52.3	41.4	17.2	10.1	0.2	53.6

Table 11: Volume of Australian wine sold domestically, wine exports, and exports to the United Kingdom, 1854 to 2013 (kl)

Year	Total sales of Aust. wine	Domestic sales	Total wine exports	Exports to UK	Share of exports to UK (%)	Wine export annual growth (%)	*Exports as % total sales*
1854	na	na	6	6	100		na
1855	na	na	113	113	100	1687	na
1856	na	na	21	21	100	-82	na
1857	na	na	31	31	100	49	na
1858	na	na	33	33	100	8	na
1859	na	na	11	11	100	-66	na
1860	na	na	4	4	100	-62	na
1861	na	na	32	32	100	635	na
1862	na	na	36	36	100	14	na
1863	na	na	33	33	100	-10	na
1864	na	na	144	144	100	342	na
1865	na	na	232	232	100	62	na
1866	na	na	84	84	100	-64	na
1867	na	na	111	111	100	32	na
1868	na	na	51	51	100	-54	na
1869	na	na	118	118	100	131	na
1870	na	na	164	164	100	39	na
1871	na	na	142	142	100	-14	na
1872	na	na	114	114	100	-20	na
1873	na	na	169	169	100	48	na
1874	na	na	182	182	100	8	na
1875	na	na	115	115	100	-37	na
1876	na	na	225	225	100	96	na
1877	na	na	91	91	100	-60	na
1878	na	na	104	104	100	15	na
1879	na	na	78	78	100	-25	na
1880	na	na	110	110	100	41	na
1881	na	na	97	97	100	-12	na
1882	na	na	110	110	100	14	na
1883	na	na	314	314	100	184	na
1884	na	na	240	240	100	-24	na
1885	na	na	276	276	100	15	na
1886	na	na	662	662	100	140	na
1887	na	na	742	741	100	12	na
1888	na	na	1043	1042	100	41	na
1889	na	na	1418	1417	100	36	na
1890	na	na	1434	1432	100	1	na
1891	na	na	1760	1759	100	23	na
1892	na	na	2114	2112	100	20	na
1893	na	na	2545	2542	100	20	na
1894	na	na	1813	1811	100	-29	na
1895	na	na	2788	2785	100	54	na
1896	na	na	3202	3199	100	15	na

Table 11 (cont.) Volume of Australian wine sold domestically, wine exports, and exports to the United Kingdom, 1854 to 2013 (kl)

Year	Total sales of Aust. wine	Domestic sales	Total wine exports	Exports to UK	Share of exports to UK (%)	Wine export annual growth (%)	*Exports as % total sales*
1897	na	na	3248	3245	100	1	na
1898	na	na	3265	3262	100	1	na
1899	na	na	3387	3384	100	4	na
1900	na	na	3742	3739	100	10	na
1901	na	na	3778	na	na	1	na
1902	na	na	3891	3349	86	3	na
1903	na	na	4846	4503	93	25	na
1904	na	na	3233	2603	81	-33	na
1905	na	na	3550	2947	83	10	na
1906	na	na	4237	3931	93	19	na
1907	na	na	3250	2848	88	-23	na
1908	na	na	4441	3595	81	37	na
1909	na	na	3300	3025	92	-26	na
1910	na	na	4419	3944	89	34	na
1911	na	na	4303	3618	84	-3	na
1912	na	na	4980	4379	88	16	na
1913	na	na	3548	3053	86	-29	na
1914	na	na	3167	2836	90	-11	na
1915	na	na	2859	2916	100[a]	-10	na
1916	na	na	3274	3238	99	15	na
1917	na	na	2719	2288	84	-17	na
1918	na	na	1653	1316	80	-39	na
1919	na	na	3164	800	25	91	na
1920	na	na	3642	2039	56	15	na
1921	na	na	5039	4107	82	38	na
1922	na	na	2750	2464	90	-45	na
1923	na	na	3211	2422	75	17	na
1924	na	na	4506	3211	71	40	na
1925	na	na	4007	3745	93	-11	na
1926	na	na	7831	4675	60	95	na
1927	na	na	14010	7985	57	79	na
1928	na	na	17151	19202	100[a]	22	na
1929	na	na	7914	7906	100	-54	na
1930	na	na	9927	9516	96	25	na
1931	na	na	10039	8630	86	1	na
1932	na	na	15801	10409	66	57	na
1933	na	na	14059	13837	98	-11	na
1934	na	na	13941	12701	91	-1	na
1935	na	na	15432	15263	99	11	na
1936	na	na	16865	15974	95	9	na
1937	na	na	18583	16213	87	10	na
1938	na	na	17716	16261	92	-5	na
1939	na	na	16862	16448	98	-5	na
1940	na	na	16456	6990	42	-2	na

Table 11 (cont.) Volume of Australian wine sold domestically, wine exports, and exports to the United Kingdom, 1854 to 2013 (kl)

Year	Total sales of Aust. wine	Domestic sales	Total wine exports	Exports to UK	Share of exports to UK (%)	Wine export annual growth (%)	*Exports as % total sales*
1941	na	na	7537	3179	42	-54	na
1942	na	na	6336	828	13	-16	na
1943	na	na	3714	400	11	-41	na
1944	na	na	5662	1400	25	52	na
1945	na	na	7051	4049	57	25	na
1946	na	na	8112	6795	84	15	na
1947	49632	37264	12368	9281	75	52	25
1948	58991	46770	12221	9720	80	-1	21
1949	53223	44688	8535	6150	72	-30	16
1950	60312	55303	5009	2620	52	-41	8
1951	66388	60831	5557	2800	50	11	8
1952	75053	69778	5275	2900	55	-5	7
1953	62074	56772	5302	2700	51	1	9
1954	61161	54821	6340	3800	60	20	10
1955	56102	50357	5745	4100	71	-9	10
1956	52427	46956	5471	4944	90	-5	10
1957	57635	49697	7938	5011	63	45	14
1958	57136	50365	6771	6063	90	-15	12
1959	59728	51793	7935	5951	75	17	13
1960	61306	53402	7904	6184	78	0	13
1961	61723	53120	8603	5276	61	9	14
1962	61895	54333	7562	5010	66	-12	12
1963	64396	57071	7325	4789	65	-3	11
1964	67916	60930	6986	6434	92	-5	10
1965	72069	63011	9058	5684	63	30	13
1966	78628	69731	8897	4780	54	-2	11
1967	87869	79792	8077	4722	59	-9	9
1968	98501	90115	8386	4541	54	4	9
1969	108382	100182	8200	1983	24	-2	8
1970	116742	110856	5886	2084	35	-28	5
1971	117052	110489	6563	2880	44	12	6
1972	123693	115736	7957	1272	16	21	6
1973	136259	130015	6244	1360	22	-22	5
1974	156541	148075	8466	834	10	36	5
1975	174563	168017	6546	1125	17	-23	4
1976	179972	173840	6132	529	9	-6	3
1977	188477	183553	4924	486	10	-20	3
1978	199300	194671	4629	556	12	-6	2
1979	233603	228364	5239	783	15	13	2
1980	251127	245040	6087	635	10	16	2
1981	270342	262872	7470	725	10	23	3
1982	286996	278595	8401	696	8	12	3
1983	301513	293582	7931	535	7	-6	3

Table 11 (cont.) Volume of Australian wine sold domestically, wine exports, and exports to the United Kingdom, 1854 to 2013 (kl)

Year	*Total sales of Aust. wine*	*Domestic sales*	*Total Wine Exports*	*Exports to United Kingdom*	*Share of exports to UK (%)*	*Wine export annual growth (%)*	*Exports as % total sales*
1984	314701	305802	8899	594	7	12	3
1985	329179	320481	8698	1324	15	-2	3
1986	336011	325183	10828	5223	48	24	3
1987	351142	329819	21323	8668	41	97	6
1988	369680	330545	39135	7653	20	84	11
1989	348173	309129	39044	7483	19	0	11
1990	338729	300609	38120	12522	33	-2	11
1991	350428	296272	54156	18196	34	42	15
1992	393509	314830	78679	31564	40	45	20
1993	414286	311454	102832	47390	46	31	25
1994	444867	319403	125464	49801	40	22	28
1995	427020	313357	113663	53411	47	-9	27
1996	439134	309463	129671	72432	56	14	30
1997	487966	333591	154375	77874	50	19	32
1998	531218	338814	192404	93057	48	25	36
1999	564498	348349	216149	127277	59	12	38
2000	654206	369271	284935	149772	53	32	44
2001	723136	384847	338289	183200	54	19	47
2002	801949	386235	415714	215578	52	23	52
2003	910438	402478	507960	203540	40	22	56
2004	998116	417376	580740	256801	44	14	58
2005	1091019	430133	660886	260971	39	14	61
2006	1168236	432367	735869	267157	36	11	63
2007	1253773	455329	798444	290623	36	9	64
2008	1147605	438690	708915	261694	37	-11	62
2009	1200291	449782	750509	260727	35	6	63
2010	1247733	470779	776954	271609	35	4	62
2011	1191354	463949	727405	247202	34	-6	61
2012	1169056	456539	712517	255645	36	-2	61
2013	1166036	487700	678336	238518	35	-5	58

[a]UK data prior to 1946 are imports by the UK from Australia, and in years when they are above recorded Austalian exports the UK share is set at 100%

Table 12: Volume of wine apparent consumption, total, per capita and per adult, 1843 to 2013

Year	Apparent cons. (kl)	Per capita (litres)	Per adult (litres)
1843	2343	9.3	
1844	826	3.1	
1845	1841	6.6	
1846	2488	8.5	
1847	2346	7.6	
1848	3658	11.0	
1849	3556	9.5	
1850	3049	7.5	
1851	3412	7.8	
1852	4324	8.4	
1853	9150	15.2	
1854	6015	8.7	
1855	6723	8.5	
1856	7244	8.3	
1857	8108	8.4	
1858	5254	5.0	
1859	5180	4.7	
1860	4363	3.9	
1861	4623	4.0	7.1
1862	6040	5.1	
1863	5268	4.3	
1864	4699	3.6	
1865	4437	3.3	
1866	7729	5.5	
1867	7320	5.0	
1868	7431	4.9	
1869	8120	5.2	
1870	8235	5.1	
1871	8061	4.8	8.4
1872	8009	4.7	
1873	10178	5.8	
1874	10499	5.8	
1875	11178	6.0	
1876	10027	5.2	
1877	10022	5.0	
1878	8532	4.1	
1879	9392	4.4	
1880	8369	3.8	
1881	8733	3.8	6.4
1882	9041	3.9	
1883	10589	4.3	
1884	9324	3.6	
1885	11469	4.3	
1886	11223	4.1	
1887	12899	4.6	
1888	13340	4.6	

Table 12 (cont.) Volume of wine apparent consumption, total, per capita and per adult, 1843 to 2013

Year	Apparent cons. (kl)	per capita (litres)	Per adult (litres)
1889	15173	5.0	
1890	15535	5.0	
1891	17724	5.5	8.9
1892	15177	4.6	
1893	14245	4.3	
1894	12497	3.7	
1895	16038	4.6	
1896	20174	5.7	
1897	22328	6.2	
1898	17213	4.7	
1899	*16088*	4.4	
1900	14963	4.0	
1901	*15520*	4.1	6.3
1902	*16078*	4.2	
1903	16635	4.3	
1904	*18547*	4.7	
1905	*20458*	5.1	
1906	*22370*	5.5	
1907	24282	5.9	
1908	16327	3.9	
1909	22371	5.2	
1910	16998	3.9	
1911	22918	5.1	7.5
1912	18335	3.9	
1913	24899	5.2	
1914	18926	3.8	
1915	10666	2.1	
1916	23894	4.8	
1917	20887	4.2	
1918	29743	5.9	
1919	36527	7.0	
1920	31548	5.9	
1921	45502	8.3	
1922	36291	6.5	9.8
1923	31736	5.6	8.3
1924	43265	7.4	11.1
1925	33650	5.7	8.4
1926	36700	6.1	8.9
1927	41725	6.7	9.9
1928	24647	3.9	5.7
1929	43307	6.8	9.8
1930	29361	4.5	6.5
1931	24284	3.7	5.3
1932	25146	3.8	5.4
1933	35156	5.3	7.4
1934	19670	2.9	4.1

Table 12 (cont.) Volume of wine apparent consumption, total, per capita and per adult, 1843 to 2013

Year	Apparent cons. (kl)	per capita (litres)	Per adult (litres)
1935	29048	4.3	6.0
1936	23192	3.4	4.7
1937	27085	4.0	5.4
1938	22642	3.3	4.5
1939	8798	1.3	1.7
1940	15002	2.1	2.9
1941	30281	4.3	5.7
1942	30913	4.3	5.7
1943	46512	6.4	8.5
1944	40825	5.6	7.4
1945	21466	2.9	3.9
1946	61736	8.3	11.0
1947	77443	10.2	13.7
1948	72829	9.4	12.8
1949	74958	9.5	13.1
1950	70753	8.7	12.1
1951	55858	6.6	9.3
1952	83519	9.7	13.6
1953	67536	7.7	10.8
1954	73682	8.2	11.6
1955	47656	5.2	7.4
1956	50392	5.3	7.7
1957	62304	6.5	9.4
1958	62774	6.4	9.3
1959	60828	6.0	8.8
1960	56754	5.5	8.1
1961	62838	6.0	8.8
1962	74521	6.9	10.2
1963	60597	5.5	8.1
1964	78553	7.0	10.3
1965	81789	7.2	10.5
1966	75144	6.5	9.4
1967	103802	8.8	12.7
1968	111635	9.3	13.4
1969	121249	9.9	14.2
1970	147718	11.8	16.9
1971	121713	9.5	13.7
1972	148034	11.1	15.9
1973	158988	11.8	16.7
1974	179797	13.1	18.6
1975	234049	16.8	23.6
1976	222595	15.9	22.1
1977	244952	17.3	23.9
1978	222127	15.5	21.3
1979	268064	18.5	25.3
1980	312942	21.3	29.0

Table 12 (cont.) Volume of wine apparent consumption, total, per capita and per adult, 1843 to 2013

Year	Apparent cons. (kl)	per capita (litres)	Per adult (litres)
1981	275606	18.3	25.1
1982	295716	19.3	26.4
1983	265554	17.2	23.2
1984	340124	21.7	29.2
1985	306955	19.3	25.9
1986	355809	22.0	29.5
1987	294682	18.0	23.9
1988	348698	20.9	27.7
1989	347477	20.5	27.1
1990	330638	19.3	25.3
1991	276951	15.9	20.8
1992	327666	18.7	24.3
1993	332375	18.8	24.3
1994	344146	19.2	24.9
1995	373045	20.6	26.7
1996	356909	19.5	25.2
1997	393373	21.3	27.3
1998	428942	22.9	29.4
1999	412612	21.8	27.9
2000	439237	23.0	29.3
2001	524159	27.0	34.5
2002	579636	29.6	37.6
2003	535027	27.0	34.2
2004	566435	28.3	35.6
2005	572932	28.2	35.5
2006	658075	31.9	40.2
2007	514205	24.5	30.9
2008	486446	22.7	28.3
2009	482279	22.1	27.6
2010	586444	26.5	33.1
2011	517870	23.0	28.7
2012	563937	24.6	30.8
2013	555716	23.9	29.6

Table 13: Wine trade volume indicators, 1843 to 2013

Year	Apparent consm. (kl)	Exports (kl)	Imports (kl)	Prod'n (kl)	Net exports of wine (kl)	Exports as % prod'n	Imports as % of consm.	Wine self-sufficiency (%)	Trade volume specialization index	Index of intra-industry trade (%)
1843	2343	0	2251	131	-2212	0.0	94.4	6	-1.00	*0*
1844	826	0	699	137	-689	0.0	83.4	17	-1.00	*0*
1845	1841	0	1624	228	-1613	0.0	87.6	12	-1.00	*0*
1846	2488	0	2210	274	-2214	0.0	89.0	11	-1.00	*0*
1847	2346	0	2009	336	-2010	0.0	85.7	14	-1.00	*0*
1848	3658	0	3389	347	-3312	0.0	90.5	9	-1.00	*0*
1849	3556	0	3103	556	-2999	0.0	84.4	16	-1.00	*0*
1850	3049	0	2468	582	-2468	0.0	80.9	19	-1.00	*0*
1851	3412	0	2722	689	-2722	0.0	79.8	20	-1.00	*0*
1852	4324	0	3759	565	-3759	0.0	86.9	13	-1.00	*0*
1853	9150	0	8572	578	-8572	0.0	93.7	6	-1.00	*0*
1854	6015	6	5539	483	-5532	1.3	92.1	8	-1.00	0
1855	6723	113	6350	486	-6237	23.3	94.5	7	-0.97	3
1856	7244	21	6370	894	-6349	2.3	87.9	12	-0.99	1
1857	8108	31	7197	941	-7167	3.2	88.8	12	-0.99	1
1858	5254	33	4128	1159	-4095	2.8	78.6	22	-0.98	2
1859	5180	11	4073	1119	-4061	1.0	78.6	22	-0.99	1
1860	4363	4	3025	1341	-3021	0.3	69.3	31	-1.00	0
1861	4623	32	2728	1927	-2696	1.7	59.0	42	-0.98	2
1862	6040	36	3314	2762	-3278	1.3	54.9	46	-0.98	2
1863	5268	33	1467	3833	-1435	0.8	27.9	73	-0.96	4
1864	4699	144	40	4803	104	3.0	0.8	102	0.57	43
1865	4437	232	0	5052	232	4.6	0.0	114	1.00	0
1866	7729	84	2426	5387	-2342	1.6	31.4	70	-0.93	7
1867	7320	111	1108	6323	-997	1.8	15.1	86	-0.82	18
1868	7431	51	402	7080	-351	0.7	5.4	95	-0.77	23
1869	8120	118	240	7998	-122	1.5	3.0	99	-0.34	66
1870	8235	164	34	8366	131	2.0	0.4	102	0.66	34
1871	8061	142	0	8292	142	1.7	0.0	103	1.00	0
1872	8009	114	0	8215	114	1.4	0.0	103	1.00	0
1873	10178	169	2355	7992	-2186	2.1	23.1	79	-0.87	13

Table 13 (cont.) Wine trade volume indicators, 1843 to 2013

Year	*Apparent consm. (kl)*	*Exports (kl)*	*Imports (kl)*	*Prod'n (kl)*	*Net exports of wine (kl)*	*Exports as % prod'n*	*Imports as % of consm.*	*Wine self-sufficiency (%)*	*Trade volume specialization index*	*Index of intra-industry trade (%)*
1874	10499	182	2223	8459	-2040	2.2	21.2	81	-0.85	15
1875	11178	115	1893	9400	-1778	1.2	16.9	84	-0.89	11
1876	10027	225	0	10875	225	2.1	0.0	108	1.00	0
1877	10022	91	2415	7698	-2325	1.2	24.1	77	-0.93	7
1878	8532	104	960	7676	-856	1.4	11.2	90	-0.80	20
1879	9392	78	1927	7542	-1850	1.0	20.5	80	-0.92	8
1880	8369	110	0	9516	110	1.2	0.0	114	1.00	0
1881	8733	97	1227	7603	-1130	1.3	14.0	87	-0.85	15
1882	9041	110	332	8819	-221	1.3	3.7	98	-0.50	50
1883	10589	314	3907	6996	-3593	4.5	36.9	66	-0.85	15
1884	9324	240	635	8929	-395	2.7	6.8	96	-0.45	55
1885	11469	276	3499	8247	-3223	3.3	30.5	72	-0.85	15
1886	11223	662	2039	9846	-1377	6.7	18.2	88	-0.51	49
1887	12899	742	2999	10641	-2258	7.0	23.3	82	-0.60	40
1888	13340	1043	1256	13127	-213	7.9	9.4	98	-0.09	91
1889	15173	1418	3426	13165	-2008	10.8	22.6	87	-0.41	59
1890	15535	1434	1444	15525	-10	9.2	9.3	100	0.00	100
1891	17724	1760	1356	18128	404	9.7	7.7	102	0.13	87
1892	15177	2114	1764	15527	350	13.6	11.6	102	0.09	91
1893	14245	2545	798	15992	1747	15.9	5.6	112	0.52	48
1894	12497	1813	0	18131	1813	10.0	0.0	145	1.00	0
1895	16038	2788	0	20625	2788	13.5	0.0	129	1.00	0
1896	20174	3202	966	22409	2235	14.3	4.8	111	0.54	46
1897	22328	3248	2238	23337	1010	13.9	10.0	105	0.18	82
1898	17213	3265	1888	18590	1377	17.6	11.0	108	0.27	73
1899	*16088*	3387	1620	17856	1768	19.0	10.1	111	0.35	65
1900	14963	3742	3785	14919	-43	25.1	25.3	100	-0.01	99
1901	*15520*	3778	964	25493	2814	14.8	6.2	164	0.59	41
1902	*16078*	3891	1004	26440	2887	14.7	6.2	164	0.59	41
1903	16635	4846	824	23576	4022	20.6	5.0	142	0.71	29
1904	*18547*	3233	557	28459	2676	11.4	3.0	153	0.71	29

Table 13 (cont.) Wine trade volume indicators, 1843 to 2013

Year	*Apparent consm. (kl)*	*Exports (kl)*	*Imports (kl)*	*Prod'n (kl)*	*Net exports of wine (kl)*	*Exports as % prod'n*	*Imports as % of consm.*	*Wine self-sufficiency (%)*	*Trade volume specialization index*	*Index of intra-industry trade (%)*
1905	*20458*	3550	499	26603	3051	13.3	2.4	130	0.75	25
1906	*22370*	4237	515	25412	3722	16.7	2.3	114	0.78	22
1907	24282	3250	524	27008	2726	12.0	2.2	111	0.72	28
1908	16327	4441	538	20230	3903	22.0	3.3	124	0.78	22
1909	22371	3300	596	25075	2704	13.2	2.7	112	0.69	31
1910	16998	4419	494	20923	3925	21.1	2.9	123	0.80	20
1911	22918	4303	554	26667	3749	16.1	2.4	116	0.77	23
1912	18335	4980	698	22617	4282	22.0	3.8	123	0.75	25
1913	24899	3548	699	27748	2849	12.8	2.8	111	0.67	33
1914	18926	3167	682	21411	2485	14.8	3.6	113	0.65	35
1915	10666	2859	454	13071	2405	21.9	4.3	123	0.73	27
1916	23894	3274	405	26763	2869	12.2	1.7	112	0.78	22
1917	20887	2719	302	23304	2417	11.7	1.4	112	0.80	20
1918	29743	1653	187	31209	1466	5.3	0.6	105	0.80	20
1919	36527	3164	173	39518	2991	8.0	0.5	108	0.90	10
1920	31548	3642	416	34774	3226	10.5	1.3	110	0.79	21
1921	45502	5039	470	50071	4569	10.1	1.0	110	0.83	17
1922	36291	2750	206	38835	2544	7.1	0.6	107	0.86	14
1923	31736	3211	266	51951	2945	6.2	0.8	164	0.85	15
1924	43265	4506	349	66662	4157	6.8	0.8	154	0.86	14
1925	33650	4007	370	60459	3637	6.6	1.1	180	0.83	17
1926	36700	7831	397	73787	7434	10.6	1.1	201	0.90	10
1927	41725	14010	407	92995	13603	15.1	1.0	223	0.94	6
1928	24647	17151	346	78658	16805	21.8	1.4	319	0.96	4
1929	43307	7914	347	84557	7567	9.4	0.8	195	0.92	8
1930	29361	9927	369	73050	9558	13.6	1.3	249	0.93	7
1931	24284	10039	70	59454	9969	16.9	0.3	245	0.99	1
1932	25146	15801	38	64510	15763	24.5	0.2	257	1.00	0
1933	35156	14059	67	74635	13992	18.8	0.2	212	0.99	1
1934	19670	13941	110	63726	13831	21.9	0.6	324	0.98	2
1935	29048	15432	129	73939	15303	20.9	0.4	255	0.98	2

Table 13 (cont.) Wine trade volume indicators, 1843 to 2013

Year	Apparent consm. (kl)	Exports (kl)	Imports (kl)	Prod'n (kl)	Net exports of wine (kl)	Exports as % prod'n	Imports as % of consm.	Wine self-sufficiency (%)	Trade volume speciali -zation index	Index of intra-industry trade (%)
1936	23192	16865	136	80591	16729	20.9	0.6	348	0.98	2
1937	27085	18583	156	87950	18427	21.1	0.6	325	0.98	2
1938	22642	17716	226	89493	17490	19.8	1.0	395	0.97	3
1939	8798	16862	187	64817	16675	26.0	2.1	737	0.98	2
1940	15002	16456	120	64131	16336	25.7	0.8	427	0.99	1
1941	30281	7537	29	70406	7508	10.7	0.1	233	0.99	1
1942	30913	6336	14	70872	6322	8.9	0.0	229	1.00	0
1943	46512	3714	0	86951	3714	4.3	0.0	187	1.00	0
1944	40825	5662	3	86875	5659	6.5	0.0	213	1.00	0
1945	21466	7051	0	63169	7051	11.2	0.0	294	1.00	0
1946	61736	8112	2	113409	8110	7.2	0.0	184	1.00	0
1947	77443	12368	15	145572	12353	8.5	0.0	188	1.00	0
1948	72829	12221	86	149470	12135	8.2	0.1	205	0.99	1
1949	74958	8535	199	149191	8336	5.7	0.3	199	0.95	5
1950	70753	5009	120	148539	4889	3.4	0.2	210	0.95	5
1951	55858	5557	208	118361	5349	4.7	0.4	212	0.93	7
1952	83519	5275	363	160269	4912	3.3	0.4	192	0.87	13
1953	67536	5302	35	136484	5267	3.9	0.1	202	0.99	1
1954	73682	6340	184	143954	6156	4.4	0.2	195	0.94	6
1955	47656	5745	242	108942	5503	5.3	0.5	229	0.92	8
1956	50392	5471	221	104184	5250	5.3	0.4	207	0.92	8
1957	62304	7938	152	139991	7786	5.7	0.2	225	0.96	4
1958	62774	6771	223	153900	6548	4.4	0.4	245	0.94	6
1959	60828	7935	236	148088	7699	5.4	0.4	243	0.94	6
1960	56754	7904	273	129112	7631	6.1	0.5	227	0.93	7
1961	62838	8603	446	153625	8157	5.6	0.7	244	0.90	10
1962	74521	7562	373	189938	7189	4.0	0.5	255	0.91	9
1963	60597	7325	404	136114	6921	5.4	0.7	225	0.90	10
1964	78553	6986	534	171926	6452	4.1	0.7	219	0.86	14
1965	81789	9058	681	176927	8377	5.1	0.8	216	0.86	14
1966	75144	8897	663	156112	8234	5.7	0.9	208	0.86	14

Table 13 (cont.) Wine trade volume indicators, 1843 to 2013

Year	Apparent consm. (kl)	Exports (kl)	Imports (kl)	Prod'n (kl)	Net exports of wine (kl)	Exports as % prod'n	Imports as % of consm.	Wine self-sufficiency (%)	Trade volume specialization index	Index of intra-industry trade (%)
1967	103802	8077	861	189721	7216	4.3	0.8	183	0.81	19
1968	111635	8386	1388	202045	6998	4.2	1.2	181	0.72	28
1969	121249	8200	2074	236899	6126	3.5	1.7	195	0.60	40
1970	147718	5886	1953	286975	3933	2.1	1.3	194	0.50	50
1971	121713	6563	2403	251199	4160	2.6	2.0	206	0.46	54
1972	148034	7957	2530	290240	5427	2.7	1.7	196	0.52	48
1973	158988	6244	3005	256717	3239	2.4	1.9	161	0.35	65
1974	179797	8466	4310	294666	4156	2.9	2.4	164	0.33	67
1975	234049	6546	5294	361177	1252	1.8	2.3	154	0.11	89
1976	222595	6132	6925	346255	-793	1.8	3.1	156	-0.06	94
1977	244952	4924	8098	372269	-3174	1.3	3.3	152	-0.24	76
1978	222127	4629	7802	332304	-3173	1.4	3.5	150	-0.26	74
1979	268064	5239	8481	345392	-3242	1.5	3.2	129	-0.24	76
1980	312942	6087	6874	404893	-787	1.5	2.2	129	-0.06	94
1981	275606	7470	7492	366413	-22	2.0	2.7	133	0.00	100
1982	295716	8401	8992	394738	-591	2.1	3.0	133	-0.03	97
1983	265554	7931	7334	334557	597	2.4	2.8	126	0.04	96
1984	340124	8899	9646	393675	-747	2.3	2.8	116	-0.04	96
1985	306955	8698	13119	444572	-4421	2.0	4.3	145	-0.20	80
1986	355809	10828	12794	383082	-1966	2.8	3.6	108	-0.08	92
1987	294682	21323	7667	366541	13656	5.8	2.6	124	0.47	53
1988	348698	39135	8146	403325	30989	9.7	2.3	116	0.66	34
1989	347477	39044	9737	494235	29307	7.9	2.8	142	0.60	40
1990	330638	38120	10453	439264	27667	8.7	3.2	133	0.57	43
1991	276951	54156	8999	394289	45157	13.7	3.2	142	0.72	28
1992	327666	78679	8703	475586	69976	16.5	2.7	145	0.80	20
1993	332375	102832	7832	457799	95000	22.5	2.4	138	0.86	14
1994	344146	125464	8341	587377	117123	21.4	2.4	171	0.88	12
1995	373045	113663	14057	502796	99606	22.6	3.8	135	0.78	22
1996	356909	129671	20256	673445	109415	19.3	5.7	189	0.73	27
1997	393373	154375	13589	618037	140786	25.0	3.5	157	0.84	16

Table 13 (cont.) Wine trade volume indicators, 1843 to 2013

Year	*Apparent consm. (kl)*	*Exports (kl)*	*Imports (kl)*	*Prod'n (kl)*	*Net exports of wine (kl)*	*Exports as % prod'n*	*Imports as % of consm.*	*Wine self-sufficiency (%)*	*Trade volume specialization index*	*Index of intra-industry trade (%)*
1998	428942	192404	25622	741774	166782	25.9	6.0	173	0.76	24
1999	412612	216149	24255	851413	191894	25.4	5.9	206	0.80	20
2000	439237	284935	19607	859502	265328	33.2	4.5	196	0.87	13
2001	524159	338289	12774	1076537	325515	31.4	2.4	205	0.93	7
2002	579636	415714	14501	1220373	401213	34.1	2.5	211	0.93	7
2003	535027	507960	17132	1085985	490828	46.8	3.2	203	0.93	7
2004	566435	580740	18750	1471227	561990	39.5	3.3	260	0.94	6
2005	572932	660886	22149	1433826	638737	46.1	3.9	250	0.94	6
2006	658075	735869	27176	1429789	708693	51.5	4.1	217	0.93	7
2007	514205	798444	34352	961972	764092	83.0	6.7	187	0.92	8
2008	486446	708915	53093	1244778	655822	57.0	10.9	256	0.86	14
2009	482279	750509	62253	1179191	688256	63.6	12.9	245	0.85	15
2010	586444	776954	64415	1151656	712539	67.5	11.0	196	0.85	15
2011	517870	727405	67091	1125986	660315	64.6	13.0	217	0.83	17
2012	563937	712517	82666	1236145	629850	57.6	14.7	219	0.79	21
2013	555716	678336	84332	1245602	594004	54.5	15.2	224	0.78	22

Table 14: Wine trade volume indicators, by State, 1852 to 1913

a) New South Wales

Year	*Apparent consm. (kl)*	*Per capita consm. (litre)*	*Prod'n (kl)*	*Exports (kl)*	*Imports (kl)*	*Net exports of wine (kl)*	*Exported share of wine prod'n(%)*	*Imported share of consm. (%)*	*Wine self-sufficiency (%)*	*Trade volume specialization index*	*Index of intra-industry trade (%)*
1858	2182	6.5	492	18	1708	-1690	3.6	78.3	23	-0.98	2
1859			264								
1860			437								
1861	2101	6.0	454	41	1688	-1647	9.1	80.4	22	-0.95	5
1862	2987	8.3	388	46	2645	-2599	11.8	88.5	13	-0.97	3
1863	2078	5.6	659	40	1459	-1419	6.0	70.2	32	-0.95	5
1864	2077	5.4	623	27	1482	-1455	4.4	71.3	30	-0.96	4
1865	2162	5.4	733	38	1467	-1429	5.2	67.9	34	-0.95	5
1866	2593	6.2	764	28	1856	-1828	3.6	71.6	29	-0.97	3
1867			1101								
1868	2249	5.0	1297	12	965	-952	1.0	42.9	58	-0.97	3
1869			1875								
1870			2092								
1871			1558								
1872			1879								
1873	3503	6.4	2052	29	1480	-1451	1.4	42.3	59	-0.96	4
1874	3556	6.3	2628	27	955	-928	1.0	26.9	74	-0.95	5
1875			3110								
1876	3811	6.3	2872	31	971	-940	1.1	25.5	75	-0.94	6
1877			3185								
1878			3220								
1879	3949	5.7	3112	80	917	-837	2.6	23.2	79	-0.84	16
1880	4020	5.5	3334	125	811	-686	3.8	20.2	83	-0.73	27
1881	3629	4.8	2736	102	994	-893	3.7	27.4	75	-0.81	19
1882			2336								
1883	3493	4.2	2473	197	1217	-1020	8.0	34.8	71	-0.72	28
1884	3496	4.0	2682	133	947	-814	4.9	27.1	77	-0.75	25
1885	2986	3.2	2014	130	1102	-973	6.4	36.9	67	-0.79	21
1886	3254	3.4	2523	110	841	-731	4.4	25.8	78	-0.77	23
1887	3546	3.5	2736	81	890	-810	2.9	25.1	77	-0.83	17
1888	3765	3.7	3027	186	924	-738	6.2	24.5	80	-0.66	34

Table 14 (cont.) Wine trade volume indicators, by State, 1852 to 1913

a) New South Wales (cont.)

Year	*Apparent consm. (kl)*	*Per capita consm. (litre)*	*Prod'n (kl)*	*Exports (kl)*	*Imports (kl)*	*Net exports of wine (kl)*	*Exported share of wine prod'n(%)*	*Imported share of consm. (%)*	*Wine self-sufficiency (%)*	*Trade volume specialization index*	*Index of intra-industry trade (%)*
1889			3664		912						
1890			3132								
1891			3827								
1892			4150								
1893			4232	168			4.0				
1894			3405								
1895			3323								
1896			4027								
1897			3609								
1898	4175	3.2	3932	195	439	-243	5.0	10.5	94	-0.38	62
1899	4077	3.1	3841	235	471	-236	6.1	11.5	94	-0.33	67
1900	3579	2.7	3364	210	426	-216	6.3	11.9	94	-0.34	66
1901	6609	4.8	6314	295	590	-295	4.7	8.9	96	-0.33	67

Table 14 (cont.) Wine trade volume indicators, by State, 1852 to 1913

b) South Australia

Year	*Apparent consm. (kl)*	*Per capita consm. (litre)*	*Prod'n (kl)*	*Exports (kl)*	*Imports (kl)*	*Net exports of wine (kl)*	*Exported share of wine prod'n(%)*	*Imported share of consm. (%)*	*Wine self-sufficiency (%)*	*Trade volume specialization index*	*Index of intra-industry trade (%)*
1852			150	5			3.3				
1853			136	0			0.3				
1854	910	9.83	177	2	735	-733	1.2	80.8	19	-0.99	1
1855	455	4.68	178	4	281	-277	2.2	61.7	39	-0.97	3
1856	667	6.18	326	2	342	-341	0.5	51.3	49	-0.99	1
1857	695	6.32	457	7	245	-238	1.6	35.3	66	-0.94	6
1858	1000	8.43	641	7	366	-359	1.1	36.6	64	-0.96	4
1859	1033	8.41	820	13	226	-213	1.6	21.9	79	-0.89	11
1860	1096	8.83	828	16	284	-268	1.9	25.9	76	-0.90	10
1861	1608	12.54	1418	13	203	-190	0.9	12.6	88	-0.88	12
1862	2239	16.75	2149	94	184	-90	4.4	8.2	96	-0.33	67
1863	2888	20.68	2757	126	257	-131	4.6	8.9	95	-0.34	66
1864	3837	26.14	3631	94	300	-206	2.6	7.8	95	-0.52	48
1865	3911	25.05	3819	107	199	-92	2.8	5.1	98	-0.30	70
1866	3492	21.14	3341	59	210	-151	1.8	6.0	96	-0.56	44
1867	4078	23.86	3926	41	193	-152	1.0	4.7	96	-0.65	35
1868	3747	21.45	3692	111	166	-55	3.0	4.4	99	-0.20	80
1869	4160	23.23	4072	122	210	-88	3.0	5.0	98	-0.27	73
1870	3534	19.30	3645	228	117	110	6.2	3.3	103	0.32	68
1871	3880	20.79	3875	99	105	-6	2.6	2.7	100	-0.03	97
1872	2918	15.34	2989	204	132	72	6.8	4.5	102	0.21	79
1873	3283	16.86	3334	211	160	51	6.3	4.9	102	0.14	86
1874	2403	11.96	2492	269	180	89	10.8	7.5	104	0.20	80
1875	3283	15.85	3309	209	182	27	6.3	5.5	101	0.07	93
1876	2261	10.41	2242	165	184	-19	7.4	8.1	99	-0.05	95
1877	1539	6.65	1513	173	199	-27	11.4	12.9	98	-0.07	93
1878	1933	7.88	2083	226	75	151	10.8	3.9	108	0.50	50
1879	2056	7.95	2089	213	181	32	10.2	8.8	102	0.08	92
1880	2375	8.77	2277	135	233	-98	5.9	9.8	96	-0.27	73
1881	1383	4.92	1423	249	209	40	17.5	15.1	103	0.09	91

Table 14 (cont.) Wine trade volume indicators, by State, 1852 to 1913

b) South Australia (cont.)

Year	Apparent consm. (kl)	Per capita consm. (litre)	Prod'n (kl)	Exports (kl)	Imports (kl)	Net exports of wine (kl)	Exported share of wine prod'n(%)*	Imported share of consm. (%)	Wine self-sufficiency (%)	Trade volume specialization index	Index of intra-industry trade (%)
1882	1533	5.30	1579	311	265	46	19.7	17.3	103	0.08	92
1883	1444	4.86	1630	410	224	187	25.2	15.5	113	0.29	71
1884	2079	6.81	2152	228	155	73	10.6	7.4	104	0.19	81
1885	1704	5.51	1899	322	127	195	17.0	7.5	111	0.43	57
1886	1399	4.54	1643	379	135	244	23.0	9.6	117	0.47	53
1887	2019	6.55	2318	408	109	299	17.6	5.4	115	0.58	42
1888	2808	9.07	3218	591	180	411	18.4	6.4	115	0.53	47
1889	1603	5.14	2322	819	100	718	35.3	6.3	145	0.78	22
1890	2585	8.16	3471	1009	123	886	29.1	4.7	134	0.78	22
1891	2444	7.59	3648	1301	96	1204	35.7	3.9	149	0.86	14
1892	1318	3.99	2703	1477	93	1385	54.7	7.0	205	0.88	12
1893	2111	6.21	3243	1183	51	1132	36.5	2.4	154	0.92	8
1894	4143	11.94	5268	1165	39	1126	22.1	0.9	127	0.94	6
1895	5671	16.19	7176	1561	56	1505	21.8	1.0	127	0.93	7
1896	5016	14.25	6703	1778	91	1687	26.5	1.8	134	0.90	10
1897	3599	10.22	5838	2335	96	2239	40.0	2.7	162	0.92	8
1898	2649	7.49	4918	2337	67	2269	47.5	2.5	186	0.94	6
1899	2158	6.04	4342	2257	73	2184	52.0	3.4	201	0.94	6
1900	4255	11.80	6319	2167	102	2064	34.3	2.4	149	0.91	9
1901	3693	10.20	6314	2708	88	2621	42.9	2.4	171	0.94	6
1902	8210	23.07	11963	3849	96	3753	32.2	1.2	146	0.95	5
1903	9222	25.95	11699	2554	77	2477	21.8	0.8	127	0.94	6
1904	8078	22.63	11116	3119	81	3038	28.1	1.0	138	0.95	5
1905	9734	27.04	12937	3308	105	3203	25.6	1.1	133	0.94	6
1906	10147	27.94	12529	2558	176	2382	20.4	1.7	123	0.87	13
1907	8134	22.12	11344	3353	143	3210	29.6	1.8	139	0.92	8
1908	6058	16.03	9374	3457	140	3316	36.9	2.3	155	0.92	8
1909	9599	24.71	14239	4753	113	4640	33.4	1.2	148	0.95	5
1910	9665	24.30	11682	2044	27	2017	17.5	0.3	121	0.97	3
1911	13143	31.93	15775	2662	30	2632	16.9	0.2	120	0.98	2
1912	11209	26.45	13282	2097	25	2073	15.8	0.2	118	0.98	2
1913	16160	36.95	18070	1943	33	1910	10.8	0.2	112	0.97	3

* South Australian export and import data and derivative indicators include interstate trade up to 1909, and thereafter just overseas trade.

Table 14 (cont.) Wine trade volume indicators, by State, 1852 to 1913

c) Victoria

Year	Apparent consm. (kl)	Per capita consm. (litre)	Prod'n (kl)	Exports (kl)	Imports (kl)	Net exports of wine (kl)	Exported share of wine prod'n(%)	Imported share of consm. (%)	Wine self-sufficiency (%)	Trade volume specialization index	Index of intra-industry trade (%)
1891	9702	8.5	9130	317	890	-573	3.5	9.2	94	-0.47	53
1892	7449	6.4	7064	287	673	-385	4.1	9.0	95	-0.40	60
1893	7562	6.4	7703	321	179	142	4.2	2.4	102	0.28	72
1894	6726	5.7	6774	261	214	48	3.9	3.2	101	0.10	90
1895	8556	7.2	8682	331	206	125	3.8	2.4	101	0.23	77
1896	10099	8.5	10123	341	318	23	3.4	3.2	100	0.04	96
1897	12804	10.8	12828	294	269	24	2.3	2.1	100	0.04	96
1898	8782	7.4	8724	207	265	-58	2.4	3.0	99	-0.12	88
1899	8592	7.2	8555	261	298	-36	3.1	3.5	100	-0.06	94
1900	4210	3.5	4242	264	232	32	6.2	5.5	101	0.07	93
1901	11732	9.8	11720	280	292	-12	2.4	2.5	100	-0.02	98

d) Western Australia

Year	Apparent consm. (kl)	Per capita consm. (litre)	Prod'n (kl)	Exports (kl)	Imports (kl)	Net exports of wine (kl)	Exported share of wine prod'n(%)	Imported share of consm. (%)	Wine self-sufficiency (%)	Trade volume specialization index	Index of intra-industry trade (%)
1892	838	15.0	731		107	-107		12.8	87	-1.00	
1893	445	7.2	352		93	-93		20.8	79	-1.00	
1894	473	6.5	345		129	-129		27.2	73	-1.00	
1895	609	6.7	362		247	-247		40.6	59	-1.00	
1896	769	6.5	344		425	-425		55.3	45	-1.00	
1897	524	3.5	117		407	-407		77.7	22	-1.00	
1898	649	4.0	405	5	250	-244	1.3	38.4	62	-0.96	4
1899	705	4.2	517	11	199	-188	2.2	28.2	73	-0.89	11
1900	680	3.9	395	5	290	-285	1.3	42.7	58	-0.97	3
1901	818	4.3	543	3	277	-275	0.5	33.9	66	-0.98	2

Table 14 (cont.) Wine trade volume indicators, by State, 1852 to 1913

e) Tasmania

Year	Apparent consm. (kl)	Per capita consm. (litre)	Prod'n (kl)	Exports (kl)	Imports (kl)	Net exports of wine (kl)	Exported share of wine prod'n(%)	Imported share of consm. (%)	Wine self-sufficiency (%)	Trade volume specialization index	Index of intra-industry trade (%)
1890	109	0.8	0	0	109	-109	0	100	0	-1.00	0
1891	142	1.0	0	0	142	-142	0	100	0	-1.00	0
1892	90	0.6	0	0	90	-90	0	100	0	-1.00	0
1893	63	0.4	0	0	63	-63	0	100	0	-1.00	0
1894	62	0.4	0	0	62	-62	0	100	0	-1.00	0
1895	52	0.3	0	0	52	-52	0	100	0	-1.00	0
1896	67	0.4	0	0	67	-67	0	100	0	-1.00	0
1897	68	0.4	0	0	68	-68	0	100	0	-1.00	0
1898	89	0.5	0	0	89	-89	0	100	0	-1.00	0
1899	107	0.6	0	0	107	-107	0	100	0	-1.00	0
1900	111	0.6	0	0	111	-111	0	100	0	-1.00	0
1901	134	0.8	0	0	134	-134	0	100	0	-1.00	0

F) Queensland

Year	Apparent consm. (kl)	Per capita consm. (litre)	Prod'n (kl)	Exports (kl)	Imports (kl)	Net exports of wine (kl)	Exported share of wine prod'n(%)	Imported share of consm. (%)	Wine self-sufficiency (%)	Trade volume specialization index	Index of intra-industry trade (%)
1900	850	1.7	600	0	250	-250	0	29	71	-1.00	0

Table 15: Total and unit value of wine exports and imports, 1901 to 2013

Year	*Total wine exports ($'000)*	*Total wine imports ($'000)*	*Wine exports net of imports ($'000)*	*Export value per litre (cents)*	*Import value per litre (cents)*
1901	252	324	-72	7	34
1902	260	256	4	7	32
1903	298	216	82	6	31
1904	210	194	16	6	35
1905	216	200	16	6	40
1906	226	212	14	5	41
1907	196	241	-45	6	46
1908	254	265	-11	6	49
1909	206	231	-25	6	39
1910	252	253	-1	6	51
1911	258	370	-112	6	67
1912	304	299	5	6	43
1913	242	292	-50	7	42
1914	212	na	na	7	na
1915	202	194	8	7	43
1916	242	166	76	7	41
1917	224	131	93	8	43
1918	204	82	122	12	44
1919	402	75	327	13	43
1920	468	337	131	13	81
1921	622	387	235	12	82
1922	322	113	209	12	55
1923	330	148	182	10	56
1924	434	187	247	10	54
1925	378	212	166	9	57
1926	744	206	538	10	52
1927	1668	204	1464	12	50
1928	2124	159	1965	12	46
1929	1002	167	835	13	48
1930	1112	157	955	11	43
1931	1020	23	997	10	33
1932	1818	10	1808	12	26
1933	1582	32	1550	11	48
1934	1606	52	1554	12	48
1935	1624	70	1554	11	54
1936	1870	60	1810	11	44
1937	2088	66	2022	11	43
1938	1890	78	1813	11	34
1939	1964	74	1890	12	39
1940	1916	57	1859	12	47
1941	1032	11	1021	14	38
1942	996	0	996	16	na
1943	594	0	594	16	82
1944	846	2	844	15	61

Table 15 (cont.) Total and unit value of wine exports and imports, 1901 to 2013

Year	*Total wine exports ($'000)*	*Total wine imports ($'000)*	*Wine exports net of imports ($'000)*	*Export value per litre (cents)*	*Import value per litre (cents)*
1945	1190	0	1190	17	51
1946	1482	3	1479	18	122
1947	2364	22	2342	19	146
1948	2860	125	2735	23	145
1949	1988	189	1799	23	95
1950	1032	108	924	21	90
1951	1270	195	1075	23	94
1952	1462	334	1128	28	92
1953	1528	33	1495	29	93
1954	1806	168	1638	28	91
1955	1634	255	1379	28	105
1956	1468	213	1255	27	96
1957	2264	149	2115	29	98
1958	1994	231	1763	29	104
1959	2304	243	2061	29	103
1960	2530	261	2269	32	95
1961	2606	411	2195	30	92
1962	2772	417	2355	37	112
1963	2742	449	2293	37	111
1964	2741	550	2191	39	103
1965	3521	725	2796	39	106
1966	3535	729	2806	40	110
1967	3169	913	2256	39	106
1968	3153	1581	1572	38	114
1969	3395	2224	1171	41	107
1970	2913	2239	674	49	115
1971	3581	3080	501	55	128
1972	4245	3745	500	53	148
1973	3220	6279	-3059	52	209
1974	5641	10991	-5350	67	255
1975	5343	10876	-5533	82	205
1976	5500	12505	-7005	90	181
1977	5400	14447	-9047	110	178
1978	5400	18089	-12689	117	232
1979	6300	23814	-17514	120	281
1980	8400	23791	-15391	138	346
1981	11900	20622	-8722	159	275
1982	14000	23519	-9519	167	262
1983	13400	21671	-8271	169	295
1984	16800	27860	-11060	189	289
1985	17400	40470	-23070	200	308
1986	20541	46410	-25869	190	363
1987	44620	37585	7035	209	490
1988	96157	41358	54799	246	508
1989	114521	46871	67650	293	481

Table 15 (cont.) Total and unit value of wine exports and imports, 1901 to 2013

Year	*Total wine exports ($'000)*	*Total wine imports ($'000)*	*Wine exports net of imports ($'000)*	*Export value per litre (cents)*	*Import value per litre (cents)*
1990	121248	52692	68556	318	504
1991	179588	46779	132809	332	520
1992	243526	45649	197877	310	525
1993	293157	46984	246173	285	600
1994	366574	47637	318937	292	571
1995	385706	61057	324649	339	434
1996	471576	60478	411098	364	299
1997	603297	66503	536794	391	489
1998	873847	92926	780921	454	363
1999	986822	102498	884324	457	423
2000	1372768	113868	1258900	482	581
2001	1752082	92218	1659864	518	722
2002	2105139	115560	1989579	506	797
2003	2423468	139213	2284255	477	813
2004	2494089	152405	2341684	429	813
2005	2715290	188224	2527066	411	850
2006	2756520	234097	2522423	375	861
2007	2878598	306350	2572248	361	892
2008	2680378	431382	2248996	378	813
2009	2427000	473300	1953700	323	760
2010	2164000	458800	1705200	279	712
2011	1957000	470800	1486200	269	702
2012	1862000	529800	1332200	261	641
2013	1821000	576700	1244300	268	684

Table 16: Volume, value, unit value and shares of Australia's wine exports to key regions, 1990 to 2009

(a) Volume of wine exports to each region ('000 litres)

Year	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		WORLD
									EU-15	NWE8	
1990	109	28501		6894	9898		967	8684	27712	16792	55053
1991	667	44318		6856	16113		808	8387	43453	22969	77149
1992	1201	58284		10044	14804	19	1201	10945	57862	24880	96498
1993	1234	77288	824	22191	17472		1147	13492	76193	39714	133648
1994	609	82885	379	22836	18178	53	1366	14318	80889	41073	140624
1995	322	73128	200	12943	20028	65	1120	14058	70379	33024	121864
1996	403	152468	152	19618	43299	87	1288	22535	146336	62964	239850
1997	955	163834	709	24862	57037	220	1610	25891	156522	81980	275118
1998	1303	190741	271	26726	70716	133	1650	27369	183435	97494	318908
1999	2159	263721	209	30863	89551	543	1671	28319	256806	120570	417037
2000	3098	194669	242	20984	75007	387	1415	14738	190782	96015	310541
2001	5535	233792	578	23634	93014	420	1862	16887	232088	116724	375722
2002	4418	278876	692	26523	140188	392	1738	17973	276370	166736	470799
2003	5261	282760	921	33251	190908	1104	1724	19597	281404	224172	535528
2004	7828	350525	3540	24530	227061	629	2943	27454	352301	251615	644510
2005	8326	371650	2046	24627	250878	706	3123	32400	374107	275574	693756
2006	10274	385065	2623	31646	268883	3742	3854	53341	389478	300594	759428
2007	8596	428685	2874	31155	251439	1689	4210	50773	432277	282693	779421
2008	3764	377532	2964	19817	238517	1502	5103	51124	376259	258399	700321
2009	3369	369108	2563	21988	289610	1264	3846	80015	366753	311682	771763

(b) Value of wine exports to each region (US$ '000)

Year	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		WORLD
									EU-15	NWE8	
1990	534	59854		17125	33118		865	19216	58353	50243	130712
1991	690	92823		15014	39082		746	20080	89408	54096	168435
1992	1148	127970		15828	49270	52	1195	21928	124781	65180	217391
1993	1465	152027	740	24314	58610		1059	23934	148279	83010	262149
1994	1226	195039	364	27839	67810	169	1593	30422	188690	95872	324462
1995	650	186608	318	23194	64811	230	1761	35037	178077	88197	312611
1996	786	259140	205	30565	98638	245	1820	59270	246562	129381	450669
1997	2011	303779	606	35879	136948	597	2345	74149	287579	173131	556313
1998	2335	355848	336	33634	167753	395	2161	64028	341107	201508	626490
1999	4197	477140	488	43192	212973	1126	2653	77424	462469	256432	819194
2000	5125	500444	644	39870	294071	1450	2922	51310	485235	334022	895835
2001	9740	541884	998	42742	340698	1474	3947	53560	532651	383673	995044
2002	8243	644509	1457	51290	496608	1551	3692	63354	630817	547974	1270704
2003	10271	698903	2551	66240	666504	3371	4134	82116	687533	732800	1534091
2004	13405	945486	4700	70695	823753	2751	7382	121407	938052	894668	1989579
2005	13143	971150	6792	75875	886533	4032	8816	134304	964468	962765	2100645
2006	13167	974532	7568	76143	822371	6873	11448	159651	968839	898935	2071753
2007	12796	1153737	11327	86243	947924	6390	14833	215769	1149984	1034691	2449018
2008	8360	970006	10932	76821	768268	5625	18622	251743	963290	846336	2110378
2009	7458	733168	7739	59797	700040	4698	12552	275306	724269	760361	1800759

Table 16 (cont.) Volume, value, unit value and shares of wine exports to key regions, 1990 to 2009

(c) Unit Value of wine exports to each region (US$/litre)

Year	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		WORLD
									EU-15	NWE8	
1990	4.90	2.10		2.48	3.35		0.89	2.21	2.11	2.99	2.37
1991	1.03	2.09		2.19	2.43		0.92	2.39	2.06	2.36	2.18
1992	0.96	2.20		1.58	3.33	2.74	1.00	2.00	2.16	2.62	2.25
1993	1.19	1.97	0.90	1.10	3.35		0.92	1.77	1.95	2.09	1.96
1994	2.01	2.35	0.96	1.22	3.73	3.19	1.17	2.12	2.33	2.33	2.31
1995	2.02	2.55	1.59	1.79	3.24	3.55	1.57	2.49	2.53	2.67	2.57
1996	1.95	1.70	1.35	1.56	2.28	2.80	1.41	2.63	1.68	2.05	1.88
1997	2.11	1.85	0.85	1.44	2.40	2.71	1.46	2.86	1.84	2.11	2.02
1998	1.79	1.87	1.24	1.26	2.37	2.97	1.31	2.34	1.86	2.07	1.96
1999	1.94	1.81	2.34	1.40	2.38	2.07	1.59	2.73	1.80	2.13	1.96
2000	1.65	2.57	2.66	1.90	3.92	3.74	2.06	3.48	2.54	3.48	2.88
2001	1.76	2.32	1.73	1.81	3.66	3.51	2.12	3.17	2.30	3.29	2.65
2002	1.87	2.31	2.11	1.93	3.54	3.95	2.12	3.52	2.28	3.29	2.70
2003	1.95	2.47	2.77	1.99	3.49	3.05	2.40	4.19	2.44	3.27	2.86
2004	1.71	2.70	1.33	2.88	3.63	4.37	2.51	4.42	2.66	3.56	3.09
2005	1.58	2.61	3.32	3.08	3.53	5.71	2.82	4.15	2.58	3.49	3.03
2006	1.28	2.53	2.89	2.41	3.06	1.84	2.97	2.99	2.49	2.99	2.73
2007	1.49	2.69	3.94	2.77	3.77	3.78	3.52	4.25	2.66	3.66	3.14
2008	2.22	2.57	3.69	3.88	3.22	3.75	3.65	4.92	2.56	3.28	3.01
2009	2.21	1.99	3.02	2.72	2.42	3.72	3.26	3.44	1.97	2.44	2.33

(d) Shares of Australia in the volume of NWE8 wine exports (%)

Year	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		WORLD
									EU-15	NWE8	
1990	2	37		83	18		38	31	36	27	26
1991	11	39		81	21		35	26	40	26	28
1992	23	39		90	19	0	25	30	41	26	30
1993	28	47	12	95	21		25	37	48	33	37
1994	10	43	9	91	20	0	29	35	44	30	33
1995	0	31	4	59	19	0	8	21	18	22	17
1996	1	39	2	76	25	0	8	25	35	28	28
1997	4	33	19	80	23	0	7	18	32	26	25
1998	7	35	12	72	31	0	15	15	35	34	28
1999	16	47	15	85	56	1	16	24	48	57	44
2000	11	30	4	68	32	1	11	15	30	35	28
2001	18	32	12	64	36	1	14	18	32	38	30
2002	15	35	10	62	47	1	8	19	35	48	35
2003	12	30	2	61	51	1	7	15	29	52	31
2004	12	31	13	47	53	1	20	21	31	52	34
2005	9	33	4	54	52	1	11	29	31	50	34
2006	10	35	2	60	52	3	13	30	33	52	34
2007	8	32	2	43	45	1	3	22	31	44	28
2008	4	32	2	25	42	1	8	21	30	39	27
2009	4	29	4	30	41	1	9	28	28	39	29

Table 16 (cont.) Volume, value, unit value and shares of wine exports to key regions, 1990 to 2009

(e) Shares of Australia in the value of NWE8 wine exports (%)

Year	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		WORLD
									EU-15	NWE8	
1990	11	43		85	38		33	35	44	47	40
1991	13	45		83	35		30	34	46	41	39
1992	12	44		84	32	0	11	34	44	36	37
1993	19	47	19	88	35		9	37	48	41	40
1994	14	47	11	80	36	0	13	38	48	40	41
1995	2	38	16	71	33	0	3	32	36	37	31
1996	4	36	5	73	32	0	7	36	36	35	33
1997	8	35	16	70	33	0	7	30	34	35	31
1998	8	34	11	71	37	0	11	19	34	39	30
1999	14	37	14	75	42	1	12	30	37	44	36
2000	14	36	9	66	46	1	15	27	36	47	36
2001	22	38	10	69	50	1	19	28	37	50	38
2002	17	41	10	65	59	1	15	28	40	59	43
2003	17	37	9	64	63	3	15	34	37	63	43
2004	17	38	10	53	63	2	20	40	38	62	44
2005	12	41	10	47	60	2	15	41	40	59	44
2006	11	39	7	41	55	3	20	41	38	53	40
2007	9	38	8	33	53	2	19	41	38	50	39
2008	5	33	6	23	44	2	17	38	32	40	33
2009	6	29	6	21	40	1	14	37	28	37	30

(f) Shares of Australia in the volume of world wine exports (%)

Year	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		WORLD
									EU-15	NWE8	
1990	0.0	1.2		34.1	2.7		0.9	8.0	1.0	4.3	1.4
1991	0.1	1.7		36.6	4.0		0.7	8.2	1.4	5.4	1.9
1992	0.2	2.3		48.6	3.8	0.0	0.8	10.3	1.9	6.0	2.4
1993	0.2	3.0	0.3	69.7	4.7		0.9	12.4	2.5	9.3	3.2
1994	0.1	3.0	0.2	53.6	4.5	0.0	1.1	8.5	2.3	8.6	3.0
1995	0.0	2.4	0.1	31.1	4.2	0.0	0.8	6.9	1.8	6.1	2.3
1996	0.1	4.7	0.0	57.1	7.6	0.1	1.0	8.3	4.0	10.0	4.2
1997	0.1	4.5	0.1	49.8	7.6	0.1	1.1	5.3	3.9	9.7	4.1
1998	0.1	5.0	0.1	44.0	10.5	0.1	1.2	4.6	4.1	12.7	4.6
1999	0.2	7.0	0.1	51.9	15.1	0.4	1.3	7.5	5.8	17.8	6.7
2000	0.3	5.4	0.1	48.2	11.3	0.2	1.3	4.9	4.5	11.8	5.0
2001	0.7	6.2	0.1	51.3	13.8	0.2	1.4	5.9	5.4	14.2	5.9
2002	0.5	7.5	0.1	45.6	19.4	0.2	1.3	6.1	6.3	18.8	7.1
2003	0.7	7.1	0.2	52.2	24.1	0.5	1.1	6.2	6.3	23.3	7.7
2004	1.1	8.5	0.6	38.7	26.5	0.4	1.9	8.5	7.6	26.2	9.1
2005	1.0	9.0	0.3	41.8	27.9	0.4	1.8	11.3	7.9	27.7	9.4
2006	1.1	9.3	0.3	47.5	29.1	1.6	2.3	14.7	8.0	28.9	10.0
2007	1.0	9.4	0.3	34.2	24.0	0.5	1.5	10.6	8.3	23.0	9.0
2008	0.4	8.8	0.3	18.8	22.7	0.6	2.3	9.6	7.6	21.7	8.4
2009	0.4	8.4	0.3	24.3	25.4	0.4	2.1	14.0	7.4	23.5	9.2

Table 16 (cont.) Volume, value, unit value and shares of wine exports to key regions, 1990 to 2009

(g) Shares of Australia in the value of world wine exports (%)

Year	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		WORLD
									EU-15	NWE8	
1990	0.1	1.1		22.2	2.6		0.7	3.8	1.1	3.7	1.6
1991	0.1	1.8		23.4	3.1		0.6	4.3	1.7	4.1	2.1
1992	0.2	2.3		24.7	3.4	0.0	0.7	4.5	2.2	4.3	2.5
1993	0.3	3.2	0.4	35.9	4.5		1.0	5.7	3.1	5.9	3.5
1994	0.2	3.7	0.2	33.1	4.8	0.1	1.4	4.7	3.5	6.3	3.8
1995	0.1	2.9	0.1	27.0	4.5	0.1	0.8	4.4	2.7	5.6	3.0
1996	0.1	3.7	0.0	29.3	4.6	0.1	1.2	5.5	3.4	5.6	3.7
1997	0.3	4.2	0.1	26.3	5.4	0.2	1.4	4.5	4.0	6.4	4.2
1998	0.2	4.4	0.1	24.7	6.0	0.1	1.4	3.7	4.1	6.8	4.3
1999	0.4	5.6	0.2	25.1	6.6	0.3	1.7	5.7	5.3	7.4	5.4
2000	0.7	6.9	0.2	29.4	9.4	0.4	2.1	4.3	6.6	10.1	6.7
2001	1.4	7.4	0.2	34.8	11.5	0.4	2.6	5.4	7.2	12.3	7.6
2002	1.0	8.6	0.3	32.5	14.9	0.5	2.4	5.2	8.3	15.6	9.2
2003	1.4	8.9	0.5	38.5	19.8	1.1	2.5	7.5	8.7	20.6	10.8
2004	1.7	10.3	0.7	30.4	21.2	0.8	3.8	9.8	10.3	21.6	12.1
2005	1.3	9.4	0.8	25.0	19.2	1.0	3.5	9.5	9.2	19.5	10.9
2006	1.1	8.8	0.8	22.6	17.8	1.4	4.1	9.2	8.5	18.0	10.0
2007	0.8	8.2	0.8	17.2	15.9	1.0	3.3	8.4	8.1	15.9	9.0
2008	0.5	6.4	0.7	12.1	13.1	0.8	3.0	8.1	6.3	12.9	7.2
2009	0.6	5.7	0.6	12.6	14.2	0.7	2.6	9.5	5.7	14.0	7.2

(h) Shares in volume of Australian wine exports to various regions (%)

	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		**WORLD**
									EU-15	NWE8	
1990	0.2	54.1	0.0	13.1	18.8	0.0	1.8	12.0	52.6	31.9	**100**
1991	0.9	59.3	0.0	9.2	21.6	0.0	1.1	8.0	58.1	30.7	**100**
1992	1.3	62.7	0.0	10.8	15.9	0.0	1.3	8.0	62.2	26.8	**100**
1993	1.0	60.0	0.6	17.2	13.6	0.0	0.9	6.6	59.2	30.9	**100**
1994	0.5	61.4	0.3	16.9	13.5	0.0	1.0	6.4	59.9	30.4	**100**
1995	0.3	63.1	0.2	11.2	17.3	0.1	1.0	7.0	60.7	28.5	**100**
1996	0.2	65.2	0.1	8.4	18.5	0.0	0.6	7.0	62.6	26.9	**100**
1997	0.4	61.1	0.3	9.3	21.3	0.1	0.6	7.1	58.3	30.6	**100**
1998	0.4	60.8	0.1	8.5	22.6	0.0	0.5	7.0	58.5	31.1	**100**
1999	0.5	64.3	0.1	7.5	21.8	0.1	0.4	5.2	62.6	29.4	**100**
2000	1.0	62.7	0.1	6.8	24.2	0.1	0.5	4.7	61.4	30.9	**100**
2001	1.5	62.2	0.2	6.3	24.8	0.1	0.5	4.5	61.8	31.1	**100**
2002	0.9	59.2	0.1	5.6	29.8	0.1	0.4	3.8	58.7	35.4	**100**
2003	1.0	52.8	0.2	6.2	35.6	0.2	0.3	3.7	52.5	41.9	**100**
2004	1.2	54.4	0.5	3.8	35.2	0.1	0.5	4.3	54.7	39.0	**100**
2005	1.2	53.6	0.3	3.5	36.2	0.1	0.5	4.7	53.9	39.7	**100**
2006	1.4	50.7	0.3	4.2	35.4	0.5	0.5	7.0	51.3	39.6	**100**
2007	1.1	55.0	0.4	4.0	32.3	0.2	0.5	6.5	55.5	36.3	**100**
2008	0.5	53.9	0.4	2.8	34.1	0.2	0.7	7.3	53.7	36.9	**100**
2009	0.4	47.8	0.3	2.8	37.5	0.2	0.5	10.4	47.5	40.4	**100**

Table 16 (cont.) Volume, value, unit value and shares of wine exports to key regions, 1990 to 2009

(i) Shares in value of Australian wine exports to various regions (%)

	WEX	WEM	ECA	ANZ	USC	LAC	AME	APA	MEMO		WORLD
									EU-15	NWE8	
1990	0.4	47.4		13.6	26.2		0.7	11.8	46.2	39.8	**100**
1991	0.4	56.7		9.2	23.9		0.5	9.3	54.6	33.1	**100**
1992	0.5	60.5		7.5	23.3	0.0	0.6	7.6	59.0	30.8	**100**
1993	0.6	59.7	0.3	9.5	23.0		0.4	6.5	58.2	32.6	**100**
1994	0.4	61.9	0.1	8.8	21.5	0.1	0.5	6.7	59.9	30.4	**100**
1995	0.2	62.1	0.1	7.7	21.6	0.1	0.6	7.6	59.3	29.3	**100**
1996	0.2	60.4	0.0	7.1	23.0	0.1	0.4	8.7	57.5	30.2	**100**
1997	0.4	57.6	0.1	6.8	26.0	0.1	0.4	8.6	54.5	32.8	**100**
1998	0.4	58.6	0.1	5.5	27.6	0.1	0.4	7.4	56.2	33.2	**100**
1999	0.5	60.3	0.1	5.5	26.9	0.1	0.3	6.3	58.4	32.4	**100**
2000	0.6	55.9	0.1	4.5	32.8	0.2	0.3	5.7	54.2	37.3	**100**
2001	1.0	54.5	0.1	4.3	34.2	0.1	0.4	5.4	53.5	38.6	**100**
2002	0.6	50.7	0.1	4.0	39.1	0.1	0.3	5.0	49.6	43.1	**100**
2003	0.7	45.6	0.2	4.3	43.4	0.2	0.3	5.4	44.8	47.8	**100**
2004	0.7	47.5	0.2	3.6	41.4	0.1	0.4	6.1	47.1	45.0	**100**
2005	0.6	46.2	0.3	3.6	42.2	0.2	0.4	6.4	45.9	45.8	**100**
2006	0.6	47.0	0.4	3.7	39.7	0.3	0.6	7.7	46.8	43.4	**100**
2007	0.5	47.1	0.5	3.5	38.7	0.3	0.6	8.8	47.0	42.2	**100**
2008	0.4	46.0	0.5	3.6	36.4	0.3	0.9	11.9	45.6	40.1	**100**
2009	0.4	40.7	0.4	3.3	38.9	0.3	0.7	15.3	40.2	42.2	**100**

(j) Total and unit value and volume of Australian wine exports to key Asian markets (AUD and litres)

	2011-12			**2012-13**			**2013-14**		
	Vol. (ML)	Value($m	Price ($/l)	Vol. (ML)	Value($m	Price ($/l)	Vol. (ML)	Value($m)	Price ($/l)
China	41.4	214.9	5.19	40.7	248.4	6.10	36.7	210.2	5.73
Hong Kong	7.0	61.7	8.81	6.7	71.8	10.72	7.5	86.0	11.47
Singapore	5.2	46.0	8.85	4.8	41.6	8.67	5.5	53.6	9.75
Japan	9.9	44.9	4.54	9.0	41.4	4.60	9.2	39.6	4.30
Malaysia	2.9	28.1	9.69	3.0	30.2	10.07	2.9	33.1	11.41
Thailand	2.9	16.2	5.59	2.7	14.0	5.19	3.0	14.1	4.70
Taiwan	1.6	9.7	6.06	1.3	8.7	6.69	1.4	9.9	7.07
Korea	1.1	8.3	7.33	1.2	8.8	7.48	0.9	7.3	7.72
Philippines	1.0	4.5	4.29	1.1	4.9	4.66	1.0	4.9	4.81
India	1.4	4.2	3.02	0.6	2.5	4.07	0.7	2.6	3.70
Indonesia	0.3	3.8	11.62	0.3	3.5	10.30	0.3	2.4	8.27
Sum of 11	**74.8**	**442.2**	**5.91**	**71.4**	**475.8**	**6.67**	**69.1**	**463.6**	**6.71**

Table 17: Shares of wine in total agricultural and total merchandise exports, 1901 to 2013 (%)

Year	Total agricultural	Total merchandise	Year	Total agricultural	Total merchandise
1901	0.48	0.26	1935	1.02	0.73
1902	0.62	0.31	1936	0.96	0.70
1903	0.73	0.33	1937	0.89	0.66
1904	0.35	0.19	1938	0.86	0.62
1905	0.32	0.20	1939	1.08	0.72
1906	0.29	0.17	1940	0.93	0.57
1907	0.21	0.14	1941	0.55	0.33
1908	0.35	0.20	1942	0.50	0.30
1909	0.23	0.16	1943	0.39	0.24
1910	0.23	0.18	1944	0.46	0.30
1911	0.24	0.17	1945	0.59	0.39
1912	0.31	0.20	1946	0.54	0.38
1913	0.21	0.16	1947	0.53	0.39
1914	n.a.	0.15	1948	0.45	0.36
1915	0.23	0.17	1949	0.23	0.18
1916	0.26	0.17	1950	0.10	0.08
1917	0.17	0.12	1951	0.07	0.07
1918	0.18	0.13	1952	0.14	0.11
1919	0.24	0.19	1953	0.11	0.09
1920	0.20	0.16	1954	0.13	0.11
1921	0.34	0.25	1955	0.13	0.11
1922	0.17	0.13	1956	0.12	0.10
1923	0.17	0.14	1957	0.15	0.12
1924	0.22	0.19	1958	0.17	0.12
1925	0.14	0.12	1959	0.19	0.14
1926	0.30	0.26	1960	0.18	0.14
1927	0.72	0.59	1961	0.18	0.14
1928	0.90	0.78	1962	0.17	0.13
1929	0.41	0.36	1963	0.16	0.13
1930	0.68	0.45	1964	0.13	0.10
1931	0.66	0.50	1965	0.18	0.14
1932	1.21	0.86	1966	0.19	0.13
1933	1.56	0.67	1967	0.15	0.11
1934	0.88	0.66	1968	0.17	0.11

Table 17 (cont.): Shares of wine in total agricultural and total merchandise exports, 1901 to 2013 (%)

Year	Total agricultural	Total merchandise
1969	0.18	0.10
1970	0.13	0.07
1971	0.16	0.08
1972	0.17	0.09
1973	0.09	0.05
1974	0.15	0.08
1975	0.13	0.06
1976	0.12	0.06
1977	0.10	0.05
1978	0.10	0.04
1979	0.10	0.04
1980	0.10	0.04
1981	0.14	0.06
1982	0.28	0.07
1983	0.26	0.06
1984	0.31	0.07
1985	0.28	0.06
1986	0.29	0.06
1987	0.50	0.12
1988	0.83	0.23
1989	0.70	0.26
1990	0.77	0.25
1991	1.23	0.34
1992	1.49	0.44
1993	1.64	0.48
1994	1.87	0.57
1995	1.90	0.57
1996	2.09	0.62
1997	2.48	0.75
1998	3.37	0.99
1999	3.89	1.15
2000	4.95	1.41
2001	5.24	1.46
2002	5.97	1.74
2003	7.82	2.09
2004	8.36	2.28
2005	8.73	2.12
2006	8.87	1.79
2007	9.22	1.70
2008	8.72	1.47
2009	6.95	1.05
2010	6.91	1.07
2011	5.51	0.79
2012	4.68	0.70
2013	4.42	0.73

Table 18: Wine import tariffs, by Colony, 1852 to 1900, and interstate trade in wine, 1906

(a) Import tariffs, still wine/sparkling wine (cents per litre)

	SA	NSW	Vic	WA	Tas	Qld	NZ
1852			2.2/na				
1855		4.4/22.0					
1858	2.2/na	6.6/na	4.4/na				
1865			6.6/na				
1866			13.2/na				
1871		8.8/13.2					
1876	6.6/na	8.8/na	8.8/na				
1878							50.6/na
1888						13.2/22.0	
1893		11.0/22.0				13.2/22.0	
1897			11.0/22.0			13.2/22.0	
1998			11.0/22.0			13.2/22.0	
1899			11.0/22.0		6.6/22.0	13.2/22.0	
1900	26.4/33.0		11.0/22.0	14.5/22.0	6.6/22.0	13.2/22.0	
1901			11.0/22.0				

(b) Interstate trade in wine, 1906 (kl)

	SA	NSW	Vic	WA	Tas	Qld
Exports	1501	204	521	1	4	7
Imports	111	1014	407	304	100	300
Net exports	1390	-810	114	-303	-96	-293

Table 19: Tax revenue from customs and excise duties and sales taxes on wine, beer and spirits, 1858 to 1988

a) New South Wales ($'000)

	Customs duties on:				Excise duties on:			NSW tax
	Beer	Wine	Spirits	Total	Beer	Wine	Spirits	revenue
1858	18	56	618	692	na	0	102	29.0
1859	14	68	646	728	na	0	108	31.6
1860	16	56	604	676	na	0	88	33.6
1861	12	56	638	706	na	0	78	31.9
1862	16	64	674	754	na	0	72	30.8
1863	22	74	668	764	na	0	72	31.6
1864	18	46	638	702	na	0	20	25.7
1865	22	54	654	730	na	0	46	24.0
1866	50	52	652	754	na	0	44	22.9
1867	46	54	674	774	na	0	46	23.8
1868	48	54	640	742	na	0	60	22.3
1869	54	48	644	746	na	0	38	20.9
1870	44	44	640	728	na	0	26	17.9
1871	na	na	na	na	na	0	na	na
1872	na	na	na	na	na	0	na	na
1873	na	na	na	na	na	0	na	na
1874	na	na	na	na	na	0	na	na
1875	na	na	na	na	na	0	na	na
1876	74	76	970	1120	na	0	na	11.1
1877	72	78	1012	1162	na	0	na	10.1
1878	68	82	1090	1240	na	0	na	12.4
1879	76	70	1042	1188	na	0	na	13.3
1880	64	82	1200	1346	na	0	na	13.7
1881	70	94	1324	1488	na	0	na	15.8
1882	84	104	1386	1574	na	0	na	15.8
1883	94	102	1434	1630	na	0	na	12.6
1884	106	106	1488	1700	na	0	22	12.1
1885	122	110	1446	1678	na	0	18	11.2
1886	138	98	1398	1634	na	0	12	12.2
1887	138	90	1518	1746	128	0	22	12.3
1888	154	102	1612	1868	232	0	24	13.2
1889	160	96	1602	1858	238	0	32	12.9
1890	144	92	1646	1882	240	0	46	12.6
1891	na	na	na	2000	264	0	48	12.6
1892	na	na	na	1848	268	0	42	11.3
1893	na	na	na	1522	244	0	na	10.1
1894	na	na	na	1468	236	0	na	10.0
1895	na	na	na	694	120	0	na	9.6
1896	na	na	na	1458	250	0	na	10.3
1897	na	na	na	1498	262	0	na	10.5
1898	na	na	na	1506	278	0	na	10.4
1899	na	na	na	1576	304	0	na	10.6
1900	na	na	na	1648	316	0	na	10.9

Table 19 (cont.) Tax revenue from customs and excise duties and sales taxes on wine, beer and spirits, 1858 to 1988

b) Australia ($'000)

Year	Custom				Excise				Total	Share (%) of Austalia's tax revenue
	Beer	Wine	Spirits	Total	Beer	Wine	Spirits	Total		
1902	na	na	na	na	na	na	na	718	na	na
1903	na	na	na	na	986	0	468	727	na	23.5
1904	332	101	3698	4131	972	0	528	1500	5631	24.2
1905	338	96	3716	4150	978	0	534	1512	5662	24.5
1906	342	95	3846	4283	1018	0	550	1568	5851	24.2
1907	360	100	4224	4684	1084	0	842	1926	6610	23.5
1908	366	103	3932	4401	1116	0	396	1512	5913	21.2
1909	366	100	4080	4546	1114	0	506	1620	6166	21.2
1910	416	111	4320	4847	1210	0	602	1812	6659	20.5
1911	464	129	4686	5279	1298	0	708	2006	7285	18.7
1912	536	129	4882	5547	1418	0	792	2210	7757	18.4
1913	508	131	4928	5567	1514	0	846	2360	7927	17.8
1914	na	na	na	na	na	0	na	na	na	na
1915	434	122	5234	5790	2410	0	1030	3440	9230	20.6
1916	316	95	4488	4899	2970	0	1258	4228	9127	15.0
1917	154	85	3648	3887	2774	0	1342	4116	8003	11.9
1918	52	68	3198	3318	3408	0	1606	5014	8332	11.4
1919	40	62	2730	2832	5726	0	2202	7928	10760	12.1
1920	72	129	3436	3637	7414	0	3208	10622	14259	13.6
1921	100	106	3158	3364	10878	0	3118	13996	17360	13.4
1922	110	101	3638	3849	10944	0	3022	13966	17815	13.8
1923	148	116	4174	4438	10996	0	3228	14224	18662	14.5
1924	174	142	4726	5042	11006	0	3514	14520	19562	14.9
1925	182	149	4982	5313	11284	0	3518	14802	20115	14.7
1926	190	159	5352	5701	11696	0	4052	15748	21449	15.0
1927	192	165	5252	5609	12208	0	5330	17538	23147	14.2
1928	186	154	5130	5470	12310	0	3742	16052	21522	14.2
1929	na	na	na	5276	12382	0	3512	15894	21170	13.4
1930	na	na	na	5158	12208	0	3764	15972	21130	10.3
1931	na	na	na	2092	10402	0	2638	13040	15132	10.8
1932	na	na	na	1934	9478	0	2904	12382	14316	9.8
1933	na	na	na	2054	9736	0	2788	12524	14578	9.8
1934	na	na	na	2104	9540	0	3028	12568	14672	9.7
1935	na	na	na	3780	10188	0	3154	13342	17122	9.8
1936	na	na	na	2282	11244	0	3336	14580	16862	10.0
1937	na	na	na	2316	12218	0	3384	15602	17918	10.8
1938	na	na	na	2348	13788	0	3550	17338	19686	10.8
1939	na	na	na	2332	14578	0	3592	18170	20502	10.6
1940	na	na	na	2900	17560	0	4232	21792	24692	10.8
1941	na	na	na	1928	22458	0	5064	27522	29450	9.7
1942	na	na	na	1770	28606	0	6070	34676	36446	8.6
1943	na	na	na	1500	39224	0	8812	48036	49536	8.4
1944	na	na	na	936	43176	0	10388	53564	54500	8.0
1945	na	na	na	1010	43024	0	10512	53536	54546	7.2
1946	na	na	na	1176	45040	0	14210	59250	60426	7.6
1947	na	na	na	1390	54494	0	12202	66696	68086	7.9
1948	na	na	na	1880	54088	0	13440	67528	69408	7.4
1949	na	na	na	2342	63614	0	14046	77660	80002	7.2
1950	549	16	2038	2603	66804	0	13852	80656	83259	7.2
1951	637	27	2866	3530	74486	0	16258	90744	94274	5.6

Table 19 (cont.) Tax revenue from customs and excise duties and sales taxes on wine, beer and spirits , 1902 to 1985 (A$'000)

Year	Custom				Excise				Total	Share (%) of Austalia's total revenue
	Beer	Wine	Spirits	Total	Beer	Wine	Spirits	Total		
1952	1508	45	3692	5245	113882	0	17780	131662	136907	6.7
1953	327	14	3613	3954	131652	0	13360	145012	148966	7.2
1954	119	28	4344	4491	142120	0	12710	154830	159321	7.8
1955	73	43	5090	5206	152724	0	12992	165716	170922	8.0
1956	54	45	5302	5401	170630	0	14650	185280	190681	8.4
1957	43	30	5320	5393	207032	0	16276	223308	228701	8.7
1958	51	39	5988	6078	211994	0	16294	228288	234366	8.9
1959	55	42	6434	6531	210572	0	17384	227956	234487	9.0
1960	58	72	9401	9531	219448	0	17366	236814	246345	8.6
1961	65	116	10222	10403	223480	0	17172	240652	251055	7.7
1962	74	113	11508	11695	227008	0	16836	243844	255539	7.4
1963	86	124	10772	10982	234526	0	17164	251690	262672	7.4
1964	77	158	12274	12509	247169	0	18306	265475	277984	7.0
1965	37	201	14489	14727	260214	0	19207	279421	294148	6.4
1966	42	209	15043	15294	302104	0	22871	324975	340269	6.6
1967	52	263	18030	18345	320832	0	24873	345705	364050	8.1
1968	75	397	21930	22402	338614	0	26783	365397	387799	6.9
1969	119	525	23607	24251	355001	0	24440	379441	403692	6.5
1970	161	616	28099	28876	369937	0	26525	396462	425338	5.9
1971	240	836	29771	30847	382479	9290	25923	417104	447951	5.5
1972	282	1009	33312	34603	398330	11534	27180	437026	471629	5.3
1973	318	931	38892	40141	419954	3354	30501	453730	493871	5.2
1974	390	1192	57872	59454	462400	0	46037	508437	567891	4.8
1975	393	1533	84013	85939	475963	0	62847	538810	624749	4.1
1976	547	2053	96890	99490	694014	0	66941	760955	860445	4.7
1977	505	2455	115920	118880	745170	0	71625	816094	934974	4.4
1978	388	2422	124132	126942	757815	0	75886	832685	959627	4.1
1979	627	2408	151877	154576	947627	0	100058	1046669	1201245	4.7
1980	496	2282	174879	177404	1004256	0	100185	1103472	1280876	4.3
1981	776	2435	192218	195429	994994	0	111768	1105290	1300719	3.7
1982	898	2674	218776	222044	1005816	0	119606	1124184	1346228	3.3
1983	1239	2517	222315	225878	1090716	0	112649	1202072	1427950	3.2
1984	1644	3151	228164	232906	1155200	0	1121184	1270313	1503219	3.1
1985	2881	6957	265031	274286	1177461	53000	122133	1352594	1474727	2.8
1986	3956	na	311930	na	1279901	54000	132548	1466449	na	na
1987	5053	na	322244	na	1362872	64000	129731	1556603	na	na
1988	7175	na	369930	na	1493281	72000	145900	1711181	na	na

Table 20: Wine export assistance and UK import tariff preferences, 1924 to 1948

Year	*Fortified wine export bounty (A$)*	*Total wine exports (kl)*	*Total wine exports value ($'000)*	*Unit value of wine exports (cents/litre)*	*Excise tax on grape spirit for fortified wines (cents/l of wine)**	*Bounty + excise drawback on fortified wine exports (cents/l)*	*Ad valorem equiv. of bounty (%)*	*UK tariff preference on fortifieds (cents/litre)*	*UK tariff preference on table wine (cents/litre)*
1924-25	56834	4007	378	9.4	2.8	8.8	15	0.0	0.0
1925-26	434218	7831	744	9.5	2.8	8.8	58	8.8	2.2
1926-27	884820	14010	1668	11.9	2.8	8.8	53	8.8	2.2
1927-28	965686	17151	2124	12.4	2.8	6.6	45	8.8	2.2
1928-29	152910	7914	1002	12.7	2.8	6.6	15	8.8	2.2
1929-30	166420	9927	1112	11.2	2.8	6.6	15	8.8	2.2
1930-31	330018	10039	1020	10.2	2.8	6.6	32	8.8	2.2
1931-32	402536	15801	1818	11.5	2.8	6.6	22	8.8	2.2
1932-33	356982	14059	1582	11.3	2.8	6.6	23	8.8	4.4
1933-34	367962	13941	1606	11.5	2.8	6.6	23	8.8	4.4
1934-35	368660	15432	1624	10.5	2.8	6.6	23	8.8	4.4
1935-36	388934	16865	1870	11.1	2.8	6.6	21	8.8	4.4
1936-37	429772	18583	2088	11.2	2.8	6.6	21	8.8	4.4
1937-38	369386	17716	1890	10.7	2.8	6.6	20	8.8	4.4
1938-39	335744	16862	1964	11.6	2.8	6.6	17	8.8	4.4
1939-40	293184	16456	1916	11.6	2.8	5.0	15	8.8	4.4
1940-41	113094	7537	1032	13.7	2.8	5.0	11	8.8	4.4
1941-42	77220	6336	996	15.7	2.8	5.0	8	8.8	4.4
1942-43	30098	3714	594	16.0	2.8	5.0	5	8.8	4.4
1943-44	45012	5662	846	14.9	2.8	5.0	5	8.8	4.4
1944-45	69226	7051	1190	16.9	2.8	5.0	6	8.8	4.4
1945-46	107298	8112	1482	18.3	2.8	5.0	7	8.8	4.4
1946-47	130492	12368	2364	19.1	2.8	5.0	6	8.8	4.4
1947-48	27788	12221	2860	23.4			1		

* Revenue from this excise tax was more than sufficient to fund the export bounty over its 22-year history, and to provide a $1 million Wine Research Trust Fund, interest from which financed research once the Australian Wine Research Institute was established in 1955.

Table 21: Number of wineries in Australia, by State and crush size, 1978 to 2014

a) Number of wineries , by State

Year	SA	NSW/ACT	VIC	WA	TAS	QLD	NT	Total
1984	146	126	110	106	7	18	2	515
1985	147	121	109	102	7	18	2	506
1986	163	136	134	125	10	26	2	596
1987	159	128	132	110	12	20	1	562
1988	153	126	138	87	14	15	1	534
1989	160	129	149	86	13	15	1	553
1990	171	144	169	96	22	17	1	620
1991	164	144	177	93	22	16	1	617
1992	183	161	204	108	25	19	1	701
1993	188	159	220	114	34	21	1	737
1994	194	170	243	130	43	21	1	802
1995	199	174	256	143	51	21	1	845
1996	211	178	274	149	50	29	1	892
1997	222	195	279	153	51	33	1	934
1998	236	209	298	160	56	38	1	998
1999	257	241	322	183	56	44	1	1,104
2000	275	273	336	195	69	48	1	1,197
2001	308	293	369	208	69	70	1	1,318
2002	353	331	416	220	70	74	1	1,465
2003	391	367	461	242	75	89	0	1,625
2004	432	392	521	269	83	101	0	1,798
2005	471	408	560	282	77	100	1	1,899
2006	502	428	583	312	77	105	1	2,008
2007	563	432	628	332	81	109	1	2,146
2008	607	452	687	356	90	107	0	2,299
2009	620	443	698	361	92	106	0	2,320
2010	648	467	724	372	98	111	0	2,420
2011	667	475	738	382	104	111	0	2,477
2012	695	474	750	394	112	107	0	2,532
2013	704	487	776	389	115	101	0	2,572
2014	720	484	773	379	117	100	0	2,573

Table 21 (cont.) Number of wineries, by State and crush size, 1978 to 2014

b) Number of wineries by tonnes crushed, by state, 2014

	ACT	NSW	Vic	Qld	SA	WA	Tas	Total
Less than 10 tonnes	1	109	200	35	100	62	50	557
10 to 19 tonnes		75	164	20	98	58	19	434
20 to 49 tonnes	2	93	159	25	150	91	25	545
50 to 99 tonnes	1	68	90	8	84	59	8	318
100 to 249 tonnes		44	59	5	84	49	6	247
250 to 499 tonnes		21	24	1	72	23	2	143
500 to 999 tonnes		17	11	2	48	6	2	86
1,000 to 2,499 tonnes		8	8		28	12	2	58
2,500 to 4,999 tonnes		9	13		7	4		33
5,000 to 9,999 tonnes		2	4		7	1		14
10,000 to 19,999 tonnes		2	2		8	3		15
20,000 or more tonnes		4	4		5			13
Unknown or unspecified		28	35	4	29	11	3	110
Total	4	480	773	100	720	379	117	2,573

c) Number of wineries by tonnes crushed, 1998 to 2014

	1998	2000	2002	2004	2006	2008	2010	2012	2014
Less than 10 tonnes					277	380	438	470	557
10 to 19 tonnes					324	372	395	423	434
Less than 20 tonnes	293	337	418	582					
20 to 49 tonnes	211	259	331	414	481	528	515	540	545
50 to 99 tonnes	145	180	212	254	303	330	349	350	318
100 to 249 tonnes	142	157	189	211	242	243	262	261	247
250 to 499 tonnes	50	78	88	106	126	146	155	158	143
500 to 999 tonnes	31	40	61	72	74	74	82	87	86
1,000 to 2,499 tonnes	44	45	54	45	69	67	62	55	58
2,500 to 4,999 tonnes	19	29	36	40	27	36	35	42	33
5,000 to 9,999 tonnes	16	20	23	24	28	26	21	18	14
10,000 to 19,999 tonnes			26	21	18	15	14	12	15
10,000 or more tonnes	34	41							
20,000 or more tonnes			15	22	23	20	11	19	13
Unknown or unspecified	13	11	12	7	16	62	81	97	110
Total	998	1,197	1,465	1,798	2,008	2,299	2,420	2,532	2,573

d) Percent of winery number, grape crush and wine production, by tonnes crushed, 1978 to 2014

	Number			Crush			Wine
	1978	1996	2014	1978	1996	2009	2009
Less than 100 tonnes	57	79	75	1	3	0.1	0.2
100 to 999 tonnes	26	17	20	5	6	4	3
1000 to 9999 tonnes	10	3	4	16	13	13	12
10000 or more tonnes	7	1	1	78	78	83	85
TOTAL	100	100	100	100	100	100	100
Share of top 3 wineries (%)					50	41	40

Table 22: Ranking of largest 30 wine companies by various criteria, 2013

	Sales, total wine	Sales, branded wine	Wine prod'n volume	Wine-grape intake	Wine-grape hectares	Wine export value	Wine export volume	Earliest year of brands
Treasury Wine	1	2	2	2	1	1	1	1843
Pernod Ricard	2	4	4	5	4	4	4	1828
Accolade	3	1	1	1	7	3	2	1836
Casella	4	3	3	3	>22	2	3	1969
Aust. Vintage	5	5	5	4	2	5	5	1938
*De Bortoli	6	6	7	7	10	9	7	**1928
*McWilliam's	7	7	8	8	8	6	8	**1877
Warburn	8	8	9	11	6	13	11	1959
*Yalumba	9	10	13	12	10	7	10	**1849
*Brown Bros.	10	12	18	18	9	16	17	**1889
*Tahbilk	11	17	20	20	13	19	19	**1860
Kingston Est.	12	13	6	6	>22	8	9	1979
*Grant Burge	13	16	21	>20	19	12	18	1865
Angove	14	14	15	15	>22	15	13	1889
Qualia	15	>20	10	9	>22	21	20	2009
*PeterLehmann	16	18	22	>20	>22	10	14	1979
Littore	17	9	14	14	3	20	16	2008
Zilzie	18	>20	11	10	12	>21	>21	1999
Berton	19	15	19	17	>22	17	15	1996
*Tyrrell's	20	>20	>22	>20	>22	>21	>21	**1858
Andrew Peace	21	11	12	13	17	11	6	1995
Wingara	22	>20	16	16	>22	18	21	1967
Beelgara	>22	19	>22	>20	>22	>21	>21	1930
Nugan	>22	20	>22	>20	22	14	12	1999
Selena	>22	>20	17	19	>22	>21	>21	1998
*Seppeltsfield	>22	>20	>22	5	>22	>21	>21	1851
Cumulus	>22	>20	>22	>20	14	>21	>21	2004
Byrne&Smith	>22	>20	>22	>20	15	>21	>21	1960
Taylors	>22	>20	>22	>20	16	>21	>21	**1969
Robert Oatley	>22	>20	>22	>20	18	>21	>21	1858

* One of the top 100 Australian wineries (according to Halliday 2014). Casella Family Wines purchased Peter Lehmann Wines at the end of 2014

**Member of Australia's First Families of Wine, www.australiasfirstfamiliesofwine.com.au

Table 23: History of brands, mergers and acquisitions

(a) Mergers and acquisitions during 1965-76 (4th boom)

Year	**Buyer**	**Main business of buyer**	**Winery brand purchased**
1965	Lindemans	Wine	Rouge Homme
1966	Seager Evans UK	Spirits	Glenloth Wines
1969	A consortium	Legal and accounting	Hungerford Hill
	Reed Consolidated UK	Paper products	J.Y. Tulloch
	W.R. Carpenter	Agribusiness etc.	Arrowfield
1970	Allied Vintners/Tooheys	Wine and beer	Glenloth, Seaview
	Hungerford Hill	Wine	Chateau Reynella
	Nathan and Wyeth	Spirits and wine importer	Quelltaler
	Pokolbin Winemakers	Wine	E.B. Drayton
	Reckitt & Colman UK	Soap products	Gramps Orlando, Morris
	Reed Consolidated UK	Paper products	McLaren Vale Wines, Ryecroft
1971	Dalgety Estates	Stock & Station Agent	Krondorf
	H.J. Heinz	Food products	Stanley Leasingham
	Philip Morris US	Tobacco products	Lindemans
	Rothmans UK	Tobacco products	Hungerford Hill, Chateau Reynella
1972	Allied Vintners	Wine and beer	Wynns
	Dalgety Estates	Stock & Station Agent	Saltram, Stoneyfell, Loxton Estate
	Davis Consolidated	Food products	Baileys
1974	Hermitage Wines	Wine	Elliots Wines
	Gilbeys UK	Spirits	Tulloch, Ryecroft
1975	Fitzpatrick Bros.		A.P.Birks Wendouree
	Gollin and Co.	Importer and wholesaler	Saxonvale
	Tooths Brewery	Beer	Penfolds
1976	Thomas Hardy & Sons	Wine	Emu Wine Co. (incl. Houghton)

Table 23 (cont) History of brands, mergers and acquisitions

(b) acquisitions by Australia's three largest wineries by 2014

Accolade[a]		**Pernod Ricard Australia**[b]		**Treasury Wine Estate**[c]	
	Year & State established		Year & State established		Year & State established
Amberley	1986, WA	Gramp	1847, SA	Annie's Lane	1966, SA
Banrock Station	1994, SA	Jacob's Creek	1973, SA	*Baileys	1870, Vic
Bay of Fires/Arras	2001, Tas	*Morris	1859, Vic	*Coldstream Hills	1985, Vic
Berri Co-op	1922, SA	Orlando	1874, SA	*Devil's Lair	1980, WA
Brookland Valley	1984, WA	Wyndham Est.	1828, NSW	Great Western	1965, Vic
Chateau Reynella	1845, SA			Heemskerk	1975, Tas
Goundrey	1976, WA			Ingolby	1973, SA
*Hardys	1853, SA			Jamiesons Run	1987, SA
*Houghton	1836, WA			Killawarra	1975, SA
Leasingham	1893, SA			Leo Buring	1934, SA
Moondah Brook	1968, WA			Lindeman's	1843, NSW
Renmano Co-op	1914, SA			Metala	1891, SA
Stanley	1894, SA			Mildara	1888, Vic
Tintara	1863, SA			*Penfolds	1844, SA
Yarra Burn	1975, Vic			Pepperjack	1859, SA
				Robertson's Well	1990, SA
				Rosemount Estate	1969, NSW
				Rothbury Estate	1968, NSW
				Saltram	1859, SA
				Seaview	1850, SA
				*Seppelt	1851, SA
				St Huberts	1862, Vic
				Tatachilla	1903, SA
				T'Gallant	1990, Vic
				Tollana	1892, SA
				*Wolf Blass	1966, SA
				*Wynn's	1951, SA
				Yarra Ridge	1988, SA
				Yellowglen	1971, Vic

* One of the top 100 Australian wineries, according to Halliday, J. (2014), *Top 100 Australian Wineries.*

[a] Previously also absorbed Clarevale Co-op (1930) and the Emu Wine Co. (1862), and is expected to buy Grant Burge Wines (1865) in 2015. Current brands also include Eddystone Point, Omni, and Rhine Castle.

[b] Previously known as Orlando Wyndham Group, Orlando Wines, Reckitt and Colman, and Wyndham Estate. Previously also absorbed the following companies/brands: Amberton (1975), Craigmoor (1859), Elliot (1999), Montrose (1974), Quelltaler (1863), Saxonvale (1970), and Wickam Hill (1970). Current brands also include Carrington, Gramps, Jacaranda Ridge, Lawson's, Poets Corner, Richmond Grove, Russet Ridge, and Trilogy.

[c] Previously known as Foster's, Southcorp and Mildara Blass and previously some were part of Adelaide Steamship Co., Dalgety Estates, Lindeman's Phillip Morris, Reed Consolidated, Rothmans UK, SA Brewing Co., Tooheys Brewery, and Tooth Brewery (see Table 23(a)). Previously also absorbed the following companies/brands whose establishment dates are in parentheses: Andrew Garrett (1983), Auldana (1854), Balgownie (1969), Dorrien (1982), Glenloth (1960s), Hungerford Hill (1967), Kaiser Stuhl (1958), Krondorf (1978), Loxton Co-op (1953), Maglieri (1972), Mathew Lang (1883), Middlebrook (1947), Queen Adelaide Woodley (1858), Quelltaler (1892), Riddoch (1891), Richard Hamilton (1845), Rouge Homme (1908), Ryecroft (1884), Stonyfell (1858), Tim Knappstein (1895), Tisdell (1971), and Tolley (1888).

Table 24: First Family wine companies and others established more than 100 years ago but not in or part of Australia's largest 30 wine companies, 2013

	State of establishment	Wine sales volume (kl)	Area of vines (hectares)	Date of establishment
Olive Farm Wines	WA	0	5	1829
*Yering Station	Vic	540	112	1838
Sandalford Wines	WA	540	105	1840
Oliver's Taranga Vineyards	SA	60	85	1841
*Pewsey Vale	SA	180	40	1847
Bleasdale Wines	SA	1050	47	1850
Sevenhill Cellars	SA	230	102	1851
Norman's Wines	SA	230	33	1853
Drayton's Family Wines	NSW	540	72	1853
Mudgee Wines	NSW	70	18	1856
*Chambers Rosewood	Vic	90	50	1858
Gehrig Estate Wines	Vic	n.a.	20	1858
St Leonard's Vineyard	Vic	230	8	1860
Mount Prior Vineyard	Vic	0	27	1860
Jones Winery and Vineyard	Vic	10	9	1860
*Henschke	SA	270	122	**1862
*Yeringberg	Vic	10	3	1863
*All Saints Estate	Vic	230	33	#1864
*Turkey Flat	SA	240	37	1865
*Best's Wines	Vic	180	34	1866
*Campbells Wines	Vic	320	72	**1870
*Stanton & Killeen	Vic	180	38	1875
Chateau Tanunda	SA	460	95	1890
Kay Brothers	SA	110	22	1890
Pirimimma	SA	280	83	1892
*Wendouree	SA	20	12	1892
*Wirra Wirra	SA	1620	49	1894
Tulloch	NSW	320	80	1895
Woodstock	SA	260	18	1905
*d'Arenberg	SA	2430	197	**1912
Jim Barry Wines	SA	720	249	**1959
Howard Park Wines	WA	n.a.	164	**1986

*One of the top 100 wineries, according to Halliday, J. (2014), *Top 100 Australian Wineries* .

**Member of Australia's First Families of Wine, www.australiasfirstfamiliesofwine.com.au

Now owned by descendants of Brown Brothers, one of Australia's First Families of Wine

Table 25: Other wineries ranked among Australia's top 100,[a] 2013

	State of establishment	Wine sales volume (ML)	Area of vines (hectares)	Date of establishment
Alkoomi	WA	0.54	105	1971
Ashton Hills	SA	0.01	3	1982
Balnaves	SA	0.09	57	1975
Bannockburn	Vic	0.09	24	1974
Bass Phillip	Vic	0.03	17	1979
Bellarmine	WA	0.06	20	2000
Bindi Wine Growers	Vic	0.02	6	1988
Boireann	Qld	0.01	2	1998
Brokenwood	NSW	0.9	20	1970
Burch Family Wines	WA	na	141	1986
By Farr/Farr Rising	Vic	0.05	14	1994
Capel Vale	WA	0.46	85	1974
Cape Mentelle	WA	0.92	165	1970
Castle Rock Estate	WA	0.03	11	1983
Charles Melton	SA	0.14	31	1984
Clonakilla	NSW	0.16	12	1971
Coldstream Hills	Vic	0.23	102	1985
Craiglee	Vic	0.02	9	1976
Crawford River Wines	Vic	0.03	10	1975
Cullen Wines	WA	0.18	34	1971
Curly Flat	Vic	0.06	12	1991
Dalwhinnie	Vic	0.04	26	1976
Delatite	Vic	0.09	25	1982
Domaine A	Tas	0.05	11	1973
Domaine Chandon	Vic	na	108	1986
Duke's Vineyard	WA	0.03	10	1998
Forest Hill Vineyard	WA	0.23	63	1965
Frankland Estate	WA	0.18	35	1988
Freycinet	Tas	0.08	15	1980
Geoff Weaver Wines	SA	0.05	13	1982
Giaconda	Vic	0.03	5	1985
Grosset	SA	0.1	22	1981
Hentley Farm Wines	SA	0.09	40	1999
Jasper Hill	Vic	0.02	24	1979
Kilikanoon	SA	0.46	151	1997
Lake's Folly	NSW	0.04	12	1963
Leeuwin Estate	WA	0.46	140	1974
Main Ridge Estate	Vic	0.01	3	1975
Majella	SA	0.23	60	1969
Meerea Park	NSW	0.12	10	1991
Moorooduc Estate	Vic	0.05	5	1983
Moss Wood	WA	0.13	23	1969
Mount Langi Ghiran	Vic	0.59	74	1969
Mount Mary	Vic	0.04	15	1971

Table 25 (cont.): Other wineries ranked among Australia's top 100,[a] 2013

	State of establishment	Wine sales volume (ML)	Area of vines (hectares)	Date of establishment
Oakridge Wines	Vic	0.23	10	1978
Paringa Estate	Vic	0.14	4	1985
Petaluma	SA	0.99	127	1976
Port Phillip Estate	Vic	0.14	62	1987
Rockford	SA	na	na	1984
Scotchmans Hill	Vic	0.46	48	1982
Seville Estate	Vic	0.06	8	1970
Shaw + Smith	SA	na	83	1989
Stefano Lubiana	Tas	na	25	1990
Stonier Wines	Vic	0.23	17	1978
Summerfield	Vic	0.09	14	1979
Tamar Ridge	Tas	0.5	303	1994
Tapanappa	SA	0.04	7	2002
TarraWarra Estate	Vic	0.14	29	1983
Thomas Wines	NSW	0.07	22	1997
Torbreck Vintners	SA	0.63	49	1994
Vasse Felix	WA	1.35	233	1967
Voyager Estate	WA	0.36	110	1978
West Cape Howe Wines	WA	0.36	409	1997
Woodlands	WA	0.12	20	1973
Yabby Lake Vineyard	Vic	0.07	79	1998
Yarra Yering	Vic	0.04	24	1969

[a] Wineries less than 100 years old that are not in or part of Australia's largest 30 wine companies nor a First Family wine company, hence not in Tables 22-24.

Table 26: Shares of Australia's 2,573 wine companies as of 2014, by period of establishment

Period of establishment	Share (%)
Pre-1860	0.9
1860-79	0.7
1880-99	0.8
1900-19	0.2
1920-49	1.0
1950-69	2.2
1970-79	7.9
1980-89	14.5
1990-99	40.5
2000-14	31.3
	100.0

Table 27: Australia's six most-powerful still wine brands and global ranking of owners, 2014

Wine brand	Rank among global wine brands	Rank in global alcohol top 100 brands	Brand owners	Rank in global alcohol top 100 owners
Hardy's	4	30	Accolade	18
Yellowtail	6	41	Casella	21
Jacob's Creek	9	59	Pernod Ricard Aust.	2
Linderman's	10	65	Treasury Wine Estates	15
Wolf Blass	12	87	Treasury Wine Estates	15
Penfolds*	>12	>100	Treasury Wine Estates	15

* Penfolds was ranked 15th in 2013

Table 28: Production of wine, brandy and other grape spirit, 1907 to 2013 (kl alc.)

Year	Total wine prodn	Brandy prodn	Other grape spirit prodn	Brandy's share of all grape spirit (%)
1907	3241	460	na	na
1908	2428	133	na	na
1909	3009	201	na	na
1910	2511	248	na	na
1911	3200	268	na	na
1912	2714	281	na	na
1913	3330	296	na	na
1914	2569	na	na	na
1915	1569	448	na	na
1916	3212	443	na	na
1917	2796	412	na	na
1918	3745	415	na	na
1919	4742	388	na	na
1920	4173	553	na	na
1921	6009	469	na	na
1922	4660	406	na	na
1923	6234	448	2209	16.9
1924	7999	517	2443	17.5
1925	7255	550	3079	15.2
1926	8854	600	3962	13.2
1927	11159	777	5018	13.4
1928	9439	804	4920	14.0
1929	10147	1099	4083	21.2
1930	8766	1496	3756	28.5
1931	7134	893	2984	23.0
1932	7741	505	3126	13.9
1933	8956	622	3299	15.9
1934	7647	745	3905	16.0
1935	8873	910	3642	20.0
1936	9671	1093	5164	17.5
1937	10554	1079	5450	16.5
1938	10739	1644	5950	21.6
1939	7778	1738	4315	28.7
1940	7696	1466	3579	29.1
1941	8449	2108	2910	42.0
1942	8505	1823	3352	35.2
1943	10434	1528	4122	27.0
1944	10425	1359	4855	21.9
1945	7580	1095	4236	20.5
1946	13609	1492	5210	22.3
1947	17469	1877	6704	21.9
1948	17936	1857	8067	18.7
1949	17903	1839	8299	18.1

Table 28 (cont.) Production of wine, brandy and other grape spirit, 1907 to 2013 (kl alc.)

Year	Total wine prodn	Brandy prodn	Other grape spirit prodn	Brandy's share of all grape spirit (%)
1950	17825	2251	8964	20.1
1951	14203	1777	7016	20.2
1952	19232	1653	9399	15.0
1953	16378	1196	8601	12.2
1954	17274	1401	8463	14.2
1955	13073	2777	5805	32.4
1956	12502	2608	4860	34.9
1957	16799	2616	6697	28.1
1958	18468	3205	8212	28.1
1959	17771	3014	7890	27.6
1960	15493	2626	6722	28.1
1961	18435	2918	7516	28.0
1962	22793	2947	10675	21.6
1963	16334	2930	6959	29.6
1964	20631	3166	7869	28.7
1965	21231	3634	7877	31.6
1966	18733	3559	7336	32.7
1967	22767	2053	8791	18.9
1968	24245	2264	9120	19.9
1969	28428	2772	10160	21.4
1970	34437	3468	12727	21.4
1971	30144	3848	11178	25.6
1972	34829	4484	13150	25.4
1973	30806	3589	9419	27.6
1974	35360	2152	9467	18.5
1975	43341	1784	13572	11.6
1976	41551	1613	13803	10.5
1977	44672	2127	14750	12.6
1978	39876	2570	12065	17.6
1979	41447	2208	9887	18.3
1980	48587	1650	10301	13.8
1981	43970	2330	10814	17.7
1982	47369	2527	10203	19.9
1983	40147	1387	7881	15.0
1984	47241	1553	4505	25.6
1985	53349	2103	7971	20.9
1986	45970	1255	8258	13.2
1987	43985	1453	6646	17.9
1988	48399	939	5717	14.1
1989	59308	856	7614	10.1
1990	52712	1062	6990	13.2
1991	47315	1333	6710	16.6
1992	57070	1067	6344	14.4

Table 28 (cont.) Production of wine, brandy and other grape spirit, 1907 to 2013 (kl alc.)

Year	Total wine prodn	Brandy prodn	Other grape spirit prodn	Brandy's share of all grape spirit (%)
1993	54936	1216	4602	20.9
1994	70485	1463	6169	19.2
1995	60336	1036	4860	17.6
1996	80813	1079	7842	12.1
1997	74164	816	5659	12.6
1998	89013	809	5449	12.9
1999	102185	787	5366	12.8
2000	103148	676	6106	10.0
2001	129184	640	4456	12.6
2002	146445	417	6675	5.9
2003	130318	302	9330	3.1
2004	176547	466	9281	4.8
2005	172059	317	9762	3.1
2006	171575	317	7864	3.9
2007	115437	252	4212	5.6
2008	149373	na	1721	na
2009	141503	na	2157	na
2010	138199	na	1754	na
2011	135118	na	2950	na
2012	148337	na	2381	na
2013	149472	na	2581	na

Table 29: Shares of wine production for table wine, fortified wine and distillation, 1923 to 2013 (%)

Year	Table wine	Fortified wine	Distillation wine	Total wine
1923	42	24	33	100
1924	50	21	29	100
1925	32	29	38	100
1926	29	31	40	100
1927	28	31	41	100
1928	17	36	47	100
1929	32	28	40	100
1930	24	30	47	100
1931	29	29	42	100
1932	36	28	37	100
1933	40	25	34	100
1934	17	35	47	100
1935	32	28	40	100
1936	13	37	50	100
1937	16	36	48	100
1938	7	38	55	100
1939	1	38	61	100
1940	17	32	51	100
1941	30	24	46	100
1942	25	27	47	100
1943	31	27	42	100
1944	21	32	46	100
1945	7	39	55	100
1946	35	26	38	100
1947	35	26	38	100
1948	26	31	43	100
1949	24	32	44	100
1950	16	35	49	100
1951	18	34	48	100
1952	21	34	45	100
1953	17	36	47	100
1954	22	34	45	100
1955	18	31	51	100
1956	27	27	47	100
1957	15	35	50	100
1958	15	30	55	100
1959	17	30	54	100
1960	17	33	50	100
1961	17	29	54	100
1962	17	27	57	100
1963	20	29	50	100
1964	21	29	51	100
1965	22	29	49	100
1966	25	28	47	100
1967	29	30	41	100

Table 29 (cont.) Shares of wine production for table wine, fortified wine and distillation, 1923 to 2013 (%)

Year	Table wine	Fortified wine	Distillation wine	Total wine
1968	33	26	41	100
1969	31	23	46	100
1970	31	22	47	100
1971	32	19	48	100
1972	32	21	47	100
1973	44	20	35	100
1974	46	16	38	100
1975	46	19	35	100
1976	46	19	35	100
1977	50	16	34	100
1978	54	13	33	100
1979	61	16	23	100
1980	64	13	22	100
1981	64	12	24	100
1982	62	13	25	100
1983	70	10	20	100
1984	83	5	12	100
1985	75	10	16	100
1986	76	11	14	100
1987	76	8	16	100
1988	79	8	13	100
1989	80	7	13	100
1990	79	7	14	100
1991	78	8	14	100
1992	81	6	12	100
1993	85	5	10	100
1994	85	5	10	100
1995	86	5	9	100
1996	86	4	10	100
1997	87	5	8	100
1998	88	4	8	100
1999	91	3	7	100
2000	91	3	6	100
2001	94	2	4	100
2002	94	2	4	100
2003	94	2	4	100
2004	94	1	5	100
2005	98	1	1	100
2006	98	1	1	100
2007	98	1	1	100
2008	98	1	1	100
2009	98	1	1	100
2010	98	1	1	100
2011	98	2	1	100
2012	98	1	1	100
2013	98	1	1	100

Table 30: Per capita production of table wine, fortified wine, brandy and beer, 1923 to 2013 (litres of alcohol, 3-year moving average)

Year	Table wine	Fortified wine	Brandy	Beer
1923				
1924	0.52	0.46	0.08	2.33
1925	0.50	0.55	0.09	2.33
1926	0.44	0.68	0.10	2.36
1927	0.40	0.77	0.12	2.38
1928	0.43	0.77	0.14	2.38
1929	0.36	0.69	0.18	2.29
1930	0.38	0.58	0.18	2.06
1931	0.35	0.52	0.15	1.78
1932	0.43	0.49	0.10	1.59
1933	0.39	0.54	0.09	1.58
1934	0.39	0.56	0.11	1.68
1935	0.27	0.65	0.14	1.83
1936	0.28	0.72	0.15	1.99
1937	0.18	0.84	0.19	2.19
1938	0.12	0.79	0.22	2.37
1939	0.10	0.69	0.23	2.55
1940	0.18	0.53	0.25	2.69
1941	0.28	0.48	0.25	2.80
1942	0.37	0.50	0.25	2.78
1943	0.35	0.59	0.22	2.73
1944	0.27	0.62	0.18	2.67
1945	0.34	0.67	0.18	2.73
1946	0.51	0.74	0.20	2.93
1947	0.68	0.91	0.23	3.11
1948	0.65	1.03	0.24	3.42
1949	0.50	1.10	0.25	3.58
1950	0.40	1.03	0.24	3.88
1951	0.38	1.04	0.23	4.11
1952	0.36	1.00	0.18	4.36
1953	0.40	1.04	0.16	4.59
1954	0.33	0.88	0.20	4.80
1955	0.34	0.72	0.24	5.00
1956	0.29	0.70	0.28	4.94
1957	0.30	0.77	0.29	4.85
1958	0.28	0.85	0.30	4.67
1959	0.28	0.79	0.30	4.71
1960	0.28	0.77	0.29	4.68
1961	0.30	0.79	0.28	4.70
1962	0.32	0.76	0.28	4.71
1963	0.35	0.76	0.28	4.77
1964	0.37	0.75	0.29	4.90
1965	0.40	0.76	0.30	5.01
1966	0.46	0.78	0.27	5.10

Table 30 (cont.) Per capita production of table wine, fortified wine, brandy and beer, 1923 to 2013 (litres of alcohol, 3-year moving average)

Year	Table wine	Fortified wine	Brandy	Beer
1967	0.54	0.78	0.22	5.20
1968	0.64	0.82	0.20	5.35
1969	0.74	0.83	0.22	5.50
1970	0.78	0.80	0.26	5.65
1971	0.83	0.81	0.29	5.76
1972	0.89	0.75	0.30	5.84
1973	1.03	0.72	0.25	6.00
1974	1.22	0.75	0.18	6.18
1975	1.34	0.80	0.13	6.27
1976	1.48	0.85	0.13	6.19
1977	1.51	0.73	0.15	6.12
1978	1.64	0.68	0.16	6.07
1979	1.83	0.64	0.15	6.04
1980	1.95	0.65	0.14	5.92
1981	2.01	0.61	0.14	5.84
1982	1.90	0.52	0.14	5.65
1983	2.11	0.42	0.12	5.48
1984	2.30	0.38	0.11	5.27
1985	2.41	0.40	0.10	5.18
1986	2.33	0.44	0.10	5.07
1987	2.25	0.38	0.07	5.02
1988	2.47	0.36	0.07	4.99
1989	2.53	0.36	0.06	5.00
1990	2.48	0.36	0.06	4.98
1991	2.42	0.34	0.07	4.79
1992	2.49	0.30	0.07	4.54
1993	2.89	0.28	0.07	4.35
1994	2.96	0.26	0.07	4.26
1995	3.33	0.28	0.07	4.21
1996	3.38	0.27	0.06	4.17
1997	3.82	0.28	0.06	4.11
1998	4.19	0.25	0.05	4.07
1999	4.65	0.25	0.05	4.02
2000	5.36	0.21	0.05	4.00
2001	6.07	0.21	0.04	3.94
2002	6.50	0.18	0.04	3.94
2003	7.16	0.19	0.03	3.86
2004	7.57	0.17	0.03	3.81
2005	8.22	0.16	0.03	3.72
2006	7.27	0.12	0.03	3.70
2007	6.79	0.10	0.02	3.70
2008	6.20	0.09	0.02	3.71
2009	6.43	0.11	0.02	3.67
2010	6.11	0.12	0.02	3.58
2011	6.10	0.12	0.02	3.44
2012	6.17	0.12	0.02	3.33

Table 31: Consumption of domestic and imported brandy, and production and exports of brandy, 1907 to 2013 (kl alc. and %)

Year	Domestic brandy sales	Imported brandy sales	Import share of all brandy sales (%)	Prod-uction of brandy	Exports of brandy	Exports as % of prodn	Apparent self-sufficiency (%)
1907	460	444	49.1	460			51
1908	133	440	76.8	133			23
1909	201	443	68.8	201			31
1910	239	492	67.3	248	9	3.6	34
1911	268	516	65.8	268			34
1912	281	530	65.4	281			35
1913	296	571	65.9	296			34
1914							
1915	441	1460	76.8	448	7	1.6	24
1916	443	896	66.9	443			33
1917	412	663	61.7	412			38
1918	415	623	60.0	415			40
1919	388	480	55.3	388			45
1920	535	492	47.9	553	18	3.3	54
1921	469	352	42.9	469			57
1922	406	445	52.3	406			48
1923	448	520	53.7	448			46
1924	517	537	50.9	517			49
1925	546	424	43.7	550	2	0.4	57
1926	591	428	42.0	600			59
1927	610	410	40.2	777			76
1928	602	368	37.9	804			83
1929	591	351	37.3	1099			117
1930	549	323	37.0	1496	1	0.1	172
1931	363	47	11.5	893			218
1932	375	24	6.0	505			127
1933	380	35	8.4	622			150
1934	431	37	7.9	745			159
1935	444	40	8.3	910	395	43.4	188
1936	471	40	7.8	1093	406	37.1	214
1937	484	39	7.5	1079	613	56.8	206
1938	503	43	7.9	1644	751	45.7	301
1939	515	45	8.0	1738	568	32.7	310
1940	589	54	8.4	1466	614	41.9	228
1941	578	16	2.7	2108	1137	53.9	355
1942	569	4	0.7	1823	937	51.4	318
1943	627	3	0.5	1528	731	47.8	243
1944	790	1	0.1	1359	863	63.5	172
1945	849	0	0.0	1095	962	87.8	129
1946	934	2	0.0	1492	741	49.7	159

Table 31 (cont.) Consumption of domestic and imported brandy, and production and exports of brandy, 1907 to 2013 (kl alc. and %)

Year	Domestic brandy sales	Imported brandy sales	Import share of all brandy sales (%)	Prod-uction of brandy	Exports of brandy	Exports as % of prodn	Apparent self-sufficiency (%)
1947	658	21	3.1	1877	903	48.1	276
1948	1018	43	4.1	1857	541	29.1	175
1949	1158	51	4.2	1839	607	33.0	152
1950	1088	53	4.6	2251	496	22.0	197
1951	1390	72	4.9	1777	715	40.2	122
1952	1106	99	8.2	1653	566	34.2	137
1953	755	23	3.0	1196	432	36.1	154
1954	977	27	2.7	1401	483	34.5	140
1955	1510	37	2.4	2777	524	18.9	180
1956	1838	57	3.0	2608	376	14.4	138
1957	1738	43	2.4	2616	486	18.6	147
1958	1824	46	2.5	3205	456	14.2	171
1959	1957	55	2.7	3014	396	13.1	150
1960	2127	67	3.1	2626	456	17.4	120
1961	2101	82	3.8	2918	378	13.0	134
1962	2053	91	4.2	2947	509	17.3	137
1963	2294	100	4.2	2930	514	17.5	122
1964	2411	133	5.2	3166	481	15.2	124
1965	2621	173	6.2	3634	526	14.5	130
1966	2481	173	6.5	3559	305	8.6	134
1967	2489	208	7.7	2053	315	15.3	76
1968	2774	280	9.2	2264	240	10.6	74
1969	2710	348	11.4	2772	253	9.1	91
1970	2995	455	13.2	3468	276	8.0	101
1971	3066	532	14.8	3848	210	5.5	107
1972	3245	645	16.6	4484	194	4.3	115
1973	3762	779	17.2	3589	216	6.0	79
1974	3382	718	17.5	2152	272	12.6	52
1975	2925	705	19.4	1784	217	12.2	49
1976	2674	647	19.5	1613	175	10.8	49
1977	2755	693	20.1	2127	157	7.4	62
1978	2845	490	14.7	2570	129	5.0	77
1979	2384	245	9.3	2208	146	6.6	84
1980	2194	295	11.9	1650	140	8.5	66
1981	2449	444	15.3	2330	108	4.6	81
1982	2344	575	19.7	2527	73	2.9	87
1983	2223	764	25.6	1387	114	8.2	46
1984	2071	756	26.7	1553	85	5.5	55
1985	2044	766	27.3	2103	80	3.8	75
1986	1997	779	28.1	1255	39	3.1	45
1987	1783	649	26.7	1453	40	2.8	60
1988	1776	641	26.5	939	46	4.9	39
1989	1669	635	27.6	856	52	6.1	37
1990	1613	793	33.0	1062	57	5.4	44
1991	1444	636	30.6	1333	37	2.8	64

Table 31 (cont.) Consumption of domestic and imported brandy, and production and exports of brandy, 1907 to 2013 (kl alc. and %)

Year	Domestic brandy sales	Imported brandy sales	Import share of all brandy sales (%)	Prod-uction of brandy	Exports of brandy	Exports as % of prodn	Apparent self-sufficiency (%)
1992	1380	662	32.4	1067	74	6.9	52
1993	1312	629	32.4	1216	73	6.0	63
1994	1301	634	32.8	1463	36	2.5	76
1995	1185	590	33.2	1036	36	3.5	58
1996	1112	583	34.4	1079	24	2.2	64
1997	987	627	38.8	816	17	2.1	51
1998	974	661	40.4	809	25	3.1	49
1999	905	598	39.8	787	17	2.2	52
2000	828	577	41.1	676	14	2.1	48
2001	821	504	38.0	640	23	3.5	48
2002	674	577	46.1	417	29	6.9	33
2003	642	557	46.5	302	22	7.2	25
2004	573	540	48.5	466	na	na	na
2005	571	519	47.6	317	na	na	na
2006	499	494	49.7	317	na	na	na
2007	533	447	45.6	252	na	na	na
2008	471	452	49.0	na	na	na	na
2009	471	462	49.5	na	na	na	na
2010	410	467	53.2	na	na	na	na
2011	409	441	51.9	na	na	na	na
2012	386	517	57.3	na	na	na	na
2013	351	226	39.2	na	na	na	na

Table 32: Per capita consumption of wine, beer, spirits, and shares of total alcohol consumption, 1843 to 2013 (litres of alcohol and %)

Year	Wine	Beer	Spirits	Total	Wine share %	Beer share %	Spirits share %
1843	1.2	2.4	3.4	7.0	17	34	49
1844	0.4	2.3	2.2	4.9	8	47	45
1845	0.8	2.3	3.0	6.1	14	38	49
1846	1.1	3.0	5.0	9.1	12	33	55
1847	0.9	2.4	7.8	11.2	8	22	70
1848	1.3	2.5	6.1	9.9	14	25	62
1849	1.1	2.3	7.3	10.7	11	21	68
1850	0.9	2.3	7.3	10.5	8	22	69
1851	1.1	2.5	8.6	12.2	9	20	71
1852	1.2	2.6	9.6	13.4	9	19	72
1853	2.1	3.8	18.2	24.1	9	16	75
1854	1.2	3.7	15.2	20.2	6	18	76
1855	1.2	3.2	13.1	17.6	7	18	75
1856	1.2	3.1	11.4	15.7	7	20	73
1857	1.2	3.5	9.7	14.3	8	24	68
1858	0.7	2.9	7.3	10.9	6	27	67
1859	0.7	3.0	6.7	10.3	6	29	65
1860	0.5	2.9	5.3	8.7	6	33	60
1861	0.6	2.6	5.7	8.9	6	30	64
1862	0.7	2.5	6.9	10.1	7	25	68
1863	0.6	2.4	8.4	11.3	5	21	74
1864	0.5	2.5	4.8	7.8	7	32	62
1865	0.5	2.9	4.3	7.6	6	38	56
1866	0.8	2.9	3.6	7.3	10	40	50
1867	0.7	3.1	4.9	8.7	8	36	56
1868	0.7	4.3	4.5	9.4	7	45	47
1869	0.7	3.6	3.3	7.6	10	47	43
1870	0.7	3.4	3.7	7.8	9	43	47
1871	0.7	3.2	3.4	7.2	9	44	47
1872	0.7	3.0	3.3	6.9	9	43	48
1873	0.8	3.2	3.4	7.4	11	43	46
1874	0.8	3.2	3.9	7.9	10	41	49
1875	0.8	2.9	3.5	7.2	12	40	48
1876	0.7	3.1	3.9	7.7	9	40	51
1877	0.7	3.2	4.2	8.1	9	39	52
1878	0.6	3.1	2.9	6.5	9	47	44
1879	0.6	2.9	3.3	6.8	9	42	48
1880	0.5	2.6	2.8	5.9	9	44	47
1881	0.5	2.5	4.0	7.1	8	36	57
1882	0.5	2.7	3.7	7.0	8	39	54
1883	0.6	2.7	3.4	6.7	9	40	50
1884	0.5	2.7	3.8	7.0	7	39	54
1885	0.6	2.7	3.4	6.7	9	41	50
1886	0.6	3.1	3.2	7.0	9	45	46
1887	0.6	3.1	2.9	6.6	9	47	43

Table 32 (cont.) Per capita consumption of wine, beer, spirits, and shares of total alcohol consumption, 1843 to 2013 (litres of alcohol and %)

Year	Wine	Beer	Spirits	Total	Wine share %	Beer share %	Spirits share %
1888	0.6	3.1	2.6	6.4	10	49	41
1889	0.7	3.2	2.9	6.7	10	47	43
1890	0.7	2.8	2.6	6.1	11	46	43
1891	0.8	*2.5*	*2.4*	5.7	14	44	42
1892	0.6	*2.3*	*2.2*	5.1	13	44	43
1893	0.6	2.0	*2.1*	4.7	13	43	45
1894	0.5	*2.1*	*2.0*	4.6	11	45	44
1895	0.6	*2.1*	*1.9*	4.7	14	46	40
1896	0.8	2.2	*1.9*	4.9	16	45	39
1897	0.9	2.2	*1.8*	5.0	18	45	37
1898	0.7	2.3	*1.9*	4.8	14	47	40
1899	*0.6*	*2.4*	*1.9*	4.9	12	48	40
1900	0.6	2.5	*2.1*	5.1	11	48	41
1901	*0.6*	*2.4*	*2.3*	5.3	11	45	44
1902	*0.6*	***2.3***	*2.3*	5.2	11	44	45
1903	0.6	2.2	*2.1*	4.8	12	45	42
1904	*0.7*	*2.2*	*2.0*	4.9	13	45	41
1905	*0.7*	*2.2*	*2.0*	4.9	14	45	40
1906	*0.8*	*2.2*	*1.8*	4.8	16	47	37
1907	0.8	2.3	1.6	4.7	18	48	34
1908	0.5	2.3	1.3	4.1	13	55	32
1909	0.7	2.1	1.4	4.2	17	51	32
1910	0.5	2.4	1.4	4.4	12	55	33
1911	0.7	2.5	1.5	4.8	15	53	32
1912	0.6	2.7	1.6	4.8	11	56	33
1913	0.7	2.8	1.5	5.0	14	55	31
1914	0.5	2.7	1.5	4.7	11	57	32
1915	0.3	2.5	1.4	4.3	7	60	33
1916	0.7	2.4	1.1	4.2	16	57	27
1917	0.6	2.4	0.9	3.9	15	62	23
1918	0.8	2.6	0.7	4.1	20	62	17
1919	1.0	2.7	0.8	4.5	22	60	18
1920	0.8	2.5	0.7	4.0	21	63	16
1921	1.2	2.4	0.7	4.2	28	56	16
1922	0.9	2.3	0.7	3.9	23	59	18
1923	0.8	2.3	0.8	3.8	21	59	20
1924	1.0	2.3	0.8	4.1	25	56	19
1925	0.8	2.3	0.8	4.0	21	59	20
1926	0.9	2.4	0.7	4.0	23	59	19
1927	1.0	2.3	0.7	4.1	25	57	18
1928	0.6	2.3	0.7	3.6	17	64	19
1929	1.0	2.1	0.7	3.7	27	56	17
1930	0.7	1.7	0.3	2.7	26	62	12
1931	0.6	1.5	0.3	2.4	24	63	13
1932	0.6	1.5	0.3	2.4	23	64	13

Table 32 (cont.) Per capita consumption of wine, beer, spirits, and shares of total alcohol consumption, 1843 to 2013 (litres of alcohol and %)

Year	Wine	Beer	Spirits	Total	Wine share %	Beer share %	Spirits share %
1933	0.8	1.6	0.3	2.7	28	60	13
1934	0.5	1.8	0.4	2.6	18	68	15
1935	0.6	2.0	0.4	3.0	21	66	13
1936	0.6	2.1	0.4	3.1	18	69	12
1937	0.6	2.4	0.4	3.4	19	70	12
1938	0.6	2.5	0.4	3.4	16	72	12
1939	0.2	2.6	0.5	3.3	7	79	14
1940	0.3	2.8	0.4	3.5	10	79	11
1941	0.6	2.8	0.4	3.8	16	74	10
1942	0.7	2.6	0.4	3.6	18	71	11
1943	1.0	2.7	0.4	4.0	24	66	10
1944	0.9	2.6	0.4	3.9	22	67	11
1945	0.5	2.8	0.6	3.9	13	72	15
1946	1.2	2.9	0.5	4.6	26	63	11
1947	1.5	3.4	0.6	5.5	27	63	10
1948	1.4	3.3	0.6	5.4	27	62	11
1949	1.5	3.8	0.6	5.9	25	65	10
1950	1.4	3.9	0.7	6.0	23	65	12
1951	1.1	4.2	0.6	5.9	18	72	10
1952	1.5	4.6	0.4	6.5	23	71	6
1953	1.2	4.7	0.5	6.4	19	74	7
1954	1.3	5.0	0.5	6.8	19	73	8
1955	0.8	5.2	0.6	6.6	12	79	9
1956	0.8	5.2	0.5	6.5	12	80	8
1957	1.0	4.9	0.5	6.5	16	76	8
1958	1.0	5.0	0.5	6.5	16	76	8
1959	1.0	4.8	0.5	6.3	15	76	9
1960	0.9	4.9	0.5	6.3	14	77	9
1961	1.0	4.9	0.8	6.6	14	74	12
1962	1.1	4.8	0.8	6.8	16	72	12
1963	0.9	4.9	0.8	6.6	13	74	13
1964	1.1	5.1	0.9	7.0	15	72	12
1965	1.1	5.2	0.9	7.2	15	72	13
1966	1.0	5.2	0.8	7.0	14	74	12
1967	1.3	5.4	0.8	7.5	17	72	11
1968	1.3	5.6	0.9	7.8	17	71	12
1969	1.4	5.7	0.9	8.1	18	71	11
1970	1.7	5.9	1.0	8.6	20	69	12
1971	1.3	6.0	1.0	8.4	16	72	12
1972	1.6	5.9	1.1	8.5	18	69	13
1973	1.6	6.1	1.2	8.9	18	68	14
1974	1.8	6.6	1.2	9.6	19	69	13
1975	2.2	6.6	1.2	10.1	22	66	12
1976	2.1	6.5	1.1	9.7	22	67	12
1977	2.2	6.5	1.2	10.0	22	65	12
1978	1.9	6.4	1.3	9.7	20	66	14

Table 32 (cont.) Per capita consumption of wine, beer, spirits, and shares of total alcohol consumption, 1843 to 2013 (litres of alcohol and %)

Year	Wine	Beer	Spirits	Total	Wine share %	Beer share %	Spirits share %
1979	2.3	6.2	1.1	9.6	24	65	11
1980	2.6	6.3	1.0	9.9	26	64	10
1981	2.2	6.1	1.1	9.4	24	65	12
1982	2.3	6.1	1.1	9.6	25	64	12
1983	2.1	5.8	1.2	9.0	23	64	13
1984	2.6	5.6	1.1	9.3	28	60	12
1985	2.3	5.1	1.2	8.6	27	59	14
1986	2.6	5.1	1.2	9.0	29	57	14
1987	2.2	5.0	1.2	8.3	26	60	14
1988	2.5	5.0	1.2	8.7	28	58	14
1989	2.5	5.1	1.3	8.8	28	58	14
1990	2.3	5.0	1.3	8.6	27	58	15
1991	1.9	4.8	1.2	7.9	24	61	15
1992	2.2	4.5	1.1	7.9	29	57	14
1993	2.3	4.3	1.2	7.7	30	55	15
1994	2.3	4.3	1.4	8.0	29	54	17
1995	2.5	4.2	1.3	8.0	31	53	16
1996	2.4	4.1	1.3	7.8	31	53	16
1997	2.6	4.1	1.3	8.1	32	51	17
1998	2.8	4.1	1.4	8.3	34	49	17
1999	2.7	4.0	1.4	8.1	33	49	17
2000	2.8	4.0	1.3	8.1	35	49	16
2001	3.4	4.0	1.4	8.8	38	46	16
2002	3.7	3.8	1.5	9.0	41	43	16
2003	3.4	4.0	1.6	8.9	38	44	18
2004	3.5	3.8	1.6	9.0	40	42	18
2005	3.5	3.7	1.7	9.0	40	41	19
2006	4.0	3.7	1.7	9.4	43	39	18
2007	3.1	3.7	1.8	8.6	36	43	21
2008	2.9	3.7	1.8	8.4	34	44	22
2009	2.8	3.7	1.6	8.2	34	45	20
2010	3.4	3.6	1.6	8.6	39	42	19
2011	2.9	3.4	1.6	8.0	37	43	20
2012	3.1	3.3	1.6	8.0	39	41	19
2013	3.0	3.2	1.6	7.8	39	41	20

Table 33: Consumption of wine, beer, spirits, and all alcohol, litres of alcohol per million dollars of real GDP, 1843 to 2013 (in 2010-11 prices)

Year	Wine	Beer	Spirits	Total
1843	229	463	653	1345
1844	67	379	366	812
1845	131	359	465	955
1846	159	451	744	1354
1847	124	322	1036	1482
1848	158	291	719	1167
1849	134	266	857	1258
1850	110	288	908	1307
1851	130	297	1024	1452
1852	127	279	1034	1441
1853	211	377	1798	2386
1854	127	390	1595	2113
1855	140	380	1549	2068
1856	126	337	1243	1706
1857	126	372	1040	1537
1858	87	365	908	1360
1859	77	347	779	1203
1860	56	301	546	903
1861	59	278	601	938
1862	77	274	749	1101
1863	67	265	935	1267
1864	56	272	524	852
1865	50	315	473	838
1866	85	326	404	815
1867	74	330	511	915
1868	69	427	448	945
1869	73	362	331	767
1870	71	340	371	782
1871	69	325	346	740
1872	66	301	333	701
1873	76	302	318	696
1874	73	291	351	715
1875	73	253	304	630
1876	62	263	337	662
1877	61	276	365	703
1878	49	258	242	549
1879	51	238	272	560
1880	44	214	230	487
1881	43	202	321	566
1882	44	223	308	575
1883	50	221	276	547
1884	41	219	301	560
1885	49	220	270	539
1886	48	251	259	559
1887	47	243	223	513

Table 33 (cont.) Consumption of wine, beer, spirits, and all alcohol, litres of alcohol per million dollars of real GDP, 1843 to 2013

Year	Wine	Beer	Spirits	Total
1888	49	240	199	487
1889	53	238	215	506
1890	53	210	199	462
1891	59	193	183	435
1892	52	182	179	414
1893	54	181	190	426
1894	48	192	185	426
1895	62	204	181	448
1896	77	213	183	473
1897	85	218	180	483
1898	63	213	182	457
1899	55	210	174	439
1900	49	216	187	452
1901	52	214	212	478
1902	49	190	195	434
1903	54	198	185	437
1904	54	181	166	401
1905	60	189	169	418
1906	63	185	148	396
1907	60	166	117	343
1908	44	185	106	334
1909	58	170	108	335
1910	42	183	110	334
1911	51	182	111	345
1912	42	204	119	364
1913	54	207	116	378
1914	39	198	110	347
1915	23	198	111	332
1916	52	182	85	318
1917	46	192	71	310
1918	67	206	57	330
1919	81	224	67	372
1920	67	203	53	323
1921	92	186	52	330
1922	70	177	54	301
1923	59	169	58	286
1924	75	166	57	298
1925	58	159	55	271
1926	63	163	52	278
1927	69	159	50	278
1928	44	161	48	253
1929	70	147	46	263
1930	52	124	24	200
1931	49	132	27	208
1932	49	132	27	207

Table 33 (cont.) Consumption of wine, beer, spirits, and all alcohol, litres of alcohol per million dollars of real GDP, 1843 to 2013

Year	Wine	Beer	Spirits	Total
1933	61	131	28	220
1934	36	137	29	202
1935	47	144	28	219
1936	39	147	27	213
1937	44	162	27	233
1938	36	159	26	221
1939	15	171	31	217
1940	22	181	26	228
1941	38	170	22	230
1942	35	137	21	193
1943	47	131	21	199
1944	44	133	21	198
1945	27	151	32	210
1946	69	166	30	265
1947	89	206	34	328
1948	81	188	34	303
1949	80	211	32	324
1950	73	206	36	315
1951	54	217	30	301
1952	77	233	19	329
1953	65	248	24	336
1954	65	251	27	342
1955	40	254	27	321
1956	38	247	24	309
1957	50	235	26	311
1958	49	236	26	311
1959	43	217	25	285
1960	38	213	24	275
1961	41	212	33	287
1962	48	212	36	296
1963	36	206	35	277
1964	43	203	35	281
1965	42	201	36	280
1966	38	201	32	270
1967	48	198	30	276
1968	48	198	33	278
1969	48	194	31	273
1970	54	190	33	276
1971	43	191	33	266
1972	49	188	34	271
1973	50	192	38	281
1974	54	201	37	293
1975	69	204	36	308
1976	63	196	34	294
1977	66	192	37	295
1978	58	190	39	286

Table 33 (cont.) Consumption of wine, beer, spirits, and all alcohol, litres of alcohol per million dollars of real GDP, 1843 to 2013

Year	Wine	Beer	Spirits	Total
1979	66	179	30	275
1980	73	178	28	280
1981	62	170	30	263
1982	64	167	31	263
1983	59	164	33	256
1984	72	153	30	256
1985	61	136	31	228
1986	68	133	32	233
1987	55	127	30	211
1988	61	124	30	215
1989	59	122	30	211
1990	54	118	30	202
1991	46	116	28	189
1992	54	108	27	189
1993	53	99	27	179
1994	53	96	31	180
1995	56	93	28	176
1996	51	88	27	167
1997	54	86	28	168
1998	57	82	29	167
1999	52	77	27	157
2000	54	75	25	153
2001	63	75	27	165
2002	67	70	27	164
2003	60	71	29	160
2004	62	66	29	156
2005	60	63	29	153
2006	68	62	29	159
2007	51	61	29	142
2008	47	60	29	136
2009	46	60	27	133
2010	54	58	26	139
2011	47	55	26	129
2012	49	52	25	126
2013	47	50	24	122

Table 34: Domestic, export and total sales of Australian wine, by colour and container type, 1968 to 2013

a) Domestic Sales (kl)

Year	*Red*	*White*	*Sparkling*	*Other*	*Total*
1968	16970	10754	7491	39823	75038
1969	20278	12045	8180	42915	83419
1970	23519	13972	9570	45247	92307
1971	27983	17255	12023	53228	110489
1972	29481	19658	13550	52889	115578
1973	34959	24451	16958	53647	130015
1974	38138	30238	20963	58736	148075
1975	43148	39232	23304	62333	168017
1976	41700	50336	16517	65287	173840
1977	38668	62613	19281	62991	183553
1978	36797	79843	21025	56999	194671
1979	37330	105878	24391	60764	228364
1980	36278	124590	27552	56621	245040
1981	37349	141928	27577	56017	262872
1982	38068	159838	26048	54643	278595
1983	39686	177263	25405	51229	293582
1984	44383	194696	28430	49906	317415
1985	44469	204996	29614	47330	326409
1986	45635	214009	29171	45652	334467
1987	49963	206102	30258	43589	329912
1988	52138	196782	33247	42291	324458
1989	50309	183664	31444	41104	306521
1990	50902	177553	28987	40692	298134
1991	54104	182547	29587	39070	305308
1992	58032	184214	30171	38270	310687
1993	62079	192494	31008	35914	321495
1994	64233	186315	29042	35038	314628
1995	65362	181097	28796	33854	309109
1996	75362	184205	31888	33407	324862
1997	88901	185378	31300	31547	337126
1998	90714	188625	31780	29639	340758
1999	110388	194215	36543	29777	370923
2000	120010	194368	28431	30074	372883
2001	126335	199240	28937	28274	382786
2002	139734	200416	31654	27053	398857
2003	145109	204024	33421	27592	410146
2004	150825	210582	36528	27928	425863
2005	157738	209468	39002	27303	433511
2006	159937	221310	40505	25836	447588
2007	161582	213699	37461	30560	443302
2008	170204	213781	36631	28708	449324
2009	171408	212748	39963	34159	458278
2010	175667	217761	35203	36095	464726
2011	164259	218709	34396	34292	451656
2012	177854	210725	35450	32440	456469
2013					

Table 34 (cont.) Domestic, export and total sales of Australian wine, by colour and container type, 1968 to 2013

b) Exports (kl)

Year	*Red*	*White*	*Sparkling*	*Other*	*Total*
1968					8386
1969					8200
1970					5886
1971					6563
1972					7957
1973					6244
1974					8466
1975					6546
1976					6132
1977					4924
1978					4629
1979					5239
1980					6112
1981			435	1285	7574
1982			397	1927	9276
1983	2791	3953	412	1390	8546
1984	3105	4439	355	1554	9452
1985	3004	4266	299	1498	9068
1986	4445	5866	303	1332	11945
1987	9445	11529	641	2380	23995
1988	15527	18900	1131	3284	38842
1989	15824	20683	1787	3183	41478
1990	13990	23175	1926	2617	41708
1991	24843	34787	3044	2675	65349
1992	33505	49076	4023	2684	89289
1993	42117	70757	5190	3314	121378
1994	42952	68931	4549	3527	119959
1995	45697	58450	4668	2944	111759
1996	62384	72470	5137	3946	143937
1997	75002	84788	4312	3543	167646
1998	88921	97376	5581	3039	194917
1999	121129	121847	8674	2609	254260
2000	160325	140231	6490	2380	309426
2001	203839	162194	5981	3000	375015
2002	273601	187353	7052	2718	470724
2003	321676	191470	8910	2270	524327
2004	408894	220648	10484	2585	642610
2005	440975	245569	12791	2627	701962
2006	471104	271844	14853	2009	759810
2007	497570	268821	17439	2359	786189
2008	424741	256318	15407	2148	698614
2009	449485	297489	15337	2252	764563
2010	471178	292860	14923	2167	781127
2011	436745	248380	13947	2056	701128
2012	429834	276273	12627	2688	721423
2013					678336

Table 34 (cont.) Domestic, export and total sales of Australian wine, by colour and container type, 1968 to 2013

c) Total sales (kl)

Year	*Red*	*White*	*Sparkling*	*Other*	*Total*
1968					83424
1969					91619
1970					98193
1971					117052
1972					123535
1973					136259
1974					156541
1975					174563
1976					179972
1977					188477
1978					199300
1979					233603
1980					251152
1981			28012	57302	270446
1982			26445	56570	287871
1983	42477	181216	25817	52619	302129
1984	47488	199135	28785	51460	326867
1985	47473	209262	29913	48828	335477
1986	50080	219875	29474	46984	346412
1987	59408	217631	30899	45969	353907
1988	67665	215682	34378	45575	363300
1989	66133	204347	33231	44287	347999
1990	64892	200728	30913	43309	339842
1991	78947	217334	32631	41745	370657
1992	91537	233290	34194	40954	399976
1993	104196	263251	36198	39228	442873
1994	107185	255246	33591	38565	434587
1995	111059	239547	33464	36798	420868
1996	137746	256675	37025	37353	468799
1997	163903	270166	35612	35090	504772
1998	179635	286001	37361	32678	535675
1999	231517	316062	45217	32386	625183
2000	280335	334599	34921	32454	682309
2001	330174	361434	34918	31274	757801
2002	413335	387769	38706	29771	869581
2003	466785	395494	42331	29862	934473
2004	559719	431230	47012	30513	1068473
2005	598713	455037	51793	29930	1135473
2006	631041	493154	55358	27845	1207398
2007	659152	482520	54900	32919	1229491
2008	594945	470099	52038	30856	1147938
2009	620893	510237	55300	36411	1222841
2010	646845	510621	50126	38262	1245853
2011	601004	467089	48343	36348	1152784
2012	607688	486998	48077	35128	1177892
2013					

Table 34 (cont.) Domestic, export and total sales of Australian wine, by colour and container type, 1968 to 2013

d) Domestic sales by container type

	Glass Bottle		*Soft Pack*		*Bulk*		*sparkling and other*		*Total*
Year	*kl*	*Share %*	*kl*	*Share %*	*kl*	*Share %*	*kl*	*Share %*	*kl*
1968									75038
1969									83419
1970									92307
1971									110489
1972									115578
1973									130015
1974									148075
1975									168017
1976									173840
1977									183553
1978	73304	37.7	32723	16.8	10613	5.5	78031	40.1	194671
1979	81817	35.8	49220	21.6	12171	5.3	85156	37.3	228364
1980	86310	35.2	62488	25.5	12070	4.9	84172	34.4	245040
1981	87430	33.3	83032	31.6	8815	3.4	83595	31.8	262872
1982	88446	31.7	101540	36.4	7920	2.8	80689	29.0	278595
1983	87773	29.9	122475	41.7	6701	2.3	76633	26.1	293582
1984	54689	17.2	151846	47.8	32544	10.3	78336	24.7	317415
1985	58111	17.8	161870	49.6	29484	9.0	76944	23.6	326409
1986	59181	17.7	164476	49.2	35987	10.8	74823	22.4	334467
1987	64077	19.4	161727	49.0	30261	9.2	73847	22.4	329912
1988	67963	20.9	157019	48.4	23938	7.4	75538	23.3	324458
1989	70121	22.9	148432	48.4	15420	5.0	72548	23.7	306521
1990	68594	23.0	147054	49.3	12807	4.3	69679	23.4	298134
1991	66868	21.9	158355	51.9	11428	3.7	68657	22.5	305308
1992	68872	22.2	165604	53.3	7770	2.5	68441	22.0	310687
1993	73016	22.7	172955	53.8	8602	2.7	66922	20.8	321495
1994	78973	25.1	164591	52.3	6984	2.2	64080	20.4	314628
1995	83172	26.9	158085	51.1	5202	1.7	62650	20.3	309109
1996	90591	27.9	164713	50.7	4263	1.3	65295	20.1	324862
1997	101874	30.2	167785	49.8	4620	1.4	62847	18.6	337126
1998	115713	34.0	164978	48.4	11601	3.4	48466	14.2	340758
1999	137372	37.0	176048	47.5	14594	3.9	42909	11.6	370923
2000	146649	39.3	178959	48.0	11122	3.0	36153	9.7	372883
2001	152207	39.8	184365	48.2	10325	2.7	35889	9.4	382786
2002	163882	41.1	190176	47.7	6817	1.7	37982	9.5	398857
2003	170872	41.7	191438	46.7	7788	1.9	40048	9.8	410146
2004	181252	42.6	191809	45.0	9060	2.1	43742	10.3	425863
2005	190586	44.0	189363	43.7	6597	1.5	46965	10.8	433511
2006	199705	44.6	185627	41.5	13347	3.0	48909	10.9	447588
2007	199391	45.0	174847	39.4	18900	4.3	50164	11.3	443302
2008	196960	43.8	171235	38.1	32118	7.1	49011	10.9	449324
2009	206397	45.0	162219	35.4	31793	6.9	57869	12.6	458278
2010	209121	45.0	159109	34.2	41987	9.0	54509	11.7	464726
2011	221228	49.0	150331	33.3	28010	6.2	52087	11.5	451656
2012	231117	50.6	134675	29.5	38287	8.4	52390	11.5	456469
2013	245529	51.3	126354	26.0	34460	7.2	72271.0	15.1	478614

Table 35: Premium and non-premium red and white winegrape area, production and yield, 1956 to 2013

a)Area (ha)

	Premium		*Non-premium*		*Other*		*Total*
Year	Red	White	Red	White	Red	White	
1956	1759	1222	3283	6074	305	442	13085
1957	2314	1661	4796	8171	228	316	17486
1958	2225	1667	5073	9290	204	307	18766
1959	2730	1693	4485	8669	199	286	18061
1960	1699	1345	3377	7916	206	377	14920
1961	2107	1570	4396	9751	186	324	18334
1962	2314	2009	5037	12625	239	475	22698
1963	2094	1524	3455	8800	108	201	16183
1963	2839	2373	5110	10597	198	322	21439
1965	2865	2279	4639	11686	158	294	21921
1966	2372	2064	3630	9002	621	1145	18834
1967							
1968							
1969							
1970							
1971							
1972							
1973	8443	3870	8214	13559	121	126	34334
1974	10060	4606	8634	14847	196	203	38545
1975	11396	5052	8559	14816	146	145	40114
1976	12147	5305	8568	21657	143	186	48005
1977	12725	5720	7588	13868	2049	1976	43925
1978	12722	6194	7446	13532	2073	2028	43996
1979	13013	5789	7642	14985	1561	2037	45027
1980	12673	7145	6717	14968	1614	1173	44290
1981	12473	7956	6395	15013	1343	1253	44433
1982	11661	7155	5832	10770	1526	5514	42457
1983	10356	7839	5141	11361	1386	5521	41605
1984	10003	8187	4545	12072	1200	5784	41790
1985	9763	8599	4212	12429	1182	5801	41986
1986	9082	8375	3493	9392	1342	5640	37324
1987	8830	10849	3255	10860	830	554	35178
1988	9250	11155	3229	11372	416	380	35802
1989	9464	11814	3224	11694	464	396	37055
1990	9977	12244	3472	10767	477	402	37339
1991	10615	13055	3033	8898	393	419	36413
1992	11796	13998	3188	8938	392	418	38731

Table 35 (cont.) Premium and non-premium red and white winegrape area, production and yield, 1956 to 2013

a) Area (ha) (cont.)

	Premium		*Non-premium*		*Other*		*Total*
Year	Red	White	Red	White	Red	White	
1993	13151	14962	3213	10917	427	411	43081
1994	14372	15900	3412	12595	507	474	47259
1995	15681	16918	3355	12040	625	681	49300
1996	16861	18541	3471	11365	614	706	51559
1997	20796	21961	3659	11267	686	658	59028
1998	25917	25073	3820	9541	669	652	65673
1999	37735	29503	4539	10938	508	625	83848
2000	51478	31662	5077	8805	682	890	98593
2001	67936	34215	6107	8712	631	1571	119172
2002	77455	36425	6695	7114	491	989	129168
2003	78711	36974	6090	6109	571	906	129361
2004	83428	41874	5682	5782	1007	1636	139411
2005	83736	45348	5039	4553	1069	2280	142025
2006	84629	49362	4758	3740	953	1819	145261
2007	87103	54097	4418	4122	913	1020	151673
2008	88845	56130	4328	4278	1358	1319	156257
2009	87379	49623		2134	8649	9505	157290
2010	87429	54678	3853	3426	1149	1254	151789
2011	*85967*	*52923*	*3690*	*3329*	*1135*	*1542*	*148586*
2012	84586	51649	3621	3412	946	1168	145382
2013							133425

Table 35 (cont.) Premium and non-premium red and white winegrape area, production and yield, 1956 to 2013

b) Production (t)

Year	*Premium*		*Non-premium*		*Other*		*Total*
	Red	White	Red	White	Red	White	
1956	12863	8331	27132	73869	1730	3555	127480
1957	17018	11030	39076	98471	1304	2545	169444
1958	16295	11221	41639	112564	1152	2462	185333
1959	20021	12536	37024	105472	1120	2316	178489
1960	12333	9943	27920	96863	1129	2997	151185
1961	15370	11925	35669	119358	1010	2598	185930
1962	16715	14741	41437	153971	1294	3756	231914
1963	15175	12198	28732	108342	584	1603	166634
1963	20518	18325	42279	126155	1114	2564	210955
1965	20817	17967	38304	141588	865	2335	221876
1966	17243	16711	30299	107053	3467	9027	183800
1967							
1968							
1969							
1970							
1971							
1972							
1973	53995	29190	66955	176663	492	837	328132
1974	65553	32952	60844	166435	850	1342	327976
1975	91152	36332	78489	213340	1219	1795	422327
1976	89638	41346	63035	221470	1623	2795	419907
1977	98006	51884	75100	204254	11267	16671	457182
1978	83099	54257	61660	201525	10672	18856	430069
1979	96241	54590	66980	218540	12893	16183	465427
1980	95319	63151	68141	251405	13372	10001	501389
1981	91064	70761	59989	229972	10508	10235	472529
1982	92553	67508	67294	193582	12314	66526	499777
1983	65629	61941	47775	188063	9347	57923	430678
1984	81981	76621	46632	213607	9469	66476	494786
1985	90295	94164	51790	233985	10875	77464	558573
1986	77881	96585	41013	186834	10811	78065	491189
1987	77918	129376	42356	212931	8252	7940	478773
1988	81043	122674	39593	206854	4434	5548	460146
1989	101851	153441	46953	242061	5121	6356	555783
1990	111006	161050	41995	206148	5473	6054	531726
1991	103798	161605	41188	172563	4465	5831	489450
1992	123286	179500	46311	203103	4878	6579	563657

Table 35 (cont.) Premium and non-premium red and white winegrape area, production and yield, 1956 to 2013

b) Production (t) (cont.)

Year	*Premium*		*Non-premium*		*Other*		*Total*
	Red	White	Red	White	Red	White	
1993	115421	183826	35492	200506	5330	5249	545824
1994	141180	203912	48911	255460	6439	5885	661787
1995	145774	176399	40455	197670	6364	8332	574994
1996	190841	250180	55101	269924	7039	9283	782368
1997	197025	273607	51744	206180	6766	8060	743382
1998	272385	323692	54407	204699	7711	7733	870627
1999	382655	410587	61472	207921	5681	7891	1076207
2000	462780	392649	64707	175198	6635	9168	1111136
2001	694333	458555	71646	145944	6837	13766	1391082
2002	747219	513070	94405	142833	6106	10868	1514501
2003	692175	449105	73965	99156	6384	8815	1329600
2004	969985	603908	80749	129976	12341	19598	1816556
2005	919629	682249	74619	98576	14287	29072	1818431
2006	903557	704229	65189	77430	11463	19801	1781668
2007	616530	619109	43695	71545	8817	10994	1370690
2008	917949	769287	51113	68861	15060	14764	1837034
2009	800745	631377		52042	87283	112196	1683643
2010	803658	610956	33348	61627	8299	15358	1533246
2011	*783005*	*647528*	*33615*	*64093*	*8925*	*20484*	*1557648*
2012	762813	685687	34626	69923	8343	20657	1582049
2013							1641679

Table 35 (cont.) Premium and non-premium red and white winegrape area, production and yield, 1956 to 2013

c) Yield (t/ha)

Year	*Premium*		*Non-premium*		*Other*		*Total*
	Red	White	Red	White	Red	White	
1956	7.3	6.8	8.3	12.2	5.7	8.0	9.7
1957	7.4	6.6	8.1	12.1	5.7	8.1	9.7
1958	7.3	6.7	8.2	12.1	5.6	8.0	9.9
1959	7.3	7.4	8.3	12.2	5.6	8.1	9.9
1960	7.3	7.4	8.3	12.2	5.5	8.0	10.1
1961	7.3	7.6	8.1	12.2	5.4	8.0	10.1
1962	7.2	7.3	8.2	12.2	5.4	7.9	10.2
1963	7.2	8.0	8.3	12.3	5.4	8.0	10.3
1963	7.2	7.7	8.3	11.9	5.6	8.0	9.8
1965	7.3	7.9	8.3	12.1	5.5	7.9	10.1
1966	7.3	8.1	8.3	11.9	5.6	7.9	9.8
1967							
1968							
1969							
1970							
1971							
1972							
1973	6.4	7.5	8.2	13.0	4.1	6.6	9.6
1974	6.5	7.2	7.0	11.2	4.3	6.6	8.5
1975	8.0	7.2	9.2	14.4	8.4	12.4	10.5
1976	7.4	7.8	7.4	10.2	11.3	15.0	8.7
1977	7.7	9.1	9.9	14.7	5.5	8.4	10.4
1978	6.5	8.8	8.3	14.9	5.1	9.3	9.8
1979	7.4	9.4	8.8	14.6	8.3	7.9	10.3
1980	7.5	8.8	10.1	16.8	8.3	8.5	11.3
1981	7.3	8.9	9.4	15.3	7.8	8.2	10.6
1982	7.9	9.4	11.5	18.0	8.1	12.1	11.8
1983	6.3	7.9	9.3	16.6	6.7	10.5	10.4
1984	8.2	9.4	10.3	17.7	7.9	11.5	11.8
1985	9.2	11.0	12.3	18.8	9.2	13.4	13.3
1986	8.6	11.5	11.7	19.9	8.1	13.8	13.2
1987	8.8	11.9	13.0	19.6	9.9	14.3	13.6
1988	8.8	11.0	12.3	18.2	10.7	14.6	12.9
1989	10.8	13.0	14.6	20.7	11.0	16.0	15.0
1990	11.1	13.2	12.1	19.1	11.5	15.1	14.2
1991	9.8	12.4	13.6	19.4	11.4	13.9	13.4
1992	10.5	12.8	14.5	22.7	12.4	15.7	14.6

Table 35 (cont.) Premium and non-premium red and white winegrape area, production and yield, 1956 to 2013

c) Yield (t/ha) (cont.)

Year	*Premium*		*Non-premium*		*Other*		*Total*
	Red	White	Red	White	Red	White	
1993	8.8	12.3	11.0	18.4	12.5	12.8	12.7
1994	9.8	12.8	14.3	20.3	12.7	12.4	14.0
1995	9.3	10.4	12.1	16.4	10.2	12.2	11.7
1996	11.3	13.5	15.9	23.8	11.5	13.1	15.2
1997	9.5	12.5	14.1	18.3	9.9	12.2	12.6
1998	10.5	12.9	14.2	21.5	11.5	11.9	13.3
1999	10.1	13.9	13.5	19.0	11.2	12.6	12.8
2000	9.0	12.4	12.7	19.9	9.7	10.3	11.3
2001	10.2	13.4	11.7	16.8	10.8	8.8	11.7
2002	9.6	14.1	14.1	20.1	12.4	11.0	11.7
2003	8.8	12.1	12.1	16.2	11.2	9.7	10.3
2004	11.6	14.4	14.2	22.5	12.3	12.0	13.0
2005	11.0	15.0	14.8	21.7	13.4	12.7	12.8
2006	10.7	14.3	13.7	20.7	12.0	10.9	12.3
2007	7.1	11.4	9.9	17.4	9.7	10.8	9.0
2008	10.3	13.7	11.8	16.1	11.1	11.2	11.8
2009	9.2	12.7		24.4	10.1	11.8	10.7
2010	9.2	11.2	8.7	18.0	7.2	12.2	10.1
2011	*9.1*	*12.2*	*9.1*	*19.3*	*7.9*	*13.3*	*10.5*
2012	9.0	13.3	9.6	20.5	8.8	17.7	10.9
2013							12.3

Table 36: Listing of premium and non-premium red and white winegrape varieties

Prime	*Synonym*
Premium white	
Albillo Real	Albillo
Arneis	
Chardonnay	
Chenin Blanc	Stein
Colombard	
Fiano	
Gewurztraminer	Traminer
Gruner Veltliner	
Muscadelle	Tokay
Pinot Gris	
Riesling	Rhine Riesling
Roussanne	Roussane
Sauvignon Blanc	
Savagnin Blanc	Savagnin
Semillon	Madeira
Verdelho	
Vermentino	
Viognier	
Premium red	
Barbera	
Cabernet Franc	
Cabernet Sauvignon	
Cot	Malbec
Dolcetto	
Durif	Petite Sirah
Merlot	
Montepulciano	
Nebbiolo	
Negroamaro	Negro Amaro
Nero d'Avola	
Petit Verdot	
Pinot Meunier	Meunier
Pinot Noir	
Sangiovese	Brunello
Syrah	Shiraz, Red Harmitage
Tempranillo	Tinta Roriz
Touriga Nacional	Touriga
Non-premium white	
Afus Ali	Waltham Cross
Calmeria	
Canada Muscat	
Cannon Hall Muscat (4N)	Cannon Hall Muscat
Canocazo	Common Palomino
Chasselas	Temprano
Clairette	
Crouchen	Clare Riesling

Table 36 (cont.) Premium and non-premium red and white winegrape varieties

Prime	*Synonym*
Non-premium white (cont.)	
Doradillo	
Early Muscat	
Garnacha Blanca	White Grenache,Grenache Blanc
Italia	
Malaga Blanc	
Marsanne	
Muller Thurgau	
Muscat Blanc a Petits Grains	Muscat à Petits Grains, White frontignac, frontignac, Muscat a Petit Grains Blanc, Muscat Blanc
Muscat of Alexandria	Muscat Gordo Blanco
Ohanes	Ohanez
Ondenc	Irvines White
Palomino Fino	Palomino, Paulo
Pedro Ximenez	Pedro Ximenes
Perlette	
Raffiat de Moncade	Portugal
Sercial	
Silvaner	Sylvaner
Sultaniye	Sultana
Taminga	
Trebbiano Toscano	Trebbiano, Shiraz White, White Harmitage, Biancone
Non-premium red	
Alphonse Lavallee	Ribier
Cardinal	
Cinsaut	Red Prince,Blue Imperial
Emperor	Red Emperor
Flame Seedless	
Garnacha Tinta	Grenache
Gascon	Cabernet Gros
Isabella	
Jacquez	Burgundy
Korinthiaki	Zante Currant, Currant
Mazuelo	Carignan,Carignane
Molinara	Black Malaga
Monastrell	Mataro, Mouvedre
Muscat a Petits Grains Roses	Muscat A Petit Grains Rose
Muscat a Petits Grains Rouge	Muscat Rouge
Muscat of Hamburg	Muscat Hamburg, Black Muscat
Olivette Noire	Purple Cornichon, Cornichon
Rubired	
Ruby Cabernet	
Tarrango	
Tribidrag	Zinfandel, Primitivo Di Gioia,Primativo, Primitavo
Wortley Hall	

Table 37: Winegrape price, volume and value of production, 1985 to 2014

Year	Price ($/t)	Volume (kt)	Value of Production ($ million)
1985	238	598	142
1986	227	520	118
1987	239	512	122
1988	309	498	154
1989	460	641	295
1990	369	603	222
1991	300	539	162
1992	354	636	225
1993	396	626	248
1994	437	777	340
1995	548	630	345
1996	621	883	549
1997	658	798	525
1998	na	na	na
1999	1026	1076	1105
2000	901	1111	1001
2001	1012	1391	1407
2002	909	1515	1376
2003	916	1330	1219
2004	842	1817	1530
2005	741	1818	1348
2006	621	1782	1106
2007	654	1371	890
2008	717	1837	1317
2009	527	1684	887
2010	464	1533	711
2011	413	1558	643
2012	458	1582	725
2013	499	1830	913
2014	441	1700	750

Table 38: Value of total grape production, share from winegrapes , and value of wine sales 1971 to 2013

			Sales of Australian wine ($m, pre-tax)						
Year	Value of total grape prodn ($m)	Wine grapes share of grape prodn value (%)	In domestic market	Exports	Total Australian wine sales	Share of total sales from exports (%)	Domestic sales of imported wine ($m)	Total value of domestic sales ($m)	Share of imports in value of domestic sales (%)
1971	46			4			3		
1972	66			4			4		
1973	65			3			6		
1974	83			6			11		
1975	101			5			11		
1976	102			6			13		
1977	129			5			14		
1978	142			5			18		
1979	150			6			24		
1980	231			8			24		
1981	178			12			21		
1982	23			14			24		
1983	213			13			22		
1984	217	92	548	17	565	3.0	28	576	4.8
1985	259	55	532	17	549	3.2	40	572	7.1
1986	270	44	535	21	556	3.7	46	581	8.0
1987	252	49	639	45	684	6.5	38	677	5.6
1988	346	45	723	96	819	11.7	41	764	5.4
1989	427	69	831	115	945	12.1	47	878	5.3
1990	392	57	795	121	917	13.2	53	848	6.2
1991	362	45	664	180	844	21.3	47	711	6.6
1992	433	52	730	244	974	25.0	46	776	5.9
1993	378	66	894	293	1187	24.7	47	941	5.0
1994	na	na	1001	367	1368	26.8	48	1049	4.5
1995	511	68	1084	386	1470	26.2	61	1145	5.3
1996	714	77	1330	472	1801	26.2	60	1390	4.4
1997	722	73	1435	603	2038	29.6	67	1501	4.4
1998	na	na	1501	874	2375	36.8	93	1594	5.8
1999	na	na	1525	987	2512	39.3	102	1627	6.3
2000	na	na	1734	1373	3106	44.2	114	1847	6.2
2001	1518	93	1831	1752	3583	48.9	92	1923	4.8
2002	1578	87	1946	2105	4051	52.0	116	2062	5.6
2003	1371	89	2098	2423	4521	53.6	139	2237	6.2
2004	1689	91	1971	2494	4465	55.9	152	2123	7.2
2005	1508	89	2097	2715	4812	56.4	188	2285	8.2
2006	1378	80	1900	2757	4656	59.2	234	2134	11.0
2007	1138	78	2037	2879	4916	58.6	306	2343	13.1
2008	1694	91	2125	2680	4806	55.8	431	2557	16.9
2009	1213	89	2053	2427	4480	54.2	473	2526	18.7
2010	1110	80	2123	2164	4287	50.5	459	2581	17.8
2011	1013	81	2331	1957	4288	45.6	471	2802	16.8
2012	1041	87	2499	1862	4361	42.7	530	3028	17.5
2013			2369	1821	4190	43.5	577	2946	19.6

Table 39: Consumer and producer price indexes for wine, beer, spirits, and all products, 1979 to 2013 (1990 = 100)

a) Consumer price index for alcoholic and all products

Year	Beer	Wine	Spirits	All products (8 capital cities)
1979	55	63	55	60
1980	50	60	49	54
1981	46	57	48	49
1982	51	61	51	55
1983	58	66	56	61
1984	64	71	60	65
1985	69	76	64	68
1986	75	78	70	74
1987	83	84	77	80
1988	90	89	84	86
1989	92	96	91	83
1990	100	100	100	100
1991	107	101	110	105
1992	112	104	117	107
1993	115	106	119	108
1994	119	110	122	113
1995	123	116	126	114
1996	129	122	130	119
1997	133	124	135	120
1998	104	129	134	120
1999	136	130	137	122
2000	139	131	139	125
2001	151	138	147	132
2002	155	142	152	136
2003	162	143	157	140
2004	173	147	161	144
2005	180	149	165	147
2006	189	150	171	152
2007	198	149	179	156
2008	208	153	196	161
2009	217	152	213	166
2010	228	154	219	171
2011	231	155	224	177
2012	240	157	230	180
2013	242	160	237	184

Table 39 (cont.) Consumer and producer price indexes for wine, beer, spirits, and all products, 1979 to 2013 (1990 = 100)

b) Percentage changes in price indexes for:

	Manufacturing of:				Consumers of:	
Year	Wine grapes	Table wine	Fortified wine	All wine	Wine	All products
1991	-14.1	-3.3	2.7	-1.6	0.9	5.3
1992	9.2	5.9	-1.0	4.2	2.8	1.9
1993	9.9	2.7	3.1	2.8	1.8	1.0
1994	33.4	3.8	3.2	3.6	4.5	1.8
1995	22.2	6.5	4.1	5.9	5.1	3.2
1996	7.5	5.6	3.8	5.2	5.2	4.2
1997	0.4	3.5	2.9	3.4	1.9	1.3
1998	5.9	3.2	3.1	3.1	3.4	
1999	-3.7	-1.0	-1.9	-1.2	1.3	1.2
2000	-8.7	1.8	-0.1	1.3	0.3	2.4
2001	3.6	-1.4	-0.3	0.1	5.4	6.0
2002	0.9	2.5		2.9	2.9	2.9
2003	-4.4	0.7		0.7	0.8	3.1
2004	0.1			-4.4	1.5	2.4
2005	-14.5			0.4	2.1	2.4
2006	-19.8			-0.5	0.8	3.2
2007	3.9			-3.6	-0.6	2.9
2008	27.3			0.2	1.4	3.4
2009	-23.0			-0.2	-0.7	3.1
2010	-9.7			-3.5	1.1	2.6
2011	-8.6			-6.3	0.6	3.3
2012	8.7			1.8	1.1	1.8
2013				3.7	2.3	2.4

Table 40: Beverage wine stocks and stock-to-sales ratio, 1971 to 2013

	Wine stock (ML)	Stock-to-sales ratio
1971	293	2.50
1972	322	2.61
1973	355	2.61
1974	346	2.21
1975	399	2.29
1976	409	2.27
1977	435	2.31
1978	425	2.13
1979	439	1.88
1980	476	1.90
1981	796	2.95
1982	482	1.68
1983	474	1.57
1984	480	1.53
1985	552	1.67
1986	528	1.57
1987	524	1.48
1988	494	1.34
1989	548	1.57
1990	567	1.66
1991	585	1.66
1992	604	1.54
1993	587	1.42
1994	657	1.46
1995	642	1.50
1996	782	1.78
1997	816	1.67
1998	900	1.69
1999	1090	1.93
2000	1192	1.82
2001	1377	1.90
2002	1570	1.96
2003	1582	1.74
2004	1855	1.86
2005	2063	1.89
2006	2107	1.80
2007	1784	1.42
2008	1878	1.63
2009	1879	1.57
2010	1723	1.38
2011	1662	1.40
2012	1694	1.45
2013	1776	1.54

Table 41: Investment in grape and wine research, 1956 to 2014 ($'000 and %)

Year	Total AWRI ($'000)	% of AWRI from GWRDC	Total CRCV ($'000)	% of CRCV from GWRDC	Total GWRDC ($'000)	% to AWRI	% to CRCV	GWRDC as % of wine sales value	CRC as % of grape prod'n value	AWRI +CRCV+ other GWRDC as % of wine sales
1956	21	100								
1957	34	78								
1958	67	89								
1959	43	62								
1960	77	86								
1961	57	79								
1962	63	75								
1963	70	75								
1964	66	70								
1965	65	74								
1966	106	78								
1967	75	69								
1968	76	69								
1969	85	61								
1970	81	65								
1971	159	84								
1972	188	85								
1973	220	61								
1974	244	78								
1975	287	86								
1976	352	89								
1977	367	90								
1978	397	88								
1979	431	92								
1980	464	93								
1981	586	92								
1982	618	91								
1983	796	93								
1984	869	93								0.15
1985	1072	94								0.20
1986	1129	93								0.20
1987	1240	86			1068	100		0.16		0.18
1988	1369	82			1443	78		0.18		0.21
1989	1546	79			1652	74		0.17		0.21
1990	1782	76			1961	69		0.21		0.26
1991	2101	75			2784	57		0.33		0.39
1992	2357	77			2425	75		0.25		0.30
1993	2651	74	510	0	3367	58	0	0.28	0.13	0.34
1994	2840	71	1691	1	3488	58	0	0.26	0.31	0.32
1995	3351	79	1953	1	3739	71	1	0.25	0.38	0.30
1996	3514	78	2431	1	4133	67	1	0.23	0.34	0.27
1997	3934	78	2718	7	4609	67	4	0.23	0.38	0.28
1998	4032	78	2498	7	5246	60	3	0.22	na	na
1999	4591	76	2724	10	5633	62	5	0.22	na	na

Table 41 (cont.) Investment in grape and wine research, 1956 to 2014 ($'000 and %)

Year	Total AWRI ($'000)	% of AWRI from GWRDC	Total CRCV ($'000)	% of CRCV from GWRDC	Total GWRDC ($'000)	% to AWRI	% to CRCV	GWRDC as % of wine sales value	CRC as % of grape prod'n value	AWRI +CRCV+ other GWRDC as % of wine sales
2000	5999	69	3100	69	9369	44	23	0.30	na	na
2001	5902	68	5469	49	10809	37	25	0.30	0.36	0.43
2002	6272	67	5986	55	12159	35	27	0.30	0.38	0.43
2003	7988	60	5866	53	14594	33	21	0.32	0.43	0.46
2004	7987	66	7305	46	14232	37	24	0.32	0.43	0.46
2005	8595	65	5892	55	16886	33	19	0.35	0.39	0.48
2006	10858	68	9127	62	24556	30	23	0.53	0.66	0.72
2007	11645	77	0	0	28348	32	0	0.58	0.00	0.63
2008	12949	73	0	0	23422	40	0	0.49	0.00	0.56
2009	15081	68	0	0	26162	39	0	0.58	0.00	0.69
2010	14951	69	0	0	28093	37	0	0.66	0.00	0.76
2011	14817	69	0	0	25216	41	0	0.59	0.00	0.70
2012	15287	66	0	0	22469	45	0	0.52	0.00	0.64
2013	14505	68	0	0	20939	47	0	0.50	0.00	0.61
2014	14134	59	0	0	25167	33	0		0.00	

Table 42: Wine research publications[a], 1992 to 2006

	1992-1996					1997-2001					2002-2006				
	Wine prodn, %	GDP, %	Publicns, %	Publicns /Prodn	Publicns /GDP	Wine prodn, %	GDP, %	Publicns, %	Publicns /Prodn	Publicns /GDP	Wine prodn, %	GDP, %	Publicn %	Publicns /Prodn	Publicns /GDP
France	21.7	5.3	15.5	0.71	2.94	20.9	4.6	14	0.67	3.07	18.9	4.7	11.7	0.62	2.42
Italy	23.3	4.2	10.5	0.45	2.49	19.6	3.8	10.9	0.57	2.87	17.3	3.9	11.6	0.67	2.94
Spain	10.1	2.1	14.2	1.41	6.72	12.7	1.9	15.2	1.2	7.88	13.6	2.4	16.6	1.22	6.93
United States	6.7	25.8	25.9	3.87	1	8.1	29.7	21.5	2.65	0.72	8.4	28.8	18.1	2.15	0.63
Argentina	5.8	0.9	1.1	0.19	1.14	5.2	0.9	0.8	0.15	0.83	5.2	0.4	1.1	0.21	2.84
Australia	**2**	**1.3**	**5.6**	**2.8**	**4.19**	**3**	**1.3**	**4.9**	**1.63**	**3.73**	**4.7**	**1.5**	**6.8**	**1.45**	**4.45**
Germany	3.9	8.2	5.1	1.31	0.62	3.8	6.7	5.7	1.5	0.86	3.3	6.3	4.6	1.39	0.73
South Africa	3.2	0.5	1.3	0.41	2.47	3.6	0.4	1.2	0.33	2.75	3.3	0.5	1.7	0.52	3.48
Chile	1.3	0.2	0.4	0.27	1.63	2	0.2	0.7	0.36	2.97	2.6	0.2	1.3	0.5	5.42
Portugal	2.7	0.4	2.7	1	7.16	2.3	0.4	3.7	1.61	9.92	2.5	0.4	4.4	1.76	10.65
Others	19.3	51	17.7	0.92	0.35	18.8	50.1	21.4	1.14	0.43	20.2	50.9	22.1	1.09	0.44
WORLD	**100**	**100**	**100**	**1**	**1**	**100**	**100**	**100**	**1**	**1**	**100**	**100**	**100**	**1**	**1**

[a] No adjustment is made for the quality or relevance of publications (as measured by, for example, citations). The source includes predominantly English-language

Table 43: Consumer taxes on wines, beers and spirits, various countries, 2012

(a) Ad valorem rate, % of the wholesale wholesale pre-tax prices per litre shown in column head

	Ad valorem equivalent rates at the quoted wholesale pre-tax price						
	Non-premium wine	Commercial premium wine	Super premium wine	Sparkling wine	Beer	Spirits	VAT/ GST (%)
	$2.50	$7.50	$20	$25	$2	$15	
Argentina	0.0	0.0	0.0	0.0	8.0	20.0	21.0
Australia	29.0	29.0	29.0	29.0	107.1	184.4	10.0
Austria	0.0	0.0	0.0	0.0	15.8	33.6	20.0
Belgium	23.7	7.9	3.0	8.1	13.5	58.9	21.0
Canada	23.7	7.9	3.0	2.4	74.7	29.9	up to 15
Chile	15.0	15.0	15.0	15.0	15.0	27.0	19.0
Czech Rep.	0.0	0.0	0.0	4.6	3.9	37.2	20.0
Denmark	71.9	24.0	9.0	9.6	26.9	67.7	25.0
Estonia	36.8	12.3	4.6	3.7	17.1	47.7	20.0
Finland	157.4	52.5	19.7	15.7	94.3	145.9	23.0
France	2.0	0.7	0.3	0.5	8.7	55.8	20.0
Germany	0.0	0.0	0.0	6.9	6.2	43.8	19.0
Greece	0.0	0.0	0.0	0.0	20.5	82.4	23.0
Hungary	0.0	0.0	0.0	2.4	14.6	30.8	27.0
Ireland	132.1	44.0	16.5	26.4	49.5	104.7	23.0
Israel	0.0	0.0	0.0	0.0	137.4	110.3	16.0
Italy	0.0	0.0	0.0	0.0	18.5	26.9	21.0
Japan	40.5	13.5	5.1	4.0	34.8	13.5	5.0
Korea	33.0	33.0	33.0	33.0	94.0	91.0	10.0
Luxembourg	0.0	0.0	0.0	0.0	6.2	35.0	15.0
Mexico	25.0	25.0	25.0	25.0	25.0	50.0	16.0
Netherlands	35.8	11.9	4.5	12.2	17.3	50.6	19.0
New Zealand	86.1	28.7	10.8	8.6	51.8	251.5	15.0
Norway	343.1	114.4	42.9	34.3	178.7	292.4	25.0
Poland	17.8	5.9	2.2	1.8	13.7	37.3	23.0
Portugal	0.0	0.0	0.0	0.0	58.1	37.3	23.0
Slovak Rep	0.0	0.0	0.0	4.0	11.3	36.3	20.0
Slovenia	0.0	0.0	0.0	0.0	31.5	33.6	20.0
South Africa	12.0	4.0	1.5	3.6	17.8	35.7	10.0
Spain	0.0	0.0	0.0	0.0	31.4	27.9	18.0
Sweden	122.0	40.7	15.3	12.2	58.7	189.0	25.0
Switzerland	0.0	0.0	0.0	0.0	43.7	80.0	8.0
Turkey[a]	40.3	13.4	5.0	25.5	63.0	90.6	18.0
UK	145.5	48.5	18.2	18.7	70.1	102.7	20.0
USA	18.3	6.1	2.3	4.5	53.4	25.2	0.0

Table 43 (cont.) Consumer taxes on wines, beers and spirits, various countries, 2012

(b) Per standard drink, cents at wholesale pre-tax price per litre shown in column head

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

Table 44: Consumer taxes on wines, beers and spirits, various countries, 2014
(a) Ad valorem rate, % of wholesale pre-tax prices per litre shown in column heads

	Non-premium wine	Commercial premium wine	Super premium wine	Sparkling wine	Beer	Spirits
	$2.50	$7.50	$20	$25	$2	$15
Argentina	0.0	0.0	0.0	0.0	8.0	20.0
Australia	29.0	29.0	29.0	29.0	116.9	211.3
Austria	0.0	0.0	0.0	5.8	18.1	46.3
Belgium	33.0	11.0	4.1	11.3	16.7	81.8
Chile	15.0	15.0	15.0	15.0	15.0	27.0
Czech Rep.	0.0	0.0	0.0	4.9	4.2	39.9
Denmark	85.2	28.4	10.6	11.0	27.1	77.4
Estonia	49.2	16.4	6.2	4.9	22.7	63.4
Finland	196.3	65.4	24.5	19.6	116.0	175.8
France	2.3	0.8	0.3	0.5	26.5	66.4
Germany	0.0	0.0	0.0	7.9	7.1	50.3
Greece	0.0	0.0	0.0	0.0	23.5	94.6
Hungary	0.0	0.0	0.0	3.0	18.7	41.1
Ireland	246.1	82.0	30.8	49.2	81.6	164.3
Italy	0.0	0.0	0.0	0.0	24.4	36.4
Luxembourg	0.0	0.0	0.0	0.0	7.2	40.2
Netherlands	51.0	17.0	6.4	14.7	17.2	65.1
New Zealan	104.8	34.9	13.1	10.5	65.5	127.3
Poland	21.9	7.3	2.7	2.2	16.9	52.7
Portugal	0.0	0.0	0.0	0.0	68.3	48.3
Slovak Rep	0.0	0.0	0.0	4.6	13.0	41.7
Slovenia	0.0	0.0	0.0	0.0	43.8	51.0
South Africa	11.4	3.8	1.4	3.6	17.1	36.5
Spain	0.0	0.0	0.0	0.0	36.0	35.2
Sweden	145.4	48.5	18.2	14.5	70.1	212.6
UK	197.8	65.9	24.7	25.3	86.5	136.2
USA[a]	19.9	6.6	2.5	4.9	58.2	27.5

Table 44 (cont.) Consumer taxes on wines, beers and spirits, various countries, 2014
(b) Per standard drink, cents at wholesale pre-tax price per litre shown in column head

	Non-premium wine	Commercial premium wine	Super premium wine	Sparkling wine	Beer	Spirits	Exchange rate (local currency per AUD)
	$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 Zealan	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

Section II — Tables:

Regional Wine Developments from the late 20th Century

Table 45: Key GI regions and their corresponding ABS Statistical Sub-divisions, 2006 and 2012

GI region	ABS Statistical Sub-division (SSD) name	SSD No.	Climate zone[a]	% of national winegrape area, 2006	% of national winegrape area, 2012	% of national GDP, 2006	% of national population, 2006
South Australia							
Adelaide Hills	Mt Lofty Ranges	41015	C	1.16	2.3	0.2	0.2
Barossa/Eden Valley	Barossa	41005	W	7.0	8.4	0.2	0.2
Clare Valley	Lower North	41510	W	3.4	3.1	0.1	0.1
Coonawarra	Lower South East	42510	C	3.9	3.9	0.2	0.2
Langhorne/Curr Cr/SF	Fleurieu	41020	W	4.4	4.7	0.1	0.2
McLaren Vale	Southern Adelaide	40520	W	3.9	4.5	1.4	1.6
Other Limestone Coast	Upper South East	42505	W	5.3	6.5	0.1	0.1
Riverland	Riverland	42005	H	13.9	13.8	0.2	0.2
Other SA				0.8	0.9	4.0	4.8
Total SA				**44.1**	**48.1**	**6.4**	**7.6**
New South Wales							
Canberra District	Sthn. Tablelands	14510	C	0.2	0.2	0.3	0.3
Hunter	Hunter	11010	W	2.7	1.8	0.6	0.5
Mudgee/Cowra	Cent. Tablelands pt	13505+14015	W	3.3	2.3	0.3	0.3
Murray Darling NSW	Murray Darling	15520	H	4.4	4.9	0.0	0.0
Orange	Orange	14005+14010	W	0.9	1.2	0.2	0.2
Riverina	LowerMurrumbidgee	15015	H	9.3	13.9	0.2	0.2
Other NSW				2.3	2.1	31.4	31.4
Total NSW				**23.1**	**26.4**	**33**	**33**
Victoria							
Alpine V/Beech	East Ovens-Murray	24515	C	0.6	0.4	0.1	0.2
Goulburn Valley	Sth West Goulburn	24020	W	1.0	0.9	0.2	0.2
Mornington Pen.	Mornington Pen.	20590	C	0.4	0.6	0.6	0.6
Murray Darling VIC	West Mallee	23010	H	10.9	6.1	0.2	0.0
Rutherglen	West Ovens-Murray	24510	W	0.6	0.6	0.1	0.2
Swan Hill	East Mallee	23015	H	2.9	1.7	0.1	0.2
West Central High	WestCent. Highland	22015	C	0.9	1.6	0.1	0.1
Yarra Valley	Yarra Ranges ShireA	20560	C	1.5	1.6	0.7	0.8
Other VIC				4.4	3.5	21.9	22.4
Total VIC				**23.2**	**17.0**	**23.9**	**24.7**

Table 45 (cont.) Key GI regions and their corresponding ABS Statistical Sub-divisions, 2006 and 2012

GI region	SSD name	SSD No.	Climate zone[a]	% of national grape area, 2006	% of national winegrape area, 2012	% of national GDP, 2006	% of national population 2006
Western Australia							
Great Southern	King	515+520	W	1.7	1.6	0.2	0.2
Margaret River	Vasse	51015	W	3.1	3.4	0.2	0.2
Swan District	North Metropolitan	50515	H	0.7	0.5	2.4	2.2
Other WA				2.2	1.6	9.9	7.3
Total WA				**7.7**	**7.1**	**12.7**	**10**
Tasmania	Tasmania		C	**0.6**	**0.8**	**1.8**	**2.4**
Queensland							
Darling Downs SD Bal		32005	W	0.4	0.2	0.5	0.5
Other QLD			H	1.1	0.3	18.4	19.3
Total QLD				**1.5**	**0.5**	**19**	**19.8**
NT+ACT				0.2	0.1	**3.3**	**2.6**
Australia							
Above 27 GIs				89	91	11	12
Other (6) regions				11	9	89	88
Australia, Total				**100**	**100**	**100**	**100**
CLIMATIC ZONES							
Hot			H	46	42	22	23
Warm			W	42	43	72	75
Cool			C	12	15	3	3

[a] Hot zone: Mean January and February temperatures each above 23°C and Growing Degree Days above 2200; Cool zone: Mean January and February temperatures each below 20°C and Growing Degree Days below 1550. The beneficial effect of a large diurnal temperature range also was considered, but it did not cause any change to the above classification of regions into H, W and C.

Table 46: Winegrape regions' climate data, 2000

Region	Mean Jan temp. (°C)	Growing Degree Days (°C)	Mean Feb temp. (°C)	Harvest max. Temp. (DJF) (°C)	Winter min. Temp. (JJA)(°C)	Minimum Feb. Temp. (°C)	Minimum Jan. Temp. (°C)	Annual Rainfall (mm)	Summer rainfall (mm)	Potential evap. Summer (DJF) (mm)	Continent-ality	Diurnal range
Adelaide Hills	19.9	1549.4	19.3	24.8	7.3	13.1	13.1	770.5	118.6	647.2	10.3	12.5
Clare Valley	22.9	2056.6	22.2	29	7.2	14.9	14.9	436.6	80.6	727.7	13	15.1
Adelaide Plains	22.9	2173.5	22.8	27.8	9.9	16	16	402	78.6	747.8	11.8	12.9
McLaren Vale	20.4	1735.9	19.6	24.4	9.9	14.9	14.8	591.2	89.1	650.2	8.7	9.7
Langhorne Creek	20.4	1752	20	24.7	9	14	14.2	448.6	86.1	641.1	9	11.5
Coonawarra	19.2	1423	19.3	25	6.9	12	11	692.8	111.4	561.5	9.7	15
Wrattonbully	19.9	1522.4	20	26.4	6	12	11	601	99.7	591.6	10.4	16.4
Padthaway	20.3	1619.8	20.4	26.7	7	12	11.7	546.5	90.8	619.3	10.6	16
Riverland	23.5	2197.9	23.1	29.9	7.5	14.9	14.7	265.9	65.9	736.2	13.4	16.6
Barossa Valley	21.7	1853.3	21.3	27.3	7.7	14.1	14.1	578.6	95.2	731.9	12.2	14.2
Eden Valley	20.3	1544	20.2	26.2	6.3	12.4	12.4	684.2	109.4	678.4	11.4	14.9
Riverina	24.5	2330.9	24.2	30.4	6.8	16.6	16.3	427.3	132.5	812.4	15.8	15.4
Hunter Valley	22.5	2068.3	21.7	27.5	6.7	15.5	15.5	823.5	353.4	624.2	13.4	13
Cowra	23.2	2020.6	22.5	29	5.9	15	15	671.7	215.4	732.1	15.5	15.4
Mudgee	21.9	1808.9	20.9	27.3	4.9	14.2	14.1	738	275.6	652.7	14.9	14.5
Orange	20.7	1507.3	19.9	26.1	4.1	13.3	13.2	844.3	268.6	584	15.1	14.1
Canberra district	19.5	1302.9	19	25.1	3	11.9	11.8	845.4	253.4	610.8	14.8	14.5
Bendigo	20.7	1609.5	20.6	26.8	5.6	13	12.4	574.2	137.3	687.1	13.2	15.6
Goulburn Valley	22.1	1879.3	21.9	28	6.3	14.6	14	532.2	139.8	735	13.8	15.1

Source: Webb (2006, pp. 239-240), and see her Chapter 2.1 for details and definitions.

Table 46 (cont.) Winegrape regions' climate data, 2000

Region	Mean Jan temp. (°C)	Growing Degree Days (°C)	Mean Feb temp. (°C)	Harvest max. Temp. (DJ) (°C)	Winter min. Temp. (JJA)(°C)	Minimum Feb. Temp.	Minimum Jan. Temp. (°C)	Annual Rainfall (mm)	Summer rainfall (mm)	Potential evap. Summer (DJF) (mm)	Continent-ality	Diurnal range
King/Alpine Val., Beechworth	19.5	1295.9	19.4	25	4	11.9	11.3	1230.6	258.1	618.6	14.1	15.2
Rutherglen, Glenrowan	22.5	1892	22.1	28.6	5.7	14.3	14	662.2	162.2	729.2	15.3	16.1
Yarra Valley	19	1408.9	19.2	23.9	6.9	12.9	12.4	1002	257.3	515.4	10.6	12.5
Mornington Pen.	19	1520.1	19	22.2	9.8	15	14	723.3	172.7	515.1	8.2	9.2
Western Victoria	18.4	1350.2	19	24.4	6.4	11.9	11.3	686.6	142.8	576.7	10.6	14.2
Blackwood Valley	21	1727.6	20.8	27	7.8	13.5	12.9	805.7	74.9	664.1	10.3	15.3
Geographe	21.9	1924.9	21.6	27.2	9.3	15	14.6	909.4	65.8	671	9.9	13.7
Great Southern	20	1642.6	19.7	24.9	8.7	13.9	13.1	716.5	93.7	591	8.6	12.7
Manjimup	20	1600.5	19.9	25.1	8.6	13.6	12.9	1007.6	98.6	626.2	8.8	13.3
Pemberton	19.9	1656.2	19.9	24.3	9.7	14.7	13.7	1199.4	105.8	593.7	7.9	11.3
Margaret River	20.6	1868.7	20.5	23.7	12.2	16.3	15.9	1018.5	65.1	593.3	6.7	8.4
Swan District	24.1	2362.2	24	29.2	11	18.3	17.3	798	52.8	759.2	11.2	13.3
Peel	22.9	2028.5	22.4	28.7	8.5	15.3	14.7	836.5	68.1	752.8	11.6	15.4
Vic/NSW Murray	24.3	2330.1	23.8	30.3	7.5	16	15.8	306	85.7	791.1	14.2	16.1
Granite Belt	21.5	1907.3	20.5	26.5	5.5	14.9	14.9	827.6	362	589.2	13.4	12.5
South Burnett	24	2510.5	23	28.8	8.3	17.2	17.4	743	356.8	640.9	12.6	12
Tasmania	15.7	769.4	15.4	19.9	4.5	9.9	9.5	899.5	232.8	441.3	9.1	11.3

Source: Webb (2006, pp. 239-240), and see her Chapter 2.1 for details and definitions.

Table 47: Vine bearing area, by State and major region, 1978 to 2000 (ha)

State/Region	*1978*	*1979*	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*
South Australia												
Central		4321	4178	3897	3641	3455	3289		2965	2249	2294	
Barossa		7790	7464	7279	7411	6778	6561		6456	5139	5217	
Wairie and Lower Murray		3084	3135	3155	3099	2812	2746	2685	2726	2475	2450	
North Murray		7317	7257	7112	7141	6887	6530	6189	6366	5691	5414	
South Murray		2310	2317	2284	2292	2197	2146	2014	2049	1939	1955	
Northern Murray		1970	1939	2053	2094	2228	2050	2034	2078	1553	1572	
South Eastern		2087	2220	2330	2393	2571	2575	2794	2929	2976	3001	
SA Total	**28443**	**28879**	**28509**	**28109**	**28071**	**26928**	**25898**	**25335**	**25570**	**22024**	**21903**	**21791**
New South Wales												
Murrumbidgee		4764	4765	4877	4823	4439	4457	4615	5163	4849	4767	
Hunter Valley		3491	3357	3225	3024	3035	2902	2772	2528	2287	2166	
Suraysia (NSW)		4117	3702	3809	3655	3687	3588	3623	3550	3388	3438	
NSW other		1280	1279	1368	1248	1298	1207	1087	1076	1003	1130	
NSW Total	**13739**	**13652**	**13103**	**13279**	**12750**	**12459**	**12154**	**12097**	**12317**	**11527**	**11502**	**11644**
Victoria												
Suraysia (Vic)		13054	13245	12819	12664	12318	12247	12478	11974	11547	11276	
Kerang-Swan Hill			4937	4870	4598	4609	4441	4523	4464	4259	4236	
Vic Other		6543	1638	1928	2071	2050	2133	2131	2282	2022	2079	
Vic Total	**19149**	**19597**	**19820**	**19617**	**19333**	**18976**	**18821**	**19132**	**18720**	**17828**	**17591**	**17590**
Western Australia												
Swan Shire		1305	1275	1182	1058	1017	863	906	893	596	579	
Margaret River						1025	1084					
WA Other		1029	1068	1030	1016			1131	1140	996	1005	
WA Total	**2200**	**2334**	**2344**	**2212**	**2077**	**2042**	**1946**	**2037**	**2033**	**1592**	**1584**	**1683**
Tasmania								**44**	**50**	**43**	**45**	62
Queensland									**1279**	**1059**	**982**	924
Australia	**63530**	**64462**	**63776**	**63217**	**62231**	**60405**	**58819**	**58646**	**59977**	**54073**	**53608**	**53771**

Table 47 (cont.) Vine bearing area, by State and major region, 1978 to 2000 (ha)

	1990	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
South Australia											
Central	2518	2782	3199	3361	3306	3734	3999	5070	5561	7826	9738
Barossa	5254	5299	5269	5332	5720	6116	6122	6005	6367	7432	8294
Wairie and Lower Murray	2545	2503	2589	2595	2592	3089	2643	2838	4175	3749	4389
North Murray	5176	5125	5074	5067	5091	5273	5385	5533	5865	7125	9010
South Murray	1901	1926	1957	1956	1959	2026	2054	2463	4118	2978	3778
Northern Murray	1693	1744	1757	1748	1941	2021	1886	1996	2195	2641	3562
South Eastern	3208	3307	3599	3923	4230	4739	4666	5760	6733	8437	9640.3
SA Total	**22295**	**22686**	**23444**	**23983**	**24839**	**26998**	**26757**	**29665**	**35014**	**40188**	**48412**
New South Wales											
Murrumbidgee	4584	4270	4285	4601	4627	4437	4900	5710	6161	7856	10444
Hunter Valley	2283	2369	2469	2595	2571	2590	2568	3248	3272	4191	4087
Suraysia (NSW)	3243	3048	3007	3012	3607	3293	3321	3808	3965	4944	6050
NSW other	1149	1278	1589	1874	2533	2351	2155	3097	3609	5535	7479
NSW Total	**11260**	**10965**	**11350**	**12082**	**13338**	**12672**	**12945**	**15863**	**17007**	**22525**	**28060**
Victoria											
Suraysia (Vic)	11252	11460	11788	12028	12130	11835	12007	12929	12877	14750	16394
Kerang-Swan Hill	4129	4128	4089	4177	4280	4032	3994	4218	4211	4853	5197
Vic Other	2266	2524	2612	2844	3125	3150	3566	4149	4563	6546	8130
Vic Total	**17647**	**18112**	**18490**	**19049**	**19535**	**19018**	**19568**	**21296**	**21651**	**26149**	**29721**
Western Australia											
Swan Shire	632	586		582	641	622	612	637	694	756	869
Margaret River				648	592	593	708	970	1076	1400	2265
WA Other	1069	1177		1042	1202	1200	1284	1496	1742	2297	3319
WA Total	**1701**	**1763**	**1919**	**2272**	**2435**	**2415**	**2604**	**3103**	**3512**	**4453**	**6454**
Tasmania	**105**	**137**	**149**	**177**	**253**	**293**	**311**	**339**	**379**	**460**	**524**
Queensland	**964**	**922**	**943**	**907**	**1001**	**894**	**948**	**1086**	**1041**	**1378**	**1700**
Australia	**53973**	**54585**	**56295**	**58550**	**61401**	**62290**	**63132**	**71451**	**78709**	**95301**	**115068**

Table 48: State and regional shares of national vine bearing area, 1978 to 2000 (%)

State/Region	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
South Australia												
Central		6.70	6.55	6.16	5.85	5.72	5.59		4.94	4.16	4.28	
Barossa		12.08	11.70	11.51	11.91	11.22	11.15		10.76	9.50	9.73	
Wairie and Lower Murray		4.78	4.92	4.99	4.98	4.66	4.67	4.58	4.55	4.58	4.57	
North Murray		11.35	11.38	11.25	11.47	11.40	11.10	10.55	10.61	10.53	10.10	
South Murray		3.58	3.63	3.61	3.68	3.64	3.65	3.43	3.42	3.59	3.65	
Northern Murray		3.06	3.04	3.25	3.36	3.69	3.49	3.47	3.47	2.87	2.93	
South Eastern		3.24	3.48	3.69	3.85	4.26	4.38	4.76	4.88	5.50	5.60	
SA Total	**44.77**	**44.80**	**44.70**	**44.46**	**45.11**	**44.58**	**44.03**	**43.20**	**42.63**	**40.73**	**40.86**	**40.53**
New South Wales												
Murrumbidgee		7.39	7.47	7.71	7.75	7.35	7.58	7.87	8.61	8.97	8.89	
Hunter Valley		5.42	5.26	5.10	4.86	5.02	4.93	4.73	4.21	4.23	4.04	
Suraysia (NSW)		6.39	5.80	6.03	5.87	6.10	6.10	6.18	5.92	6.27	6.41	
NSW other		1.99	2.01	2.16	2.01	2.15	2.05	1.85	1.79	1.85	2.11	
NSW Total	**21.63**	**21.18**	**20.55**	**21.01**	**20.49**	**20.63**	**20.66**	**20.63**	**20.54**	**21.32**	**21.46**	**21.65**
Victoria												
Suraysia (Vic)		20.25	20.77	20.28	20.35	20.39	20.82	21.28	19.96	21.35	21.03	
Kerang-Swan Hill			7.74	7.70	7.39	7.63	7.55	7.71	7.44	7.88	7.90	
Vic Other		10.15	2.57	3.05	3.33	3.39	3.63	3.63	3.80	3.74	3.88	
Vic Total	**30.14**	**30.40**	**31.08**	**31.03**	**31.07**	**31.41**	**32.00**	**32.62**	**31.21**	**32.97**	**32.81**	**32.71**
Western Australia												
Swan Shire		2.02	2.00	1.87	1.70	1.68	1.47	1.54	1.49	1.10	1.08	
Margaret River						1.70	1.84					
WA Other		1.60	1.68	1.63	1.63			1.93	1.90	1.84	1.87	
WA Total	**3.46**	**3.62**	**3.68**	**3.50**	**3.34**	**3.38**	**3.31**	**3.47**	**3.39**	**2.94**	**2.95**	**3.13**
Tasmania								**0.08**	**0.08**	**0.08**	**0.08**	**0.12**
Queensland									**2.13**	**1.96**	**1.83**	**1.72**
Australia	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 48 (cont.) State and regional shares of national vine bearing area, 1978 to 2000 (%)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
South Australia											
Central	4.67	5.10	5.68	5.74	5.38	5.99	6.33	7.10	7.07	8.21	8.46
Barossa	9.73	9.71	9.36	9.11	9.32	9.82	9.70	8.40	8.09	7.80	7.21
Wairie and Lower Murray	4.72	4.59	4.60	4.43	4.22	4.96	4.19	3.97	5.30	3.93	3.81
North Murray	9.59	9.39	9.01	8.65	8.29	8.47	8.53	7.74	7.45	7.48	7.83
South Murray	3.52	3.53	3.48	3.34	3.19	3.25	3.25	3.45	5.23	3.12	3.28
Northern Murray	3.14	3.20	3.12	2.99	3.16	3.24	2.99	2.79	2.79	2.77	3.10
South Eastern	5.94	6.06	6.39	6.70	6.89	7.61	7.39	8.06	8.55	8.85	8.38
SA Total	**41.31**	**41.56**	**41.64**	**40.96**	**40.45**	**43.34**	**42.38**	**41.52**	**44.49**	**42.17**	**42.07**
New South Wales											
Murrumbidgee	8.49	7.82	7.61	7.86	7.54	7.12	7.76	7.99	7.83	8.24	9.08
Hunter Valley	4.23	4.34	4.39	4.43	4.19	4.16	4.07	4.55	4.16	4.40	3.55
Suraysia (NSW)	6.01	5.58	5.34	5.14	5.87	5.29	5.26	5.33	5.04	5.19	5.26
NSW other	2.13	2.34	2.82	3.20	4.13	3.77	3.41	4.33	4.59	5.81	6.50
NSW Total	**20.86**	**20.09**	**20.16**	**20.64**	**21.72**	**20.34**	**20.50**	**22.20**	**21.61**	**23.64**	**24.39**
Victoria											
Suraysia (Vic)	20.85	20.99	20.94	20.54	19.76	19.00	19.02	18.09	16.36	15.48	14.25
Kerang-Swan Hill	7.65	7.56	7.26	7.13	6.97	6.47	6.33	5.90	5.35	5.09	4.52
Vic Other	4.20	4.62	4.64	4.86	5.09	5.06	5.65	5.81	5.80	6.87	7.07
Vic Total	**32.70**	**33.18**	**32.84**	**32.53**	**31.82**	**30.53**	**31.00**	**29.81**	**27.51**	**27.44**	**25.83**
Western Australia											
Swan Shire	1.17	1.07		0.99	1.04	1.00	0.97	0.89	0.88	0.79	0.76
Margaret River				1.11	0.96	0.95	1.12	1.36	1.37	1.47	1.97
WA Other	1.98	2.16		1.78	1.96	1.93	2.03	2.09	2.21	2.41	2.88
WA Total	**3.15**	**3.23**	**3.41**	**3.88**	**3.97**	**3.88**	**4.12**	**4.34**	**4.46**	**4.67**	**5.61**
Tasmania	**0.19**	**0.25**	**0.26**	**0.30**	**0.41**	**0.47**	**0.49**	**0.47**	**0.48**	**0.48**	**0.46**
Queensland	**1.79**	**1.69**	**1.68**	**1.55**	**1.63**	**1.44**	**1.50**	**1.52**	**1.32**	**1.45**	**1.48**
Australia	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 49: Winegrape bearing area, by state and region, 2001 to 2012 (ha)

State/Region	*Climate Zone*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
South Australia		**54997**	**60526**	**59957**	**64961**	**66979**	**69772**	**69859**	**70757**		**71542**		**69970**
Adelaide Hills	C	1811	1818	2105	2551	2786	2609	2966	3829		3861		3340
Coonawarra	C			2838	4391	4856	6220	5865	6234		5985		5635
Limestone Coast - other	W	7529	7775	5670	4232	4301	674	510	433		476		1286
Mount Benson	C	299	280	174	419	438	713	290	286		233		223
Mount Gambier	C												190
Mount Lofty Ranges - other	C	488	163	85	182	133	107	142	201		468		250
Robe	C							520	570		644		714
Wrattonbully	C						1774	1798	2019		2818		2287
Lower Murray - other	H	145	141	91	89	84	91	112	73		260		469
Riverland	H	18336	20485	19674	21394	22028	21952	21674	21367		20009		20026
Adelaide Plains	W		511	544	660	544	646	642	524		880		584
Barossa - other	W	249	122	215	364	286	509	82	128		92		356
Barossa Valley	W	7673	7647	7800	8409	8411	8910	9973	9989		9763		9743
Clare Valley	W	3617	4000	4199	4328	4389	5344	4625	4643		4801		4452
Currency Creek	W	940	563	622	600	748	882	910	906		871		426
Eden Valley	W	1224	1872	1656	1765	1786	1763	1707	1755		1933		2243
Far North - Other	H	107	104	196	7		6	6	7		11		4
Fleurieu - other	W	510	325	135	128	149	142	147	138		187		674
Kangaroo Island	W	34	40	57	76	70	78	89	78		89		79
Langhorne Creek	W	3737	4586	4483	5093	5256	5290	5736	6077		5957		5024
McLaren Vale	W	4695	5522	5643	6201	6092	6214	6077	6066		6490		6581
Padthaway	W	3226	4178	3387	3527	4012	5159	5509	4908		5028		4701
Southern Fleurieu	W	328	331	331	317	356	354	282	329		414		440
Southern Flinders Ranges	H				172	191	273	145	144		180		177
The Peninsulas	W	50	66	53	56	65	65	52	52		93		65

Table 49 (cont.) Winegrape bearing area, by state and region, 2001 to 2012 (ha)

State/Region	*Climate*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
New South Wales	*Zone*	**31031**	**34005**	**34273**	**35947**	**35748**	**36605**	**40644**	**41934**		**40903**		**38334**
Canberra District (NSW)	C	110	217	200	251	257	255	384	349		378		326
Hilltops	W	383	504	365	621	743	731	738	710		484		582
Murray Darling - NSW	H	5576	6640	6639	6869	6782	7000	7171	7591		6533		7108
Perricoota	H	153	145	207	185	164	154	164	437		671		493
Riverina	H	12398	12869	13003	13718	13628	14785	17557	18162		20154		20198
Swan Hill (NSW)	H	544	450	524	558	594	618	798	1010		308		154
Western Plains - other	H	328	431	408	436	480	154	313	313		236		57
Big Rivers - other	W	1015	783	937	756	750	665	478	459		629		497
Central Ranges - other	W	302	130	240	188	185	185	212	199		227		57
Cowra	W	1533	1514	1586	1631	2258	1843	2117	2072		1427		1294
Gundagai	W		405	507	349	405	380	562	565		408		333
Hastings River	W	118	49	37	25	20	20	18	18		18		14
Hunter	W	3669	3764	4152	4245	4154	3894	4090	4022		3450		2606
Hunter Valley - other	W	278	373	150	201	225	345	473	398		24		22
Mudgee	W	2152	2755	2709	3022	3251	3336	3232	3331		3414		2082
New England Australia	W								141		123		142
Northern Slopes - other	W	174	269	267	303	299	262	314	132		145		46
Orange	W	995	1546	1614	1738	762	1418	1456	1494		1546		1693
Shoalhaven Coast	W		38	37	39	39	30	43	34		40		40
South Coast - other	W	112	37	39	48	28	28	28	24		113		136
Southern Highlands	C		46	95	117	159	177	173	171		202		189
Southern NSW - other	W	914	781	287	362	296	59	71	124		119		23
Tumbarumba	C	278	260	271	282	269	266	251	177		254		243

Table 49 (cont.) Winegrape bearing area, by state and region, 2001 to 2012 (ha)

State/Region	*Climate*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Victoria	*Zone*	**32323**	**35035**	**34465**	**34957**	**35080**	**36625**	**36774**	**36119**		**25879**		**24742**
Alpine Valleys	C	803	1077	926	938	892	859	794	849		705		393
Beechworth	C	35	45	92	86	94	83	83	97		57		99
Geelong	W	322	428	384	494	439	459	448	459		515		399
Gippsland	W	174	161	175	172	181	189	195	186		235		241
Grampians	C	424	498	491	512	596	592	537	564		506		564
Henty	C	183	192	164	184	196	197	193	172		183		156
Macedon Ranges	C			120	165	154	170	203	149		224		248
Mornington Peninsula	C	402	433	470	711	559	659	621	658		752		825
Port Phillip - other	C	129	256	125	41	45	37	38	39		68		124
Yarra Valley	C	2038	2209	2324	2570	2376	2407	2499	2587		2440		2353
Murray Darling - VIC	H	15663	16464	15878	16360	16155	17297	17104	15629		8339		8940
North West Victoria - other	H	3177	2733	2057	1834	1845	1759	1334	869		121		166
Northern Rivers - other	H	12		19	29	30	28	28	24		41		29
Swan Hill (VIC)	H	3725	4420	4864	4418	4673	4650	4991	6015		3869		2429
Bendigo	C	607	784	688	661	669	651	847	928		771		641
Central Victoria - other	W	876	1260	639	104	296	330	89	79		56		183
Glenrowan	W				210	209	203	206	205		203		175
Goulburn Valley	W	1090	991	1006	1043	1110	1614	1368	1526		1612		1370
Heathcote	C			359	795	929	576	1349	1318		1245		1405
King Valley	W								663		1320		1500
North East Victoria - other	W	1254	1096	1340	1057	983	1024	1026	265		74		53
Pyrenees	W	428	490	700	692	702	760	695	755		874		744
Rutherglen	W	793	994	919	897	929	999	983	1024		853		827
Strathbogie Ranges	W		296	466	521	496	520	571	531		369		409
Sunbury	W	79	152	174	121	152	167	188	219		129		137
Upper Goulburn	H				222	301	178	176	215		245		262
Western Victoria - other	W	110	56	85	122	70	220	208	94		73		72

Table 49 (cont.) Winegrape bearing area, by state and region, 2001 to 2012 (ha)

State/Region	*Climate*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Western Australia	*Zone*	**9272**	**10260**	**10730**	**11068**	**11747**	**11375**	**12200**	**12746**		**11346**		**10317**
E. Plains, Inland and Nth of WA	H	39	52	45	55	70	60	33	26		25		5
Greater Perth - other	W	395	510	363	243	215	176	166	157		36		57
Swan District	H	812	802	831	1190	1301	1105	1075	1113		784		677
Blackwood Valley	W	501	629	664	540	567	575	388	363		249		343
Central Western Australia	W	70	93	139	102	172	180	177	163		62		28
Geographe	W	480	626	638	692	761	599	901	881		1181		1026
Great Southern	W	2391	2678	2889	2897	2772	2693	2801	3146		2804		2388
Manjimup	W							179	288		179		85
Margaret River	W	3401	3729	4094	4255	4826	4908	5339	5356		4894		4931
Peel	W			28	44	33	34	34	34		96		102
Pemberton	W							765	727		622		389
Perth Hills	W	316	281	239	291	318	330	298	340		295		244
South West Australia - other	W	802	743	732	696	678	703	34	140		101		39
Western Aust - SE Coastal	W	65	118	66	63	34	13	11	11		19		3
Tasmania	**C**	**680**	**909**	**978**	**1048**	**981**	**999**	**1196**	**1224**		**1251**		**1229**
Queensland		**1984**	**2092**	**1996**	**2150**	**2307**	**2449**	**2925**	**3090**		**758**		**690**
Queensland - other	H	1207	1245	1155	1185	1470	1596	2046	2042		187		139
Granite Belt	W	433	531	431	552	565	582	598	597		331		334
South Burnett	H	344	317	410	413	272	272	280	451		240		217
ACT+NT		**317**	**545**	**397**	**430**	**362**	**343**	**353**	**328**		**109**		**102**
Australian Capital Territory	C	15	90	54	78	96	106	116	113		109		102
Northern Territory	H	302	455	343	352	267	237	238	215		na		na
Australia Total		**130602**	**143373**	**142795**	**150561**	**153205**	**158168**	**163951**	**166197**	**157291**	**151788**		**145382**
Hot Total		62811	67840	66102	68913	69786	71661	74805	75042		61573		60947
Warm Total		51983	58568	59008	62080	63393	66772	69125	69541		67829		62972
Cool Total		15808	16965	17686	19568	20027	19734	20021	21614		22387		21463
Australia Total		**130602**	**143373**	**142795**	**150561**	**153205**	**158168**	**163951**	**166197**	**157291**	**151788**		**145382**

Table 50: State and regional shares of national winegrape bearing area, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
South Australia	**42.1**	**42.2**	**42.0**	**43.1**	**43.7**	**44.1**	**42.6**	**42.6**		**47.1**		**48.1**
Adelaide Hills	1.4	1.3	1.5	1.7	1.8	1.6	1.8	2.3		2.5		2.3
Coonawarra			2.0	2.9	3.2	3.9	3.6	3.8		3.9		3.9
Limestone Coast - other	5.8	5.4	4.0	2.8	2.8	0.4	0.3	0.3		0.3		0.9
Mount Benson	0.2	0.2	0.1	0.3	0.3	0.5	0.2	0.2		0.2		0.2
Mount Gambier												0.1
Mount Lofty Ranges - other	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.3		0.2
Robe							0.3	0.3		0.4		0.5
Wrattonbully						1.1	1.1	1.2		1.9		1.6
Lower Murray - other	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0		0.2		0.3
Riverland	14.0	14.3	13.8	14.2	14.4	13.9	13.2	12.9		13.2		13.8
Adelaide Plains		0.4	0.4	0.4	0.4	0.4	0.4	0.3		0.6		0.4
Barossa - other	0.2	0.1	0.2	0.2	0.2	0.3	0.1	0.1		0.1		0.2
Barossa Valley	5.9	5.3	5.5	5.6	5.5	5.6	6.1	6.0		6.4		6.7
Clare Valley	2.8	2.8	2.9	2.9	2.9	3.4	2.8	2.8		3.2		3.1
Currency Creek	0.7	0.4	0.4	0.4	0.5	0.6	0.6	0.5		0.6		0.3
Eden Valley	0.9	1.3	1.2	1.2	1.2	1.1	1.0	1.1		1.3		1.5
Far North - Other	0.1	0.1	0.1	0.0		0.0	0.0	0.0		0.0		0.0
Fleurieu - other	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1		0.1		0.5
Kangaroo Island	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0		0.1		0.1
Langhorne Creek	2.9	3.2	3.1	3.4	3.4	3.3	3.5	3.7		3.9		3.5
McLaren Vale	3.6	3.9	4.0	4.1	4.0	3.9	3.7	3.6		4.3		4.5
Padthaway	2.5	2.9	2.4	2.3	2.6	3.3	3.4	3.0		3.3		3.2
Southern Fleurieu	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.3		0.3
Southern Flinders Ranges				0.1	0.1	0.2	0.1	0.1		0.1		0.1
The Peninsulas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.1		0.0

Table 50 (cont.) State and regional shares of national winegrape bearing area, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
New South Wales	**23.8**	**23.7**	**24.0**	**23.9**	**23.3**	**23.1**	**24.8**	**25.2**		**26.9**		**26.4**
Canberra District (NSW)	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2		0.2		0.2
Hilltops	0.3	0.4	0.3	0.4	0.5	0.5	0.5	0.4		0.3		0.4
Murray Darling - NSW	4.3	4.6	4.6	4.6	4.4	4.4	4.4	4.6		4.3		4.9
Perricoota	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3		0.4		0.3
Riverina	9.5	9.0	9.1	9.1	8.9	9.3	10.7	10.9		13.3		13.9
Swan Hill (NSW)	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.6		0.2		0.1
Western Plains - other	0.3	0.3	0.3	0.3	0.3	0.1	0.2	0.2		0.2		0.0
Big Rivers - other	0.8	0.5	0.7	0.5	0.5	0.4	0.3	0.3		0.4		0.3
Central Ranges - other	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1		0.1		0.0
Cowra	1.2	1.1	1.1	1.1	1.5	1.2	1.3	1.2		0.9		0.9
Gundagai		0.3	0.4	0.2	0.3	0.2	0.3	0.3		0.3		0.2
Hastings River	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Hunter	2.8	2.6	2.9	2.8	2.7	2.5	2.5	2.4		2.3		1.8
Hunter Valley - other	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.2		0.0		0.0
Mudgee	1.6	1.9	1.9	2.0	2.1	2.1	2.0	2.0		2.2		1.4
New England Australia								0.1		0.1		0.1
Northern Slopes - other	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1		0.1		0.0
Orange	0.8	1.1	1.1	1.2	0.5	0.9	0.9	0.9		1.0		1.2
Shoalhaven Coast		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
South Coast - other	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.1		0.1
Southern Highlands		0.0	0.1	0.1	0.1	0.1	0.1	0.1		0.1		0.1
Southern NSW - other	0.7	0.5	0.2	0.2	0.2	0.0	0.0	0.1		0.1		0.0
Tumbarumba	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1		0.2		0.2

Table 50 (cont.) State and regional shares of national winegrape bearing area, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Victoria	**24.7**	**24.4**	**24.1**	**23.2**	**22.9**	**23.2**	**22.4**	**21.7**		**17.0**		**17.0**
Alpine Valleys	0.6	0.8	0.6	0.6	0.6	0.5	0.5	0.5		0.5		0.3
Beechworth	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1		0.0		0.1
Geelong	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3		0.3		0.3
Gippsland	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.2		0.2
Grampians	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3		0.3		0.4
Henty	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1		0.1
Macedon Ranges			0.1	0.1	0.1	0.1	0.1	0.1		0.1		0.2
Mornington Peninsula	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.4		0.5		0.6
Port Phillip - other	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0		0.0		0.1
Yarra Valley	1.6	1.5	1.6	1.7	1.6	1.5	1.5	1.6		1.6		1.6
Murray Darling - VIC	12.0	11.5	11.1	10.9	10.5	10.9	10.4	9.4		5.5		6.1
North West Victoria - other	2.4	1.9	1.4	1.2	1.2	1.1	0.8	0.5		0.1		0.1
Northern Rivers - other	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Swan Hill (VIC)	2.9	3.1	3.4	2.9	3.0	2.9	3.0	3.6		2.5		1.7
Bendigo	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.6		0.5		0.4
Central Victoria - other	0.7	0.9	0.4	0.1	0.2	0.2	0.1	0.0		0.0		0.1
Glenrowan				0.1	0.1	0.1	0.1	0.1		0.1		0.1
Goulburn Valley	0.8	0.7	0.7	0.7	0.7	1.0	0.8	0.9		1.1		0.9
Heathcote			0.3	0.5	0.6	0.4	0.8	0.8		0.8		1.0
King Valley								0.4		0.9		1.0
North East Victoria - other	1.0	0.8	0.9	0.7	0.6	0.6	0.6	0.2		0.0		0.0
Pyrenees	0.3	0.3	0.5	0.5	0.5	0.5	0.4	0.5		0.6		0.5
Rutherglen	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6		0.6		0.6
Strathbogie Ranges		0.2	0.3	0.3	0.3	0.3	0.3	0.3		0.2		0.3
Sunbury	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1		0.1
Upper Goulburn				0.1	0.2	0.1	0.1	0.1		0.2		0.2
Western Victoria - other	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1		0.0		0.0

Table 50 (cont.) State and regional shares of national winegrape bearing area, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Western Australia	**7.1**	**7.2**	**7.5**	**7.4**	**7.7**	**7.2**	**7.4**	**7.7**		**7.5**		**7.1**
Eastern Plains, Inland and North of WA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Greater Perth - other	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1		0.0		0.0
Swan District	0.6	0.6	0.6	0.8	0.8	0.7	0.7	0.7		0.5		0.5
Blackwood Valley	0.4	0.4	0.5	0.4	0.4	0.4	0.2	0.2		0.2		0.2
Central Western Australia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.0		0.0
Geographe	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.5		0.8		0.7
Great Southern	1.8	1.9	2.0	1.9	1.8	1.7	1.7	1.9		1.8		1.6
Manjimup							0.1	0.2		0.1		0.1
Margaret River	2.6	2.6	2.9	2.8	3.1	3.1	3.3	3.2		3.2		3.4
Peel			0.0	0.0	0.0	0.0	0.0	0.0		0.1		0.1
Pemberton							0.5	0.4		0.4		0.3
Perth Hills	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2		0.2
South West Australia - other	0.6	0.5	0.5	0.5	0.4	0.4	0.0	0.1		0.1		0.0
Western Australian South East Coastal	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0
Tasmania	**0.5**	**0.6**	**0.7**	**0.7**	**0.6**	**0.6**	**0.7**	**0.7**		**0.8**		**0.8**
Queensland	**1.5**	**1.5**	**1.4**	**1.4**	**1.5**	**1.5**	**1.8**	**1.9**		**0.5**		**0.5**
Queensland - other	0.9	0.9	0.8	0.8	1.0	1.0	1.2	1.2		0.1		0.1
Granite Belt	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4		0.2		0.2
South Burnett	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3		0.2		0.1
ACT+NT	**0.2**	**0.4**	**0.3**	**0.3**	**0.2**	**0.2**	**0.2**	**0.2**		**0.1**		**0.1**
Australian Capital Territory	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1		0.1		0.1
Northern Territory	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1		na		na
Australia Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		**100.0**		**100.0**
Hot Total	48.1	47.3	46.3	45.8	45.6	45.3	45.6	45.2		40.6		41.9
Warm Total	39.8	40.9	41.3	41.2	41.4	42.2	42.2	41.8		44.7		43.3
Cool Total	12.1	11.8	12.4	13.0	13.1	12.5	12.2	13.0		14.7		14.8
Australia Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		**100.0**		**100.0**

Table 51: Winegrape production volume, by State and major region, 1979 to 2000 (tonnes)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
South Australia											
Central	23810	26233	23494	25536	19978	23717		22241	20976	21750	
Barossa	45956	50268	46461	62966	33658	46840		49711	39431	43371	
Wairie and Lower Murray	49011	49443	45614	48010	42242	42280	46113	50322	52339	43561	
North Murray	89706	105128	97376	106771	93574	96081.4	98319	92507	92831	78743	
South Murray	36776	36639	35517	39026	35906	36931	37543	32947	34109	26085	
Northern Murray	14073	14733	12093	15610	7107	12244	16412	12646	11477	13324	
South Eastern	19841	26031	23625	31244	21974	29909	38643	34892	32556	20579	
SA Total	**279173**	**308475**	**284181**	**329163.4**	**254439**	**288004**	**321225**	**295266**	**283721**	**247413**	**310427**
New South Wales											
Murrumbidgee	68370	78603	84989	71344	71245	71463	83766	93838	82352	84635	
Hunter Valley	22111	13840	10620	13069	12203	16471	14197	17709	16795	18183	
Suraysia (NSW)	17170	15125	15328	14688	16391	22056	29793	20488	14429	16200	
NSW other	6750	6359	4795	5871	3004	5970	4276	5781	6103	7764	
NSW Total	**114401**	**113926.5**	**115732.5**	**104972**	**102843.2**	**115960.4**	**132032**	**137816**	**119679**	**126782**	**139940**
Victoria											
Suraysia (Vic)	30930	38778	32388	26404	34655	47726	54905	33162	37899	43870	
Kerang-Swan Hill		25263	23940	19306	23275	23632	29854	23221	18687	20923	
Vic Other	34271	8445	8748.2	11988	6970	11614	12048	12378	10547	13614	
Vic Total	**65201**	**72486**	**65076**	**57699**	**64900**	**82973**	**96807**	**68761**	**67133**	**78407**	**104274**
Western Australia											
Swan Shire	3868	4236	4446	3654	3496	2666	3237	2889	2594	2298	
Margaret River											
WA Other	2784	2994	3095	4288	4999	5182	5173	4545	5111	4703	
WA Total	**6652**	**7231**	**7541**	**7942**	**8495**	**7848**	**8410**	**7434**	**7705**	**7001**	**7645**
Tasmania						**164**	**100**	**139**	**148**	**211**	**340**
Queensland						**405**		**518**	**389**	**334**	**315**
Australia	**465427**	**502118**	**472531**	**499776.6**	**430678**	**495355**	**558574**	**509934**	**478775**	**460148**	**562941**

Table 51 (cont.) Winegrape production volume, by State and major region, 1979 to 2000 (tonnes)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
South Australia											
Central	28632	32050	34730	30507	42278	40125	52861	58338	68390	85149	79820
Barossa	55239	46910	53159	39386	51743	39001	61770	53944	67396	67380	52323
Wairie and Lower Murray	52972	50871	58887	49920	56222	54289	58478	55066	70046	68889	73789
North Murray	86094	75487	86332	77968	89166	83304	95102	96264	101970	122464	138137
South Murray	34228	31897	35547	31008	39629	36291	44534	31638	54824	54002	62206
Northern Murray	14299	14236	16744	10045	14590	14014	17327	17145	18756	19933	17464
South Eastern	44959	39380	42454	36021	44944	50207	56685	50081	67079	73804	63873
SA Total	**316423**	**290831**	**327853**	**274856**	**338572**	**317231**	**386757**	**362476**	**448461**	**491621**	**487612**
New South Wales											
Murrumbidgee	79756	68596	75739	85808	80195	58067	86119	94765	92631	123097	143168
Hunter Valley	17720	18986	16446	20524	16465	11854	17281	23867	18998	29633	25965
Suraysia (NSW)	13733	13250	16331	20264	27536	19899	33749	32595	36796	63325	74492
NSW other	8853	10181	12034	14080	17494	15108	22291	23309	26043	54181	58633
NSW Total	**120062**	**111013**	**120550**	**140676**	**141690**	**104928**	**159440**	**174536**	**174468**	**270236**	**302258**
Victoria											
Suraysia (Vic)	44071	41479	57684	72309	109727	88472	128611	124445	138576	185545	196576
Kerang-Swan Hill	22208	19537	26870	27234	35514	25642	38389	29557	34740	45787	49172
Vic Other	18784	17658	19844	18900	21842	23834	30433	25962	35090	46538	59512
Vic Total	**85064**	**78674**	**104398**	**118443**	**167083**	**137948**	**197433**	**179964**	**208406**	**277870**	**305260**
Western Australia											
Swan Shire	2329	2099		2092	2382	2309	2455	2859	3520	4725	4643
Margaret River				3113	3551	3261	4635	5191	7126	11318	14667
WA Other	6582	5710		4962	7026	6744	9121	9229	10094	16024	18671
WA Total	**8911**	**7809**		**10167**	**12959**	**12314**	**16211**	**17279**	**20740**	**32067**	**37981**
Tasmania	**693**	**766**		**1087**	**1066**	**2200**	**1943**	**1496**	**3136**	**3121**	**3369**
Queensland	**416**	**360**		**593**	**1154**	**380**	**617**	**421**	**693**	**1264**	**2018**
Australia	**531579**	**489453**	**563657**	**545822**	**662524**	**575001**	**762401**	**736478**	**856074**	**1076207**	**1138585**

Table 52: State and regional shares of national winegrape production volume, 1979 to 2000 (%)

	1979	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*
South Australia											
Central	5.12	5.22	4.97	5.11	4.64	4.79		4.36	4.38	4.73	
Barossa	9.87	10.01	9.83	12.60	7.82	9.46		9.75	8.24	9.43	
Wairie and Lower Murray	10.53	9.85	9.65	9.61	9.81	8.54	8.26	9.87	10.93	9.47	
North Murray	19.27	20.94	20.61	21.36	21.73	19.40	17.60	18.14	19.39	17.11	
South Murray	7.90	7.30	7.52	7.81	8.34	7.46	6.72	6.46	7.12	5.67	
Northern Murray	3.02	2.93	2.56	3.12	1.65	2.47	2.94	2.48	2.40	2.90	
South Eastern	4.26	5.18	5.00	6.25	5.10	6.04	6.92	6.84	6.80	4.47	
SA Total	**59.98**	**61.43**	**60.14**	**65.86**	**59.08**	**58.14**	**57.51**	**57.90**	**59.26**	**53.77**	**55.14**
New South Wales											
Murrumbidgee	14.69	15.65	17.99	14.28	16.54	14.43	15.00	18.40	17.20	18.39	
Hunter Valley	4.75	2.76	2.25	2.61	2.83	3.33	2.54	3.47	3.51	3.95	
Suraysia (NSW)	3.69	3.01	3.24	2.94	3.81	4.45	5.33	4.02	3.01	3.52	
NSW other	1.45	1.27	1.01	1.17	0.70	1.21	0.77	1.13	1.27	1.69	
NSW Total	**24.58**	**22.69**	**24.49**	**21.00**	**23.88**	**23.41**	**23.64**	**27.03**	**25.00**	**27.55**	**24.86**
Victoria											
Suraysia (Vic)	6.65	7.72	6.85	5.28	8.05	9.63	9.83	6.50	7.92	9.53	
Kerang-Swan Hill		5.03	5.07	3.86	5.40	4.77	5.34	4.55	3.90	4.55	
Vic Other	7.36	1.68	1.85	2.40	1.62	2.34	2.16	2.43	2.20	2.96	
Vic Total	**14.01**	**14.44**	**13.77**	**11.54**	**15.07**	**16.75**	**17.33**	**13.48**	**14.02**	**17.04**	**18.52**
Western Australia											
Swan Shire	0.83	0.84	0.94	0.73	0.81	0.54	0.58	0.57	0.54	0.50	
Margaret River											
WA Other	0.60	0.60	0.66	0.86	1.16	1.05	0.93	0.89	1.07	1.02	
WA Total	**1.43**	**1.44**	**1.60**	**1.59**	**1.97**	**1.58**	**1.51**	**1.46**	**1.61**	**1.52**	**1.36**
Tasmania						**0.03**	**0.02**	**0.03**	**0.03**	**0.05**	**0.06**
Queensland						**0.08**		**0.10**	**0.08**	**0.07**	**0.06**
Australia	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 52 (cont.) State and regional shares of national winegrape production volume, 1979 to 2000 (%)

	1990	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
South Australia											
Central	5.39	6.55	6.16	5.59	6.38	6.98	6.93	7.92	7.99	7.91	7.01
Barossa	10.39	9.58	9.43	7.22	7.81	6.78	8.10	7.32	7.87	6.26	4.60
Wairie and Lower Murray	9.97	10.39	10.45	9.15	8.49	9.44	7.67	7.48	8.18	6.40	6.48
North Murray	16.20	15.42	15.32	14.28	13.46	14.49	12.47	13.07	11.91	11.38	12.13
South Murray	6.44	6.52	6.31	5.68	5.98	6.31	5.84	4.30	6.40	5.02	5.46
Northern Murray	2.69	2.91	2.97	1.84	2.20	2.44	2.27	2.33	2.19	1.85	1.53
South Eastern	8.46	8.05	7.53	6.60	6.78	8.73	7.44	6.80	7.84	6.86	5.61
SA Total	**59.53**	**59.42**	**58.17**	**50.36**	**51.10**	**55.17**	**50.73**	**49.22**	**52.39**	**45.68**	**42.83**
New South Wales											
Murrumbidgee	15.00	14.01	13.44	15.72	12.10	10.10	11.30	12.87	10.82	11.44	12.57
Hunter Valley	3.33	3.88	2.92	3.76	2.49	2.06	2.27	3.24	2.22	2.75	2.28
Suraysia (NSW)	2.58	2.71	2.90	3.71	4.16	3.46	4.43	4.43	4.30	5.88	6.54
NSW other	1.67	2.08	2.13	2.58	2.64	2.63	2.92	3.16	3.04	5.03	5.15
NSW Total	**22.59**	**22.68**	**21.39**	**25.77**	**21.39**	**18.25**	**20.91**	**23.70**	**20.38**	**25.11**	**26.55**
Victoria											
Suraysia (Vic)	8.29	8.47	10.23	13.25	16.56	15.39	16.87	16.90	16.19	17.24	17.26
Kerang-Swan Hill	4.18	3.99	4.77	4.99	5.36	4.46	5.04	4.01	4.06	4.25	4.32
Vic Other	3.53	3.61	3.52	3.46	3.30	4.15	3.99	3.53	4.10	4.32	5.23
Vic Total	**16.00**	**16.07**	**18.52**	**21.70**	**25.22**	**23.99**	**25.90**	**24.44**	**24.34**	**25.82**	**26.81**
Western Australia											
Swan Shire	0.44	0.43		0.38	0.36	0.40	0.32	0.39	0.41	0.44	0.41
Margaret River				0.57	0.54	0.57	0.61	0.70	0.83	1.05	1.29
WA Other	1.24	1.17		0.91	1.06	1.17	1.20	1.25	1.18	1.49	1.64
WA Total	**1.68**	**1.60**		**1.86**	**1.96**	**2.14**	**2.13**	**2.35**	**2.42**	**2.98**	**3.34**
Tasmania	**0.13**	**0.16**		**0.20**	**0.16**	**0.38**	**0.25**	**0.20**	**0.37**	**0.29**	**0.30**
Queensland	**0.08**	**0.07**		**0.11**	**0.17**	**0.07**	**0.08**	**0.06**	**0.08**	**0.12**	**0.18**
Australia	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 53: Winegrape production volume, by state and region, 2001 to 2012 (tonnes)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
South Australia	**670758**	**689643**	**612097**	**880075**	**856040**	**881348**	**583340**	**809113**		**730629**		**768918**
Adelaide Hills	15696	8911	13813	30622	24435	21850	21298	37711		33721		19999
Adelaide Plains		5461	4933	6836	6654	5689	4269	5122		6305		5371
Barossa - other	2109	613	889	3817	2432	4015	332	758		464		2177
Barossa Valley	63958	65324	53647	78008	80898	77417	46510	76302		68060		58931
Clare Valley	24547	24106	20195	30889	28135	39041	17871	25221		26870		24927
Coonawarra			14284	50267	33360	40701	23094	48285		44105		30113
Currency Creek	9218	3091	4759	6571	7151	10262	9262	9283		8031		3426
Eden Valley	9451	8563	8798	16343	13920	12327	8645	12249		12600		12492
Far North - Other	1684	769	736	34		44	29	45		69		9
Fleurieu - other	4441	2404	861	1087	1270	1057	957	1396		1529		4826
Kangaroo Island	175	109	178	441	251	255	142	266		163		152
Langhorne Creek	47357	44591	44508	52728	55046	59197	37268	61859		53302		48734
Limestone Coast - other	85461	33592	34900	55468	32180	4874	1200	4036		3333		10872
Lower Murray - other	1510	1707	962	1003	1139	1082	1110	1114		1673		4264
McLaren Vale	47932	44520	40070	64850	60401	59964	33344	56683		47348		40046
Mount Benson	3421	1485	709	4434	2319	5119	1436	2373		1701		1233
Mount Gambier												710
Mount Lofty Ranges - other	5059	665	206	1162	703	588	768	2121		2800		1116
Padthaway	38823	24604	25220	46514	35266	62922	38104	53655		48697		40508
Riverland	307596	418012	340868	424544	465417	455275	325794	382322		332294		431663
Robe							1241	4032		4501		2517
Southern Fleurieu	1957	860	1432	2616	3151	3261	1960	3884		3133		2039
Southern Flinders Ranges				1441	1725	1581	903	817		910		1058
The Peninsulas	362	256	129	398	188	315	110	316		149		271
Wrattonbully						14513	7692	19263		28871		21466

Table 53 (cont.) Winegrape production volume, by state and region, 2001 to 2012 (tonnes)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
New South Wales	**323653**	**415026**	**362468**	**450376**	**475853**	**473497**	**402692**	**535902**		**442558**		**460763**
Big Rivers - other	10426	9886	7607	8430	9812	6275	4206	4263		7032		4750
Canberra District (NSW)	437	1172	748	1401	1157	997	613	2036		1357		696
Central Ranges - other	584	314	1357	350	764	537	1358	2658		870		70
Cowra	16067	11537	14428	16619	29256	19799	18807	23266		5152		4502
Gundagai		1645	4071	4181	5625	4743	5030	6195		4518		1833
Hastings River	229	170	146	98	96	103	128	126		71		55
Hilltops	1971	3568	1133	3706	4345	3908	2133	4450		2074		3367
Hunter	25040	27159	22002	26909	22456	23072	18462	25480		13873		10435
Hunter Valley - other	1534	2628	1032	1549	1216	1873	1532	2672		13		118
Mudgee	15786	18919	19276	22769	26509	26407	16780	23617		9358		6292
Murray Darling - NSW	72934	104944	88966	104530	129833	119291	108691	128127		129797		169132
New England Australia								592		833		285
Northern Slopes - other	1042	1386	984	1564	1804	1187	1082	806		297		1
Orange	8921	9995	11787	14025	5448	9960	6270	14061		5563		9175
Perricoota	2075	1014	1959	1924	2189	1612	880	5492		6213		4648
Riverina	153261	203479	178055	225807	219517	243030	207356	272071		245747		239990
Shoalhaven Coast		138	206	215	167	128	267	136		146		173
South Coast - other	387	182	136	177	164	64	20	89		280		596
Southern Highlands		133	222	311	563	521	819	1243		916		967
Southern NSW - other	5471	8292	1738	3581	2539	402	171	418		1124		16
Swan Hill (NSW)	4008	2486	2961	4270	5409	5753	5307	12371		3686		2424
Tumbarumba	2275	2499	1961	2890	1451	2347	1121	2306		2168		1183
Western Plains - other	1205	3483	1695	5070	5534	1489	1658	3425		1472		53

Table 53 (cont.) Winegrape production volume, by state and region, 2001 to 2012 (tonnes)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Victoria	**327635**	**338536**	**282500**	**385036**	**393087**	**354882**	**308586**	**394638**		**284104**		**277794**
Alpine Valleys	8396	8752	7997	11609	8800	7340	2808	8930		4221		2647
Beechworth	142	276	361	576	710	531	190	813		175		573
Bendigo	3208	2797	2624	3375	3538	2657	2841	7007		3190		1966
Central Victoria - other	6246	4294	3281	520	1692	2971	208	460		348		1325
Geelong	2216	806	1349	3111	2634	2172	1042	2772		2025		1248
Gippsland	870	223	497	617	618	571	486	837		805		583
Glenrowan				1973	1916	1652	589	1329		652		911
Goulburn Valley	9819	6443	5591	7852	8620	10175	5668	15105		11673		9706
Grampians	1766	1300	1405	3446	2803	2153	1698	2318		2753		1207
Heathcote			1105	5086	5643	3117	6740	12112		8499		9031
Henty	1295	150	421	1216	869	955	497	1078		994		663
King Valley								7486		12483		12117
Macedon Ranges			324	768	658	529	615	700		514		586
Mornington Peninsula	2689	1000	1639	4917	3111	3401	2491	4600		3802		3278
Murray Darling - VIC	195474	225834	173280	219727	241815	219782	198391	202506		134632		167998
North East Victoria - other	12677	9160	9168	12981	11781	8978	5508	3640		326		292
North West Victoria - other	28199	20493	12302	17003	17554	12145	11918	6465		1433		2186
Northern Rivers - other	36		60	140	122	85	85	87		50		39
Port Phillip - other	677	1412	676	216	210	151	89	229		215		408
Pyrenees	2580	1575	1228	2727	3300	2221	953	2375		4423		2274
Rutherglen	4911	6381	4904	6642	7494	7419	4556	6540		5412		2645
Strathbogie Ranges		2114	2472	4699	3150	3241	2923	5166		2215		1618
Sunbury	344	944	485	523	606	613	402	1191		361		379
Swan Hill (VIC)	30267	36406	38741	53011	47386	43465	46231	77577		65949		40834
Upper Goulburn				2157	2454	1387	427	2031		1014		1015
Western Victoria - other	435	171	534	805	203	2009	948	323		232		246
Yarra Valley	15390	8004	12058	19339	15401	15164	10285	20962		15712		12019

Table 53 (cont.) Winegrape production volume, by state and region, 2001 to 2012 (tonnes)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Western Australia	**61538**	**63559**	**62684**	**87523**	**79949**	**60841**	**68252**	**82197**		**66467**		**68021**
Blackwood Valley	3997	4901	4681	5348	3916	2970	2022	2564		1262		1747
Central Western Australia	242	152	241	577	437	576	249	341		178		73
Eastern Plains, Inland and Nort	52	15	14	59	62	36	99	30		125		3
Geographe	3009	4038	3886	5136	5125	3564	5614	6600		6232		6765
Great Southern	14243	14724	16160	22776	16292	12464	13162	19722		15047		13840
Greater Perth - other	1400	2655	1771	1486	889	778	577	653		114		297
Manjimup							1066	1766		799		635
Margaret River	24316	25752	26178	35102	37640	28637	33695	36518		31370		35813
Peel			79	275	64	68	54	73		317		257
Pemberton							4460	4623		3942		2330
Perth Hills	2467	1193	965	1720	1934	1773	1469	2010		1333		1384
South West Australia - other	6543	5390	4430	5688	4235	2789	191	888		782		314
Swan District	4965	4134	3920	8839	9130	7116	5529	6325		4881		4544
Western Australian South East	304	606	361	518	226	70	66	82		86		22
Tasmania	**4974**	**3147**	**6390**	**7861**	**6136**	**5571**	**5058**	**10749**		**7388**		**5379**
Queensland	**2450**	**4363**	**3211**	**5162**	**6689**	**4764**	**2205**	**3307**		**1452**		**1129**
Granite Belt	1080	2101	970	2508	2598	2351	1473	2143		800		734
Queensland - other	696	1056	654	1219	2058	771	413	465		205		168
South Burnett	674	1206	1586	1435	2033	1643	319	699		447		227
ACT+NT	**115**	**227**	**250**	**523**	**678**	**772**	**557**	**1128**		**na**		**na**
Australian Capital Territory	113	219	249	523	667	742	557	1128		648		na
Northern Territory	3	7	2		10	30				na		na
Australia Total	**1391123**	**1514501**	**1329600**	**1816556**	**1818431**	**1781674**	**1370690**	**1837034**	**1683641**	**1533246**		**1582049**
Hot Total	803680	1025727	846207	1068634	1148064	1111738	914040	1099030		928269		1068244
Warm Total	436986	414313	384483	547185	529920	538851	371919	559708		443276		393127
Cool Total	150457	74462	98910	200738	140447	131086	84732	178295		161701		120678
Australia Total	**1391123**	**1514501**	**1329600**	**1816556**	**1818431**	**1781674**	**1370690**	**1837034**	**1683641**	**1533246**		**1582049**

Table 54: State and regional shares of national winegrape production volume, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
South Australia	**48.22**	**45.54**	**46.04**	**48.45**	**47.08**	**49.47**	**42.56**	**44.04**		**47.65**		**48.60**
Adelaide Hills	1.13	0.59	1.04	1.69	1.34	1.23	1.55	2.05		2.20		1.26
Adelaide Plains		0.36	0.37	0.38	0.37	0.32	0.31	0.28		0.41		0.34
Barossa - other	0.15	0.04	0.07	0.21	0.13	0.23	0.02	0.04		0.03		0.14
Barossa Valley	4.60	4.31	4.03	4.29	4.45	4.35	3.39	4.15		4.44		3.72
Clare Valley	1.76	1.59	1.52	1.70	1.55	2.19	1.30	1.37		1.75		1.58
Coonawarra			1.07	2.77	1.83	2.28	1.68	2.63		2.88		1.90
Currency Creek	0.66	0.20	0.36	0.36	0.39	0.58	0.68	0.51		0.52		0.22
Eden Valley	0.68	0.57	0.66	0.90	0.77	0.69	0.63	0.67		0.82		0.79
Far North - Other	0.12	0.05	0.06	0.00		0.00	0.00	0.00		0.00		0.00
Fleurieu - other	0.32	0.16	0.06	0.06	0.07	0.06	0.07	0.08		0.10		0.31
Kangaroo Island	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01		0.01		0.01
Langhorne Creek	3.40	2.94	3.35	2.90	3.03	3.32	2.72	3.37		3.48		3.08
Limestone Coast - other	6.14	2.22	2.62	3.05	1.77	0.27	0.09	0.22		0.22		0.69
Lower Murray - other	0.11	0.11	0.07	0.06	0.06	0.06	0.08	0.06		0.11		0.27
McLaren Vale	3.45	2.94	3.01	3.57	3.32	3.37	2.43	3.09		3.09		2.53
Mount Benson	0.25	0.10	0.05	0.24	0.13	0.29	0.10	0.13		0.11		0.08
Mount Gambier												0.04
Mount Lofty Ranges - other	0.36	0.04	0.02	0.06	0.04	0.03	0.06	0.12		0.18		0.07
Padthaway	2.79	1.62	1.90	2.56	1.94	3.53	2.78	2.92		3.18		2.56
Riverland	22.11	27.60	25.64	23.37	25.59	25.55	23.77	20.81		21.67		27.29
Robe							0.09	0.22		0.29		0.16
Southern Fleurieu	0.14	0.06	0.11	0.14	0.17	0.18	0.14	0.21		0.20		0.13
Southern Flinders Ranges				0.08	0.09	0.09	0.07	0.04		0.06		0.07
The Peninsulas	0.03	0.02	0.01	0.02	0.01	0.02	0.01	0.02		0.01		0.02
Wrattonbully						0.81	0.56	1.05		1.88		1.36

Table 54 (cont.) State and regional shares of national winegrape production volume, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
New South Wales	**23.27**	**27.40**	**27.26**	**24.79**	**26.17**	**26.58**	**29.38**	**29.17**		**28.86**		**29.12**
Big Rivers - other	0.75	0.65	0.57	0.46	0.54	0.35	0.31	0.23		0.46		0.30
Canberra District (NSW)	0.03	0.08	0.06	0.08	0.06	0.06	0.04	0.11		0.09		0.04
Central Ranges - other	0.04	0.02	0.10	0.02	0.04	0.03	0.10	0.14		0.06		0.00
Cowra	1.15	0.76	1.09	0.91	1.61	1.11	1.37	1.27		0.34		0.28
Gundagai		0.11	0.31	0.23	0.31	0.27	0.37	0.34		0.29		0.12
Hastings River	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.00		0.00
Hilltops	0.14	0.24	0.09	0.20	0.24	0.22	0.16	0.24		0.14		0.21
Hunter	1.80	1.79	1.65	1.48	1.23	1.29	1.35	1.39		0.90		0.66
Hunter Valley - other	0.11	0.17	0.08	0.09	0.07	0.11	0.11	0.15		0.00		0.01
Mudgee	1.13	1.25	1.45	1.25	1.46	1.48	1.22	1.29		0.61		0.40
Murray Darling - NSW	5.24	6.93	6.69	5.75	7.14	6.70	7.93	6.97		8.47		10.69
New England Australia								0.03		0.05		0.02
Northern Slopes - other	0.07	0.09	0.07	0.09	0.10	0.07	0.08	0.04		0.02		0.00
Orange	0.64	0.66	0.89	0.77	0.30	0.56	0.46	0.77		0.36		0.58
Perricoota	0.15	0.07	0.15	0.11	0.12	0.09	0.06	0.30		0.41		0.29
Riverina	11.02	13.44	13.39	12.43	12.07	13.64	15.13	14.81		16.03		15.17
Shoalhaven Coast		0.01	0.02	0.01	0.01	0.01	0.02	0.01		0.01		0.01
South Coast - other	0.03	0.01	0.01	0.01	0.01	0.00	0.00	0.00		0.02		0.04
Southern Highlands		0.01	0.02	0.02	0.03	0.03	0.06	0.07		0.06		0.06
Southern NSW - other	0.39	0.55	0.13	0.20	0.14	0.02	0.01	0.02		0.07		0.00
Swan Hill (NSW)	0.29	0.16	0.22	0.24	0.30	0.32	0.39	0.67		0.24		0.15
Tumbarumba	0.16	0.16	0.15	0.16	0.08	0.13	0.08	0.13		0.14		0.07
Western Plains - other	0.09	0.23	0.13	0.28	0.30	0.08	0.12	0.19		0.10		0.00

Table 54 (cont.) State and regional shares of national winegrape production volume, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Victoria	**23.55**	**22.35**	**21.25**	**21.20**	**21.62**	**19.92**	**22.51**	**21.48**		**18.53**		**17.56**
Alpine Valleys	0.60	0.58	0.60	0.64	0.48	0.41	0.20	0.49		0.28		0.17
Beechworth	0.01	0.02	0.03	0.03	0.04	0.03	0.01	0.04		0.01		0.04
Bendigo	0.23	0.18	0.20	0.19	0.19	0.15	0.21	0.38		0.21		0.12
Central Victoria - other	0.45	0.28	0.25	0.03	0.09	0.17	0.02	0.03		0.02		0.08
Geelong	0.16	0.05	0.10	0.17	0.14	0.12	0.08	0.15		0.13		0.08
Gippsland	0.06	0.01	0.04	0.03	0.03	0.03	0.04	0.05		0.05		0.04
Glenrowan				0.11	0.11	0.09	0.04	0.07		0.04		0.06
Goulburn Valley	0.71	0.43	0.42	0.43	0.47	0.57	0.41	0.82		0.76		0.61
Grampians	0.13	0.09	0.11	0.19	0.15	0.12	0.12	0.13		0.18		0.08
Heathcote			0.08	0.28	0.31	0.17	0.49	0.66		0.55		0.57
Henty	0.09	0.01	0.03	0.07	0.05	0.05	0.04	0.06		0.06		0.04
King Valley								0.41		0.81		0.77
Macedon Ranges			0.02	0.04	0.04	0.03	0.04	0.04		0.03		0.04
Mornington Peninsula	0.19	0.07	0.12	0.27	0.17	0.19	0.18	0.25		0.25		0.21
Murray Darling - VIC	14.05	14.91	13.03	12.10	13.30	12.34	14.47	11.02		8.78		10.62
North East Victoria - other	0.91	0.60	0.69	0.71	0.65	0.50	0.40	0.20		0.02		0.02
North West Victoria - other	2.03	1.35	0.93	0.94	0.97	0.68	0.87	0.35		0.09		0.14
Northern Rivers - other	0.00		0.00	0.01	0.01	0.00	0.01	0.00		0.00		0.00
Port Phillip - other	0.05	0.09	0.05	0.01	0.01	0.01	0.01	0.01		0.01		0.03
Pyrenees	0.19	0.10	0.09	0.15	0.18	0.12	0.07	0.13		0.29		0.14
Rutherglen	0.35	0.42	0.37	0.37	0.41	0.42	0.33	0.36		0.35		0.17
Strathbogie Ranges		0.14	0.19	0.26	0.17	0.18	0.21	0.28		0.14		0.10
Sunbury	0.02	0.06	0.04	0.03	0.03	0.03	0.03	0.06		0.02		0.02
Swan Hill (VIC)	2.18	2.40	2.91	2.92	2.61	2.44	3.37	4.22		4.30		2.58
Upper Goulburn				0.12	0.13	0.08	0.03	0.11		0.07		0.06
Western Victoria - other	0.03	0.01	0.04	0.04	0.01	0.11	0.07	0.02		0.02		0.02
Yarra Valley	1.11	0.53	0.91	1.06	0.85	0.85	0.75	1.14		1.02		0.76

Table 54 (cont.) State and regional shares of national winegrape production volume, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Western Australia	**4.42**	**4.20**	**4.71**	**4.82**	**4.40**	**3.41**	**4.98**	**4.47**		**4.34**		**4.30**
Blackwood Valley	0.29	0.32	0.35	0.29	0.22	0.17	0.15	0.14		0.08		0.11
Central Western Australia	0.02	0.01	0.02	0.03	0.02	0.03	0.02	0.02		0.01		0.00
Eastern Plains, Inland and North	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		0.01		0.00
Geographe	0.22	0.27	0.29	0.28	0.28	0.20	0.41	0.36		0.41		0.43
Great Southern	1.02	0.97	1.22	1.25	0.90	0.70	0.96	1.07		0.98		0.87
Greater Perth - other	0.10	0.18	0.13	0.08	0.05	0.04	0.04	0.04		0.01		0.02
Manjimup							0.08	0.10		0.05		0.04
Margaret River	1.75	1.70	1.97	1.93	2.07	1.61	2.46	1.99		2.05		2.26
Peel			0.01	0.02	0.00	0.00	0.00	0.00		0.02		0.02
Pemberton							0.33	0.25		0.26		0.15
Perth Hills	0.18	0.08	0.07	0.09	0.11	0.10	0.11	0.11		0.09		0.09
South West Australia - other	0.47	0.36	0.33	0.31	0.23	0.16	0.01	0.05		0.05		0.02
Swan District	0.36	0.27	0.29	0.49	0.50	0.40	0.40	0.34		0.32		0.29
Western Australian South East C	0.02	0.04	0.03	0.03	0.01	0.00	0.00	0.00		0.01		0.00
Tasmania	**0.36**	**0.21**	**0.48**	**0.43**	**0.34**	**0.31**	**0.37**	**0.59**		**0.48**		**0.34**
Queensland	**0.18**	**0.29**	**0.24**	**0.28**	**0.37**	**0.27**	**0.16**	**0.18**		**0.09**		**0.07**
Granite Belt	0.08	0.14	0.07	0.14	0.14	0.13	0.11	0.12		0.05		0.05
Queensland - other	0.05	0.07	0.05	0.07	0.11	0.04	0.03	0.03		0.01		0.01
South Burnett	0.05	0.08	0.12	0.08	0.11	0.09	0.02	0.04		0.03		0.01
ACT+NT	**0.01**	**0.01**	**0.02**	**0.03**	**0.04**	**0.04**	**0.04**	**0.06**		**na**		**na**
Australian Capital Territory	0.01	0.01	0.02	0.03	0.04	0.04	0.04	0.06		0.04		na
Northern Territory	0.00	0.00	0.00		0.00	0.00				na		na
Australia Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		**100.0**		**100.0**
Hot Total	57.77	67.73	63.64	58.83	63.13	62.40	66.68	59.83		60.54		67.52
Warm Total	31.41	27.36	28.92	30.12	29.14	30.24	27.13	30.47		28.91		24.85
Cool Total	10.82	4.92	7.44	11.05	7.72	7.36	6.18	9.71		10.55		7.63
Australia Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		**100.0**		**100.0**

Table 55: Winegrape yield per hectare, by State and region, 2001 to 2012 (t/ha)

State/Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
South Australia	**12.2**	**11.4**	**10.2**	**13.5**	**12.8**	**12.6**	**8.4**	**11.4**		**10.2**		**11.0**
Adelaide Hills	8.7	4.9	6.6	12.0	8.8	8.4	7.2	9.8		8.7		6.0
Adelaide Plains		10.7	9.1	10.4	12.2	8.8	6.7	9.8		7.2		9.2
Barossa - other	8.5	5.0	4.1	10.5	8.5	7.9	4.0	5.9		5.1		6.1
Barossa Valley	8.3	8.5	6.9	9.3	9.6	8.7	4.7	7.6		7.0		6.0
Clare Valley	6.8	6.0	4.8	7.1	6.4	7.3	3.9	5.4		5.6		5.6
Coonawarra			5.0	11.4	6.9	6.5	3.9	7.7		7.4		5.3
Currency Creek	9.8	5.5	7.7	10.9	9.6	11.6	10.2	10.2		9.2		8.0
Eden Valley	7.7	4.6	5.3	9.3	7.8	7.0	5.1	7.0		6.5		5.6
Far North - Other	15.7	7.4	3.8	4.9		7.7	5.1	6.4		6.2		2.2
Fleurieu - other	8.7	7.4	6.4	8.5	8.5	7.5	6.5	10.1		8.2		7.2
Kangaroo Island	5.2	2.8	3.1	5.8	3.6	3.3	1.6	3.4		1.8		1.9
Langhorne Creek	12.7	9.7	9.9	10.4	10.5	11.2	6.5	10.2		8.9		9.7
Limestone Coast - other	11.4	4.3	6.2	13.1	7.5	7.2	2.4	9.3		7.0		8.5
Lower Murray - other	10.4	12.1	10.5	11.3	13.5	11.9	9.9	15.3		6.4		9.1
McLaren Vale	10.2	8.1	7.1	10.5	9.9	9.7	5.5	9.3		7.3		6.1
Mount Benson	11.4	5.3	4.1	10.6	5.3	7.2	4.9	8.3		7.3		5.5
Mount Gambier												3.7
Mount Lofty Ranges - other	10.4	4.1	2.4	6.4	5.3	5.5	5.4	10.6		6.0		4.5
Padthaway	12.0	5.9	7.4	13.2	8.8	12.2	6.9	10.9		9.7		8.6
Riverland	16.8	20.4	17.3	19.8	21.1	20.7	15.0	17.9		16.6		21.6
Robe							2.4	7.1		7.0		3.5
Southern Fleurieu	6.0	2.6	4.3	8.3	8.8	9.2	6.9	11.8		7.6		4.6
Southern Flinders Ranges				8.4	9.0	5.8	6.2	5.7		5.0		6.0
The Peninsulas	7.2	3.9	2.4	7.1	2.9	4.8	2.1	6.1		1.6		4.2
Wrattonbully						8.2	4.3	9.5		10.2		9.4
New South Wales	**10.4**	**12.2**	**10.6**	**12.5**	**13.3**	**12.9**	**9.9**	**12.8**		**10.8**		**12.0**
Big Rivers - other	10.3	12.6	8.1	11.1	13.1	9.4	8.8	9.3		11.2		9.6
Canberra District (NSW)	4.0	5.4	3.7	5.6	4.5	3.9	1.6	5.8		3.6		2.1
Central Ranges - other	1.9	2.4	5.7	1.9	4.1	2.9	6.4	13.4		3.8		1.2
Cowra	10.5	7.6	9.1	10.2	13.0	10.7	8.9	11.2		3.6		3.5
Gundagai		4.1	8.0	12.0	13.9	12.5	8.9	11.0		11.1		5.5
Hastings River	1.9		3.9	3.9	4.8		7.2	6.9		3.9		3.9
Hastings River - other		3.4				5.1						
Hilltops	5.1	7.1	3.1	6.0	5.9	5.3	2.9	6.3		4.3		5.8
Hunter	6.8	7.2	5.3	6.3	5.4	5.9	4.5	6.3		4.0		4.0
Hunter Valley - other	5.5	7.0	6.9	7.7	5.4	5.4	3.2	6.7		0.5		5.5
Mudgee	7.3	6.9	7.1	7.5	8.2	7.9	5.2	7.1		2.7		3.0
Murray Darling - NSW	13.1	15.8	13.4	15.2	19.1	17.0	15.2	16.9		19.9		23.8
New England Australia								4.2		6.8		2.0
Northern Slopes - other	6.0	5.2	3.7	5.2	6.0	4.5	3.4	6.1		2.0		0.0
Orange	9.0	6.5	7.3	8.1	7.1	7.0	4.3	9.4		3.6		5.4
Perricoota	13.6	7.0	9.5	10.4	13.3	10.5	5.4	12.6		9.3		9.4
Riverina	12.4	15.8	13.7	16.5	16.1	16.4	11.8	15.0		12.2		11.9
Shoalhaven Coast		3.7	5.6	5.5	4.3	4.3	6.2	4.0		3.7		4.3

Table 55 (cont.) Winegrape yield per hectare, by State and region, 2001 to 2012 (t/ha)

State/Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
NSW (cont.)												
South Coast - other	3.5	4.9	3.5	3.7	5.9	2.3	0.7	3.7		2.5		4.4
Southern Highlands		2.9	2.3	2.7	3.5	2.9	4.7	7.2		4.5		5.1
Southern NSW - other	6.0	10.6	6.0	9.9	8.6	6.8	2.4	3.4		9.4		0.7
Swan Hill (NSW)	7.4	5.5	5.6	7.6	9.1	9.3	6.6	12.2		12.0		15.8
Tumbarumba	8.2	9.6	7.2	10.2	5.4	8.8	4.5	13.0		8.5		4.9
Western Plains - other	3.7	8.1	4.2	11.6	11.5	9.7	5.3	11.0		6.2		0.9
Victoria	**10.1**	**9.7**	**8.2**	**11.0**	**11.2**	**9.7**	**8.4**	**10.9**		**11.0**		**11.2**
Alpine Valleys	10.5	8.1	8.6	12.4	9.9	8.5	3.5	10.5		6.0		6.7
Beechworth	4.1	6.2	3.9	6.7	7.5	6.4	2.3	8.4		3.1		5.8
Bendigo	5.3	3.6	3.8	5.1	5.3	4.1	3.4	7.5		4.1		3.1
Central Victoria - other	7.1	3.4	5.1	5.0	5.7	9.0	2.4	5.8		6.2		7.2
Geelong	6.9	1.9	3.5	6.3	6.0	4.7	2.3	6.0		3.9		3.1
Gippsland	5.0	1.4	2.8	3.6	3.4	3.0	2.5	4.5		3.4		2.4
Glenrowan				9.4	9.2	8.2	2.9	6.5		3.2		5.2
Goulburn Valley	9.0	6.5	5.6	7.5	7.8	6.3	4.1	9.9		7.2		7.1
Grampians	4.2	2.6	2.9	6.7	4.7	3.6	3.2	4.1		5.4		2.1
Heathcote			3.1	6.4	6.1	5.4	5.0	9.2		6.8		6.4
Henty	7.1	0.8	2.6	6.6	4.4	4.9	2.6	6.3		5.4		4.3
King Valley								11.3		9.5		8.1
Macedon Ranges			2.7	4.7	4.3	3.1	3.0	4.7		2.3		2.4
Mornington Peninsula	6.7	2.3	3.5	6.9	5.6	5.2	4.0	7.0		5.1		4.0
Murray Darling - VIC	12.5	13.7	10.9	13.4	15.0	12.7	11.6	13.0		16.1		18.8
North East Victoria - other	10.1	8.4	6.8	12.3	12.0	8.8	5.4	13.7		4.4		5.5
North West Victoria - other	8.9	7.5	6.0	9.3	9.5	6.9	8.9	7.4		11.8		13.1
Northern Rivers - other	3.0		3.1	4.9	4.1	3.1	3.1	3.6		1.2		1.4
Port Phillip - other	5.2	5.5	5.4	5.2	4.7	4.0	2.3	5.9		3.2		3.3
Pyrenees	6.0	3.2	1.8	3.9	4.7	2.9	1.4	3.1		5.1		3.1
Rutherglen	6.2	6.4	5.3	7.4	8.1	7.4	4.6	6.4		6.3		3.2
Strathbogie Ranges		7.2	5.3	9.0	6.3	6.2	5.1	9.7		6.0		4.0
Sunbury	4.4	6.2	2.8	4.3	4.0	3.7	2.1	5.4		2.8		2.8
Swan Hill (VIC)	8.1	8.2	8.0	12.0	10.1	9.3	9.3	12.9		17.0		16.8
Upper Goulburn				9.7	8.2	7.8	2.4	9.5		4.1		3.9
Western Victoria - other	4.0	3.0	6.3	6.6	2.9	9.1	4.6	3.4		3.2		3.4
Yarra Valley	7.6	3.6	5.2	7.5	6.5	6.3	4.1	8.1		6.4		5.1

Table 55 (cont.) Winegrape yield per hectare, by State and region, 2001 to 2012 (t/ha)

State/Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Western Australia	**6.6**	**6.2**	**5.8**	**7.9**	**6.8**	**5.3**	**5.6**	**6.4**		**5.9**		**6.6**
Blackwood Valley	8.0	7.8	7.0	9.9	6.9	5.2	5.2	7.1		5.1		5.1
Central Western Australia	3.5	1.6	1.7	5.7	2.5	3.2	1.4	2.1		2.9		2.6
Eastern Plains, Inland and North o	1.3	0.3	0.3	1.1	0.9	0.6	3.0	1.1		5.1		0.7
Geographe	6.3	6.5	6.1	7.4	6.7	6.0	6.2	7.5		5.3		6.6
Great Southern	6.0	5.5	5.6	7.9	5.9	4.6	4.7	6.3		5.4		5.8
Greater Perth - other	3.5	5.2	4.9	6.1	4.1	4.4	3.5	4.2		3.2		5.2
Manjimup							6.0	6.1		4.5		7.4
Margaret River	7.2	6.9	6.4	8.2	7.8	5.8	6.3	6.8		6.4		7.3
Peel			2.8	6.3	1.9	2.0	1.6	2.1		3.3		2.5
Pemberton							5.8	6.4		6.3		6.0
Perth Hills	7.8	4.2	4.0	5.9	6.1	5.4	4.9	5.9		4.5		5.7
South West Australia - other	8.2	7.3	6.1	8.2	6.2	4.0	5.6	6.3		7.8		8.0
Swan District	6.1	5.2	4.7	7.4	7.0	6.4	5.1	5.7		6.2		6.7
Western Australian South East Co	4.7	5.2	5.4	8.2	6.6	5.5	6.1	7.3		4.6		7.3
Tasmania	**7.3**	**3.5**	**6.5**	**7.5**	**6.3**	**5.6**	**4.2**	**8.8**		**5.9**		**4.4**
Queensland	**1.2**	**2.1**	**1.6**	**2.4**	**2.9**	**1.9**	**0.8**	**1.1**		**1.9**		**1.6**
Granite Belt	2.5	4.0	2.3	4.5	4.6	4.0	2.5	3.6		2.4		2.2
Queensland - other	0.6	0.8	0.6	1.0	1.4	0.5	0.2	0.2		1.1		1.2
South Burnett	2.0	3.8	3.9	3.5	7.5	6.0	1.1	1.5		1.9		1.0
ACT+NT	**0.4**	**0.4**	**0.6**	**1.2**	**1.9**	**2.3**	**1.6**	**3.4**		**5.9**		**0.4**
Australian Capital Territory	7.4	2.4	4.6	6.7	7.0	7.0	4.8	10.0		9.5		0.4
Australia Total	**10.7**	**10.6**	**9.3**	**12.1**	**11.9**	**11.3**	**8.4**	**11.1**	**10.7**	**10.1**		**10.9**
Hot Total	12.8	15.1	12.8	15.5	16.5	15.5	12.2	14.6		15.1		17.5
Warm Total	8.4	7.1	6.5	8.8	8.4	8.1	5.4	8.0		6.5		6.2
Cool Total	9.5	4.4	5.6	10.3	7.0	6.6	4.2	8.2		7.2		5.6
Australia Total	**10.7**	**10.6**	**9.3**	**12.1**	**11.9**	**11.3**	**8.4**	**11.1**	**10.7**	**10.1**		**10.9**

Table 56: Winegrape price, by state and region, 1999 to 2005 ($/t)

State/region	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*
South Australia							
Adelaide Hills	1715	1665	1673	1727	1677	1459	1457
Adelaide Plains	1096			1168	1145	868	796
Barossa Valley	1274	1334	1429	1423	1382	1222	1086
Bordertown			1649				
Clare Valley	1311	1366	1424	1459	1509	1373	1258
Coonawarra	1869	1826	1703	1770	1771	1097	982
Currency Creek							
Eden Valley	1334	1491	1544	1631	1615	1360	1265
Fleurieu - other		1543	1620	1536	1591	1182	959
Kangaroo Island							
Langhorne Creek	1503	1429	1429	1393	1364	1168	1072
Limestone Coast - other							
Lower Murray - other							
McLaren Vale	1499	1609	1681	1695	1611	1367	1256
Mount Benson							
Mount Gambier							
Mount Lofty Ranges - other		1065	1166				
Padthaway		1285	1488	1481	1382	1070	1041
Riverland	749	652	658	674	578	532	479
Robe							
SA - other		972	809	1076	1054	973	817
Southern Fleurieu							
Southern Flinders Ranges							
The Peninsulas							
Wrattonbully			1461	1447	1528	1292	1229
New South Wales							
Big Rivers - other					770	747	618
Canberra District			1442	1448	1513	1567	1627
Central Ranges - other			1267	1469	1292	1230	727
Cowra	1139	989	1114	1059	1048	1041	896
Gundagai							
Hilltops							
Hunter							
Hunter Valley - other							
Hunter Valley Zone	1214	1243	1204	1209	1219	1116	902
Mudgee	1084	802	1206	1244	1303	1180	836
Murray Darling - Swan Hill	572	543	562	588	589	567	483
New South Wales - other		783	914	740			
Northern Slopes Zone					857	1220	1080
Orange	1190	1318	1408	1533	1552	1218	1090
Perricoota							
Riverina	599	451	497	479	481	490	452
South Coast Zone					541	1508	1192
Southern NSW - other			1396	1418	1565	1488	1211
Tumbarumba							
Western Plains Zone					679	513	539

Table 56 (cont.) Winegrape price, by state and region, 1999 to 2005 ($/t)

State/region	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*
Victoria							
Alpine Valleys							
Alpine Valleys/Beechworth	1172	1058	989		931	918	872
Beechworth							
Bendigo					1368	1656	875
Central Victoria - other					1416	1352	992
Central Victoria Zone	1424	1088	1268	1558			
Geelong							
Gippsland	1634	1132	1192	1525	1179	1376	1699
Glenrowan							
Goulburn Valley							
Goulburn Valley/Upper Goulburn					1068	1126	877
Grampians							1542
Heathcote							1368
Henty							
King Valley						960	779
Macedon Ranges							1494
Mornington Peninsula	1790	1842	1756	1658	1575	1529	1660
North East Victoria - other					1014	1387	537
North East Victoria Zone	1346						
North West Victoria - other							
Northern Rivers Zone					1213	946	1002
Port Phillip - other	1803	1664	1769	1630	1573	1718	1152
Pyrenees							1697
Rutherglen							
Rutherglen/Glenrowan		1115	1307	1224	1339	996	1094
Strathbogie Ranges							
Upper Goulburn							
Western Victoria - other							
Western Victoria Zone	1254	1349	1346	1439	1553	1629	1458
Yarra Valley	1906	1721	1654	1762	1698	1721	1529
Western Australia							
Blackwood Valley			1452	1379	1147		1193
Geographe			1442	1180	1176		1057
Great Southern	1335	1444	1492	1456	1535		1328
Manjimup	1406	1352	1400	1323	1306		1367
Margaret River	1136	1399	1525	1459	1585		1438
Peel					1107		954
Pemberton			1520	1421	1486		1405
Perth Hills	854	148	1072	982	909		1087
South West Australia - other							
Swan District	845	898	916	783	851		898
WA - other	1112	857	1196	720	754		1066
Tasmania					**2359**	**2303**	**2416**
Queensland							
Granite Belt					1049	931	930
Queensland - other					928	694	990
Queensland Zone			978	972			
South Burnett					750	589	1113
ACT+NT							*1536*

Table 57: Winegrape price, by state and region, 2006 to 2013 ($/t)

State/region	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
South Australia								
Adelaide Hills	1371	1613	1640	1270	1096	1101	1122	1280
Adelaide Plains	764	829	945	772	793	656	718	1031
Barossa Valley	956	1137	1359		1052	966	1161	1326
Bordertown								
Clare Valley	1073	1181	1303		1020	838	925	1036
Coonawarra	850	1270	1319	2281	923	826	1234	1574
Currency Creek		1030	1045		772	780	901	819
Eden Valley	1111	1268	1434	1225	1101	964	1206	1296
Fleurieu - other	872	1158	1201	824	564	747	675	884
Kangaroo Island								1521
Langhorne Creek	935	1013	1059	801	693	556	753	891
Limestone Coast - other				944	1007	853	935	1023
Lower Murray - other				533		381	419	406
McLaren Vale	1097	1292	1604	1200	1168	986	1226	1645
Mount Benson				1133			1045	1336
Mount Gambier								984
Mount Lofty Ranges - other					855	946	1049	792
Padthaway	839	1018	997	923	695	704	839	1129
Riverland	377	385	572	365	276	296	353	354
Robe					1275			1764
SA - other	619	707	996					
Southern Fleurieu					1454		689	1139
Southern Flinders Ranges					833	770	570	811
The Peninsulas								3114
Wrattonbully	1117	1312	1306	1068	857	581	936	1108
New South Wales								
Big Rivers - other	423	516	607					732
Canberra District	1659	824	1439					2300
Central Ranges - other	968	938	921					452
Cowra	685	642	683	597	601		483	530
Gundagai				953	899	600		491
Hilltops					845	752	811	991
Hunter				849	795	899	925	990
Hunter Valley - other								985
Hunter Valley Zone	813	1015	980					
Mudgee	794	663	670	707	471			483
Murray Darling - Swan Hill	374	392	557	378	291	274	363	361
New South Wales - other								
Northern Slopes Zone	500	1204	556					
Orange	827	1065	1054	735	675	664	725	846
Perricoota					797	453	703	465
Riverina	377	398	497	357	315	275	351	321
South Coast Zone	1461	1369	1463					
Southern NSW - other	1012	989	1115					
Tumbarumba				1398	1044	1077	963	1299
Western Plains Zone	313	359	521					

Table 57 (cont.) Winegrape price, by state and region, 2006 to 2013 ($/t)

State/region	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
Victoria								
Alpine Valleys				675	878		754	836
Alpine Valleys/Beechworth	920		982					
Beechworth							1103	1983
Bendigo	1047	1098	1224	2193	1031		843	1241
Central Victoria - other	976	963	1055					639
Central Victoria Zone								
Geelong								1795
Gippsland	1182	1539	1375					
Glenrowan								2000
Goulburn Valley					738	620	691	643
Goulburn Valley/Upper Goulbu	833							
Grampians				1642	1485	1396	1137	1534
Heathcote	1064	1087	1271	933	865	775	926	1110
Henty								2081
King Valley	880	502	876	847	756	1082	830	730
Macedon Ranges	1494		1287					
Mornington Peninsula	1573	1834	1950	1914	2004	1958	2115	2472
North East Victoria - other	1107	605	968					
North East Victoria Zone								
North West Victoria - other								429
Northern Rivers Zone	500	1126	500					
Port Phillip - other	1360	1635	1474					
Pyrenees	1446		1494			1418	2009	517
Rutherglen		1003			740			1073
Rutherglen/Glenrowan								
Strathbogie Ranges					1085	1025	722	3991
Upper Goulburn			847					1203
Western Victoria - other	1313		1955					3024
Western Victoria Zone		1446						
Yarra Valley	1515	1755	1731	1580	1519	1333	1521	
Western Australia								
Blackwood Valley	1005	951	1104					1557
Geographe	1084	1145	1098	1341				1029
Great Southern	1229	1236	1227			974	1074	1322
Manjimup	1362							
Margaret River	1513	1501	1446	1465	1439	1390	1264	1334
Peel	1000	859	1138					
Pemberton	1211						826	934
Perth Hills	1020	985	1045					
South West Australia - other		1224	1251					
Swan District	843	875	946					782
WA - other	758	793	1040					
Tasmania	**2512**	**2607**	**2573**	**2569**	**2487**	**2382**	**2385**	**2393**
Queensland								
Granite Belt	913	1022	1066					
Queensland - other	955	720	1025					
Queensland Zone								
South Burnett	825	780	800					
ACT+NT	na	na	na	na	na	na	na	na

Table 58: Vine intensity of cropping, by State and region, 2006

	Total vineyard area (ha.)	Total area used for all crops (ha.)	Share of vineyards in total cropped area (%)	Index of vineyard intensity (share of vineyards in cropped area regionally relative to nationally)
South Australia				
Adelaide Hills	2191	7420	29.5	42
Barossa/Eden Valley	12805	139617	9.2	13
Clare Valley	4918	509086	1.0	1
Coonawarra	6421	32865	19.5	28
Langhorne/Curr Creek	7523	38145	19.7	28
McLaren Vale	6432	7653	84.0	121
Other Limestone Coast	8766	184369	4.8	7
Riverland	21642	468856	4.6	7
New South Wales				
Canberra District	1078	188988	0.6	1
Hunter	2489	44780	5.6	8
Mudgee/Cowra	1815	103489	1.8	3
Murray Darling NSW	7706	148315	5.2	8
Orange	379	1663	22.8	33
Riverina	18596	488900	3.8	6
Victoria				
Alpine V/Beech	421	3386	12.4	18
Goulburn Valley	366	6719	5.4	8
Mornington Peninsula	620	4869	12.7	18
Murray Darling VIC	6099	817546	0.7	1
Rutherglen	2607	22658	11.5	17
Swan Hill VIC	7156	384456	1.9	3
West/Central Highlands	991	153160	0.6	1
Yarra Valley	2310	5901	39.1	56
Western Australia				
Great Southern	5586	123421	4.5	7
Margaret River	2877	8753	32.9	47
Swan District	67	1559	4.3	6
Tasmania	1507	75460	2.0	3
Queensland				
Darling Downs SD Bal	663	738095	0.1	0
Total regions studied	134031	4710129	2.8	4
Total Australia	**172676**	**24791084**	**0.7**	**1**

Table 59: Winegrape production value, by State and region, 2001 to 2012 ($m)

State/Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
South Australia	**700.2**	**665.1**	**574.0**	**761.0**	**649.8**	**583.0**	**424.8**	**768.7**		**464.7**	**489.9**
Adelaide Hills	26.3	15.4	23.2	44.7	35.6	30.0	34.4	61.8		36.9	22.4
Adelaide Plains		6.4	5.7	5.9	5.3	4.3	3.5	4.8		5.0	3.9
Barossa Valley	94.4	93.8	75.4	100.0	90.5	77.9	53.2	104.7		72.1	71.0
Bordertown											
Clare Valley	35.0	35.2	30.5	42.4	35.4	41.9	21.1	32.9		27.4	23.1
Coonawarra			25.3	55.1	32.8	34.6	29.3	63.7		40.7	37.2
Currency Creek							9.5	9.7		6.2	3.1
Eden Valley	14.6	14.0	14.2	22.2	17.6	13.7	11.0	17.6		13.9	15.1
Fleurieu - other	7.2	3.7	1.4	1.3	1.2	0.9	1.1	1.7		0.9	3.3
Langhorne Creek	67.7	62.1	60.7	61.6	59.0	55.3	37.7	65.5		36.9	36.7
Limestone Coast - other										3.4	10.2
Lower Murray - other											1.8
McLaren Vale	80.6	75.5	64.5	88.7	75.9	65.8	43.1	90.9		55.3	49.1
Mount Benson											1.3
Mount Lofty Ranges - other	5.9									2.4	1.2
Padthaway	57.8	36.4	34.9	49.8	36.7	52.8	38.8	53.5		33.8	34.0
Riverland	202.5	281.7	197.1	225.7	222.8	171.6	125.4	218.6		91.6	152.4
Robe										5.7	
Southern Fleurieu										4.6	1.4
Southern Flinders Ranges										0.8	0.6
Wrattonbully						16.2	10.1	25.2		24.7	20.1
New South Wales	**223.9**	**277.9**	**246.8**	**293.3**	**265.2**	**214.3**	**188.7**	**310.6**		**159.2**	**180.1**
Big Rivers - other			5.9	6.3	6.1	2.7	2.2	2.6			
Canberra District (NSW)	0.6	1.7	1.1	2.2	1.9	1.7	0.5	2.9			
Central Ranges - other	0.7	0.5	1.8	0.4	0.6	0.5	1.3	2.4			
Cowra	17.9	12.2	15.1	17.3	26.2	13.6	12.1	15.9		3.1	2.2
Gundagai										4.1	
Hilltops										1.8	2.7
Hunter Valley	32.0	36.0	28.1	31.8	21.3	20.3	20.3	27.6		11.0	9.8
Mudgee	19.0	23.5	25.1	26.9	22.2	21.0	11.1	15.8		4.4	
Murray Darling - NSW	41.0	61.7	52.4	59.3	62.7	44.6	42.6	71.4		37.8	61.4

Table 59 (cont.) Winegrape production value, by State and region, 2001 to 2012 ($m)

State/Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
New South Wales (cont.)											
Northern Slopes - other			0.8	1.9	1.9	0.6	1.3	0.4			
Orange	12.6	15.3	18.3	17.1	5.9	8.2	6.7	14.8		3.8	6.7
Perricoota										5.0	3.3
Riverina	76.1	97.4	85.7	110.5	99.1	91.6	82.5	135.2		77.3	84.1
South Coast - other			0.1	0.3	0.2	0.1	0.0	0.1			
Southern NSW - other	7.6	11.8	2.7	5.3	3.1	0.4	0.2	0.5			
Tumbarumba										2.3	1.1
Western Plains - other			1.2	2.6	3.0	0.5	0.6	1.8			
Victoria	**231.5**	**231.0**	**209.9**	**293.2**	**251.4**	**194.2**	**161.3**	**302.0**		**158.0**	**151.9**
Alpine Valleys	8.9	8.7	7.4	10.7	7.7	6.8		8.8		3.7	2.0
Beechworth	0.1	0.3	0.3	0.5	0.6	0.5		0.8			0.6
Bendigo			3.6	5.6	3.1	2.8	3.1	8.6		3.3	1.7
Central Victoria - other	7.9	6.7	4.6	0.7	1.7	2.9	0.2	0.5			
Gippsland	1.0	0.3	0.6	0.8	1.1	0.7	0.7	1.2			
Goulburn Valley			6.0	8.8	7.6	8.5				8.6	6.7
Grampians					4.3					4.1	1.4
Heathcote					7.7	3.3	7.3	15.4		7.4	8.4
King Valley								6.6		9.4	10.1
Macedon Ranges					1.0	0.8		0.9			
Mornington Peninsula	4.7	1.7	2.6	7.5	5.2	5.3	4.6	9.0		7.6	6.9
Murray Darling - VIC	109.8	132.8	102.0	124.7	116.8	82.1	77.8	112.9		39.2	60.9
North East Victoria - other			9.3	18.0	6.3	9.9	3.3	3.5			
Northern Rivers - other			0.1	0.1	0.1	0.0	0.1	0.0			
Port Phillip - other	1.2	2.3	1.1	0.4	0.2	0.2	0.1	0.3			
Pyrenees					5.6	3.2		3.5			4.6
Vic (cont.)											
Rutherglen/Glenrowan	6.4	7.8	6.6	8.6	10.3		5.2			4.5	
Strathbogie Ranges										2.4	1.2
Upper Goulburn				2.4	2.2	1.2		1.7			
Western Victoria - other	0.6	0.2	0.8	1.3	0.3	2.6	1.4	0.6			
Yarra Valley	25.5	14.1	20.5	33.3	23.6	23.0	18.1	36.3		23.9	18.3

Table 59 (cont.) Winegrape production value, by State and region, 2001 to 2012 ($m)

State/Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Western Australia	**87.8**	**86.5**	**90.1**		**103.7**	**78.8**	**90.3**	**106.0**			**81.2**
Blackwood Valley	5.8	6.8	5.4		4.7	3.0	1.9	2.8			
Geographe	4.3	4.8	4.6		5.4	3.9	6.4	7.2			
Great Southern	21.2	21.4	24.8		21.6	15.3	16.3	24.2			14.9
Margaret River	37.1	37.6	41.5		54.1	43.3	50.6	52.8		45.1	45.3
Peel			0.1		0.1	0.1	0.0	0.1			
Pemberton											1.9
Perth Hills	2.6	1.2	0.9		2.1	1.8	1.4	2.1			
South West Australia - other							0.2	1.1			
Swan District	4.5	3.2	3.3		8.2	6.0	4.8	6.0			
WA - other	0.4	0.4	0.3		0.3	0.1	0.1	0.1			
Queensland	**2.4**	**4.2**	**2.8**	**4.0**	**6.7**	**4.2**	**2.1**	**3.3**			
Granite Belt	1.1	2.0	1.0	2.3	2.4	2.1	1.5	2.3			
Queensland - other	0.7	1.0	0.6	0.8	2.0	0.7	0.3	0.5			
South Burnett	0.7	1.2	1.2	0.8	2.3	1.4	0.2	0.6			
Tasmania			**15.1**	**18.1**	**14.8**	**14.0**	**13.2**	**27.7**		**18.4**	**12.8**
ACT+NT					**1.0**						
Australia	**1254.2**	**1276.0**	**1140.8**	**1439.5**	**1295.6**	**1092.8**	**887.9**	**1530.1**		**868.5**	**910.5**

Table 60: State and regional shares of national winegrape production value, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
South Australia	**55.83**	**52.13**	**50.32**	**52.87**	**50.16**	**53.35**	**47.84**	**50.24**		**53.50**		**53.81**
Adelaide Hills	2.09	1.21	2.03	3.10	2.75	2.74	3.87	4.04		4.25		2.46
Adelaide Plains		0.50	0.50	0.41	0.41	0.40	0.40	0.32		0.58		0.42
Barossa Valley	7.53	7.35	6.61	6.95	6.98	7.13	6.00	6.84		8.30		7.79
Clare Valley	2.79	2.76	2.67	2.95	2.73	3.83	2.38	2.15		3.16		2.53
Coonawarra			2.22	3.83	2.53	3.17	3.30	4.16		4.69		4.08
Currency Creek							1.07	0.63		0.71		0.34
Eden Valley	1.16	1.09	1.25	1.54	1.36	1.25	1.23	1.15		1.60		1.65
Fleurieu - other	0.57	0.29	0.12	0.09	0.09	0.08	0.12	0.11		0.10		0.36
Langhorne Creek	5.40	4.87	5.32	4.28	4.55	5.06	4.25	4.28		4.25		4.03
Limestone Coast - other										0.39		1.12
Lower Murray - other												0.20
McLaren Vale	6.43	5.91	5.66	6.16	5.86	6.02	4.85	5.94		6.37		5.39
Mount Benson												0.14
Mount Lofty Ranges - other	0.47									0.28		0.13
Padthaway	4.61	2.86	3.05	3.46	2.83	4.83	4.37	3.50		3.90		3.73
Riverland	16.14	22.08	17.28	15.68	17.20	15.70	14.12	14.29		10.55		16.73
Robe										0.66		
Southern Fleurieu										0.52		0.15
Southern Flinders Ranges										0.09		0.07
Wrattonbully						1.48	1.14	1.64		2.85		2.21
New South Wales	**17.85**	**21.78**	**21.63**	**20.38**	**20.47**	**19.61**	**21.25**	**20.30**		**18.33**		**19.79**
Big Rivers - other			0.51	0.44	0.47	0.24	0.24	0.17				
Canberra District (NSW)	0.05	0.13	0.10	0.15	0.15	0.15	0.06	0.19				
Central Ranges - other	0.06	0.04	0.15	0.03	0.04	0.05	0.14	0.16				
Cowra	1.43	0.96	1.33	1.20	2.02	1.24	1.36	1.04		0.36		0.24
Gundagai										0.47		
Hilltops										0.20		0.30
Hunter Valley	2.55	2.82	2.46	2.21	1.65	1.86	2.28	1.80		1.27		1.07
Mudgee	1.52	1.84	2.20	1.87	1.71	1.92	1.25	1.03		0.51		
Murray Darling - NSW	3.27	4.84	4.59	4.12	4.84	4.08	4.80	4.67		4.36		6.74

Table 60 (cont.) State and regional shares of national winegrape production value, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
NSW (cont.)												
Northern Slopes - other			0.07	0.13	0.15	0.05	0.15	0.03				
Orange	1.00	1.20	1.60	1.19	0.46	0.75	0.75	0.97		0.43		0.73
Perricoota										0.57		0.36
Riverina	6.07	7.63	7.51	7.68	7.65	8.38	9.29	8.84		8.90		9.24
South Coast - other			0.01	0.02	0.02	0.01	0.00	0.01				
Southern NSW - other	0.61	0.92	0.24	0.37	0.24	0.04	0.02	0.03				
Tumbarumba										0.26		0.13
Western Plains - other			0.10	0.18	0.23	0.04	0.07	0.12				
Victoria	**18.46**	**18.10**	**18.40**	**20.37**	**19.40**	**17.77**	**18.17**	**19.74**		**18.19**		**16.68**
Alpine Valleys	0.71	0.68	0.65	0.74	0.59	0.62		0.57		0.43		0.22
Beechworth	0.01	0.02	0.03	0.04	0.05	0.04		0.05				0.07
Bendigo			0.31	0.39	0.24	0.25	0.35	0.56		0.38		0.18
Central Victoria - other	0.63	0.52	0.41	0.05	0.13	0.27	0.02	0.03				
Gippsland	0.08	0.03	0.05	0.06	0.08	0.06	0.08	0.08				
Goulburn Valley			0.52	0.61	0.58	0.78				0.99		0.74
Grampians					0.33					0.47		0.15
Heathcote					0.60	0.30	0.83	1.01		0.85		0.92
King Valley								0.43		1.09		1.10
Macedon Ranges					0.08	0.07		0.06				
Mornington Peninsula	0.38	0.13	0.23	0.52	0.40	0.49	0.51	0.59		0.88		0.76
Murray Darling - VIC	8.76	10.41	8.94	8.66	9.01	7.51	8.76	7.38		4.52		6.69
North East Victoria - other			0.82	1.25	0.49	0.91	0.38	0.23				
Northern Rivers - other			0.01	0.01	0.01	0.00	0.01	0.00				
Port Phillip - other	0.10	0.18	0.09	0.03	0.02	0.02	0.02	0.02				
Pyrenees					0.43	0.29		0.23				0.50
Rutherglen/Glenrowan	0.51	0.61	0.58	0.60	0.79		0.58			0.52		
Strathbogie Ranges										0.28		0.13
Upper Goulburn				0.17	0.17	0.11		0.11				
Western Victoria - other	0.05	0.02	0.07	0.09	0.02	0.24	0.15	0.04				
Yarra Valley	2.03	1.10	1.79	2.31	1.82	2.10	2.03	2.37		2.75		2.01

Table 60 (cont.) State and regional shares of national winegrape production value, 2001 to 2012 (%)

State/Region	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Western Australia	**7.00**	**6.78**	**7.90**		**8.01**	**7.21**	**10.17**	**6.93**				**8.92**
Blackwood Valley	0.46	0.53	0.47		0.36	0.27	0.22	0.19				
Geographe	0.35	0.37	0.40		0.42	0.35	0.72	0.47				
Great Southern	1.69	1.68	2.17		1.67	1.40	1.83	1.58				1.63
Margaret River	2.96	2.94	3.64		4.18	3.96	5.69	3.45		5.20		4.97
Peel			0.01		0.00	0.01	0.01	0.01				
Pemberton												0.21
Perth Hills	0.21	0.09	0.08		0.16	0.17	0.16	0.14				
South West Australia - other							0.03	0.07				
Swan District	0.36	0.25	0.29		0.63	0.55	0.55	0.39				
WA - other	0.03	0.04	0.02		0.02	0.01	0.01	0.01				
Tasmania			**1.32**	**1.26**	**1.14**	**1.28**	**1.48**	**1.81**		**2.12**		**1.41**
Queensland	**0.19**	**0.33**	**0.25**	**0.28**	**0.52**	**0.39**	**0.23**	**0.22**				
Granite Belt	0.08	0.16	0.09	0.16	0.19	0.20	0.17	0.15				
Queensland - other	0.05	0.08	0.05	0.06	0.16	0.07	0.03	0.03				
South Burnett	0.05	0.09	0.10	0.06	0.17	0.12	0.03	0.04				
ACT+NT					0.08							
Australia	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		**100.0**		**100.0**

Table 61: Winegrape Regional Quality Index, by State and region, 1999 to 2012

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
South Australia	**1.2**	**1.2**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**		**1.1**		**1.1**
Barossa Valley	1.4		1.6	1.7	1.6	1.5	1.5	1.6	1.8	1.6		1.9		2.0
Adelaide Hills	1.9		1.9	2.0	2.0	1.8	2.0	2.2	2.5	2.0		1.9		1.9
Adelaide Plains	1.2			1.4	1.3	1.1	1.1	1.2	1.3	1.1		1.4		1.2
Bordertown			1.8											
Clare Valley	1.5		1.6	1.7	1.8	1.7	1.8	1.7	1.8	1.6		1.8		1.6
Coonawarra	2.1		1.9	2.1	2.1	1.4	1.4	1.4	2.0	1.6		1.6		2.1
Currency Creek									1.6	1.3		1.4		1.6
Eden Valley	1.5		1.7	1.9	1.9	1.7	1.8	1.8	2.0	1.7		1.9		2.1
Fleurieu - other			1.8	1.8	1.9	1.5	1.3	1.4	1.8	1.4		1.0		1.2
Langhorne Creek	1.7		1.6	1.7	1.6	1.5	1.5	1.5	1.6	1.3		1.2		1.3
Limestone Coast - other												1.8		1.6
Lower Murray - other														0.7
McLaren Vale	1.7		1.9	2.0	1.9	1.7	1.8	1.8	2.0	1.9		2.1		2.1
Mount Benson														1.8
Mount Lofty Ranges - other			1.3									1.5		1.8
Padthaway			1.7	1.8	1.6	1.4	1.5	1.4	1.6	1.2		1.2		1.5
Riverland	0.9		0.7	0.8	0.7	0.7	0.7	0.6	0.6	0.7		0.5		0.6
Robe												2.3		
SA - other			0.9	1.3	1.2	1.2	1.1	1.0	1.1	1.2				
Southern Fleurieu												2.6		1.2
Southern Flinders Ranges												1.5		1.0
Wrattonbully			1.6	1.7	1.8	1.6	1.7	1.8	2.0	1.6		1.5		1.6
New South Wales	**0.8**	**0.7**	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**	**0.7**	**0.7**	**0.7**		**0.6**		**0.7**
Western Plains - other					0.8	0.6	0.8	0.5	0.6	0.6				
South Coast - other					0.6	1.9	1.7	2.4	2.1	1.8				
Northern Slopes - other					1.0	1.5	1.5	0.8	1.9	0.7				
Murray Darling - NSW	0.6		0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.7		0.5		0.6
Hunter Valley	1.4		1.3	1.4	1.4	1.4	1.3	1.3	1.6	1.2		1.4		1.6
Canberra District (NSW)			1.6	1.7	1.8	2.0	2.3	2.7	1.3	1.7				

Table 61 (cont.) Winegrape Regional Quality Index, by State and region, 1999 to 2012

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
NSW (cont.)														
Big Rivers - other					0.9	0.9	0.9	0.7	0.8	0.7				
Central Ranges - other			1.4	1.7	1.5	1.6	1.0	1.6	1.4	1.1				
Cowra	1.3		1.2	1.3	1.2	1.3	1.3	1.1	1.0	0.8		1.1		0.8
Gundagai												1.6		
Hilltops												1.5		1.4
Mudgee	1.2		1.3	1.5	1.5	1.5	1.2	1.3	1.0	0.8		0.8		
New South Wales - other			1.0	0.9										
Orange	1.4		1.6	1.8	1.8	1.5	1.5	1.3	1.6	1.3		1.2		1.3
Perricoota												1.4		1.2
Riverina	0.7		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6		0.6		0.6
Southern NSW - other			1.5	1.7	1.8	1.9	1.7	1.6	1.5	1.3				
Tumbarumba												1.8		1.7
Victoria	**0.8**	**0.9**	**0.8**	**0.8**	**0.9**	**1.0**	**0.9**	**0.9**	**0.8**	**0.9**		**1.0**		**0.9**
Western Victoria - other	1.4		1.5	1.7	1.8	2.1	2.0	2.1	2.2	2.3				
Rutherglen/Glenrowan			1.4	1.5	1.6	1.3	1.5		1.5			1.3		
Northern Rivers - other					1.4	1.2	1.4	0.8	1.7	0.6				
North East Victoria - other	1.5				1.2	1.8	0.8	1.8	0.9	1.2				
Goulburn Valley					1.2	1.4	1.2	1.4				1.3		1.2
Upper Goulburn						1.4	1.2	1.4		1.0				
Central Victoria - other	1.6		1.4	1.8	1.7	1.7	1.4	1.6	1.5	1.3				
Alpine Valleys			1.2	1.2	1.1	1.2	1.2	1.5		1.2		1.6		1.3
Beechworth			1.2	1.2	1.1	1.2	1.2	1.5		1.2				1.9
King Valley			1.2	1.2		1.2	1.1	1.4	0.8	1.1		1.3		1.4
Bendigo					1.6	2.1	1.2	1.7	1.7	1.5		1.8		1.5
Gippsland	1.9		1.3	1.8	1.4	1.7	2.4	1.9	2.4	1.7				
Grampians							2.2					2.6		2.0
Heathcote							1.9	1.7	1.7	1.5		1.5		1.6
Macedon Ranges							2.1	2.4		1.5				
Mornington Peninsula	2.0		1.9	2.0	1.8	1.9	2.3	2.6	2.8	2.3		3.5		3.7

Table 61 (cont.) Winegrape Regional Quality Index, by State and region, 1999 to 2012

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Vic (cont.)														
Murray Darling - VIC	0.6		0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.7		0.5		0.6
Port Phillip - other	2.0		2.0	1.9	1.8	2.2	1.6	2.2	2.5	1.8				
Pyrenees							2.4	2.4		1.8				3.5
Strathbogie Ranges												1.9		1.3
Yarra Valley	2.2		1.8	2.1	2.0	2.2	2.1	2.5	2.7	2.1		2.7		2.6
Western Australia	1.3	1.6	1.6	1.6	1.7		1.8	2.1	2.0	1.5				2.1
WA - other	1.3		1.3	0.9	0.9		1.5	1.2	1.2	1.2				
Blackwood Valley			1.6	1.6	1.3		1.7	1.6	1.5	1.3				
Geographe			1.6	1.4	1.4		1.5	1.8	1.8	1.3				
Great Southern	1.5		1.7	1.7	1.8		1.9	2.0	1.9	1.5				1.9
Manjimup	1.6		1.6	1.6	1.5		1.9	2.2						
Margaret River	1.3		1.7	1.7	1.8		2.0	2.5	2.3	1.7		2.5		2.2
Peel					1.3		1.3	1.6	1.3	1.4				
Pemberton			1.7	1.7	1.7		2.0	2.0						1.4
Perth Hills	1.0		1.2	1.2	1.1		1.5	1.7	1.5	1.3				
South West Australia - other									1.9	1.5				
Swan District	1.0		1.0	0.9	1.0		1.3	1.4	1.4	1.1				
Tasmania					**2.7**	**2.9**	**3.4**	**4.1**	**4.0**	**3.1**		**4.4**		**4.1**
Queensland			**1.1**	**1.2**	**1.0**	**1.0**	**1.4**	**1.5**	**1.4**	**1.2**				
Queensland - other			1.1	1.2	1.1	0.9	1.4	1.6	1.1	1.2				
Granite Belt			1.1	1.2	1.2	1.2	1.3	1.5	1.6	1.3				
South Burnett			1.1	1.2	0.9	0.7	1.6	1.3	1.2	1.0				
ACT+NT							**2.2**							
Australia	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**		**1.0**		**1.0**
Hot Total	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7		0.5		0.6
Warm Total	1.5	1.6	1.6	1.7	1.6	1.5	1.5	1.6	1.7	1.4		1.6		1.7
Cool Total	2.0	2.0	1.7	1.8	1.9	1.7	1.9	2.0	2.4	1.8		2.0		2.1
Australia	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**		**1.0**		**1.0**

Table 62: Number of grapegrowing establishments, and national shares, by region, 2008 and 2012

	2008		2012	
	Number of grapegrowing establishments, total, 2008	Number of grapegrowing establishments, as % of national total, 2008	Number of grapegrowing establishments, total, 2012	Number of grapegrowing establishments, as % of national total, 2012
South Australia				
Adelaide Hills	111	1.4		
Barossa/Eden Valley	545	6.9		
Clare Valley	192	2.4		
Coonawarra	133	1.7		
Langhorne/Curr Creek	157	2		
McLaren Vale	362	4.6		
Other Limestone Coast	113	1.4		
Riverland	1114	14.1		
SA Other	179	2.3		
SA Total	**2906**	**36.8**	**2688**	**43.0**
New South Wales				
Canberra District	81	1		
Hunter	94	1.2		
Mudgee/Cowra	57	0.7		
Murray Darling NSW	317	4		
Orange	19	0.2		
Riverina	466	5.9		
NSW Other	509	6.4		
NSW Total	**1543**	**19.5**	**1259**	**20.1**
Victoria				
Alpine V/Beech	41	0.5		
Goulburn Valley	35	0.4		
Mornington Peninsula	78	1		
Murray Darling VIC	165	2.1		
Rutherglen	119	1.5		
Swan Hill VIC	269	3.4		
West/Central Highlands	43	0.5		
Yarra Valley	116	1.5		
Vic Other	1375	17.4		
Vic Total	**2241**	**28.3**	**1433**	**22.9**
Western Australia				
Great Southern	96	1.2		
Margaret River	243	3.1		
Swan District	16	0.2		
WA Other	441	5.6		
WA Total	**796**	**10.1**	**621**	**9.9**
Tasmania	**235**	**3**	**142**	**2.3**
Queensland				
Darling Downs SD Bal	80	1		
Qld Other	104	1.3		
Qld Total	**184**	**2.3**	**104**	**1.7**
NT + ACT	**806**	**10.1**	**4.0**	**0.0**
Total Australia	**7915**	**100**	**6,251**	**100.0**

Table 63: Number employed in grapegrowing and winemaking, and national shares, by State and region, 2006 and 2011

Regions	State	Grape emplt, persons		Wine emplt, persons		Region's share of national grape emplt (%)		Region's share of national wine emplt (%)		Region's share of national grape +wine emplt(%)		Grape share of total ag. emplt (%)		Grape & wine share of total emplt (%)	
		2006	2011	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011
South Australia															
Adelaide Hills	SA	193	73	197	75	1.72	1.46	1.13	1.19	1.36	1.31	15.80	5.58	1.90	0.63
Barossa/Eden Valley	SA	788	293	1889	813	7.03	5.89	10.79	12.90	9.32	9.81	36.70	10.54	13.40	5.05
Clare Valley	SA	336	74	312	162	3.00	1.50	1.78	2.56	2.26	2.10	14.30	3.16	7.60	2.68
Coonawarra	SA	218	51	321	133	1.94	1.03	1.83	2.11	1.88	1.64	10.00	2.98	2.70	0.89
Langhorne/Curr Creek	SA	309	271	204	74	2.76	5.47	1.17	1.17	1.79	3.06	21.20	17.93	3.70	2.11
McLaren Vale	SA	719	156	1803	434	6.41	3.14	10.30	6.89	8.78	5.24	32.20	8.42	1.00	0.32
Other Limestone Coast	SA	266	146	325	102	2.37	2.94	1.86	1.62	2.06	2.20	9.30	4.34	6.10	2.63
Riverland	SA	1197	824	835	337	10.68	16.61	4.77	5.35	7.08	10.31	30.40	22.07	11.40	6.90
SA Other	SA	305	43	753	334	2.72	0.86	4.30	5.30	3.68	3.34	2.60	0.28	0.30	0.09
SA Total	**SA**	**4330**	**1931**	**6641**	**2464**	**38.61**	**38.90**	**37.94**	**39.10**	**38.20**	**39.01**	**14.30**	**5.65**	**1.60**	**0.60**
New South Wales															
Canberra District	NSW	66	11	52	13	0.59	0.23	0.30	0.21	0.41	0.22	1.50	0.29	0.40	0.08
Hunter	NSW	146	23	256	58	1.30	0.46	1.46	0.92	1.40	0.71	4.00	0.65	1.00	0.19
Mudgee/Cowra	NSW	72	41	87	28	0.64	0.83	0.50	0.44	0.55	0.61	2.40	1.67	0.70	0.30
Murray Darling NSW	NSW	348	281	130	49	3.10	5.66	0.74	0.78	1.66	2.93	32.10	30.07	11.40	8.42
Orange	NSW	36	3	38	15	0.32	0.06	0.22	0.24	0.26	0.16	9.40	0.87	0.50	0.11
Riverina	NSW	503	241	1009	487	4.49	4.86	5.76	7.72	5.27	6.46	13.90	4.91	7.60	3.73
NSW Other	NSW	703	94	1988	715	6.27	1.90	11.36	11.35	9.37	7.19	1.20	0.14	0.10	0.03
NSW Total	**NSW**	**1873**	**695**	**3560**	**1365**	**16.70**	**14.00**	**20.34**	**21.67**	**18.92**	**18.29**	**2.40**	**0.83**	**0.20**	**0.07**

Table 63 (cont.) Number employed in grapegrowing and winemaking, and national shares, by State and region, 2006 and 2011

Regions	State	Grape emplt, persons		Wine emplt, persons		Region's share of national grape emplt (%)		Region's share of national wine emplt (%)		Region's share of national grape +wine emplt(%)		Grape share of total ag. emplt (%)		Grape & wine share of total emplt (%)	
		2006	2011	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011
Victoria															
Alpine V/Beech	Vic	22	6	58	21	0.20	0.12	0.33	0.33	0.28	0.24	1.90	0.73	1.10	0.37
Goulburn Valley	Vic	47	3	80	20	0.42	0.06	0.46	0.32	0.44	0.21	4.10	0.32	0.60	0.11
Mornington Peninsula	Vic	86	6	185	62	0.77	0.12	1.06	0.99	0.94	0.61	9.20	0.70	0.50	0.11
Murray Darling VIC	Vic	1220	130	865	9	10.88	2.61	4.94	0.15	7.26	1.24	61.70	7.87	10.60	3.16
Rutherglen	Vic	169	40	380	151	1.51	0.80	2.17	2.40	1.91	1.70	11.70	2.72	3.90	0.26
Swan Hill VIC	Vic	634	339	95	23	5.65	6.82	0.54	0.36	2.54	3.21	17.80	23.72	5.20	2.51
West/Central Highlands	Vic	65	7	161	59	0.58	0.14	0.92	0.94	0.79	0.59	4.10	0.24	3.10	0.49
Yarra Valley	Vic	207	17	338	102	1.85	0.34	1.93	1.62	1.90	1.05	13.30	1.09	0.80	1.61
Vic Other	Vic	798	1087	2148	949	7.12	21.90	12.27	15.06	10.26	18.08	1.60	1.76	0.10	0.09
Vic Total	**Vic**	**3248**	**1634**	**4310**	**1397**	**28.97**	**32.92**	**24.62**	**22.18**	**26.32**	**26.91**	**5.10**	**2.23**	**0.30**	**0.12**
Western Australia															
Great Southern	WA	205	99	292	88	1.83	1.98	1.67	1.40	1.73	1.66	9.30	5.78	2.70	0.94
Margaret River	WA	456	308	725	394	4.07	6.21	4.14	6.25	4.11	6.23	33.50	18.93	7.00	3.60
Swan District	WA	23	1	130	37	0.21	0.03	0.74	0.59	0.53	0.34	1.70	0.07	0.10	0.02
WA Other	WA	527	148	722	204	4.70	2.99	4.12	3.23	4.35	3.12	2.20	0.66	0.20	0.04
WA Total	**WA**	**1210**	**556**	**1869**	**723**	**10.79**	**11.21**	**10.68**	**11.48**	**10.72**	**11.36**	**4.10**	**2.01**	**0.30**	**0.12**
Tasmania	**Tas**	**232**	**0**	**346**	**130**	**2.07**	**0.00**	**1.98**	**2.07**	**2.01**	**1.16**	**2.70**	**0.00**	**0.30**	**0.06**
Queensland															
Granite Belt	Qld	72	5	103	32	0.64	0.11	0.59	0.51	0.61	0.33	0.70	0.05	0.40	0.08
Qld Other	Qld	215	116	605	167	1.92	2.34	3.46	2.64	2.86	2.51	0.40	0.19		0.01
Qld Total	**Qld**	**286**	**121**	**709**	**199**	**2.55**	**2.44**	**4.05**	**3.15**	**3.46**	**2.84**	**0.50**	**0.17**	**0.10**	**0.02**
NT+ACT		**34**	**26**	**70**	**22**	**0.30**	**0.53**	**0.40**	**0.35**	**0.36**	**0.43**	**1.30**	**1.33**	**0.10**	**0.02**
Total Australia		**11213**	**4965**	**17504**	**6301**	**100**	**100**	**100**	**100**	**100**	**100**	**4.10**	1.67	**0.30**	0.11

Table 64: Number of independent and winemaker grape-growing establishments, by State and region, 2012

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
South Australia	**1 158**	**585**	**261**	**117**	**55**	**2 176**	**161**	**145**	**95**	**50**	**58**	**509**	**2 685**
Barossa	**232**	**123**	**57**	**24**	**6**	**443**	**35**	**31**	**23**	**12**	**5**	**107**	**549**
Barossa - Other	4	4		1	1	11	1	1		1		3	14
Barossa Valley	171	100	49	19	5	344	23	24	20	3	4	74	418
Eden Valley	57	19	8	4		88	11	7	3	8	1	30	118
Far North	**7**	**4**	**1**			**12**	**1**	**2**				**3**	**15**
Far North - Other	1					1							1
Southern Flinders Ranges	6	4	1			11	1	2				3	14
Fleurieu	**238**	**91**	**36**	**23**	**9**	**397**	**46**	**43**	**25**	**12**	**12**	**138**	**535**
Currency Creek	6	4		1		11	1	1	1	2		6	17
Fleurieu - Other	2	5		1		8	1				1	2	10
Kangaroo Island	5					5	6	2				8	13
Langhorne Creek	17	14	11	12	7	61		4	4	2	7	17	79
McLaren Vale	200	63	22	8	2	295	33	33	16	6	4	93	388
Southern Fleurieu	8	6	3			16	4	2	4	1		11	28
Limestone Coast	**64**	**40**	**27**	**30**	**14**	**174**	**12**	**23**	**16**	**11**	**20**	**82**	**256**
Coonawarra	32	10	10	10	4	66	5	12	9	8	6	40	106
Limestone Coast - Other	10	2	1	1		14	1	3		1	4	10	24
Mount Benson	4			2		6		3	1			4	10
Mount Gambier	10	4		1		15	3					3	18
Padthaway	1	2	3	11	7	25			2	1	5	8	33
Robe	3	2	2	2	1	10		2	2		1	5	15
Wrattonbully	4	19	11	3	1	39	2	2	2	1	4	12	50
Lower Murray	**397**	**260**	**105**	**30**	**23**	**815**	**5**	**9**	**5**	**2**	**15**	**36**	**851**
Lower Murray - Other	4	2	2	1	1	11		3				3	14
Riverland	393	258	103	29	22	804	5	7	5	2	15	33	837
Mount Lofty Ranges	**218**	**65**	**34**	**10**	**3**	**331**	**59**	**36**	**26**	**12**	**6**	**140**	**471**
Adelaide Hills	87	30	17	3		137	35	18	14	5	2	74	211
Adelaide Plains	16	5	3	1		25	4	2	2	1		9	34
Clare Valley	85	26	12	6	3	133	17	16	9	6	4	52	186
Mount Lofty Ranges - Other	29	4	2			35	4					4	40
The Peninsulas	**2**	**1**	**1**			**4**	**3**					**3**	**8**
The Peninsulas	2	1	1			4	3					3	8

Table 64 (cont.) Number of independent and winemaker grape-growing establishments, by State and region, 2012

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
New South Wales	**430**	**244**	**124**	**65**	**53**	**916**	**204**	**66**	**21**	**16**	**29**	**335**	**1 252**
Big Rivers	**178**	**178**	**102**	**52**	**47**	**557**	**10**	**6**	**1**	**2**	**19**	**39**	**595**
Big Rivers - Other	2	1		1		5	1				1	2	7
Murray Darling (NSW)	61	48	23	14	7	154	1			1	7	9	163
Perricoota	4	5	4			13			1		1	2	15
Riverina	108	122	73	36	39	379	8	5		1	10	24	403
Swan Hill (NSW)	2	1	1	1		6		1				1	7
Central Ranges	**64**	**27**	**9**	**9**	**5**	**114**	**44**	**20**	**8**	**1**	**9**	**82**	**196**
Central Ranges - Other	8	2				10	6					6	16
Cowra	9	5	3	3	3	23	3	3		1	2	10	33
Mudgee	27	14	4	1	2	48	16	11	5		4	36	84
Orange	20	7	1	4		33	19	6	2		3	30	63
Hunter Valley	**72**	**16**	**9**	**2**		**99**	**64**	**25**	**9**	**9**	**1**	**108**	**207**
Hunter	70	16	9	2		97	63	24	9	9	1	106	203
Hunter Valley - Other	2					2	1	1				2	4
Northern Rivers	**9**					**9**	**12**					**12**	**21**
Hastings River							5					5	5
Northern Rivers - Other	9					9	7					7	16
Northern Slopes	**7**	**2**	**1**			**11**	**10**	**1**	**2**			**13**	**24**
New England Australia	4	1	1			6	10	1	1			12	19
Northern Slopes	3	1				4			1			1	5
South Coast	**28**	**3**	**1**	**1**		**34**	**26**	**3**				**30**	**63**
Shoalhaven Coast	2					2	4	2				6	8
South Coast - Other	11	1		1		13	10					10	23
Southern Highlands	16	2	1			19	12	1				14	32
Southern NSW	**65**	**16**	**3**	**1**	**2**	**88**	**32**	**10**	**2**	**3**		**47**	**135**
Canberra District (NSW)	29	3				33	20	5	1			27	59
Gundagai	8	1		1	1	12	2	1				3	15
Hilltops	12	6	2		1	22	4	1	1	2		8	30
Southern New South Wales - Other	9					9	6					6	14
Tumbarumba	7	6	1			13		2		1		3	17
Western Plains	**5**					**5**	**4**	**2**				**6**	**11**
Western Plains	5					5	4	2				6	11

Table 64 (cont.) Number of independent and winemaker grape-growing establishments, by State and region, 2012

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
Victoria	**568**	**190**	**63**	**39**	**25**	**885**	**348**	**89**	**50**	**29**	**17**	**532**	**1 417**
Central Vic	**75**	**13**	**5**	**4**	**3**	**100**	**76**	**22**	**17**	**10**	**5**	**130**	**230**
Bendigo	17	5	1			23	24	5	2	1	1	33	56
Central Victoria - Other	2		1		1	4	5	1				6	10
Goulburn Valley	25	5	2		1	33	14	6	4	4	2	30	63
Heathcote	13	1	1	2	1	18	21	8	8	2	2	40	58
Strathbogie Ranges	7			2		9	2		1	2		5	14
Upper Goulburn	11	2				13	10	2	2	1		16	29
Gippsland	**14**	**2**	**1**			**17**	**25**	**2**				**27**	**45**
Gippsland	14	2	1			17	25	2				27	45
North East Vic	**44**	**27**	**5**	**4**	**1**	**82**	**45**	**16**	**8**	**4**	**4**	**77**	**159**
Alpine Valleys	9	8	1			17	11	4	1	1		18	35
Beechworth	5		1			6	12					12	18
Glenrowan		1				1	5				1	6	7
King Valley	24	13	2	4		43	9	9	2	1	2	23	66
North East Victoria - Other	2	1				3	3					3	6
Rutherglen	4	4	1		1	11	5	3	4	2	1	16	27
North West Vic	**272**	**111**	**37**	**23**	**16**	**460**	**11**	**10**	**6**	**7**	**5**	**40**	**500**
Murray Darling (VIC)	233	94	33	17	12	390	5	6	3	6	3	24	413
North West Victoria - Other	2	4		1		7	2	1				3	11
Swan Hill (VIC)	37	13	4	5	4	63	4	3	2	1	2	13	76
Port Phillip	**124**	**33**	**14**	**5**	**2**	**179**	**159**	**32**	**14**	**4**	**1**	**210**	**389**
Geelong	14	3	1	1		19	17	7		1		25	44
Macedon Ranges	14	6				19	29	2				31	51
Mornington Peninsula	40	6		2		48	47	7	5			59	107
Port Phillip - Other	14					14	8	1	1			11	25
Sunbury							8	1	2			11	11
Yarra Valley	43	18	13	2	2	78	49	13	7	3	1	73	151
Western Vic	**39**	**4**		**1**	**2**	**46**	**32**	**6**	**5**	**3**	**1**	**49**	**95**
Grampians	11	1		1		14	7	3	1	1	1	14	28
Henty	8	1				9	6			1		7	15
Pyrenees	9	1			2	12	13	3	4	1		21	33
Western Victoria - Other	12	1				13	7					7	19

Table 64 (cont.) Number of independent and winemaker grape-growing establishments, by State and region, 2012

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
Western Australia	**214**	**70**	**21**	**11**	**6**	**323**	**168**	**79**	**16**	**18**	**17**	**298**	**620**
Central Western Australia	**3**					**3**	**3**					**3**	**7**
Central Western Australia	3					3	3					3	7
Eastern Plains, Inland and North							**1**					**1**	**1**
Eastern Plains, Inland and North							1					1	1
Greater Perth	**69**	**8**				**76**	**45**	**11**	**2**	**2**	**2**	**62**	**139**
Greater Perth - Other	3	2				6		1				1	7
Peel	5	1				6	4	3				7	13
Perth Hills	19	2				21	12	3		1		17	38
Swan Districts	41	2				43	29	3	2	1	2	38	81
South West Australia	**141**	**62**	**21**	**11**	**6**	**242**	**119**	**68**	**14**	**16**	**15**	**231**	**473**
Blackwood Valley	10	6		1		16	9	3		1		14	30
Geographe	28	9	2		1	41	21	9	3	1	1	35	76
Great Southern	27	6	1	7	3	43	25	10		3	4	42	86
Manjimup		2				2	2	1	1			4	7
Margaret River	68	36	17	3	2	126	51	38	9	8	9	115	242
Pemberton	7	2	1			10	11	6		2		19	29
South West Australia - Other	1	1				3		1				1	4
West Australia South East Coastal	**1**					**1**							**1**
West Australia South East Coastal	1					1							1
Tasmania	**51**	**2**	**2**			**56**	**61**	**10**	**1**	**3**	**3**	**79**	**134**
Tasmania	**51**	**2**	**2**			**56**	**61**	**10**	**1**	**3**	**3**	**79**	**134**
Tasmania	51	2	2			56	61	10	1	3	3	79	134
Queensland	**37**	**4**				**42**	**51**	**4**	**3**		**1**	**60**	**101**
Queensland	**37**	**4**				**42**	**51**	**4**	**3**		**1**	**60**	**101**
Granite Belt	18	2				20	24	3	3			31	51
Queensland - Other	14	2				17	20	1				21	37
South Burnett	5					5	7				1	8	13
Australian Capital Territory		**1**				**1**	**1**			**1**		**2**	**3**
Australian Capital Territory		**1**				**1**	**1**			**1**		**2**	**3**
Canberra District (ACT)		1				1	1			1		2	3
Australia Total	**2 458**	**1 096**	**472**	**232**	**140**	**4 398**	**994**	**394**	**187**	**116**	**125**	**1 815**	**6 213**

Table 65: Vine bearing area of independent and winemaker growers, by State and region, 2012 (ha)

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
South Australia	**5844**	**9018**	**9033**	**8192**	**11596**	**43683**	**761**	**2437**	**3395**	**3453**	**16242**	**26287**	**69970**
Barossa	**1143**	**1902**	**1896**	**1696**	**1774**	**8409**	**150**	**525**	**869**	**846**	**1543**	**3933**	**12342**
Barossa - Other	17	61		64	107	250	10	24		72		106	356
Barossa Valley	862	1564	1650	1317	1667	7060	92	397	761	218	1214	2683	9743
Eden Valley	263	276	246	315		1100	48	103	107	556	329	1143	2243
Far North	**26**	**90**	**32**			**148**	**5**	**28**				**33**	**181**
Far North - Other	4					4							4
Southern Flinders Ranges	22	90	32			144	5	28				33	177
Fleurieu	**1136**	**1375**	**1225**	**1532**	**1656**	**6923**	**247**	**714**	**872**	**803**	**3666**	**6301**	**13224**
Currency Creek	39	55		95		189	9	10	44	174		238	426
Fleurieu - Other	3	70		76		148	6				520	526	674
Kangaroo Island	24					24	33	23				56	79
Langhorne Creek	85	206	391	796	1149	2626	0	69	129	120	2080	2397	5024
McLaren Vale	956	972	746	565	507	3746	183	587	563	437	1065	2835	6581
Southern Fleurieu	30	72	88			190	16	26	137	71		250	440
Limestone Coast	**345**	**639**	**1033**	**2110**	**3015**	**7141**	**56**	**382**	**570**	**785**	**6103**	**7896**	**15037**
Coonawarra	192	151	354	665	810	2171	29	208	279	496	2451	3463	5635
Limestone Coast - Other	46	36	48	79		209	2	48		99	929	1078	1286
Mount Benson	19			114		133	0	56	34			90	223
Mount Gambier	42	56		80		178	13					13	190
Padthaway	3	32	138	845	1966	2985	0		70	102	1544	1716	4701
Robe	20	42	69	107	131	369	0	29	81		236	345	714
Wrattonbully	22	322	424	220	109	1097	12	42	106	88	943	1190	2287
Lower Murray	**2202**	**3921**	**3622**	**2110**	**4343**	**16197**	**36**	**162**	**171**	**160**	**3770**	**4298**	**20495**
Lower Murray - Other	29	38	72	77	207	423	0	46				46	469
Riverland	2173	3882	3550	2033	4136	15774	36	115	171	160	3770	4252	20026
Mount Lofty Ranges	**989**	**1081**	**1192**	**746**	**808**	**4815**	**252**	**626**	**913**	**859**	**1160**	**3810**	**8625**
Adelaide Hills	407	505	556	230		1699	155	332	518	354	281	1640	3340
Adelaide Plains	85	72	129	97		383	12	37	74	77		200	584
Clare Valley	381	448	439	419	808	2495	72	257	321	428	879	1957	4452
Mount Lofty Ranges - Other	115	55	67			237	13					13	250
The Peninsulas	**5**	**11**	**34**			**50**	**15**					**15**	**65**
The Peninsulas	5	11	34			50	15					15	65

Table 65 (cont.) Vine bearing area of independent and winemaker growers, by State and region, 2012 (ha)

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
New South Wales	**1853**	**3870**	**4423**	**4315**	**13194**	**27654**	**872**	**977**	**671**	**1075**	**7114**	**10709**	**38363**
Big Rivers	**928**	**2870**	**3634**	**3374**	**11892**	**22699**	**39**	**109**	**39**	**191**	**5372**	**5751**	**28450**
Big Rivers - Other	9	14		97		120	6				371	377	497
Murray Darling (NSW)	295	762	842	872	2514	5285	2			92	1728	1823	7108
Perricoota	20	92	140			252	0		39		203	242	493
Riverina	592	1981	2611	2343	9378	16904	31	94		99	3070	3294	20198
Swan Hill (NSW)	12	22	42	64		139	0	15				15	154
Central Ranges	**273**	**418**	**311**	**676**	**979**	**2656**	**215**	**329**	**257**	**68**	**1602**	**2470**	**5126**
Central Ranges - Other	17	24				40	16					16	57
Cowra	56	66	118	235	381	856	16	59		68	295	438	1294
Mudgee	108	227	146	77	597	1156	83	187	178		478	927	2082
Orange	92	101	46	365		604	99	83	79		828	1089	1693
Hunter Valley	**298**	**235**	**311**	**144**		**988**	**303**	**335**	**239**	**622**	**140**	**1640**	**2628**
Hunter	294	235	311	144		984	299	321	239	622	140	1622	2606
Hunter Valley - Other	4					4	4	14				18	22
Northern Rivers	**18**					**18**	**25**					**25**	**43**
Hastings River	0					0	14					14	14
Northern Rivers - Other	18					18	11					11	29
Northern Slopes	**9**	**33**	**39**			**82**	**34**	**15**	**58**			**106**	**188**
New England Australia	5	19	39			63	34	15	30			79	142
Northern Slopes	4	14				18			27			27	46
South Coast	**72**	**58**	**38**	**70**		**238**	**89**	**36**				**126**	**364**
Shoalhaven Coast	2					2	16	23				38	40
South Coast - Other	26	17		70		112	23					23	136
Southern Highlands	44	41	38			124	51	14				65	189
Southern NSW	**245**	**255**	**89**	**50**	**324**	**962**	**136**	**137**	**78**	**194**		**544**	**1507**
Canberra District (NSW)	90	44				134	89	70	33			191	326
Gundagai	30	23		50	203	306	15	13				27	333
Hilltops	66	117	62		120	365	25	24	45	123		217	582
Southern New South Wales - Other	15					15	8					8	23
Tumbarumba	43	71	27			141		31		71		101	243
Western Plains	**11**					**11**	**31**	**16**				**47**	**57**
Western Plains	11					11	31	16				47	57

Table 65 (cont.) Vine bearing area of independent and winemaker growers, by State and region, 2012 (ha)

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
Victoria	**2333**	**2876**	**2167**	**2565**	**4272**	**14213**	**1465**	**1347**	**1688**	**2124**	**3876**	**10500**	**24713**
Central Vic	**225**	**215**	**184**	**321**	**325**	**1271**	**309**	**308**	**579**	**695**	**1107**	**2998**	**4270**
Bendigo	51	67	47			165	93	65	71	95	151	475	641
Central Victoria - Other	3		41		104	148	17	18				36	183
Goulburn Valley	82	91	60		115	348	57	98	142	268	456	1022	1370
Heathcote	50	22	37	122	106	336	104	101	239	125	500	1069	1405
Strathbogie Ranges	16			200		215	10		38	146		193	409
Upper Goulburn	24	35				59	27	26	91	60		204	262
Gippsland	**36**	**51**	**29**			**117**	**93**	**31**				**124**	**241**
Gippsland	36	51	29			117	93	31				124	241
North East Vic	**222**	**391**	**197**	**308**	**220**	**1337**	**212**	**256**	**274**	**310**	**657**	**1709**	**3046**
Alpine Valleys	42	106	29			177	58	59	34	65		216	393
Beechworth	16		43			59	40					40	99
Glenrowan	0	12				12	31				133	163	175
King Valley	134	189	91	308		722	34	149	87	85	423	778	1500
North East Victoria - Other	11	26				37	16					16	53
Rutherglen	19	57	34		220	330	34	49	152	160	102	497	827
North West Vic	**1282**	**1643**	**1306**	**1513**	**3038**	**8780**	**77**	**164**	**180**	**536**	**1797**	**2755**	**11535**
Murray Darling (VIC)	1112	1383	1180	1117	2159	6951	26	94	109	483	1277	1989	8940
North West Victoria - Other	9	65		62		136	17	14				31	166
Swan Hill (VIC)	161	195	126	334	879	1694	34	56	71	54	520	735	2429
Port Phillip	**433**	**523**	**451**	**313**	**337**	**2057**	**647**	**482**	**468**	**312**	**120**	**2028**	**4085**
Geelong	36	42	33	61		172	55	102		69		226	399
Macedon Ranges	36	79				114	103	30				134	248
Mornington Peninsula	137	90		136		364	196	115	150			461	825
Port Phillip - Other	44					44	33	13	33			80	124
Sunbury	0					0	52	24	61			137	137
Yarra Valley	179	312	419	115	337	1362	207	197	224	242	120	990	2353
Western Vic	**135**	**54**		**110**	**352**	**650**	**128**	**104**	**187**	**271**	**195**	**885**	**1535**
Grampians	29	17		110		156	40	49	37	88	195	408	564
Henty	34	10				44	19			92		112	156
Pyrenees	33	14			352	398	48	56	150	92		345	744
Western Victoria - Other	40	13				52	20					20	72

Table 65 (cont.): Vine bearing area of independent and winemaker growers, by State and region, 2012 (ha)

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
Western Australia	**799**	**1069**	**733**	**760**	**860**	**4222**	**766**	**1281**	**494**	**1206**	**2349**	**6095**	**10316**
Central Western Australia	**7**					**7**	**20**					**20**	**28**
Central Western Australia	7					7	20					20	28
Eastern Plains, Inland and North	**0**					**0**	**5**					**5**	**5**
Eastern Plains, Inland and North	0					0	5					5	5
Greater Perth	**215**	**106**				**321**	**182**	**165**	**62**	**111**	**238**	**758**	**1079**
Greater Perth - Other	11	24				35	0	22				22	57
Peel	35	17				53	15	34				49	102
Perth Hills	54	34				87	34	62		61		156	244
Swan Districts	115	31				146	133	47	62	50	238	531	677
South West Australia	**574**	**963**	**733**	**760**	**860**	**3890**	**559**	**1115**	**432**	**1095**	**2111**	**5311**	**9202**
Blackwood Valley	39	83		66		188	37	55		63		155	343
Geographe	97	127	85		120	429	64	149	90	58	236	597	1026
Great Southern	88	77	29	480	497	1171	120	128		309	660	1217	2388
Manjimup	0	32		0		32	11	11	31			53	85
Margaret River	321	588	581	214	242	1946	269	647	311	543	1215	2985	4931
Pemberton	26	44	38			108	57	101		123		281	389
South West Australia - Other	3	13				15	0	24				24	39
West Australia South East Coastal	**3**					**3**							**3**
West Australia South East Coastal	3					3							3
Tasmania	**105**	**28**	**71**			**205**	**213**	**125**	**41**	**204**	**442**	**1024**	**1229**
Tasmania	**105**	**28**	**71**			**205**	**213**	**125**	**41**	**204**	**442**	**1024**	**1229**
Tasmania	105	28	71			205	213	125	41	204	442	1024	1229
Queensland	**110**	**63**				**174**	**169**	**63**	**110**		**174**	**516**	**690**
Queensland	**110**	**63**				**174**	**169**	**63**	**110**		**174**	**516**	**690**
Granite Belt	65	24				89	86	49	110			245	334
Queensland - Other	30	39				69	56	14				69	139
South Burnett	16					16	27				174	201	217
Australian Capital Territory	**0**	**10**				**10**	**8**			**83**		**92**	**102**
Australian Capital Territory	**0**	**10**				**10**	**8**			**83**		**92**	**102**
Canberra District (ACT)	0	10				10	8			83		92	102
Australia Total	**11045**	**16934**	**16427**	**15833**	**29921**	**90160**	**4254**	**6229**	**6399**	**8144**	**30196**	**55222**	**145382**

Table 66: Winegrape crush of independent and winemaker growers, by State and region, 2012 (tonnes)

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
South Australia	**67291**	**119257**	**121043**	**83905**	**150648**	**542143**	**3525**	**14816**	**20897**	**22529**	**165008**	**226776**	**768918**
Barossa	**6970**	**12039**	**12521**	**10440**	**9891**	**51861**	**689**	**2869**	**4796**	**4891**	**8492**	**21738**	**73599**
Barossa - Other	69	343		648	446	1506	22	113		535		670	2177
Barossa Valley	5563	9993	10963	7777	9445	43741	495	2314	4206	1200	6975	15190	58931
Eden Valley	1338	1702	1558	2016		6614	172	442	590	3156	1517	5878	12492
Far North	**70**	**600**	**183**			**853**	**5**	**210**				**215**	**1067**
Far North - Other	9					9							9
Southern Flinders Ranges	62	600	183			844	5	210				215	1058
Fleurieu	**5808**	**8205**	**8489**	**12399**	**20301**	**55203**	**895**	**4141**	**5315**	**5091**	**28578**	**44020**	**99223**
Currency Creek	289	319		832		1440	0	64	417	1505		1986	3426
Fleurieu - Other	1	492		645		1138	43				3645	3689	4826
Kangaroo Island	25					25	34	93				126	152
Langhorne Creek	682	1687	3555	7490	14112	27526	0	552	1001	947	18708	21208	48734
McLaren Vale	4592	5432	4250	3432	6189	23895	758	3356	3387	2426	6225	16151	40046
Southern Fleurieu	219	275	685			1179	60	76	511	214		861	2039
Limestone Coast	**1603**	**3925**	**7817**	**15458**	**20942**	**49746**	**159**	**2395**	**3091**	**5103**	**46924**	**57672**	**107418**
Coonawarra	822	634	2120	3628	5039	12242	110	1342	1261	2266	12892	17871	30113
Limestone Coast - Other	225	52	380	174		831	0	417		726	8898	10041	10872
Mount Benson	100			774		874	0	212	148			359	1233
Mount Gambier	135	344		222		700	9					9	710
Padthaway	30	241	1204	7595	15180	24249	0		722	1335	14202	16259	40508
Robe	103	111	106	711	0	1030	0	95	258		1134	1486	2517
Wrattonbully	189	2544	4007	2355	724	9818	40	330	703	776	9799	11647	21466
Lower Murray	**47619**	**87963**	**83097**	**40381**	**94337**	**353397**	**674**	**2114**	**2982**	**2511**	**74249**	**82530**	**435927**
Lower Murray - Other	385	861	936	435	834	3450	0	814				814	4264
Riverland	47235	87101	82161	39946	93503	349947	674	1300	2982	2511	74249	81716	431663
Mount Lofty Ranges	**5219**	**6495**	**8755**	**5226**	**5176**	**30871**	**1046**	**3088**	**4713**	**4932**	**6764**	**20542**	**51413**
Adelaide Hills	2048	3235	3949	1704		10936	625	1722	2377	2024	2316	9063	19999
Adelaide Plains	976	521	1529	1122		4148	36	81	434	672		1223	5371
Clare Valley	1730	2550	2871	2400	5176	14727	329	1285	1902	2237	4448	10200	24927
Mount Lofty Ranges - Other	465	188	406			1060	56					56	1116
The Peninsulas	**1**	**31**	**181**			**213**	**58**					**58**	**271**
The Peninsulas	1	31	181			213	58					58	271

Table 66 (cont.) Winegrape crush of independent and winemaker growers, by State and region, 2012 (tonnes)

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
New South Wales	**15801**	**42393**	**57528**	**54819**	**177313**	**347854**	**2312**	**3356**	**2279**	**8156**	**96844**	**112948**	**460802**
Big Rivers	**13574**	**39071**	**54159**	**50003**	**173204**	**330011**	**118**	**875**	**366**	**3260**	**86315**	**90934**	**420945**
Big Rivers - Other	86	264		53		404	22				4324	4346	4750
Murray Darling (NSW)	6070	15153	17909	19546	68788	127466	0			1305	40361	41666	169132
Perricoota	186	362	1306			1854	0		366		2428	2794	4648
Riverina	7080	22868	34408	29212	104415	197984	97	753		1955	39202	42007	239990
Swan Hill (NSW)	151	424	536	1191		2303	0	122				122	2424
Central Ranges	**543**	**1197**	**655**	**3711**	**1602**	**7708**	**593**	**828**	**923**	**228**	**9759**	**12331**	**20039**
Central Ranges - Other	22	21				43	27					27	70
Cowra	2	177	76	1558	704	2518	37	39		228	1680	1984	4502
Mudgee	200	571	579	495	897	2744	248	492	598		2212	3548	6292
Orange	319	427	0	1658		2404	281	297	325		5868	6771	9175
Hunter Valley	**776**	**691**	**1394**	**685**		**3545**	**686**	**1206**	**621**	**3725**	**770**	**7009**	**10554**
Hunter	773	691	1394	685		3543	686	1089	621	3725	770	6892	10435
Hunter Valley - Other	2					2	0	116				116	118
Northern Rivers	**25**					**25**	**69**					**69**	**95**
Hastings River	0					0	55					55	55
Northern Rivers - Other	25					25	14					14	39
Northern Slopes	**5**	**81**	**14**			**100**	**123**	**31**	**33**			**187**	**286**
New England Australia	3	81	14			99	123	31	33			187	285
Northern Slopes	1	0				1			0			0	1
South Coast	**95**	**234**	**711**	**351**		**1391**	**196**	**150**				**346**	**1737**
Shoalhaven Coast	1					1	68	105				173	173
South Coast - Other	44	112		351		507	89					89	596
Southern Highlands	50	122	711			883	38	46				84	967
Southern NSW	**772**	**1118**	**594**	**70**	**2508**	**5063**	**486**	**266**	**336**	**943**		**2031**	**7094**
Canberra District (NSW)	159	91				250	294	76	76			446	696
Gundagai	108	264		70	1291	1734	99	0				99	1833
Hilltops	289	334	463		1217	2304	84	125	260	595		1063	3367
Southern New South Wales - Other	7					7	9					9	16
Tumbarumba	209	429	131			769		66		348		414	1183
Western Plains	**11**					**11**	**41**	**0**				**41**	**53**
Western Plains	11					11	41	0				41	53

Table 66 (cont.) Winegrape crush of independent and winemaker growers, by State and region, 2012 (tonnes)

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
Victoria	**26215**	**38323**	**32406**	**35426**	**55704**	**188074**	**5681**	**7861**	**11218**	**17344**	**47576**	**89680**	**277754**
Central Vic	**578**	**956**	**1577**	**1882**	**1638**	**6630**	**895**	**1451**	**3718**	**3707**	**8259**	**18030**	**24661**
Bendigo	108	306	260			674	281	201	455	0	355	1292	1966
Central Victoria - Other	0		514		690	1204	74	47				121	1325
Goulburn Valley	271	420	571		152	1413	122	662	1167	2106	4236	8293	9706
Heathcote	110	197	232	1101	796	2436	320	458	1471	678	3668	6595	9031
Strathbogie Ranges	19			781		800	49		139	630		818	1618
Upper Goulburn	71	33				104	48	84	486	294		912	1015
Gippsland	**77**	**135**	**59**			**271**	**208**	**103**				**312**	**583**
Gippsland	77	135	59			271	208	103				312	583
North East Vic	**1347**	**2972**	**1070**	**2415**	**574**	**8377**	**1099**	**1571**	**1177**	**1476**	**5484**	**10808**	**19185**
Alpine Valleys	215	471	240			926	380	316	429	596		1722	2647
Beechworth	72		299			371	202					202	573
Glenrowan	0	41				41	150				719	870	911
King Valley	1017	2049	279	2415		5760	152	1108	383	294	4420	6357	12117
North East Victoria - Other	35	154				189	103					103	292
Rutherglen	9	257	252		574	1092	110	147	365	587	344	1553	2645
North West Vic	**22329**	**31645**	**26677**	**29506**	**51050**	**161207**	**1243**	**2194**	**3338**	**9583**	**33452**	**49810**	**211018**
Murray Darling (VIC)	20510	28294	24720	22432	34079	130036	652	1559	2264	8860	24627	37962	167998
North West Victoria - Other	194	499		1465		2158	9	19				27	2186
Swan Hill (VIC)	1625	2852	1956	5609	16971	29013	582	616	1074	723	8826	11821	40834
Port Phillip	**1566**	**2433**	**3024**	**1217**	**1601**	**9841**	**1914**	**2151**	**2427**	**1203**	**381**	**8077**	**17918**
Geelong	106	81	33	235		456	123	391		278		792	1248
Macedon Ranges	62	203				265	202	118				321	586
Mornington Peninsula	481	463		438		1382	691	516	689			1896	3278
Port Phillip - Other	168					168	91	55	94			240	408
Sunbury	0					0	62	53	264			379	379
Yarra Valley	748	1686	2991	543	1601	7570	744	1018	1380	925	381	4449	12019
Western Vic	**318**	**182**		**405**	**842**	**1746**	**323**	**389**	**557**	**1375**	**0**	**2644**	**4390**
Grampians	17	20		405		442	119	147	195	302	0	764	1207
Henty	122	41				163	66			433		499	663
Pyrenees	76	39			842	957	74	242	362	639		1318	2274
Western Victoria - Other	103	81				184	63					63	246

Table 66 (cont.) Winegrape crush of independent and winemaker growers, by State and region, 2012 (tonnes)

	Independent grapegrowers					Sub-total	Winemaker-grapegrowers					Sub-total	Total
State, Zone, Region	<10	10-25	25-50	50-100	>100		<10	10-25	25-50	50-100	>100		
Western Australia	**3557**	**6781**	**6138**	**4601**	**5450**	**26528**	**3490**	**7419**	**3409**	**9184**	**17992**	**41493**	**68021**
Central Western Australia	**31**					**31**	**41**					**41**	**73**
Central Western Australia	31					31	41					41	73
Eastern Plains, Inland and North	**0**					**0**	**3**					**3**	**3**
Eastern Plains, Inland and North	0					0	3					3	3
Greater Perth	**641**	**507**				**1148**	**703**	**612**	**276**	**1296**	**2445**	**5333**	**6481**
Greater Perth - Other	38	97				135	0	162				162	297
Peel	36	187				223	34	0				34	257
Perth Hills	66	80				146	100	143		995		1238	1384
Swan Districts	501	143				644	570	307	276	301	2445	3899	4544
South West Australia	**2863**	**6274**	**6138**	**4601**	**5450**	**25327**	**2742**	**6806**	**3133**	**7888**	**15546**	**36116**	**61443**
Blackwood Valley	100	326		211		637	115	307		688		1109	1747
Geographe	405	716	1024		811	2956	259	904	699	269	1677	3808	6765
Great Southern	318	405	265	2596	3334	6918	577	569		1773	4002	6922	13840
Manjimup	0	305		0		305	2	48	280			330	635
Margaret River	1975	4253	4605	1795	1305	13932	1476	4283	2155	4100	9868	21881	35813
Pemberton	65	123	244			432	313	526		1058		1897	2330
South West Australia - Other	0	145				145	0	169				169	314
West Australia South East Coastal	**22**					**22**							**22**
West Australia South East Coastal	22					22							22
Tasmania	**455**	**147**	**155**			**757**	**971**	**638**	**136**	**1503**	**1375**	**4622**	**5379**
Tasmania	**455**	**147**	**155**			**757**	**971**	**638**	**136**	**1503**	**1375**	**4622**	**5379**
Tasmania	455	147	155			757	971	638	136	1503	1375	4622	5379
Queensland	**215**	**47**				**262**	**286**	**150**	**233**		**197**	**866**	**1129**
Queensland	**215**	**47**				**262**	**286**	**150**	**233**		**197**	**866**	**1129**
Granite Belt	166	13				179	172	149	233			555	734
Queensland - Other	35	34				69	99	1				100	168
South Burnett	15					15	15				197	212	227
Australian Capital Territory	**0**	**0**				**0**	**45**			**0**		**45**	**45**
Australian Capital Territory	**0**	**0**				**0**	**45**			**0**		**45**	**45**
Canberra District (ACT)	0	0				0	45			0		45	45
Australia Total	**113534**	**206947**	**217269**	**178752**	**389115**	**1105618**	**16311**	**34240**	**38172**	**58717**	**328992**	**476431**	**1582049**

Table 67: Grape and wine employment intensity, by region, 2006 and 2011

State	Region	Grape's share of total agricultural employment in region relative to nationally		Grape and wine's share of total employment in region relative to nationally	
		2006	2011	2006	2011
SA	Adelaide Hills	3.8	2.7	5.9	5.7
	Barossa/Eden Valley	8.8	13.8	42.6	45.0
	Clare Valley	3.4	3.2	24.0	23.9
	Coonawarra	2.4	3.7	8.4	7.9
	Langhorne/Curr Creek	5.1	2.3	11.7	18.8
	McLaren Vale	7.8	11.1	3.1	2.8
	Other Limestone Coast	2.3	1.4	19.5	23.5
	Riverland	7.3	4.3	36.1	61.5
	SA Other	0.6	1.0	1.0	0.8
	SA Total	**3.5**	**3.4**	**5.0**	**5.3**
NSW	Canberra District	0.4	0.2	1.2	0.7
	Hunter	1.0	0.8	3.2	1.7
	Mudgee/Cowra	0.6	0.5	2.3	2.6
	Murray Darling NSW	7.7	2.5	36.2	75.1
	Orange	2.3	2.0	1.5	1.0
	Riverina	3.3	4.7	24.2	33.2
	NSW Other	0.3	0.5	0.3	0.2
	NSW Total	**0.6**	**0.8**	**0.6**	**0.6**
Vic	Alpine V/Beech	0.5	1.2	3.5	3.3
	Goulburn Valley	1.0	1.0	2.0	1.0
	Mornington Peninsula	2.2	3.4	1.5	1.0
	Murray Darling VIC	14.9	0.3	33.4	28.1
	Rutherglen	2.8	4.9	12.3	2.3
	Swan Hill VIC	4.3	0.8	16.4	22.4
	West/Central Highlands	1.0	1.0	9.9	4.4
	Yarra Valley	3.2	3.1	2.5	14.3
	Vic Other	0.4	0.7	0.5	0.8
	Vic Total	**1.2**	**0.9**	**1.1**	**1.1**
WA	Great Southern	2.2	2.4	8.5	8.4
	Margaret River	8.1	11.4	22.1	32.1
	Swan District	0.4	0.9	0.2	0.1
	WA Other	0.5	0.4	0.6	0.4
	WA Total	**1.0**	**1.2**	**1.0**	**1.0**
Tas	**Tasmania**	**0.7**	**0.7**	**0.9**	**0.5**
Qld	Granite Belt	0.2	0.2	1.2	0.7
	Qld Other	0.1	0.1	0.1	0.1
	Qld Total	**0.1**	**0.1**	**0.2**	**0.1**
NT+ACT		0.3	**0.5**	0.4	**0.1**
	Total Australia	**1.0**	**1.0**	**1.0**	**1.0**

Table 68: Irrigation water use for vineyards and winemaking, by State, 2006 and 2011

(a) Water use in grapegrowing and winemaking, 2006

	Volume of water for grape growing (Ml)	Volume of water for winemaking[a] (Ml)	Sum of volume of water for wine and grapes (Ml)	*Gross wine prod'n (Ml)*
South Australia	225875	1738	227613	*724*
New South Wales	176848	1156	178004	*482*
Victoria	186820	425	187245	*177*
Western Australia	17409	103	17512	*43*
Tasmania	1194	5	1199	*2*
Queensland	15936	4	15940	*2*
Australia	**625655**	**3431**	**629086**	***1430***

(b) Irrigation water use intensity, 2006

	Water use (megalitre per ha of area irrigated)		Water use on vines per litre of wine produced (litres)	Vines' share of region's total agric water use (%)
	Vines	Other irrig agric		
South Australia	2.7	5.2	312	24.4
New South Wales	4.3	4.5	367	4
Victoria	4.9	3.7	1056	7.5
Western Australia	1.4	6.1	404	5.5
Tasmania	1.1	2.5	631	0.6
Queensland	4.8	4.3	na	0.7
Australia	**3.5**	**4.3**	**438**	**5.8**

Table 68 (cont.) Irrigation water use for vineyards and winemaking, by State, 2006 and 2011

(c) Water use, litres per $ of gross value of production, grapes and other agricultural products,

	Grapes	Other fruit	Vege-tables	Sugar	Cotton	Rice	Milk	Weighted average
South Australia	378	477	234	-	-	-	1219	488
New South Wales	650	275	239	40	1955	4815	1657	1433
Victoria	553	301	136	-	-	5095	723	541
Western Australia	186	293	185	-	-	-	767	309
Tasmania	84	113	243	-	-	-	547	371
Queensland	555	157	111	1053	1661	-	664	603
Australia	**463**	**266**	**164**	**1045**	**1838**	**4817**	**859**	**711**
Total use (gigalitres)	***626***	***675***	***451***	***1104***	***1746***	***1230***	***2871***	***1350***

Table 68 (cont.) Irrigation water use for vineyards and winemaking, by State, 2006 and 2011

(d) Source of Irrigation water for vineyards, and method of application

	Share (%) of vineyard water from:				Share (%) of vineyard watered by:					
	Surface water		Groundwater		Drip or microspray		Sprinkler		Flooding	
	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011
South Australia	**66.7**	**68.3**	**24.2**	**20.8**	**83.8**	**92.6**	**13.7**	**6.7**	**0.8**	**0.4**
Barossa		39.4		25.4		99.7		0.1		0.0
Far North		8.5		91.5		80.6				
Fleurieu		62.4		35.6		97.7		1.1		1.1
Limestone Coast		2.1		97.9		89.4		9.9		
Lower Murray		86.3		0.8		86.1		13.4		0.5
Mount Lofty Ranges		22.6		70.4		98.1		1.3		0.5
New South Wales	**84.5**	**93.7**	**11.7**	**4.5**	**75.3**	**86.0**	**6.5**	**3.3**	**16.5**	**10.6**
Big Rivers		94.2		4.0		84.7		3.5		11.7
Central Ranges		67.3		32.7		99.3		0.6		
Hunter Valley		86.9		2.9		98.2		1.5		0.3
Northern Slopes		75.0		25.0		24.2		75.8		
South Coast		96.5		3.5		45.8		2.2		52.0
Southern NSW		73.3		26.7		100.0				
Western Plains		36.4		68.2		100.0				
Victoria	**90.7**	**95.2**	**2.3**	**2.3**	**66.1**	**85.0**	**24.4**	**12.9**	**7.5**	**1.7**
Central Vic.		80.4		19.6		97.1		2.8		0.1
Gippsland		100.0				100.0				
North East Vic.		89.6		9.7		92.3		3.5		4.2
North West Vic.		97.0		0.3		76.7		20.3		2.4
Port Phillip and Gippsland		73.9		25.3		98.0		1.6		0.2
Western Vic.		70.1		29.7		99.2		0.8		
Western Australia	**60.5**	**81.0**	**31.2**	**16.3**	**93.8**	**96.8**	**4.1**	**2.5**	**0.1**	**0.3**
Eastern Plains, Inland and North of WA				100.0		100.0				
Greater Perth		49.8		50.2		99.4				0.2
Central Western Australia		15.8		89.5		100.0				
South West Australia		87.8		8.9		96.5		2.8		0.3
West Australia South East Coastal		100.0				100.0				
Tasmania	**68.1**	**80.2**	**0.6**	**4.5**	**86.7**	**99.7**	**0.9**	**0.2**	**0.8**	**0.1**
Queensland	**92.2**	**97.7**	**6.2**	**1.7**	**95**	**98.1**	**3**	**1.7**	**0.2**	
Australian Capital Territory		**100.0**				**100.0**				
Australia	**78.9**	**82.2**	**14.4**	**11.7**	**78.8**	**90.1**	**13.2**	**6.5**	**6.1**	**3.2**

Table 69: Winegrape and wine gross value of output, and shares of national total, by State and region, 2006 ($m and %)

	Grape output value ($m)	Wine output value ($m)	Grape share of total ag output value (%)	Region's share of national grape output value (%)	Region's share of national wine output value (%)	Region's share of national grape+wine output value (%)
South Australia						
Adelaide Hills	17.4	70.0	7.5	1.7	1.1	1.2
Barossa/Eden Valley	70.8	670.4	17.2	7.1	10.9	10.4
Clare Valley	30.4	110.0	5.4	3.0	1.8	2.0
Coonawarra	19.7	113.1	3.7	2.0	1.8	1.9
Langhorne/Curr Creek	27.8	72.5	10.3	2.8	1.2	1.4
McLaren Vale	64.5	633.6	24.0	6.4	10.3	9.8
Other Limestone Coast	24.0	114.4	2.9	2.4	1.9	1.9
Riverland	107.9	292.6	22.2	10.8	4.8	5.6
SA Other	27.0	265.0	1.2	2.7	4.3	4.1
SA Total	**389.9**	**2341.6**	**6.6**	**38.9**	**38.0**	**38.2**
New South Wales						
Canberra District	5.8	18.2	1.0	0.6	0.3	0.3
Hunter	12.7	90.3	3.8	1.3	1.5	1.4
Mudgee/Cowra	6.3	30.8	1.5	0.6	0.5	0.5
Murray Darling NSW	30.2	45.4	21.6	3.0	0.7	1.1
Orange	3.1	13.3	4.5	0.3	0.2	0.2
Riverina	43.9	352.5	7.9	4.4	5.7	5.5
NSW Other	62.0	697.0	0.7	6.2	11.3	10.6
NSW Total	**163.7**	**1247.6**	**1.4**	**16.3**	**20.3**	**19.7**
Victoria						
Alpine V/Beech	2.0	20.3	1.1	0.2	0.3	0.3
Goulburn Valley	4.3	28.2	1.7	0.4	0.5	0.5
Mornington Peninsula	7.8	64.7	6.4	0.8	1.1	1.0
Murray Darling VIC	110.8	304.2	35.9	11.1	4.9	5.8
Rutherglen	15.4	134.2	8.1	1.5	2.2	2.1
Swan Hill VIC	57.6	33.5	7.7	5.7	0.5	1.3
West/Central Highlands	5.8	57.0	2.3	0.6	0.9	0.9
Yarra Valley	18.7	118.0	12.8	1.9	1.9	1.9
Vic Other	72.0	755.0	0.7	7.2	12.3	11.6
Vic Total	**294.8**	**1515.2**	**2.3**	**29.4**	**24.6**	**25.3**
Western Australia						
Great Southern	18.1	103.6	6.7	1.8	1.7	1.7
Margaret River	40.0	261.2	17.1	4.0	4.2	4.2
Swan District	2.0	46.7	0.8	0.2	0.8	0.7
WA Other	46.0	258.0	0.7	4.6	4.2	4.3
WA Total	**106.4**	**669.8**	**1.5**	**10.6**	**10.9**	**10.8**
Tasmania	**19.0**	**117.0**	**1.5**	**1.9**	**1.9**	**1.9**
Queensland						
Darling Downs SD Bal	6.6	35.6	0.2	0.7	0.6	0.6
Qld Other	20.0	206.0	0.2	2.0	3.3	3.1
Qld Total	**26.3**	**241.3**	**0.2**	**2.6**	**3.9**	**3.7**
Total regions studied	772	3,951	5.8	77	64	66
Total other regions	230	2,206	0.6	23	36	34
Total Australia	**1,003**	**6,157**	**1.9**	**100**	**100**	**100**
Climatic Zones						
Hot	372	1281	3.0	37	21	23
Warm	531	4273	1.5	53	69	67
Cool	96	578	2.9	10	9	9

Table 70: Winegrape and wine value added (GDP), and shares of national total, by State and region, 2006 and 2011

	Grape value added (A$ mill.)		*Wine value added (A$ mill.)*		*Grape share of total value added in agric (%)*		*Grape +wine share of value added in total economy (%)*		*Region's share of national grape value added (%)*		*Region's share of national wine value added (%)*		*Region's share of national grape +wine value added (%)*	
Sates/Regions	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*
South Australia														
Adelaide Hills	7	5	26	21	6.6	3.7	2.0	0.6	1.8	0.8	1.1	1.4	1.2	1.2
Barossa/Eden Valley	27	19	246	199	16.0	5.1	16.6	5.8	7.1	3.1	10.9	12.8	10.4	10.0
Clare Valley	12	12	40	76	4.4	1.8	7.0	3.4	3.0	1.9	1.8	4.9	2.0	4.0
Coonawarra	8	6	41	32	2.9	2.1	2.8	1.1	2.0	1.0	1.8	2.1	1.9	1.8
Langhorne/Curr Creek	11	18	27	28	9.1	10.5	3.6	1.3	2.8	3.0	1.2	1.8	1.4	2.1
McLaren Vale	25	na	232	na	25.1	na	1.3	na	6.5	na	10.3	na	9.8	na
Other Limestone Coast	9	23	42	41	2.3	3.1	5.4	2.6	2.4	3.8	1.9	2.7	1.9	3.0
Riverland	41	89	107	78	17.5	17.4	11.1	5.9	10.7	14.3	4.8	5.0	5.6	7.7
SA Other	10	2	97	44	0.9	0.1	0.4	0.1	2.7	0.3	4.3	2.9	4.1	2.1
SA Total	**149**	**176**	**858**	**539**	**5.4**	**3.0**	**1.8**	**0.9**	**38.9**	**28.4**	**38.1**	**34.7**	**38.2**	**32.9**
New South Wales														
Canberra District	2	0	7	4	0.9	0.2	0.4	0.1	0.6	0.1	0.3	0.3	0.3	0.2
Hunter	5	1	33	10	2.8	0.4	0.7	0.2	1.3	0.1	1.5	0.6	1.4	0.5
Mudgee/Cowra	2	2	11	8	1.2	0.9	0.5	0.2	0.6	0.4	0.5	0.5	0.5	0.5
Murray Darling NSW	12	119	17	52	18.4	23.3	8.3	7.2	3.0	19.3	0.7	3.3	1.1	7.9
Orange	1	0	5	12	3.8	0.3	0.4	0.2	0.3	0.0	0.2	0.7	0.2	0.5
Riverina	17	38	129	143	6.5	3.9	8.7	4.5	4.4	6.1	5.7	9.2	5.5	8.3
NSW Other	23	9	254	118	0.6	0.1	0.1	0.0	6.1	1.5	11.3	7.6	10.5	5.9
NSW Total	**62**	**170**	**456**	**346**	**1.2**	**1.5**	**0.2**	**0.1**	**16.2**	**27.5**	**20.3**	**22.3**	**19.7**	**23.8**

Table 70 (cont.) Winegrape and wine value added (GDP), and shares of national total, by State and region, 2006 and 2011

	Grape value added (A$ mill.)		*Wine value added (A$ mill.)*		*Grape share of total value added in agric (%)*		*Grape +wine share of value added in total economy (%)*		*Region's share of national grape value added (%)*		*Region's share of national wine value added (%)*		*Region's share of national grape +wine value added (%)*	
Sates/Regions	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*	*2006*	*2011*
Victoria														
Alpine V/Beech	1	1	7	10	0.9	0.5	1.3	0.4	0.2	0.1	0.3	0.7	0.3	0.5
Goulburn Valley	2	0	10	7	1.2	0.2	0.7	0.2	0.4	0.0	0.5	0.5	0.5	0.3
Mornington Peninsula	3	0	24	9	6.1	0.2	0.5	0.1	0.8	0.0	1.0	0.6	1.0	0.4
Murray Darling VIC	42	40	112	7	33.0	5.0	10.0	2.3	11.1	6.6	5.0	0.4	5.8	2.2
Rutherglen	6	3	49	62	5.8	1.2	5.1	1.7	1.5	0.5	2.2	4.0	2.1	3.0
Swan Hill VIC	22	66	12	10	6.5	9.8	2.8	2.3	5.7	10.8	0.5	0.6	1.3	3.5
West/Central Highlands	2	1	21	36	2.0	0.3	4.1	1.2	0.6	0.2	0.9	2.3	0.9	1.7
Yarra Valley	7	1	43	13	10.6	0.9	0.9	0.2	1.9	0.1	1.9	0.8	1.9	0.6
Vic Other	28	101	276	201	0.5	1.3	0.2	0.1	7.3	16.4	12.3	12.9	11.6	13.9
Vic Total	**113**	**214**	**555**	**355**	**1.9**	**2.0**	**0.3**	**0.2**	**29.5**	**34.7**	**24.6**	**22.8**	**25.4**	**26.2**
Western Australia														
Great Southern	7	7	38	41	5.3	2.8	3.1	0.8	1.8	1.1	1.7	2.6	1.7	2.2
Margaret River	15	17	95	145	13.6	6.8	7.2	2.1	4.0	2.8	4.2	9.3	4.2	7.5
Swan District	1	0	17	2	0.8	0.0	0.1	0.0	0.2	0.0	0.8	0.1	0.7	0.1
WA Other	17	16	94	67	0.6	0.5	0.1	0.1	4.6	2.6	4.2	4.3	4.2	3.8
WA Total	**40**	**40**	**243**	**254**	**1.2**	**1.0**	**0.3**	**0.2**	**10.6**	**6.5**	**10.8**	**16.3**	**10.8**	**13.5**
Tasmania	**7**	**0**	**42**	**22**	**1.2**	**0.0**	**0.3**	**0.1**	**1.9**	**0.0**	**1.9**	**1.4**	**1.9**	**1.0**
Queensland														
Granite Belt	3	0	13	5	0.2	0.0	0.3	0.1	0.7	0.1	0.6	0.3	0.6	0.2
Qld Other	8	16	75	31	0.2	0.2	0.1	0.0	2.0	2.6	3.3	2.0	3.1	2.2
Qld Total	**10**	**16**	**88**	**36**	**0.2**	**0.2**	**0.1**	**0.0**	**2.6**	**2.7**	**3.9**	**2.3**	**3.7**	**2.4**
NT+ACT	**1**	**1**	**9**	**3**		**0.2**		**0.0**	**0.3**	**0.2**	**0.4**	**0.2**	**0.3**	**0.2**
Australia	**382**	**617**	**2250**	**1556**	**1.5**	**1.4**	**0.3**	**0.2**	**100**	**100**	**100**	**100**	**100**	**100**

Table 71: Intensity of grape and wine output and value added (GDP), by region, 2006

	Grape share of total agric output value in region relative to nationally	Grape share of total agric GDP in region relative to nationally	Grape+wine share of total value added in region relative to nationally
South Australia			
Adelaide Hills	4	4.3	6.5
Barossa/Eden Valley	9.2	10.4	54
Clare Valley	2.9	2.8	22.8
Coonawarra	2	1.9	9.2
Langhorne/Curr Creek	5.5	5.9	11.8
McLaren Vale	12.8	16.3	4.3
Other Limestone Coast	1.6	1.5	17.7
Riverland	11.8	11.3	36.1
SA Other	0.6	0.6	1.3
SA Total	**3.5**	**3.5**	**6**
New South Wales			
Canberra District	0.5	0.6	1.2
Hunter	2	1.8	2.4
Mudgee/Cowra	0.8	0.8	1.8
Murray Darling NSW	11.5	11.9	26.9
Orange	2.4	2.4	1.4
Riverina	4.2	4.2	28.3
NSW Other	0.4	0.4	0.3
NSW Total	**0.8**	**0.8**	**0.6**
Victoria			
Alpine V/Beech	0.6	0.6	4.3
Goulburn Valley	0.9	0.8	2.2
Mornington Peninsula	3.4	4	1.8
Murray Darling VIC	19.1	21.4	32.4
Rutherglen	4.3	3.7	16.5
Swan Hill VIC	4.1	4.2	9.2
West/Central Highlands	1.2	1.3	13.5
Yarra Valley	6.8	6.9	2.8
Vic Other	0.4	0.4	0.5
Vic Total	**1.2**	**1.2**	**1.1**
Western Australia			
Great Southern	3.6	3.4	10
Margaret River	9.1	8.9	23.5
Swan District	0.4	0.5	0.3
WA Other	0.4	0.4	0.4
WA Total	**0.8**	**0.8**	**0.8**
Tasmania	**0.8**	**0.7**	**1**
Queensland			
Darling Downs SD Bal	0.1	0.1	1.1
Qld Other	0.1	0.1	0.2
Qld Total	**0.1**	**0.1**	**0.2**
Total regions studied	3.1	3.1	
Total other regions	0.3	0.3	
Total Australia	**1**	**1**	**1**

Table 72: Non-premium, commercial premium and super-premium shares in regional winegrape production volume,[a] and share of national volume, by State and region, 2008 (%)

	Non-premium	Commercial premium	Super-premium	Share of national volume
Adelaide Hills	2.0	23.2	74.7	2.0
Barossa/Eden Valley	1.6	48.4	50.0	4.6
Clare Valley	0.0	47.0	53.0	1.3
Coonawarra	2.0	33.3	64.6	2.3
Langhorne/Curr Creek	1.8	70.0	28.2	3.9
McLaren Vale	3.0	36.4	60.6	3.1
Other Limestone Coast	9.7	57.5	32.8	4.0
Riverland	25.0	75.0	0.0	22.8
Other SA	0.2	60.5	39.3	2.2
SA Total	**13.9**	**62.1**	**24.0**	**46.2**
Canberra District	17.4	82.6	0.0	2.6
Hunter	14.7	60.8	24.5	1.0
Murray Darling NSW	37.4	62.6	0.0	6.9
Orange	1.0	60.6	38.4	0.5
Riverina	78.8	21.2	0.0	17.1
Other NSW				
NSW Total	**52.0**	**46.9**	**1.1**	**28.1**
Mornington Peninsula	0.0	9.9	90.1	0.2
Murray Darling VIC	37.4	62.6	0.0	6.9
Swan Hill VIC	37.4	62.6	0.0	6.9
Yarra Valley	2.0	12.2	85.7	0.9
Other Vic	16.9	52.7	30.4	1.6
Vic Total	**35.8**	**61.1**	**3.1**	**16.5**
Margaret River	0.0	23.0	77.0	1.9
Other WA	0.0	74.1	25.9	0.7
WA Total	**0.0**	**36.0**	**64.0**	**2.6**
Tasmania	**0.0**	**1.0**	**99.0**	**0.7**
Total, sample regions	30.3	53.5	16.3	94.0
All other regions				6.0
Australia, Total				**100**
Climatic Zones				
Hot	44.4	55.6	0.0	60.6
Warm	4.2	52.5	43.2	24.8
Cool	6.4	40.6	53.0	8.6

[a] Non-premium category is defined as grapes purchased at less than $550/tonne, super-premium as grapes purchased at $1200/tonne or more, and commercial premium at between $550 and $1199/tonne. With that $550 break point, the non-premium winegrape share of 30.3 percent is very close to the 29.3 percent of non-premium wine share we derived from ABS statistics assuming the domestic component of that is the softpack share, the export component is two-thirds of the '<$2.50/litre' share, and the average price of non-premium wine in domestic and export markets is one-quarter of the domestic price of premium wines.

Table 73: Non-premium, commercial premium and super-premium shares in regional winegrape production value,[a] and share of national value, by State and region, 2008 (%)

	Non-premium	Commercial premium	Super-premium	Share of national value of crush
Adelaide Hills	0.5	13.4	86.1	4.1
Barossa/Eden Valley	0.6	32.5	66.9	8.0
Clare Valley	0.0	35.3	64.7	2.2
Coonawarra	0.7	20.0	79.2	4.3
Langhorne/Curr Creek	0.6	59.5	39.9	5.5
McLaren Vale	0.7	23.2	76.1	6.1
Other Limestone Coast	3.9	46.5	49.5	5.8
Riverland	19.7	80.3	0.0	17.0
Other SA	0.1	49.3	50.6	3.3
SA Total	**6.7**	**48.7**	**44.6**	**56.4**
Canberra District	11.2	88.8	0.0	2.4
Hunter	5.9	55.7	38.4	1.1
Murray Darling NSW	31.0	69.0	0.0	5.3
Orange	0.5	49.8	49.7	0.7
Riverina	72.4	27.6	0.0	11.5
Other NSW				
NSW Total	**43.1**	**54.4**	**2.5**	**20.9**
Mornington Peninsula	0.0	4.9	95.1	0.4
Murray Darling VIC	31.0	69.0	0.0	5.3
Swan Hill VIC	31.0	69.0	0.0	5.3
West/Central Highlands				0.0
Yarra Valley	0.5	6.2	93.3	2.1
Other Vic	7.5	43.4	49.1	2.2
Vic Total	**27.5**	**63.6**	**18.1**	**15.3**
Margaret River	0.0	14.7	85.3	4.0
Other WA	0.0	64.5	35.5	1.0
WA Total	**0.0**	**24.7**	**75.3**	**5.0**
Tasmania	**0.0**	**0.5**	**99.5**	**2.4**
Total, sample regions	**17.4**	**47.0**	**35.6**	
Australia, TOTAL				**100**
Climatic Zones				
Hot	37.4	62.6	0.0	44.2
Warm	1.5	38.9	59.6	40.1
Cool	2.1	23.3	74.6	15.7

[a]Non-premium category is defined as grapes purchased at less than $550/tonne, super-premium as grapes purchased at $1200/tonne or more, and commercial premium at between $550 and $1199/tonne.

Table 74: Average price of non-premium, commercial premium and super-premium winegrapes,[a] and weighted average, by region, 2008 (A$/tonne)

	Non-premium	Commercial premium	Super-premium	Weighted average
Adelaide Hills	350	897	1786	1550
Barossa/Eden Valley	501	866	1726	1290
Clare Valley		957	1556	1274
Coonawarra	493	822	1676	1367
Langhorne/Curr Creek	350	870	1452	1025
McLaren Vale	342	928	1830	1457
Other Limestone Coast	436	871	1623	1076
Riverland	432	589		549
Other SA	430	904	1430	1110
SA Total	**414**	**738**	**830**	**900**
Canberra District	430	721		670
Hunter	332	755	1293	825
Murray Darling NSW	465	616		560
Orange	500	839	1320	1020
Riverina	455	644		495
Other NSW				
NSW Total	**456**	**640**	**47**	**552**
Mornington Peninsula		980	2096	1985
Murray Darling VIC	465	616		560
Swan Hill VIC	465	616		560
West/Central Highlands	400	913	1953	1794
Yarra Valley				
Other Vic	453	840	1650	1021
Vic Total	**461**	**631**	**106**	**606**
Margaret River		981	1702	1536
Other WA		984	1546	1129
WA Total		**982**	**1662**	**1433**
Tasmania		**1100**	**2481**	**2467**
Total, sample regions	**451**	**689**	**1716**	**784**
Australia, TOTAL				
Climatic Zones				
Hot	450	613		539
Warm	342	895	1625	1222
Cool	337	881	1573	1514

[a] Non-premium category is defined as grapes purchased at less than $550/tonne, super-premium as grapes purchased at $1200/tonne or more, and commercial premium at between $550 and $1199/tonne.

Table 75: Area of total and bearing vineyards, for wine and for other purposes, and shares of national total, 2008

	Area of total vineyards for wine (ha)	Area of bearing vineyards for wine (ha)	Area of bearing vineyards for non-wine purposes (ha)	Region's share of national total area of vineyards for wine (%)	Region's share of national bearing area of vineyards for wine (%)
Adelaide Hills	4045	3829	67	2.3	2.3
Barossa/Eden Valley	12292	11745	215	7.1	7.1
Clare Valley	4784	4643	65	2.8	2.8
Coonawarra	6453	6234	102	3.7	3.8
Langhorne/Curr Creek	7070	6983	271	4.1	4.2
McLaren Vale	6250	6066	19	3.6	3.6
Other Limestone Coast	7479	7213	5	4.3	4.3
Riverland	21947	21367	661	12.7	12.9
SA Other	2834	2677	82	1.6	1.6
SA Total	**73155**	**70757**	**1487**	**42.4**	**42.6**
Canberra District	362	349	14	0.2	0.2
Hunter	4093	4022	150	2.4	2.4
Mudgee/Cowra	5478	5403	144	3.2	3.3
Murray Darling NSW	8005	7591	1360	4.6	4.6
Orange	1532	1494	20	0.9	0.9
Riverina	19008	18162	420	11	10.9
NSW Other	5097	4937	472	3	3
NSW Total	**43574**	**41958**	**2579**	**25.2**	**25.2**
Alpine V/Beech	1003	946	23	0.6	0.6
Goulburn Valley	1568	1526	54	0.9	0.9
Mornington Peninsula	697	658	42	0.4	0.4
Murray Darling VIC	16198	15629	4490	9.4	9.4
Rutherglen	1052	1024	19	0.6	0.6
Swan Hill VIC	6206	6015	1710	3.6	3.6
West/Central Highlands	1463	1412	38	0.8	0.8
Yarra Valley	2662	2587	27	1.5	1.6
Vic Other	6623	6297	753	3.8	3.8
Vic Total	**37472**	**36094**	**7157**	**21.7**	**21.7**
Great Southern	3253	3146	17	1.9	1.9
Margaret River	5761	5356	207	3.3	3.2
Swan District	1160	1113	286	0.7	0.7
WA Other	3257	3131	381	1.9	1.9
WA Total	**13431**	**12746**	**891**	**7.8**	**7.7**
Tasmania	**1507**	**1224**	**12**	**0.9**	**0.7**
Darling Downs SD Bal	606	597	108	0.4	0.4
Qld Other	2570	2493	1881	1.5	1.5
Qld Total	**3176**	**3090**	**1989**	**1.8**	**1.9**
Total regions studied	151935	146333	10546	88	88
Total other regions	20740	19863	3783	12	12
Total Australia	**172676**	**166197**	**14329**	**100**	**100**
Climatic Zones					
Hot	75094	72370	10808	43	44
Warm	79029	76260	2982	46	46
Cool	18192	17239	325	11	10

Table 76: Winegrape and other grape production volume, and shares of national total, by State and region, 2008 (tonnes and percent)

	Volume of production of winegrapes, (t)	Volume of production of grapes for non-wine purposes, (t)	Region's share of national winegrape production, (%)	Region's share of national production of grapes for non-wine purposes, (%)
Adelaide Hills	37711	405	2.1	0.3
Barossa/Eden Valley	88551		4.8	
Clare Valley	25221	15	1.4	0
Coonawarra	48285	1	2.6	0
Langhorne/Curr Creek	71141		3.9	
McLaren Vale	56683	116	3.1	0.1
Other Limestone Coast	75290		4.1	
Riverland	382322	1844	20.8	1.6
SA Other	23907	22	1.3	0
SA Total	**809113**	**2402**	**44**	**2**
Canberra District	2036		0.1	
Hunter	25480	2	1.4	0
Mudgee/Cowra	46883	0	2.6	0
Murray Darling NSW	128127	14224	7	12
Orange	14061	0	0.8	0
Riverina	272071	435	14.8	0.4
NSW Other	47331	3759	2.6	3.2
NSW Total	**535989**	**18421**	**29.2**	**15.5**
Alpine V/Beech	9743		0.5	
Goulburn Valley	15105	96	0.8	0.1
Mornington Peninsula	4600		0.3	
Murray Darling VIC	202506	52066	11	43.9
Rutherglen	6540		0.4	
Swan Hill VIC	77577	22659	4.2	19.1
West/Central Highlands	5017		0.3	
Yarra Valley	20962		1.1	
Vic Other	52503	7471	2.9	6.3
Vic Total	**394551**	**82291**	**21.5**	**69.4**
Great Southern	19722	1	1.1	0
Margaret River	36518	83	2	0.1
Swan District	6325	1865	0.3	1.6
WA Other	19632	2275	1.1	1.9
WA Total	**82197**	**4224**	**4.5**	**3.6**
Tasmania	**10749**		**0.6**	
Darling Downs SD Bal	2143	167	0.1	0.1
Qld Other	1164	11139	0.1	9.4
Qld Total	**3307**	**11306**	**0.2**	**9.5**
Total regions studied	1691369	93978	92.1	79.2
Total other regions	145665	24666	7.9	20.8
Total Australia	**1837034**	**118644**	**100**	**100**
Climatic Zones				
Hot	1070092	104232	58	88
Warm	626711	14007	34	12
Cool	139103	406	8	0

Table 77: Grape yield per hectare, winegrapes and other grapes, in tonnes and relative to the national average, by State and region, 2006 and 2008

	2006		2008	
	Yield per hectare of bearing vineyards (tonnes)	Yield of bearing vineyards in region rel. to nationally (%)	Yield per hectare of bearing vineyards (tonnes)	Yield of bearing vineyards in region rel. to nationally (%)
Adelaide Hills	8.4	74	9.8	89
Barossa/Eden Valley	8.4	74	7.5	68
Clare Valley	7.3	64	5.4	49
Coonawarra	6.5	58	7.7	70
Langhorne/Curr Creek	11.3	99	10.2	92
McLaren Vale	9.7	85	9.3	85
Other Limestone Coast	10.8	95	10.4	94
Riverland	20.7	183	17.9	162
SA Other	7.7	68	8.9	81
SA Total	**12.6**	**111**	**11.4**	**103**
Canberra District	3.9	34	5.8	53
Hunter	5.9	52	6.3	57
Mudgee/Cowra	10.7	95	8.7	79
Murray Darling NSW	17	150	16.9	153
Orange	7	62	9.4	85
Riverina	16.4	145	15	136
NSW Other	7.6	67	9.6	87
NSW Total	**13.3**	**117**	**12.8**	**116**
Alpine V/Beech	8.4	74	10.3	93
Goulburn Valley	6.3	56	9.9	90
Mornington Peninsula	5.2	46	7	63
Murray Darling VIC	12.7	112	13	117
Rutherglen	7.4	66	6.4	58
Swan Hill VIC	9.3	83	12.9	117
West/Central Highlands	4.1	36	3.6	32
Yarra Valley	6.3	56	8.1	73
Vic Other	6.4	56	8.3	75
Vic Total	**9.7**	**86**	**10.9**	**99**
Great Southern	4.6	41	6.3	57
Margaret River	5.8	51	6.8	62
Swan District	6.4	57	5.7	51
WA Other	4.7	42	6.3	57
WA Total	**5.3**	**47**	6.4	58
Tasmania	**5.6**	**49**	**8.8**	**79**
Darling Downs SD Bal	4	36	3.6	32
Qld Other	1.3	11	0.5	4
Qld Total	**1.9**	**17**	1.1	10
Total regions studied	12	106	11.6	106
Total other regions	6	53	7.3	66
Total Australia	**11.3**	**100**	**11.1**	**100**
Climatic Zones				
Hot	17.1	151	16.0	144
Warm	8.5	75	8.5	77
Cool	6.8	60	8.3	75

Table 78: Grape and wine data, Adelaide Hills (cool)

	2008[a]
Area of total vineyards for wine (ha)	4045
Volume of production of winegrapes (T)	37711
Yield per hectare of bearing winegrape vines	9.85
Number of grapegrowing establishments, total	111
Number of winemaking establishments, total	110
Number employed in grapegrowing, persons*	193
Number employed in winemaking, persons*	197
Share of national winegrape vines area, (%)	2.34
Grape's share total cropped area, (%)*	29.53
Grape share of total ag output value, (%)*	7.47
Grape share of total value added in ag., (%)*	6.58
Grape and wine share of value added in total economy, (%)*	2.01
Region's share of national grape and wine value added, (%)*	1.23
Region's share of national grape and wine employment, (%)*	1.36
Grape share of regional ag employment, (%)*	15.81
Grape and wine share of regional total employment, (%)*	1.88
Share of winegrape production volume that is commercial premium (%)	23.23
Share of winegrape production volume that is super-premium (%)	74.75
Share of winegrape production value that is commercial premium (%)	13.44
Share of winegrape production value that is super-premium (%)	86.1
Ratio of regional to national share of cropped area under vine*	42.39
Ratio of regional to national winegrape yield per ha	0.89
Ratio of regional to national share of agric employment in grape growing*	3.81
Ratio of regional to national share of total employment in grape growing and winemaking*	5.94

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	7.8	8.3	18.9	11	16.5	38.6	26.4	24.8	25.8	34.6
Share of national volume of winegrape product (%)	0.7	0.73	1.39	0.74	1.22	2.21	1.43	1.34	1.93	1.97
Average price of winegrapes ($/t)	1715	1665	1673	1727	1677	1459	1457	1371	1613	1640
Value of winegrapes ($ millions)	13.3	13.8	31.7	19.1	27.6	56.4	38.5	34	41.6	56.8
Share of national value of winegrape production	1.37	1.53	2.5	1.51	2.37	4.05	2.92	3.05	4.89	3.95
Ratio of regional to national winegrape price per tonne	1.95	2.08	1.79	2.04	1.95	1.83	2.05	2.27	2.54	2.01

Table 79: Grape and wine data, Barossa/Eden Valley (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	12292
Volume of production of winegrapes (T)	88551
Yield per hectare of bearing winegrape vines	7.54
Number of grapegrowing establishments, total	545
Number of winemaking establishments, total	541
Number employed in grapegrowing, persons*	788
Number employed in winemaking, persons*	1889
Share of national winegrape vines area, (%)	7.12
Grape's share total cropped area, (%)*	9.17
Grape share of total ag output value, (%)*	17.23
Grape share of total value added in ag., (%)*	15.99
Grape and wine share of value added in total economy, (%)*	16.56
Region's share of national grape and wine value added, (%)*	10.37
Region's share of national grape and wine employment, (%)*	9.32
Grape share of regional ag employment, (%)*	36.68
Grape and wine share of regional total employment, (%)*	13.44
Share of winegrape production volume that is commercial premium (%)	48.4
Share of winegrape production volume that is super-premium (%)	49.96
Share of winegrape production value that is commercial premium (%)	32.49
Share of winegrape production value that is super-premium (%)	66.87
Ratio of regional to national share of cropped area under vine*	13.17
Ratio of regional to national winegrape yield per ha	0.68
Ratio of regional to national share of agric employment in grape growing*	8.85
Ratio of regional to national share of total employment in grape growing and winemaking*	42.58

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	63.6	44	64.9	66	58.3	86.9	101	92.3	48.3	80.6
Share of national volume of winegrape product (%)	5.73	3.89	4.78	4.41	4.3	4.97	5.42	5.01	3.61	4.58
Average price of winegrapes ($/t)	1282	1357	1449	1449	1420	1248	1114	978	1160	1372
Value of winegrapes ($ millions)	81.6	59.7	94.1	95.7	82.7	108	112	90.29	56.1	111
Share of national value of winegrape production	8.34	6.6	7.42	7.56	7.1	7.8	8.49	8.11	6.59	7.69
Ratio of regional to national winegrape price per tonne	1.46	1.7	1.55	1.71	1.65	1.57	1.57	1.62	1.82	1.68

Table 80: Grape and wine data, Clare Valley (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	4784
Volume of production of winegrapes (T)	25221
Yield per hectare of bearing winegrape vines	5.43
Number of grapegrowing establishments, total	192
Number of winemaking establishments, total	191
Number employed in grapegrowing, persons*	336
Number employed in winemaking, persons*	312
Share of national winegrape vines area, (%)	2.77
Grape's share total cropped area, (%)*	0.97
Grape share of total ag output value, (%)*	5.38
Grape share of total value added in ag., (%)*	4.35
Grape and wine share of value added in total economy, (%)*	6.99
Region's share of national grape and wine value added, (%)*	1.97
Region's share of national grape and wine employment, (%)*	2.26
Grape share of regional ag employment, (%)*	14.28
Grape and wine share of regional total employment, (%)*	7.59
Share of winegrape production volume that is commercial premium (%)	47
Share of winegrape production volume that is super-premium (%)	53
Share of winegrape production value that is commercial premium (%)	35.31
Share of winegrape production value that is super-premium (%)	64.69
Ratio of regional to national share of cropped area under vine*	1.39
Ratio of regional to national winegrape yield per ha	0.49
Ratio of regional to national share of agric employment in grape growing*	3.45
Ratio of regional to national share of total employment in grape growing and winemaking*	24.05

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	19.7	12.4	23.5	27.3	19.2	33	30.5	35.4	17.3	22.8
Share of national volume of winegrape product (%)	1.77	1.1	1.73	1.82	1.42	1.89	1.64	1.92	1.29	1.29
Average price of winegrapes ($/t)	1311	1366	1424	1459	1509	1373	1258	1073	1181	1303
Value of winegrapes ($ millions)	25.8	17	33.5	39.8	29	45.4	38.3	37.9	20.4	29.7
Share of national value of winegrape production	2.64	1.88	2.64	3.14	2.49	3.26	2.91	3.41	2.39	2.06
Ratio of regional to national winegrape price per tonne	1.49	1.71	1.53	1.73	1.75	1.73	1.77	1.78	1.86	1.59

Table 81: Grape and wine data, Coonawarra (cool)

Series	2008[a]
Area of total vineyards for wine (ha)	6453
Volume of production of winegrapes (T)	48285
Yield per hectare of bearing winegrape vines	7.75
Number of grapegrowing establishments, total	133
Number of winemaking establishments, total	132
Number employed in grapegrowing, persons*	218
Number employed in winemaking, persons*	321
Share of national winegrape vines area, (%)	3.74
Grape's share total cropped area, (%)*	19.54
Grape share of total ag output value, (%)*	3.7
Grape share of total value added in ag., (%)*	2.93
Grape and wine share of value added in total economy, (%)*	2.81
Region's share of national grape and wine value added, (%)*	1.86
Region's share of national grape and wine employment, (%)*	1.88
Grape share of regional ag employment, (%)*	10.03
Grape and wine share of regional total employment, (%)*	2.65
Share of winegrape production volume that is commercial premium (%)	33.33
Share of winegrape production volume that is super-premium (%)	64.65
Share of winegrape production value that is commercial premium (%)	20.03
Share of winegrape production value that is super-premium (%)	79.24
Ratio of regional to national share of cropped area under vine*	28.05
Ratio of regional to national winegrape yield per ha	0.7
Ratio of regional to national share of agric employment in grape growing*	2.42
Ratio of regional to national share of total employment in grape growing and winemaking*	8.4

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	24.4	22.2	53.1	17.8	23	62.7	36.5	32.5	17	40.6
Share of national volume of winegrape product (%)	2.19	1.96	3.91	1.19	1.7	3.58	1.97	1.76	1.27	2.3
Average price of winegrapes ($/t)	1869	1826	1703	1770	1771	1097	982	850	1270	1319
Value of winegrapes ($ millions)	45.5	40.5	90.5	31.5	40.8	68.7	35.8	27.6	21.6	53.5
Share of national value of winegrape production	4.65	4.47	7.13	2.49	3.5	4.94	2.72	2.48	2.54	3.72
Ratio of regional to national winegrape price per tonne	2.12	2.28	1.82	2.09	2.06	1.38	1.38	1.41	2	1.61

Table 82: Grape and wine data, Langhorne/Currency Creek (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	7070
Volume of production of winegrapes (T)	71141
Yield per hectare of bearing winegrape vines	10.19
Number of grapegrowing establishments, total	157
Number of winemaking establishments, total	157
Number employed in grapegrowing, persons*	309
Number employed in winemaking, persons*	204
Share of national winegrape vines area, (%)	4.09
Grape's share total cropped area, (%)*	19.72
Grape share of total ag output value, (%)*	10.33
Grape share of total value added in ag., (%)*	9.08
Grape and wine share of value added in total economy, (%)*	3.64
Region's share of national grape and wine value added, (%)*	1.42
Region's share of national grape and wine employment, (%)*	1.79
Grape share of regional ag employment, (%)*	21.2
Grape and wine share of regional total employment, (%)*	3.69
Share of winegrape production volume that is commercial premium (%)	70.01
Share of winegrape production volume that is super-premium (%)	28.18
Share of winegrape production value that is commercial premium (%)	59.45
Share of winegrape production value that is super-premium (%)	39.93
Ratio of regional to national share of cropped area under vine*	28.32
Ratio of regional to national winegrape yield per ha	0.92
Ratio of regional to national share of agric employment in grape growing*	5.12
Ratio of regional to national share of total employment in grape growing and winemaking*	11.7

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	25.5	26.1	51.3	44.9	49.3	54.4	60.9	68.2	46.9	69.2
Share of national volume of winegrape product (%)	2.3	2.31	3.78	3	3.64	3.11	3.28	3.7	3.5	3.93
Average price of winegrapes ($/t)	1503	1429	1429	1393	1364	1168	1072	935	1015	1058
Value of winegrapes ($ millions)	38.3	37.3	73.3	62.5	67.2	63.5	65.2	63.8	47.6	73.2
Share of national value of winegrape production	3.91	4.12	5.78	4.94	5.76	4.57	4.95	5.73	5.59	5.09
Ratio of regional to national winegrape price per tonne	1.71	1.79	1.53	1.65	1.59	1.47	1.51	1.55	1.6	1.29

Table 83: Grape and wine data, McLaren Vale (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	6250
Volume of production of winegrapes (T)	56683
Yield per hectare of bearing winegrape vines	9.34
Number of grapegrowing establishments, total	362
Number of winemaking establishments, total	359
Number employed in grapegrowing, persons*	719
Number employed in winemaking, persons*	1803
Share of national winegrape vines area, (%)	3.62
Grape's share total cropped area, (%)*	84.05
Grape share of total ag output value, (%)*	23.98
Grape share of total value added in ag., (%)*	25.13
Grape and wine share of value added in total economy, (%)*	1.33
Region's share of national grape and wine value added, (%)*	9.75
Region's share of national grape and wine employment, (%)*	8.78
Grape share of regional ag employment, (%)*	32.23
Grape and wine share of regional total employment, (%)*	0.99
Share of winegrape production volume that is commercial premium (%)	36.36
Share of winegrape production volume that is super-premium (%)	60.61
Share of winegrape production value that is commercial premium (%)	23.17
Share of winegrape production value that is super-premium (%)	76.12
Ratio of regional to national share of cropped area under vine*	120.7
Ratio of regional to national winegrape yield per ha	0.85
Ratio of regional to national share of agric employment in grape growing*	7.78
Ratio of regional to national share of total employment in grape growing and winemaking*	3.13

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	49.8	35.7	55.9	49.1	43.5	71.5	65.2	63.3	35.3	54.6
Share of national volume of winegrape product (%)	4.48	3.15	4.11	3.28	3.21	4.09	3.51	3.43	2.64	3.1
Average price of winegrapes ($/t)	1499	1609	1681	1695	1611	1367	1256	1097	1292	1604
Value of winegrapes ($ millions)	74.6	57.4	93.9	83.3	70	97.8	81.8	69.4	45.6	87.6
Share of national value of winegrape production	7.62	6.34	7.41	6.58	6	7.03	6.21	6.23	5.36	6.09
Ratio of regional to national winegrape price per tonne	1.7	2.01	1.8	2	1.87	1.72	1.77	1.82	2.03	1.96

Table 84: Grape and wine data, Other Limestone Coast (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	7479
Volume of production of winegrapes (T)	75290
Yield per hectare of bearing winegrape vines	10.44
Number of grapegrowing establishments, total	113
Number of winemaking establishments, total	112
Number employed in grapegrowing, persons*	266
Number employed in winemaking, persons*	325
Share of national winegrape vines area, (%)	4.33
Grape's share total cropped area, (%)*	4.75
Grape share of total ag output value, (%)*	2.92
Grape share of total value added in ag., (%)*	2.29
Grape and wine share of value added in total economy, (%)*	5.44
Region's share of national grape and wine value added, (%)*	1.94
Region's share of national grape and wine employment, (%)*	2.06
Grape share of regional ag employment, (%)*	9.33
Grape and wine share of regional total employment, (%)*	6.14
Share of winegrape production volume that is commercial premium (%)	57.47
Share of winegrape production volume that is super-premium (%)	32.82
Share of winegrape production value that is commercial premium (%)	46.54
Share of winegrape production value that is super-premium (%)	49.53
Ratio of regional to national share of cropped area under vine*	6.83
Ratio of regional to national winegrape yield per ha	0.94
Ratio of regional to national share of agric employment in grape growing*	2.25
Ratio of regional to national share of total employment in grape growing and winemaking*	19.46

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	na	18.9	52.3	29.7	40.9	79.6	50.4	67.6	33.9	70.4
Share of national volume of winegrape product (%)	na	1.67	3.85	1.98	3.02	4.55	2.72	3.66	2.53	4
Average price of winegrapes ($/t)	na	1285	1480	1471	1430	1149	1104	931	1106	1099
Value of winegrapes ($ millions)	na	24.3	77.4	43.7	58.5	91.5	55.7	62.9	37.5	77.4
Share of national value of winegrape production	na	2.68	6.1	3.45	5.02	6.58	4.22	5.65	4.4	5.38
Ratio of regional to national winegrape price per tonne	na	1.61	1.59	1.74	1.66	1.44	1.55	1.54	1.74	1.35

Table 85: Grape and wine data, Riverland (hot)

Series	2008[a]
Area of total vineyards for wine (ha)	21947
Volume of production of winegrapes (T)	382322
Yield per hectare of bearing winegrape vines	17.89
Number of grapegrowing establishments, total	1114
Number of winemaking establishments, total	1098
Number employed in grapegrowing, persons*	1197
Number employed in winemaking, persons*	835
Share of national winegrape vines area, (%)	12.71
Grape's share total cropped area, (%)*	4.62
Grape share of total ag output value, (%)*	22.2
Grape share of total value added in ag., (%)*	17.5
Grape and wine share of value added in total economy, (%)*	11.08
Region's share of national grape and wine value added, (%)*	5.62
Region's share of national grape and wine employment, (%)*	7.07
Grape share of regional ag employment, (%)*	30.41
Grape and wine share of regional total employment, (%)*	11.39
Share of winegrape production volume that is commercial premium (%)	75
Share of winegrape production volume that is super-premium (%)	0
Share of winegrape production value that is commercial premium (%)	80.34
Share of winegrape production value that is super-premium (%)	0
Ratio of regional to national share of cropped area under vine*	6.63
Ratio of regional to national winegrape yield per ha	1.62
Ratio of regional to national share of agric employment in grape growing*	7.34
Ratio of regional to national share of total employment in grape growing and winemaking*	36.07

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	259	294	327	434	369	440	482	464	323	401
Share of national volume of winegrape product (%)	23.3	26	24.1	29	27.2	25.2	26	25.2	24.2	22.8
Average price of winegrapes ($/t)	749	652	658	674	578	532	479	377	385	572
Value of winegrapes ($ millions)	194	191	215	292	213	234	231	175	124	230
Share of national value of winegrape production	19.8	21.2	17	23.1	18.3	16.8	17.5	15.7	14.6	15.9
Ratio of regional to national winegrape price per tonne	0.85	0.81	0.71	0.8	0.67	0.67	0.67	0.62	0.6	0.7

Table 86: Grape and wine data, SA Other (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	2834
Volume of production of winegrapes (T)	23907
Yield per hectare of bearing winegrape vines	8.93
Number of grapegrowing establishments, total	179
Number of winemaking establishments, total	173
Number employed in grapegrowing, persons*	305
Number employed in winemaking, persons*	753
Share of national winegrape vines area, (%)	1.64
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	1.17
Grape share of total value added in ag., (%)*	0.91
Grape and wine share of value added in total economy, (%)*	0.4
Region's share of national grape and wine value added, (%)*	4.08
Region's share of national grape and wine employment, (%)*	3.69
Grape share of regional ag employment, (%)*	2.57
Grape and wine share of regional total employment, (%)*	0.33
Share of winegrape production volume that is commercial premium (%)	60.52
Share of winegrape production volume that is super-premium (%)	39.28
Share of winegrape production value that is commercial premium (%)	49.29
Share of winegrape production value that is super-premium (%)	50.63
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	0.81
Ratio of regional to national share of agric employment in grape growing*	0.62
Ratio of regional to national share of total employment in grape growing and winemaking*	1.04

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	44.4	20.8	31.7	27.4	34.2	53.8	46	56.1	27.9	43.4
Share of national volume of winegrape product (%)	4	1.8	2.3	1.8	2.5	3.1	2.5	3	2.1	2.5
Average price of winegrapes ($/t)	1331	1357	1411	1236	1257	985	851	850	922	1098
Value of winegrapes ($ millions)	59.1	28.3	44.7	33.8	43	53	39.2	47.7	25.7	47.7
Share of national value of winegrape production	6	3.1	3.5	2.7	3.7	3.8	3	4.3	3	3.3
Ratio of regional to national winegrape price per tonne	1.51	1.7	1.51	1.46	1.46	1.24	1.2	1.41	1.45	1.34

Table 87: Grape and wine data, SA Total

Series	2008[a]
Area of total vineyards for wine (ha)	73155
Volume of production of winegrapes (T)	809113
Yield per hectare of bearing winegrape vines	11.44
Number of grapegrowing establishments, total	2906
Number of winemaking establishments, total	2873
Number employed in grapegrowing, persons*	4330
Number employed in winemaking, persons*	6641
Share of national winegrape vines area, (%)	42.37
Grape's share total cropped area, (%)*	1.63
Grape share of total ag output value, (%)*	6.6
Grape share of total value added in ag., (%)*	5.4
Grape and wine share of value added in total economy, (%)*	1.8
Region's share of national grape and wine value added, (%)*	38.24
Region's share of national grape and wine employment, (%)*	38.2
Grape share of regional ag employment, (%)*	14.32
Grape and wine share of regional total employment, (%)*	1.59
Share of winegrape production volume that is commercial premium (%)	62.06
Share of winegrape production volume that is super-premium (%)	24.04
Share of winegrape production value that is commercial premium (%)	48.72
Share of winegrape production value that is super-premium (%)	44.63
Ratio of regional to national share of cropped area under vine*	2.33
Ratio of regional to national winegrape yield per ha	1.03
Ratio of regional to national share of agric employment in grape growing*	3.46
Ratio of regional to national share of total employment in grape growing and winemaking*	5.04

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	494	482	679	707	654	921	899	904.5	576	818
Share of national volume of winegrape product (%)	44.5	42.6	50	47.2	48.3	52.7	48.4	49.1	43	46.4
Average price of winegrapes ($/t)	1077	974	1044	964	938	865	759	662	728	950
Value of winegrapes ($ millions)	533	470	754	702	632	819	697	608.5	420	766
Share of national value of winegrape production	54.4	51.9	59.5	55.4	54.2	58.9	52.9	54.7	49.4	53.2
Ratio of regional to national winegrape price per tonne	1.22	1.22	1.19	1.17	1.12	1.12	1.09	1.11	1.15	1.15

Table 88: Grape and wine data, Canberra District (cool)

Series	2008[a]
Area of total vineyards for wine (ha)	362
Volume of production of winegrapes (T)	2036
Yield per hectare of bearing winegrape vines	5.84
Number of grapegrowing establishments, total	81
Number of winemaking establishments, total	81
Number employed in grapegrowing, persons*	66
Number employed in winemaking, persons*	52
Share of national winegrape vines area, (%)	0.21
Grape's share total cropped area, (%)*	0.57
Grape share of total ag output value, (%)*	1.02
Grape share of total value added in ag., (%)*	0.87
Grape and wine share of value added in total economy, (%)*	0.36
Region's share of national grape and wine value added, (%)*	0.33
Region's share of national grape and wine employment, (%)*	0.41
Grape share of regional ag employment, (%)*	1.53
Grape and wine share of regional total employment, (%)*	0.39
Share of winegrape production volume that is commercial premium (%)	82.6
Share of winegrape production volume that is super-premium (%)	0
Share of winegrape production value that is commercial premium (%)	88.8
Share of winegrape production value that is super-premium (%)	0
Ratio of regional to national share of cropped area under vine*	0.82
Ratio of regional to national winegrape yield per ha	0.53
Ratio of regional to national share of agric employment in grape growing*	0.37
Ratio of regional to national share of total employment in grape growing and winemaking*	1.24

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	3.3	na	0.6	0.4	0.4	1.2	1.2	1.3	0.6	1.3
Share of national volume of winegrape product (%)	0.3	na	0	0	0	0.1	0.1	0.1	0	0.1
Average price of winegrapes ($/t)	na	na	1442	1448	1513	1567	1627	1659	824	1439
Value of winegrapes ($ millions)	0	na	0.9	0.5	0.6	1.9	2	2.2	0.5	1.8
Share of national value of winegrape production	0	na	0.1	0	0	0.1	0.2	0.2	0.1	0.1
Ratio of regional to national winegrape price per tonne	na	na	1.54	1.71	1.76	1.97	2.29	2.75	1.29	1.76

Table 89: Grape and wine data, Hunter (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	4093
Volume of production of winegrapes (T)	25480
Yield per hectare of bearing winegrape vines	6.34
Number of grapegrowing establishments, total	94
Number of winemaking establishments, total	93
Number employed in grapegrowing, persons*	146
Number employed in winemaking, persons*	256
Share of national winegrape vines area, (%)	2.37
Grape's share total cropped area, (%)*	5.56
Grape share of total ag output value, (%)*	3.78
Grape share of total value added in ag., (%)*	2.85
Grape and wine share of value added in total economy, (%)*	0.74
Region's share of national grape and wine value added, (%)*	1.44
Region's share of national grape and wine employment, (%)*	1.4
Grape share of regional ag employment, (%)*	4.02
Grape and wine share of regional total employment, (%)*	1.02
Share of winegrape production volume that is commercial premium (%)	60.78
Share of winegrape production volume that is super-premium (%)	24.51
Share of winegrape production value that is commercial premium (%)	55.66
Share of winegrape production value that is super-premium (%)	38.42
Ratio of regional to national share of cropped area under vine*	7.98
Ratio of regional to national winegrape yield per ha	0.57
Ratio of regional to national share of agric employment in grape growing*	0.97
Ratio of regional to national share of total employment in grape growing and winemaking*	3.25

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	32.1	29.9	26.1	26.8	17.7	24.7	17.5	16	18.1	17.5
Share of national volume of winegrape product (%)	2.9	2.6	1.9	1.8	1.3	1.4	0.9	0.9	1.4	1
Average price of winegrapes ($/t)	1214	1243	1204	1209	1219	1116	902	813	1015	980
Value of winegrapes ($ millions)	38.9	37.1	31.4	32.4	21.6	27.5	15.8	13	18.4	17.2
Share of national value of winegrape production	4	4.1	2.5	2.6	1.9	2	1.2	1.2	2.2	1.2
Ratio of regional to national winegrape price per tonne	1.38	1.55	1.29	1.43	1.42	1.4	1.27	1.35	1.59	1.2

Table 90: Grape and wine data, Mudgee/Cowra (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	5478
Volume of production of winegrapes (T)	46883
Yield per hectare of bearing winegrape vines	8.68
Number of grapegrowing establishments, total	57
Number of winemaking establishments, total	54
Number employed in grapegrowing, persons*	72
Number employed in winemaking, persons*	87
Share of national winegrape vines area, (%)	3.17
Grape's share total cropped area, (%)*	1.75
Grape share of total ag output value, (%)*	1.47
Grape share of total value added in ag., (%)*	1.18
Grape and wine share of value added in total economy, (%)*	0.55
Region's share of national grape and wine value added, (%)*	0.52
Region's share of national grape and wine employment, (%)*	0.55
Grape share of regional ag employment, (%)*	2.35
Grape and wine share of regional total employment, (%)*	0.71
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	2.52
Ratio of regional to national winegrape yield per ha	0.79
Ratio of regional to national share of agric employment in grape growing*	0.57
Ratio of regional to national share of total employment in grape growing and winemaking*	2.26

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	28.8	21.5	29.4	30.7	32.9	39.7	47.3	39.2	31	45.4
Share of national volume of winegrape product (%)	2.6	1.9	2.2	2	2.4	2.3	2.5	2.1	2.3	2.6
Average price of winegrapes ($/t)	1112	897	1166	1178	1198	1116	863	752	653	676
Value of winegrapes ($ millions)	32	19.3	34.2	36.1	39.4	44.3	40.8	29.5	20.3	30.7
Share of national value of winegrape production	3.3	2.1	2.7	2.9	3.4	3.2	3.1	2.6	2.4	2.1
Ratio of regional to national winegrape price per tonne	1.26	1.12	1.25	1.39	1.39	1.4	1.21	1.24	1.03	0.83

Table 91: Grape and wine data, Murray Darling NSW (hot)

Series	2008[a]
Area of total vineyards for wine (ha)	8005
Volume of production of winegrapes (T)	128127
Yield per hectare of bearing winegrape vines	16.88
Number of grapegrowing establishments, total	317
Number of winemaking establishments, total	260
Number employed in grapegrowing, persons*	348
Number employed in winemaking, persons*	130
Share of national winegrape vines area, (%)	4.64
Grape's share total cropped area, (%)*	5.2
Grape share of total ag output value, (%)*	21.63
Grape share of total value added in ag., (%)*	18.4
Grape and wine share of value added in total economy, (%)*	8.26
Region's share of national grape and wine value added, (%)*	1.07
Region's share of national grape and wine employment, (%)*	1.66
Grape share of regional ag employment, (%)*	32.09
Grape and wine share of regional total employment, (%)*	11.42
Share of winegrape production volume that is commercial premium (%)	62.63
Share of winegrape production volume that is super-premium (%)	0
Share of winegrape production value that is commercial premium (%)	68.96
Share of winegrape production value that is super-premium (%)	0
Ratio of regional to national share of cropped area under vine*	7.46
Ratio of regional to national winegrape yield per ha	1.53
Ratio of regional to national share of agric employment in grape growing*	7.74
Ratio of regional to national share of total employment in grape growing and winemaking*	36.18

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	157	162	162	187	155	197	220	206.3	176.3	181.2
Share of national volume of winegrape product (%)	14.1	14.3	11.9	12.5	11.4	11.2	11.8	11.2	13.2	10.3
Average price of winegrapes ($/t)	572	543	562	588	589	567	483	374	392	557
Value of winegrapes ($ millions)	89.8	87.8	90.9	110	91.3	112	106	77.1	69.1	101
Share of national value of winegrape production	9.2	9.7	7.2	8.7	7.8	8	8	6.9	8.1	7
Ratio of regional to national winegrape price per tonne	0.65	0.68	0.6	0.7	0.68	0.71	0.68	0.62	0.62	0.68

Table 92: Grape and wine data, Orange (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	1532
Volume of production of winegrapes (T)	14061
Yield per hectare of bearing winegrape vines	9.41
Number of grapegrowing establishments, total	19
Number of winemaking establishments, total	19
Number employed in grapegrowing, persons*	36
Number employed in winemaking, persons*	38
Share of national winegrape vines area, (%)	0.89
Grape's share total cropped area, (%)*	22.79
Grape share of total ag output value, (%)*	4.51
Grape share of total value added in ag., (%)*	3.75
Grape and wine share of value added in total economy, (%)*	0.42
Region's share of national grape and wine value added, (%)*	0.23
Region's share of national grape and wine employment, (%)*	0.26
Grape share of regional ag employment, (%)*	9.43
Grape and wine share of regional total employment, (%)*	0.47
Share of winegrape production volume that is commercial premium (%)	60.61
Share of winegrape production volume that is super-premium (%)	38.38
Share of winegrape production value that is commercial premium (%)	49.84
Share of winegrape production value that is super-premium (%)	49.66
Ratio of regional to national share of cropped area under vine*	32.72
Ratio of regional to national winegrape yield per ha	0.85
Ratio of regional to national share of agric employment in grape growing*	2.28
Ratio of regional to national share of total employment in grape growing and winemaking*	1.5

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	4.3	8.2	8.8	7.1	6	7.6	6.6	8.2	4.8	9.3
Share of national volume of winegrape product (%)	0.4	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.5
Average price of winegrapes ($/t)	1190	1318	1408	1533	1552	1218	1090	827	1065	1054
Value of winegrapes ($ millions)	5.2	10.8	12.4	10.9	9.3	9.3	7.2	6.8	5.1	9.8
Share of national value of winegrape production	0.5	1.2	1	0.9	0.8	0.7	0.5	0.6	0.6	0.7
Ratio of regional to national winegrape price per tonne	1.35	1.65	1.51	1.81	1.8	1.53	1.53	1.37	1.67	1.29

Table 93: Grape and wine data, Riverina (hot)

Series	2008[a]
Area of total vineyards for wine (ha)	19008
Volume of production of winegrapes (T)	272071
Yield per hectare of bearing winegrape vines	14.98
Number of grapegrowing establishments, total	466
Number of winemaking establishments, total	464
Number employed in grapegrowing, persons*	503
Number employed in winemaking, persons*	1009
Share of national winegrape vines area, (%)	11.01
Grape's share total cropped area, (%)*	3.8
Grape share of total ag output value, (%)*	7.89
Grape share of total value added in ag., (%)*	6.53
Grape and wine share of value added in total economy, (%)*	8.69
Region's share of national grape and wine value added, (%)*	5.55
Region's share of national grape and wine employment, (%)*	5.26
Grape share of regional ag employment, (%)*	13.86
Grape and wine share of regional total employment, (%)*	7.63
Share of winegrape production volume that is commercial premium (%)	21.21
Share of winegrape production volume that is super-premium (%)	0
Share of winegrape production value that is commercial premium (%)	27.6
Share of winegrape production value that is super-premium (%)	0
Ratio of regional to national share of cropped area under vine*	5.46
Ratio of regional to national winegrape yield per ha	1.36
Ratio of regional to national share of agric employment in grape growing*	3.34
Ratio of regional to national share of total employment in grape growing and winemaking*	24.17

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	160	164	159	229	196	255	251	295	222	301
Share of national volume of winegrape product (%)	14.4	14.5	11.7	15.3	14.5	14.6	13.6	16	16.6	17.1
Average price of winegrapes ($/t)	599	451	497	479	481	490	452	377	398	497
Value of winegrapes ($ millions)	95.5	73.8	79.1	110	94.4	125	114	111.2	88.4	149
Share of national value of winegrape production	9.8	8.2	6.2	8.6	8.1	9	8.6	10	10.4	10.4
Ratio of regional to national winegrape price per tonne	0.68	0.56	0.53	0.57	0.56	0.62	0.64	0.62	0.63	0.61

Table 94: Grape and wine data, NSW Other (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	5097
Volume of production of winegrapes (T)	47331
Yield per hectare of bearing winegrape vines	9.59
Number of grapegrowing establishments, total	509
Number of winemaking establishments, total	487
Number employed in grapegrowing, persons*	703
Number employed in winemaking, persons*	1988
Share of national winegrape vines area, (%)	2.95
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	0.67
Grape share of total value added in ag., (%)*	0.56
Grape and wine share of value added in total economy, (%)*	0.1
Region's share of national grape and wine value added, (%)*	10.53
Region's share of national grape and wine employment, (%)*	9.37
Grape share of regional ag employment, (%)*	1.15
Grape and wine share of regional total employment, (%)*	0.1
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	0.87
Ratio of regional to national share of agric employment in grape growing*	0.28
Ratio of regional to national share of total employment in grape growing and winemaking*	0.31

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	0.6	14.2	15.1	19.5	22	26.4	27.9	29.7	19.3	33.5
Share of national volume of winegrape product (%)	0.1	1.3	1.1	1.3	1.6	1.5	1.5	1.6	1.4	1.9
Average price of winegrapes ($/t)	na	484	1100	1116	1173	1083	837	690	757	872
Value of winegrapes ($ millions)	na	6.9	16.7	21.7	25.8	28.6	23.4	20.5	14.6	29.2
Share of national value of winegrape production	na	0.8	1.3	1.7	2.2	2.1	1.8	1.8	1.7	2
Ratio of regional to national winegrape price per tonne	na	0.6	1.18	1.32	1.36	1.36	1.18	1.14	1.19	1.07

Table 95: Grape and wine data, NSW Total

Series	2008[a]
Area of total vineyards for wine (ha)	43574
Volume of production of winegrapes (T)	535989
Yield per hectare of bearing winegrape vines	12.77
Number of grapegrowing establishments, total	1543
Number of winemaking establishments, total	1458
Number employed in grapegrowing, persons*	1873
Number employed in winemaking, persons*	3560
Share of national winegrape vines area, (%)	25.23
Grape's share total cropped area, (%)*	0.62
Grape share of total ag output value, (%)*	1.4
Grape share of total value added in ag., (%)*	1.2
Grape and wine share of value added in total economy, (%)*	0.2
Region's share of national grape and wine value added, (%)*	19.67
Region's share of national grape and wine employment, (%)*	18.92
Grape share of regional ag employment, (%)*	2.4
Grape and wine share of regional total employment, (%)*	0.2
Share of winegrape production volume that is commercial premium (%)	46.92
Share of winegrape production volume that is super-premium (%)	1.06
Share of winegrape production value that is commercial premium (%)	54.43
Share of winegrape production value that is super-premium (%)	2.52
Ratio of regional to national share of cropped area under vine*	0.9
Ratio of regional to national winegrape yield per ha	1.16
Ratio of regional to national share of agric employment in grape growing*	0.59
Ratio of regional to national share of total employment in grape growing and winemaking*	0.59

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	386	399	401	501	430	551	571.5	596	472	589
Share of national volume of winegrape product (%)	34.7	35.3	29.5	33.4	31.7	31.5	30.8	32.3	35.3	33.4
Average price of winegrapes ($/t)	678	590	692	670	681	651	557	453	469	580
Value of winegrapes ($ millions)	261	236	266	321	282	348	308.7	260	216	339
Share of national value of winegrape production	26.7	26	20.9	25.4	24.2	25	23.4	23.4	25.4	23.6
Ratio of regional to national winegrape price per tonne	0.77	0.74	0.71	0.76	0.76	0.79	0.76	0.72	0.72	0.7

Table 96: Grape and wine data, Alpine V/Beech (cool)

Series	2008[a]
Area of total vineyards for wine (ha)	1003
Volume of production of winegrapes (T)	9743
Yield per hectare of bearing winegrape vines	10.3
Number of grapegrowing establishments, total	41
Number of winemaking establishments, total	41
Number employed in grapegrowing, persons*	22
Number employed in winemaking, persons*	58
Share of national winegrape vines area, (%)	0.58
Grape's share total cropped area, (%)*	12.43
Grape share of total ag output value, (%)*	1.13
Grape share of total value added in ag., (%)*	0.86
Grape and wine share of value added in total economy, (%)*	1.33
Region's share of national grape and wine value added, (%)*	0.31
Region's share of national grape and wine employment, (%)*	0.28
Grape share of regional ag employment, (%)*	1.93
Grape and wine share of regional total employment, (%)*	1.09
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	17.85
Ratio of regional to national winegrape yield per ha	0.93
Ratio of regional to national share of agric employment in grape growing*	0.47
Ratio of regional to national share of total employment in grape growing and winemaking*	3.46

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	0	14	17.2	17	9.4	4.7	4.5	4.5	0	4.9
Share of national volume of winegrape product (%)	0	1.2	1.3	1.1	0.7	0.3	0.2	0.2	0	0.3
Average price of winegrapes ($/t)	na	1172	1058	989	931	918	872	920	na	982
Value of winegrapes ($ millions)	na	16.4	18.2	16.8	8.7	4.3	3.9	4.2	na	4.8
Share of national value of winegrape production	na	1.8	1.4	1.3	0.7	0.3	0.3	0.4	na	0.3
Ratio of regional to national winegrape price per tonne	na	1.46	1.13	1.17	1.08	1.15	1.23	1.52	na	1.2

Table 97: Grape and wine data, Goulburn Valley (warm)

Series	**2008**[a]
Area of total vineyards for wine (ha)	1568
Volume of production of winegrapes (T)	15105
Yield per hectare of bearing winegrape vines	9.9
Number of grapegrowing establishments, total	35
Number of winemaking establishments, total	32
Number employed in grapegrowing, persons*	47
Number employed in winemaking, persons*	80
Share of national winegrape vines area, (%)	0.91
Grape's share total cropped area, (%)*	5.45
Grape share of total ag output value, (%)*	1.68
Grape share of total value added in ag., (%)*	1.23
Grape and wine share of value added in total economy, (%)*	0.69
Region's share of national grape and wine value added, (%)*	0.45
Region's share of national grape and wine employment, (%)*	0.44
Grape share of regional ag employment, (%)*	4.07
Grape and wine share of regional total employment, (%)*	0.63
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	7.82
Ratio of regional to national winegrape yield per ha	0.9
Ratio of regional to national share of agric employment in grape growing*	0.98
Ratio of regional to national share of total employment in grape growing and winemaking*	2

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	0	0	0	0	5.8	8	5.6	7.1	na	4.1
Share of national volume of winegrape product (%)	0	0	0	0	0.4	0.5	0.3	0.4	na	0.2
Average price of winegrapes ($/t)	na	na	na	na	1068	1126	877	833	na	847
Value of winegrapes ($ millions)	na	na	na	na	6.2	9	4.9	5.9	na	3.5
Share of national value of winegrape production	na	na	na	na	0.5	0.6	0.4	0.5	na	0.2
Ratio of regional to national winegrape price per tonne	na	na	na	na	1.24	1.42	1.23	1.38	na	1.04

Table 98: Grape and wine data, Mornington Peninsula (cool)

Series	2008[a]
Area of total vineyards for wine (ha)	697
Volume of production of winegrapes (T)	4600
Yield per hectare of bearing winegrape vines	6.99
Number of grapegrowing establishments, total	78
Number of winemaking establishments, total	77
Number employed in grapegrowing, persons*	86
Number employed in winemaking, persons*	185
Share of national winegrape vines area, (%)	0.4
Grape's share total cropped area, (%)*	12.73
Grape share of total ag output value, (%)*	6.41
Grape share of total value added in ag., (%)*	6.1
Grape and wine share of value added in total economy, (%)*	0.54
Region's share of national grape and wine value added, (%)*	1.01
Region's share of national grape and wine employment, (%)*	0.95
Grape share of regional ag employment, (%)*	9.19
Grape and wine share of regional total employment, (%)*	0.47
Share of winegrape production volume that is commercial premium (%)	9.9
Share of winegrape production volume that is super-premium (%)	90.1
Share of winegrape production value that is commercial premium (%)	4.89
Share of winegrape production value that is super-premium (%)	95.11
Ratio of regional to national share of cropped area under vine*	18.28
Ratio of regional to national winegrape yield per ha	0.63
Ratio of regional to national share of agric employment in grape growing*	2.22
Ratio of regional to national share of total employment in grape growing and winemaking*	1.48

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	0.7	1.4	1.5	0.5	0.7	3.1	3	2.3	2.1	2.7
Share of national volume of winegrape product (%)	0.1	0.1	0.1	0	0.1	0.2	0.2	0.1	0.2	0.2
Average price of winegrapes ($/t)	1790	1842	1756	1658	1575	1529	1660	1573	1834	1950
Value of winegrapes ($ millions)	1.2	2.6	2.6	0.8	1.1	4.7	4.9	3.6	3.9	5.2
Share of national value of winegrape production	0.1	0.3	0.2	0.1	0.1	0.3	0.4	0.3	0.5	0.4
Ratio of regional to national winegrape price per tonne	2.03	2.3	1.88	1.96	1.83	1.92	2.34	2.61	2.88	2.39

Table 99: Grape and wine data, Murray Darling, Victoria (hot)

Series	2008[a]
Area of total vineyards for wine (ha)	16198
Volume of production of winegrapes (T)	202506
Yield per hectare of bearing winegrape vines	12.96
Number of grapegrowing establishments, total	165
Number of winemaking establishments, total	138
Number employed in grapegrowing, persons*	1220
Number employed in winemaking, persons*	865
Share of national winegrape vines area, (%)	9.38
Grape's share total cropped area, (%)*	0.75
Grape share of total ag output value, (%)*	35.89
Grape share of total value added in ag., (%)*	32.99
Grape and wine share of value added in total economy, (%)*	9.95
Region's share of national grape and wine value added, (%)*	5.84
Region's share of national grape and wine employment, (%)*	7.26
Grape share of regional ag employment, (%)*	61.66
Grape and wine share of regional total employment, (%)*	10.55
Share of winegrape production volume that is commercial premium (%)	62.63
Share of winegrape production volume that is super-premium (%)	0
Share of winegrape production value that is commercial premium (%)	68.96
Share of winegrape production value that is super-premium (%)	0
Ratio of regional to national share of cropped area under vine*	1.07
Ratio of regional to national winegrape yield per ha	1.17
Ratio of regional to national share of agric employment in grape growing*	14.88
Ratio of regional to national share of total employment in grape growing and winemaking*	33.42

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	99.3	102	102	119	98.1	124.3	138.9	131	112	115
Share of national volume of winegrape product (%)	8.9	9	7.5	7.9	7.2	7.1	7.5	7.1	8.3	6.5
Average price of winegrapes ($/t)	572	543	562	588	589	567	483	374	392	557
Value of winegrapes ($ millions)	56.8	55.5	57.5	69.7	57.7	70.5	67.1	48.8	43.8	63.9
Share of national value of winegrape production	5.8	6.1	4.5	5.5	5	5.1	5.1	4.4	5.1	4.4
Ratio of regional to national winegrape price per tonne	0.65	0.68	0.6	0.7	0.68	0.71	0.68	0.62	0.62	0.68

Table 100: Grape and wine data, Rutherglen (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	1052
Volume of production of winegrapes (T)	6540
Yield per hectare of bearing winegrape vines	6.38
Number of grapegrowing establishments, total	119
Number of winemaking establishments, total	119
Number employed in grapegrowing, persons*	169
Number employed in winemaking, persons*	380
Share of national winegrape vines area, (%)	0.61
Grape's share total cropped area, (%)*	11.51
Grape share of total ag output value, (%)*	8.11
Grape share of total value added in ag., (%)*	5.76
Grape and wine share of value added in total economy, (%)*	5.07
Region's share of national grape and wine value added, (%)*	2.09
Region's share of national grape and wine employment, (%)*	1.91
Grape share of regional ag employment, (%)*	11.74
Grape and wine share of regional total employment, (%)*	3.88
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	16.52
Ratio of regional to national winegrape yield per ha	0.58
Ratio of regional to national share of agric employment in grape growing*	2.83
Ratio of regional to national share of total employment in grape growing and winemaking*	12.29

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	0	3.1	5.4	7.1	4	7.6	3.9	0	3.6	0
Share of national volume of winegrape product (%)	0	0.3	0.4	0.5	0.3	0.4	0.2	0	0.3	0
Average price of winegrapes ($/t)	na	1115	1307	1224	1339	996	1094	na	1003	na
Value of winegrapes ($ millions)	na	3.4	7	8.7	5.4	7.6	4.2	na	3.6	na
Share of national value of winegrape production	na	0.4	0.6	0.7	0.5	0.5	0.3	na	0.4	na
Ratio of regional to national winegrape price per tonne	na	1.39	1.4	1.45	1.56	1.25	1.54	na	1.58	na

Table 101: Grape and wine data, Swan Hill, Victoria (hot)

Series	2008[a]
Area of total vineyards for wine (ha)	6206
Volume of production of winegrapes (T)	77577
Yield per hectare of bearing winegrape vines	12.9
Number of grapegrowing establishments, total	269
Number of winemaking establishments, total	196
Number employed in grapegrowing, persons*	634
Number employed in winemaking, persons*	95
Share of national winegrape vines area, (%)	3.59
Grape's share total cropped area, (%)*	1.86
Grape share of total ag output value, (%)*	7.74
Grape share of total value added in ag., (%)*	6.49
Grape and wine share of value added in total economy, (%)*	2.81
Region's share of national grape and wine value added, (%)*	1.3
Region's share of national grape and wine employment, (%)*	2.54
Grape share of regional ag employment, (%)*	17.78
Grape and wine share of regional total employment, (%)*	5.16
Share of winegrape production volume that is commercial premium (%)	62.63
Share of winegrape production volume that is super-premium (%)	0
Share of winegrape production value that is commercial premium (%)	68.96
Share of winegrape production value that is super-premium (%)	0
Ratio of regional to national share of cropped area under vine*	2.67
Ratio of regional to national winegrape yield per ha	1.17
Ratio of regional to national share of agric employment in grape growing*	4.29
Ratio of regional to national share of total employment in grape growing and winemaking*	16.36

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	60.1	62	62	71.8	59.4	75.3	84.1	79	67.5	69.4
Share of national volume of winegrape product (%)	5.4	5.5	4.6	4.8	4.4	4.3	4.5	4.3	5	3.9
Average price of winegrapes ($/t)	572	543	562	588	589	567	483	374	392	557
Value of winegrapes ($ millions)	34.4	33.6	34.8	42.2	35	42.7	40.6	29.5	26.5	38.7
Share of national value of winegrape production	3.5	3.7	2.7	3.3	3	3.1	3.1	2.7	3.1	2.7
Ratio of regional to national winegrape price per tonne	0.65	0.68	0.6	0.7	0.68	0.71	0.68	0.62	0.62	0.68

Table 102: Grape and wine data, West/Central Highlands (cool)

Series	2008[a]
Area of total vineyards for wine (ha)	1463
Volume of production of winegrapes (T)	5017
Yield per hectare of bearing winegrape vines	3.55
Number of grapegrowing establishments, total	43
Number of winemaking establishments, total	43
Number employed in grapegrowing, persons*	65
Number employed in winemaking, persons*	161
Share of national winegrape vines area, (%)	0.85
Grape's share total cropped area, (%)*	0.65
Grape share of total ag output value, (%)*	2.27
Grape share of total value added in ag., (%)*	1.98
Grape and wine share of value added in total economy, (%)*	4.13
Region's share of national grape and wine value added, (%)*	0.88
Region's share of national grape and wine employment, (%)*	0.78
Grape share of regional ag employment, (%)*	4.1
Grape and wine share of regional total employment, (%)*	3.12
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	0.93
Ratio of regional to national winegrape yield per ha	0.32
Ratio of regional to national share of agric employment in grape growing*	0.99
Ratio of regional to national share of total employment in grape growing and winemaking*	9.88

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	4	2.8	4.5	2.3	2.9	7.4	4.3	4.8	2.4	6.9
Share of national volume of winegrape product (%)	0.4	0.2	0.3	0.2	0.2	0.4	0.2	0.3	0.2	0.4
Average price of winegrapes ($/t)	1254	1349	1346	1439	1553	1629	1572	1382	1446	1699
Value of winegrapes ($ millions)	5	3.7	6.1	3.3	4.5	12.1	6.8	6.7	3.4	11.8
Share of national value of winegrape production	0.5	0.4	0.5	0.3	0.4	0.9	0.5	0.6	0.4	0.8
Ratio of regional to national winegrape price per tonne	1.42	1.69	1.44	1.7	1.8	2.05	2.21	2.29	2.27	2.08

Table 103: Grape and wine data, Yarra Valley (cool)

Series	2008[a]
Area of total vineyards for wine (ha)	2662
Volume of production of winegrapes (T)	20962
Yield per hectare of bearing winegrape vines	8.1
Number of grapegrowing establishments, total	116
Number of winemaking establishments, total	117
Number employed in grapegrowing, persons*	207
Number employed in winemaking, persons*	338
Share of national winegrape vines area, (%)	1.54
Grape's share total cropped area, (%)*	39.15
Grape share of total ag output value, (%)*	12.83
Grape share of total value added in ag., (%)*	10.64
Grape and wine share of value added in total economy, (%)*	0.86
Region's share of national grape and wine value added, (%)*	1.91
Region's share of national grape and wine employment, (%)*	1.9
Grape share of regional ag employment, (%)*	13.29
Grape and wine share of regional total employment, (%)*	0.78
Share of winegrape production volume that is commercial premium (%)	12.24
Share of winegrape production volume that is super-premium (%)	85.71
Share of winegrape production value that is commercial premium (%)	6.23
Share of winegrape production value that is super-premium (%)	93.31
Ratio of regional to national share of cropped area under vine*	56.2
Ratio of regional to national winegrape yield per ha	0.73
Ratio of regional to national share of agric employment in grape growing*	3.21
Ratio of regional to national share of total employment in grape growing and winemaking*	2.48

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	6.3	12.3	14.4	6.1	12.2	19	11	11.2	6.2	15.5
Share of national volume of winegrape product (%)	0.6	1.1	1.1	0.4	0.9	1.1	0.6	0.6	0.5	0.9
Average price of winegrapes ($/t)	1906	1721	1654	1762	1698	1721	1529	1515	1755	1731
Value of winegrapes ($ millions)	12.1	21.2	23.9	10.8	20.7	32.8	16.8	17	10.9	26.8
Share of national value of winegrape production	1.2	2.3	1.9	0.9	1.8	2.4	1.3	1.5	1.3	1.9
Ratio of regional to national winegrape price per tonne	2.16	2.15	1.77	2.08	1.97	2.16	2.15	2.51	2.76	2.12

Table 104: Grape and wine data, Victoria Other (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	6623
Volume of production of winegrapes (T)	52503
Yield per hectare of bearing winegrape vines	8.34
Number of grapegrowing establishments, total	1375
Number of winemaking establishments, total	1133
Number employed in grapegrowing, persons*	798
Number employed in winemaking, persons*	2148
Share of national winegrape vines area, (%)	3.84
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	0.67
Grape share of total value added in ag., (%)*	0.55
Grape and wine share of value added in total economy, (%)*	0.16
Region's share of national grape and wine value added, (%)*	11.55
Region's share of national grape and wine employment, (%)*	10.26
Grape share of regional ag employment, (%)*	1.6
Grape and wine share of regional total employment, (%)*	0.14
Share of winegrape production volume that is commercial premium (%)	52.71
Share of winegrape production volume that is super-premium (%)	30.41
Share of winegrape production value that is commercial premium (%)	43.37
Share of winegrape production value that is super-premium (%)	49.13
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	0.75
Ratio of regional to national share of agric employment in grape growing*	0.39
Ratio of regional to national share of total employment in grape growing and winemaking*	0.45

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	26.9	11.9	17.2	11.8	18.2	16.2	35.1	39.2	23.2	47.9
Share of national volume of winegrape product (%)	2.4	1.1	1.3	0.8	1.3	0.9	1.9	2.1	1.7	2.7
Average price of winegrapes ($/t)	1390	1094	1291	1563	1238	1335	921	1023	891	1048
Value of winegrapes ($ millions)	37.4	13	22.3	18.4	22.6	21.6	32.3	40.1	20.7	50.2
Share of national value of winegrape production	3.8	1.4	1.8	1.5	1.9	1.6	2.5	3.6	2.4	3.5
Ratio of regional to national winegrape price per tonne	1.58	1.37	1.38	1.85	1.44	1.68	1.3	1.69	1.4	1.28

Table 105: Grape and wine data, Victoria Total

Series	2008[a]
Area of total vineyards for wine (ha)	37472
Volume of production of winegrapes (T)	394551
Yield per hectare of bearing winegrape vines	10.93
Number of grapegrowing establishments, total	2241
Number of winemaking establishments, total	1896
Number employed in grapegrowing, persons*	3248
Number employed in winemaking, persons*	4308
Share of national winegrape vines area, (%)	21.7
Grape's share total cropped area, (%)*	1.11
Grape share of total ag output value, (%)*	2.3
Grape share of total value added in ag., (%)*	1.9
Grape and wine share of value added in total economy, (%)*	0.3
Region's share of national grape and wine value added, (%)*	25.35
Region's share of national grape and wine employment, (%)*	26.31
Grape share of regional ag employment, (%)*	5.1
Grape and wine share of regional total employment, (%)*	0.3
Share of winegrape production volume that is commercial premium (%)	61.08
Share of winegrape production volume that is super-premium (%)	3.11
Share of winegrape production value that is commercial premium (%)	63.75
Share of winegrape production value that is super-premium (%)	18.1
Ratio of regional to national share of cropped area under vine*	1.59
Ratio of regional to national winegrape yield per ha	0.99
Ratio of regional to national share of agric employment in grape growing*	1.24
Ratio of regional to national share of total employment in grape growing and winemaking*	1.05

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	197	210	225	235	211	266	290.4	279	217	266
Share of national volume of winegrape product (%)	17.8	18.6	16.5	15.7	15.6	15.2	15.7	15.1	16.2	15.1
Average price of winegrapes ($/t)	744	713	767	726	768	773	625	559	521	770
Value of winegrapes ($ millions)	147	150	172	171	162	205	181.6	156	113	205
Share of national value of winegrape production	15	16.5	13.6	13.5	13.9	14.8	13.8	14	13.2	14.2
Ratio of regional to national winegrape price per tonne	0.84	0.89	0.82	0.86	0.89	0.97	0.88	0.93	0.82	0.94

Table106: Grape and wine data, Great Southern (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	3253
Volume of production of winegrapes (T)	19722
Yield per hectare of bearing winegrape vines	6.27
Number of grapegrowing establishments, total	96
Number of winemaking establishments, total	97
Number employed in grapegrowing, persons*	205
Number employed in winemaking, persons*	292
Share of national winegrape vines area, (%)	1.88
Grape's share total cropped area, (%)*	4.53
Grape share of total ag output value, (%)*	6.67
Grape share of total value added in ag., (%)*	5.26
Grape and wine share of value added in total economy, (%)*	3.08
Region's share of national grape and wine value added, (%)*	1.69
Region's share of national grape and wine employment, (%)*	1.73
Grape share of regional ag employment, (%)*	9.26
Grape and wine share of regional total employment, (%)*	2.67
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	6.5
Ratio of regional to national winegrape yield per ha	0.57
Ratio of regional to national share of agric employment in grape growing*	2.23
Ratio of regional to national share of total employment in grape growing and winemaking*	8.46

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	4.7	7.9	11.4	10.6	12.7	na	30.2	11.5	11.3	15.9
Share of national volume of winegrape product (%)	0.4	0.7	0.8	0.7	0.9	na	1.6	0.6	0.8	0.9
Average price of winegrapes ($/t)	1335	1444	1492	1456	1535	na	1328	1229	1236	1227
Value of winegrapes ($ millions)	6.3	11.4	17.1	15.4	19.5	na	40.1	14.1	13.9	19.5
Share of national value of winegrape production	0.6	1.3	1.3	1.2	1.7	na	3	1.3	1.6	1.4
Ratio of regional to national winegrape price per tonne	1.51	1.8	1.6	1.72	1.78	na	1.87	2.03	1.94	1.5

Table 107: Grape and wine data, Margaret River (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	5761
Volume of production of winegrapes (T)	36518
Yield per hectare of bearing winegrape vines	6.82
Number of grapegrowing establishments, total	243
Number of winemaking establishments, total	238
Number employed in grapegrowing, persons*	456
Number employed in winemaking, persons*	725
Share of national winegrape vines area, (%)	3.34
Grape's share total cropped area, (%)*	32.87
Grape share of total ag output value, (%)*	17.08
Grape share of total value added in ag., (%)*	13.65
Grape and wine share of value added in total economy, (%)*	7.23
Region's share of national grape and wine value added, (%)*	4.18
Region's share of national grape and wine employment, (%)*	4.11
Grape share of regional ag employment, (%)*	33.51
Grape and wine share of regional total employment, (%)*	6.96
Share of winegrape production volume that is commercial premium (%)	23
Share of winegrape production volume that is super-premium (%)	77
Share of winegrape production value that is commercial premium (%)	14.69
Share of winegrape production value that is super-premium (%)	85.31
Ratio of regional to national share of cropped area under vine*	47.19
Ratio of regional to national winegrape yield per ha	0.62
Ratio of regional to national share of agric employment in grape growing*	8.09
Ratio of regional to national share of total employment in grape growing and winemaking*	22.06

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	13	16.4	21.9	22.4	22.2	na	30.6	25	31.7	33.8
Share of national volume of winegrape product (%)	1.2	1.5	1.6	1.5	1.6	na	1.7	1.4	2.4	1.9
Average price of winegrapes ($/t)	1136	1399	1525	1459	1585	na	1438	1513	1501	1446
Value of winegrapes ($ millions)	14.8	23	33.3	32.7	35.1	na	44	37.8	47.6	48.9
Share of national value of winegrape production	1.5	2.5	2.6	2.6	3	na	3.3	3.4	5.6	3.4
Ratio of regional to national winegrape price per tonne	1.29	1.75	1.63	1.73	1.84	na	2.02	2.51	2.36	1.77

Table 108: Grape and wine data, Swan District (hot)

Series	2008[a]
Area of total vineyards for wine (ha)	1160
Volume of production of winegrapes (T)	6325
Yield per hectare of bearing winegrape vines	5.68
Number of grapegrowing establishments, total	16
Number of winemaking establishments, total	15
Number employed in grapegrowing, persons*	23
Number employed in winemaking, persons*	130
Share of national winegrape vines area, (%)	0.67
Grape's share total cropped area, (%)*	4.3
Grape share of total ag output value, (%)*	0.76
Grape share of total value added in ag., (%)*	0.84
Grape and wine share of value added in total economy, (%)*	0.09
Region's share of national grape and wine value added, (%)*	0.67
Region's share of national grape and wine employment, (%)*	0.53
Grape share of regional ag employment, (%)*	1.69
Grape and wine share of regional total employment, (%)*	0.07
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	6.18
Ratio of regional to national winegrape yield per ha	0.51
Ratio of regional to national share of agric employment in grape growing*	0.41
Ratio of regional to national share of total employment in grape growing and winemaking*	0.22

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	7.4	4.8	6.2	4.7	4.6	na	6.2	6.5	5.1	5
Share of national volume of winegrape product (%)	0.7	0.4	0.5	0.3	0.3	na	0.3	0.4	0.4	0.3
Average price of winegrapes ($/t)	845	898	916	783	851	na	898	843	875	946
Value of winegrapes ($ millions)	6.2	4.3	5.7	3.6	4	na	5.6	5.5	4.5	4.7
Share of national value of winegrape production	0.6	0.5	0.5	0.3	0.3	na	0.4	0.5	0.5	0.3
Ratio of regional to national winegrape price per tonne	0.96	1.12	0.98	0.93	0.99	na	1.26	1.4	1.38	1.16

Table 109: Grape and wine data, WA Other (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	3257
Volume of production of winegrapes (T)	19632
Yield per hectare of bearing winegrape vines	6.27
Number of grapegrowing establishments, total	441
Number of winemaking establishments, total	368
Number employed in grapegrowing, persons*	527
Number employed in winemaking, persons*	722
Share of national winegrape vines area, (%)	1.89
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	0.71
Grape share of total value added in ag., (%)*	0.56
Grape and wine share of value added in total economy, (%)*	0.13
Region's share of national grape and wine value added, (%)*	4.22
Region's share of national grape and wine employment, (%)*	4.35
Grape share of regional ag employment, (%)*	2.15
Grape and wine share of regional total employment, (%)*	0.18
Share of winegrape production volume that is commercial premium (%)	74.07
Share of winegrape production volume that is super-premium (%)	25.93
Share of winegrape production value that is commercial premium (%)	64.51
Share of winegrape production value that is super-premium (%)	35.49
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	0.57
Ratio of regional to national share of agric employment in grape growing*	0.52
Ratio of regional to national share of total employment in grape growing and winemaking*	0.58

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	8.5	10.5	12.5	13.6	12.5	na	15.2	11.4	17.8	18.2
Share of national volume of winegrape product (%)	0.8	0.9	0.9	0.9	0.9	na	0.8	0.6	1.3	1
Average price of winegrapes ($/t)	1273	1090	1426	1262	1259	na	1200	1107	1143	1138
Value of winegrapes ($ millions)	10.8	11.5	17.8	17.1	15.8	na	18.2	12.7	20.4	20.7
Share of national value of winegrape production	1.1	1.3	1.4	1.4	1.4	na	1.4	1.1	2.4	1.4
Ratio of regional to national winegrape price per tonne	1.44	1.36	1.53	1.49	1.46	na	1.69	1.83	1.8	1.39

Table 110: Grape and wine data, WA Total

Series	2008[a]
Area of total vineyards for wine (ha)	13431
Volume of production of winegrapes (T)	82197
Yield per hectare of bearing winegrape vines	6.45
Number of grapegrowing establishments, total	796
Number of winemaking establishments, total	718
Number employed in grapegrowing, persons*	1210
Number employed in winemaking, persons*	1869
Share of national winegrape vines area, (%)	7.78
Grape's share total cropped area, (%)*	0.18
Grape share of total ag output value, (%)*	1.5
Grape share of total value added in ag., (%)*	1.2
Grape and wine share of value added in total economy, (%)*	0.3
Region's share of national grape and wine value added, (%)*	10.76
Region's share of national grape and wine employment, (%)*	10.72
Grape share of regional ag employment, (%)*	4.1
Grape and wine share of regional total employment, (%)*	0.3
Share of winegrape production volume that is commercial premium (%)	36
Share of winegrape production volume that is super-premium (%)	64
Share of winegrape production value that is commercial premium (%)	24.68
Share of winegrape production value that is super-premium (%)	75.32
Ratio of regional to national share of cropped area under vine*	0.26
Ratio of regional to national winegrape yield per ha	0.58
Ratio of regional to national share of agric employment in grape growing*	0.99
Ratio of regional to national share of total employment in grape growing and winemaking*	1.04

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	33.6	39.6	52	51.2	52	na	82.2	54.4	65.9	72.9
Share of national volume of winegrape product (%)	3	3.5	3.8	3.4	3.8	na	4.4	3	4.9	4.1
Average price of winegrapes ($/t)	1135	1265	1421	1345	1429	na	1313	1288	1310	1287
Value of winegrapes ($ millions)	38.1	50.1	73.9	68.9	74.3	na	107.9	70.1	86.4	93.8
Share of national value of winegrape production	3.9	5.5	5.8	5.4	6.4	na	8.2	6.3	10.1	6.5
Ratio of regional to national winegrape price per tonne	1.29	1.58	1.52	1.59	1.66	na	1.85	2.13	2.06	1.57

Table 111: Grape and wine data, Tasmania (cool)

Series	2008[a]
Area of total vineyards for wine (ha)	1507
Volume of production of winegrapes (T)	10749
Yield per hectare of bearing winegrape vines	8.78
Number of grapegrowing establishments, total	235
Number of winemaking establishments, total	223
Number employed in grapegrowing, persons*	232
Number employed in winemaking, persons*	346
Share of national winegrape vines area, (%)	0.87
Grape's share total cropped area, (%)*	2.0
Grape share of total ag output value, (%)*	1.48
Grape share of total value added in ag., (%)*	1.15
Grape and wine share of value added in total economy, (%)*	0.32
Region's share of national grape and wine value added, (%)*	1.87
Region's share of national grape and wine employment, (%)*	2.01
Grape share of regional ag employment, (%)*	2.72
Grape and wine share of regional total employment, (%)*	0.28
Share of winegrape production volume that is commercial premium (%)	1.01
Share of winegrape production volume that is super-premium (%)	98.99
Share of winegrape production value that is commercial premium (%)	0.45
Share of winegrape production value that is super-premium (%)	99.55
Ratio of regional to national share of cropped area under vine*	2.87
Ratio of regional to national winegrape yield per ha	0.79
Ratio of regional to national share of agric employment in grape growing*	0.66
Ratio of regional to national share of total employment in grape growing and winemaking*	0.9

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	na	na	na	na	5.5	6.9	6.6	5.8	5	12.5
Share of national volume of winegrape product (%)	na	na	na	na	0.4	0.4	0.4	0.3	0.4	0.7
Average price of winegrapes ($/t)	na	na	na	na	2359	2303	2416	2512	2607	2573
Value of winegrapes ($ millions)	na	na	na	na	13	15.9	16	14.6	13.2	32.2
Share of national value of winegrape production	na	na	na	na	1.1	1.1	1.2	1.3	1.5	2.2
Ratio of regional to national winegrape price per tonne	na	na	na	na	2.74	2.89	3.4	4.16	4.1	3.15

Table 112: Grape and wine data, Darling Downs SD Bal (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	606
Volume of production of winegrapes (T)	2143
Yield per hectare of bearing winegrape vines	3.59
Number of grapegrowing establishments, total	80
Number of winemaking establishments, total	71
Number employed in grapegrowing, persons*	72
Number employed in winemaking, persons*	103
Share of national winegrape vines area, (%)	0.35
Grape's share total cropped area, (%)*	0.09
Grape share of total ag output value, (%)*	0.19
Grape share of total value added in ag., (%)*	0.16
Grape and wine share of value added in total economy, (%)*	0.34
Region's share of national grape and wine value added, (%)*	0.59
Region's share of national grape and wine employment, (%)*	0.61
Grape share of regional ag employment, (%)*	0.68
Grape and wine share of regional total employment, (%)*	0.39
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	0.13
Ratio of regional to national winegrape yield per ha	0.32
Ratio of regional to national share of agric employment in grape growing*	0.16
Ratio of regional to national share of total employment in grape growing and winemaking*	1.24

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	na	na	na	na	0.8	1.7	2.5	2.3	1.5	2.1
Share of national volume of winegrape product (%)	na	na	na	na	0.1	0.1	0.1	0.1	0.1	0.1
Average price of winegrapes ($/t)	na	na	na	na	1049	931	930	913	1022	1066
Value of winegrapes ($ millions)	na	na	na	na	0.8	1.6	2.3	2.1	1.5	2.2
Share of national value of winegrape production	na	na	na	na	0.1	0.1	0.2	0.2	0.2	0.2
Ratio of regional to national winegrape price per tonne	na	na	na	na	1.22	1.17	1.31	1.51	1.61	1.3

Table 113: Grape and wine data, Qld Other (hot)

Series	2008[a]
Area of total vineyards for wine (ha)	2570
Volume of production of winegrapes (T)	1164
Yield per hectare of bearing winegrape vines	0.47
Number of grapegrowing establishments, total	104
Number of winemaking establishments, total	68
Number employed in grapegrowing, persons*	215
Number employed in winemaking, persons*	605
Share of national winegrape vines area, (%)	1.49
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	0.18
Grape share of total value added in ag., (%)*	0.15
Grape and wine share of value added in total economy, (%)*	0.05
Region's share of national grape and wine value added, (%)*	3.14
Region's share of national grape and wine employment, (%)*	2.86
Grape share of regional ag employment, (%)*	0.44
Grape and wine share of regional total employment, (%)*	0.05
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	0.04
Ratio of regional to national share of agric employment in grape growing*	0.11
Ratio of regional to national share of total employment in grape growing and winemaking*	0.15

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	na	na	1.9	3.5	1.9	1.7	2.6	2.3	0.9	0.9
Share of national volume of winegrape product (%)	na	na	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0
Average price of winegrapes ($/t)	na	na	978	972	798	632	1072	856	753	925
Value of winegrapes ($ millions)	na	na	1.9	3.4	1.5	1.1	2.8	2	0.7	0.8
Share of national value of winegrape production	na	na	0.1	0.3	0.1	0.1	0.2	0.2	0.1	0.1
Ratio of regional to national winegrape price per tonne	na	na	1.05	1.15	0.93	0.79	1.51	1.42	1.18	1.13

Table 114: Grape and wine data, Qld Total

Series	2008[a]
Area of total vineyards for wine (ha)	3176
Volume of production of winegrapes (T)	3307
Yield per hectare of bearing winegrape vines	1.07
Number of grapegrowing establishments, total	184
Number of winemaking establishments, total	139
Number employed in grapegrowing, persons*	286
Number employed in winemaking, persons*	709
Share of national winegrape vines area, (%)	1.84
Grape's share total cropped area, (%)*	0.13
Grape share of total ag output value, (%)*	0.2
Grape share of total value added in ag., (%)*	0.2
Grape and wine share of value added in total economy, (%)*	0.1
Region's share of national grape and wine value added, (%)*	3.73
Region's share of national grape and wine employment, (%)*	3.46
Grape share of regional ag employment, (%)*	0.5
Grape and wine share of regional total employment, (%)*	0.1
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	0.18
Ratio of regional to national winegrape yield per ha	0.1
Ratio of regional to national share of agric employment in grape growing*	0.12
Ratio of regional to national share of total employment in grape growing and winemaking*	0.17

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	na	na	1.9	3.5	2.6	3.5	5.1	4.6	2.4	3
Share of national volume of winegrape product (%)	na	na	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Average price of winegrapes ($/t)	na	na	978	972	870	781	1003	884	920	1024
Value of winegrapes ($ millions)	na	na	1.9	3.4	2.3	2.7	5.2	4.1	2.2	3
Share of national value of winegrape production	na	na	0.1	0.3	1.3	1.3	1.6	1.7	1.8	2.5
Ratio of regional to national winegrape price per tonne	na	na	1.05	1.15	1.01	0.98	1.41	1.46	1.45	1.25

Table 115: Grape and wine data, NT and ACT (warm)

Series	2008[a]
Area of total vineyards for wine (ha)	360
Volume of production of winegrapes (T)	1128
Yield per hectare of bearing winegrape vines	3.44
Number of grapegrowing establishments, total	10
Number of winemaking establishments, total	4
Number employed in grapegrowing, persons*	34
Number employed in winemaking, persons*	71
Share of national winegrape vines area, (%)	0.21
Grape's share total cropped area, (%)*	1.13
Grape share of total ag output value, (%)*	0.62
Grape share of total value added in ag., (%)*	0.42
Grape and wine share of value added in total economy, (%)*	0.04
Region's share of national grape and wine value added, (%)*	0.38
Region's share of national grape and wine employment, (%)*	0.37
Grape share of regional ag employment, (%)*	1.5
Grape and wine share of regional total employment, (%)*	0.04
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	1.63
Ratio of regional to national winegrape yield per ha	0.31
Ratio of regional to national share of agric employment in grape growing*	0.36
Ratio of regional to national share of total employment in grape growing and winemaking*	0.13

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	na	na	na	na	na	na	0.6	na	na	na
Share of national volume of winegrape product (%)	na	na	na	na	na	na	0	na	na	na
Average price of winegrapes ($/t)	na	na	na	na	na	na	1536	na	na	na
Value of winegrapes ($ millions)	na	na	na	na	na	na	0.9	na	na	na
Share of national value of winegrape production	na	na	na	na	na	na	0.1	na	na	na
Ratio of regional to national winegrape price per tonne	na	na	na	na	na	na	2.16	na	na	na

Table 116: Grape and wine data, Total regions studied

Series	2008[a]
Area of total vineyards for wine (ha)	151935
Volume of production of winegrapes (T)	1691369
Yield per hectare of bearing winegrape vines	11.56
Number of grapegrowing establishments, total	5297
Number of winemaking establishments, total	5078
Number employed in grapegrowing, persons*	8632
Number employed in winemaking, persons*	11217
Share of national winegrape vines area, (%)	87.99
Grape's share total cropped area, (%)*	2.85
Grape share of total ag output value, (%)*	5.8
Grape share of total value added in ag., (%)*	4.6
Grape and wine share of value added in total economy, (%)*	0.31
Region's share of national grape and wine value added, (%)*	66.1
Region's share of national grape and wine employment, (%)*	69.12
Grape share of regional ag employment, (%)*	11.7
Grape and wine share of regional total employment, (%)*	1.4
Share of winegrape production volume that is commercial premium (%)	53.47
Share of winegrape production volume that is super-premium (%)	16.25
Share of winegrape production value that is commercial premium (%)	46.98
Share of winegrape production value that is super-premium (%)	35.6
Ratio of regional to national share of cropped area under vine*	4.08
Ratio of regional to national winegrape yield per ha	1.06
Ratio of regional to national share of agric employment in grape growing*	2.9
Ratio of regional to national share of total employment in grape growing and winemaking*	5.19

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	1030	1073	1280	1422	1266	1650	1728	1705	1249	1617
Share of national volume of winegrape product (%)	92.8	94.9	94.2	95	93.4	94.39	93.13	92.5	93.3	91.8
Average price of winegrapes ($/t)	846	787	910	824	835	780	695	581	616	798
Value of winegrapes ($ millions)	871	845	1164	1171	1057	1286	1200	990	769	1290
Share of national value of winegrape production	89.0	93.4	91.9	92.5	90.7	92.5	91.1	89.0	90.4	89.7
Ratio of regional to national winegrape price per tonne	0.96	0.98	0.97	0.97	0.97	0.98	0.98	0.96	0.97	0.98

Total 117: Grape and wine data, Total other regions

Series	2008[a]
Area of total vineyards for wine (ha)	20740
Volume of production of winegrapes (T)	145665
Yield per hectare of bearing winegrape vines	7.33
Number of grapegrowing establishments, total	2618
Number of winemaking establishments, total	2233
Number employed in grapegrowing, persons*	2581
Number employed in winemaking, persons*	6288
Share of national winegrape vines area, (%)	12.01
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	0.6
Grape share of total value added in ag., (%)*	na
Grape and wine share of value added in total economy, (%)*	na
Region's share of national grape and wine value added, (%)*	33.9
Region's share of national grape and wine employment, (%)*	30.88
Grape share of regional ag employment, (%)*	1.3
Grape and wine share of regional total employment, (%)*	0.1
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	0.66
Ratio of regional to national share of agric employment in grape growing*	0.31
Ratio of regional to national share of total employment in grape growing and winemaking*	0.36

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	80	57	78	76	89	98	127	139	89	144
Share of national volume of winegrape product (%)	7	5	6	5	7	6	7	8	7	8
Average price of winegrapes ($/t)	1335	1038	1316	1248	1223	1063	917	886	921	1033
Value of winegrapes ($ millions)	107	60	103	94	109	104	117	123	82	149
Share of national value of winegrape production	11	7	8	7	9	7	9	11	10	10
Ratio of regional to national winegrape price per tonne	1.51	1.3	1.41	1.48	1.42	1.34	1.29	1.47	1.45	1.26

Table 118: Grape and wine data, Total Australia

Series	2008[a]
Area of total vineyards for wine (ha)	172676
Volume of production of winegrapes (T)	1837034
Yield per hectare of bearing winegrape vines	11.05
Number of grapegrowing establishments, total	7915
Number of winemaking establishments, total	7311
Number employed in grapegrowing, persons*	11213
Number employed in winemaking, persons*	17504
Share of national winegrape vines area, (%)	100
Grape's share total cropped area, (%)*	0.7
Grape share of total ag output value, (%)*	1.9
Grape share of total value added in ag., (%)*	1.5
Grape and wine share of value added in total economy, (%)*	0.3
Region's share of national grape and wine value added, (%)*	100
Region's share of national grape and wine employment, (%)*	100
Grape share of regional ag employment, (%)*	4.1
Grape and wine share of regional total employment, (%)*	0.3
Share of winegrape production volume that is commercial premium (%)	na
Share of winegrape production volume that is super-premium (%)	na
Share of winegrape production value that is commercial premium (%)	na
Share of winegrape production value that is super-premium (%)	na
Ratio of regional to national share of cropped area under vine*	1
Ratio of regional to national winegrape yield per ha	1
Ratio of regional to national share of agric employment in grape growing*	1
Ratio of regional to national share of total employment in grape growing and winemaking*	1

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	1111	1131	1358	1498	1355	1748	1855	1844	1338	1761
Share of national volume of winegrape product (%)	100	100	100	100	100	100	100	100	100	100
Average price of winegrapes ($/t)	881	800	902	843	858	792	712	613	648	833
Value of 'winegrapes ($ millions)	979	905	1268	1266	1166	1390	1318	1113	851	1439
Share of national value of winegrape production	100	100	100	100	100	100	100	100	100	100
Ratio of regional to national winegrape price per tonne	1	1	1	1	1	1	1	1	1	1

Table 119: Grape and wine data, Hot climate

Series	2008[a]
Area of total vineyards for wine (ha)	75094
Volume of production of winegrapes (T)	1070091
Yield per hectare of bearing winegrape vines	16
Number of grapegrowing establishments, total	2451
Number of winemaking establishments, total	2239
Number employed in grapegrowing, persons*	4140
Number employed in winemaking, persons*	3670
Share of national winegrape vines area, (%)	43
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	3
Grape share of total value added in ag., (%)*	2.8
Grape and wine share of value added in total economy, (%)*	0.6
Region's share of national grape and wine value added, (%)*	23
Region's share of national grape and wine employment, (%)*	27
Grape share of regional ag employment, (%)*	6
Grape and wine share of regional total employment, (%)*	3.4
Share of winegrape production volume that is commercial premium (%)	55.6
Share of winegrape production volume that is super-premium (%)	0
Share of winegrape production value that is commercial premium (%)	62.6
Share of winegrape production value that is super-premium (%)	0
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	1.44
Ratio of regional to national share of agric employment in grape growing*	na
Ratio of regional to national share of total employment in grape growing and winemaking*	na

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	742	788	821	1049	884	1093	1185.1	1184	907	1073
Share of national volume of winegrape product (%)	66.8	69.7	60.4	70	65.3	62.5	63.89	64.2	67.8	60.9
Average price of winegrapes ($/t)	642	566	591	602	562	535	478	379	394	548
Value of winegrapes ($ millions)	477	446	485	631	497	585	567	449	357	588
Share of national value of winegrape production	48.7	49.3	38.3	49.9	42.6	42.1	42.98	40.3	42	40.9
Ratio of regional to national winegrape price per tonne	0.73	0.71	0.63	0.71	0.65	0.67	0.67	0.63	0.62	0.67

Table 120: Grape and wine data, Warm climate

Series	2008[a]
Area of total vineyards for wine (ha)	79029
Volume of production of winegrapes (T)	626711
Yield per hectare of bearing winegrape vines	8.5
Number of grapegrowing establishments, total	4626
Number of winemaking establishments, total	4248
Number employed in grapegrowing, persons*	5986
Number employed in winemaking, persons*	12177
Share of national winegrape vines area, (%)	46
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	1.5
Grape share of total value added in ag., (%)*	1.2
Grape and wine share of value added in total economy, (%)*	0.3
Region's share of national grape and wine value added, (%)*	67
Region's share of national grape and wine employment, (%)*	63
Grape share of regional ag employment, (%)*	3.4
Grape and wine share of regional total employment, (%)*	0.3
Share of winegrape production volume that is commercial premium (%)	52.5
Share of winegrape production volume that is super-premium (%)	43.2
Share of winegrape production value that is commercial premium (%)	38.9
Share of winegrape production value that is super-premium (%)	59.6
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	0.77
Ratio of regional to national share of agric employment in grape growing*	na
Ratio of regional to national share of total employment in grape growing and winemaking*	na

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	322	281	427	394	400	511	576.5	573	372	569
Share of national volume of winegrape product (%)	29	24.9	31.5	26.3	29.5	29.2	31.08	31.1	27.8	32.3
Average price of winegrapes ($/t)	1322	1280	1425	1403	1381	1192	1087	969	1072	1157
Value of winegrapes ($ millions)	425	360	609	552	552	609	626	554	399	658
Share of national value of winegrape production	43.4	39.8	48	43.6	47.3	43.8	47.53	49.8	46.9	45.7
Ratio of regional to national winegrape price per tonne	1.5	1.6	1.53	1.66	1.6	1.5	1.53	1.6	1.69	1.42

Table 121: Grape and wine data, Cool climate

Series	2008[a]
Area of total vineyards for wine (ha)	18193
Volume of production of winegrapes (T)	139103
Yield per hectare of bearing winegrape vines	8.3
Number of grapegrowing establishments, total	838
Number of winemaking establishments, total	824
Number employed in grapegrowing, persons*	1088
Number employed in winemaking, persons*	1658
Share of national winegrape vines area, (%)	11
Grape's share total cropped area, (%)*	na
Grape share of total ag output value, (%)*	2.9
Grape share of total value added in ag., (%)*	2.4
Grape and wine share of value added in total economy, (%)*	0.7
Region's share of national grape and wine value added, (%)*	9
Region's share of national grape and wine employment, (%)*	10
Grape share of regional ag employment, (%)*	5
Grape and wine share of regional total employment, (%)*	0.7
Share of winegrape production volume that is commercial premium (%)	40.6
Share of winegrape production volume that is super-premium (%)	53
Share of winegrape production value that is commercial premium (%)	23.3
Share of winegrape production value that is super-premium (%)	74.6
Ratio of regional to national share of cropped area under vine*	na
Ratio of regional to national winegrape yield per ha	0.75
Ratio of regional to national share of agric employment in grape growing*	na
Ratio of regional to national share of total employment in grape growing and winemaking*	na

[a] All data is for 2008, unless indicated by * in which case it is a 2006 variable.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Volume of winegrape production (kt)	46.5	61	110	55.1	70.5	144	93.5	87.3	59.2	119
Share of national volume of winegrape product (%)	4.19	5.39	8.12	3.68	5.2	8.22	5.04	4.73	4.42	6.75
Average price of winegrapes ($/t)	1788	1612	1576	1497	1660	1366	1329	1245	1615	1621
Value of winegrapes ($ millions)	77	98	174	83	117	197	125	110	95	193
Share of national value of winegrape production	7.89	10.9	13.7	6.54	10	14.2	9.47	9.87	11.2	13.4
Ratio of regional to national winegrape price per tonne	2.03	2.02	1.69	1.77	1.93	1.72	1.87	2.06	2.54	1.98

Section III — Tables:

Varietal Developments since the 1950s

Table 122: Winegrape area, by variety, 1956 to 1966 (ha)

Prime variety	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*	*1964*	*1965*	*1966*
Albillo Real	176	291	147	188	139	156	250	162	237	186	124
Cabernet Franc	17	35	27	33	12	5	13	9	9	19	13
Cabernet Sauvignon				13	38	37	52	55	78	128	116
Chasselas	56	94	79	117	91	67	235	91	102	91	75
Cinsaut	36	76	64	65	59	71	107	100	147	148	104
Cot	13	12	10	12	12	12	15	15	18	13	12
Doradillo	1391	1343	1738	1897	1218	1431	2024	1787	1531	2637	1369
Garnacha Tinta	2454	3262	3716	3370	2569	2944	3726	2590	3839	3430	2886
Jacquez	6	5	15	13	14	14	20	11	17	10	7
Korinthiaki	136	285	299	223	142	672	223	55	127	86	23
Malaga Blanc	252	387	573	334	301	286	367	270	343	237	227
Marsanne		13	12	22	24	15	30	36	30	32	25
Mazuelo	64	124	154	100	86	102	157	63	126	98	67
Monastrell	539	964	826	700	502	586	789	455	754	787	491
Muscadelle	144	246	242	249	160	209	209	145	286	287	194
Muscat Blanc a Petits Grains	288	561	597	373	483	599	643	518	683	649	551
Muscat of Alexandria	1780	2281	2618	2001	2244	2589	2942	2522	2667	2631	2216
Olivette Noire	47	80		13	6	7	15	180	100	80	53
Palomino Fino	100	126	178	239	243	354	442	511	749	1123	1027
Pedro Ximenez	1195	1273	1459	1486	1117	1366	1743	1347	1900	2120	1745
Pinot Noir	34	19	38	28	36	23	74	46	76	12	
Riesling	442	563	688	376	356	310	537	213	424	365	355
Semillon	444	551	557	861	669	860	973	986	1370	1408	1367
Sercial	145	183	176	171	82	146	152	60	174	139	86
Sultaniye	630	1552	1444	1719	1656	2384	3380	1075	1586	1092	781
Syrah	1695	2248	2151	2644	1600	2030	2160	1969	2658	2693	2231
Trebbiano Toscano	236	358	416	308	457	514	666	584	830	935	900
Verdelho	15	9	33	19	22	35	40	19	55	33	24
Other red	305	228	204	199	206	186	239	108	198	158	621
Other white	442	316	307	286	377	324	475	201	322	294	1145
Total	**13085**	**17486**	**18766**	**18061**	**14920**	**18334**	**22698**	**16183**	**21439**	**21921**	**18834**

Table 123: Winegrape area, by variety, 1973 to 1982 (ha)

Prime variety	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*
Afus Ali	470	809	551	805	390	293	301	343	243	189
Albillo Real	145	141	125	115						
Cabernet Sauvignon	1487	1966	2440	2821	3285	3540	3787	3825	3927	3820
Cannon Hall Muscat (4N)	43	42	20	47						
Canocazo	336	343	332	286						
Chardonnay	12	21	56	96				337	486	608
Chasselas	43	44	49	51						
Chenin Blanc	104	107	135	113			308	298	285	
Cinsaut	146	149	156	153						
Clairette	29	45	38	34						
Colombard								108	179	
Cot	199	286	335	378						
Crouchen							1060	1080	1046	
Dolcetto										
Doradillo	2235	2255	2200	2118	2142	2047	2064	1985	1903	1783
Emperor	3	12	5	3						
Garnacha Blanca		36	35	41						
Garnacha Tinta	5782	5959	6060	5903	5800	5672	5574	5197	4905	4511
Gascon	21	25	25	26						
Gewurztraminer	47	64	132	143				367	486	
Korinthiaki	145	202	81	229	60	47	25	19	28	16
Malaga Blanc										
Marsanne	37	33	34	44						
Mazuelo	186	184	183	169						
Molinara	8	9	7	6						
Monastrell	1502	1565	1637	1688	1727	1728	1707	1500	1462	1305
Muscadelle	373	399	409	412						
Muscat Blanc a Petits Grains	364	392	392	369				365	442	436
Muscat of Alexandria	2873	3087	3127	3566	2978	3186	3561	3714	3671	3485
Muscat of Hamburg	280	337	274	273			335			
Ohanes	73	163	91	54			55			
Olivette Noire	120	181	126	104						
Ondenc	109	112	117	146						
Palomino and Pedro Ximenes					2912	2798	2713	2583	2562	2451
Palomino Fino	1149	1152	1138	1173						
Pedro Ximenez	1730	1686	1639	1549						
Pinot Noir	16	30	49	54					210	
Raffiat de Moncade	19	21	29	29						
Riesling	1274	1564	1806	2014	3366	3759	2964	3319	3633	3906
Sauvignon Blanc	25	29	49	65				145	193	
Semillon	1864	2262	2296	2295	2354	2436	2517	2571	2695	2641
Sercial	73	71	58	59						
Sultaniye	2924	3352	3800	10078	4160	3732	3640	3220	3437	2426
Syrah	6741	7777	8572	8893	9440	9183	9225	8848	8336	7841
Trebbiano Toscano	1051	1205	1167	1209	1287	1476	1592	1678	1708	
Verdelho	27	19	44	52						
Wortley Hall	22	10	5	13						
Other red	121	196	146	143	2049	2073	1561	1614	1343	1526
Other white	126	203	145	186	1976	2028	2037	1173	1253	5514
Total	**34334**	**38545**	**40114**	**48005**	**43925**	**43996**	**45027**	**44290**	**44433**	**42457**

Table 124: Winegrape area, by variety, 1983 to 1992 (ha)

Prime variety	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*
Afus Ali	561	659	426	245	194	434	338	202	156	211
Alphonse Lavallee					0	1	3	2	3	3
Cabernet Franc						122	166	212	261	290
Cabernet Sauvignon	3442	3400	3482	3317	3249	3352	3398	3684	3910	4535
Calmeria					1	1	28	3	4	2
Cannon Hall Muscat (4N)					1	0	3	2	1	4
Cardinal					0	3	25	14	7	21
Chardonnay	878	1200	1556	1852	2102	2344	2787	3123	3801	4459
Chenin Blanc					412	458	501	508	532	599
Cinsaut					0					
Colombard					456	555	574	618	680	758
Cot						203	206	227	232	253
Crouchen					614	563	488	423	376	292
Doradillo	1583	1468	1379	1212	1141	1021	963	863	784	716
Early Muscat						1	0	1	1	2
Emperor					0	4	21	6	3	9
Flame Seedless						1	18	13	3	4
Garnacha Tinta	3970	3502	3241	2634	2316	2238	2190	2129	2035	1990
Gascon										
Gewurztraminer					718	632	625	605	571	528
Isabella					6					
Italia					13	13	33	20	21	32
Korinthiaki	27	23	26	5	0	15	57	18	16	7
Merlot					165	209	274	318	383	519
Molinara										
Monastrell	1144	1020	945	854	702	664	649	620	620	610
Muller Thurgau					10					
Muscadelle					384	387	391	396	386	361
Muscat a Petits Grains Rouge						97				
Muscat Blanc a Petits Grains	577	538	549	495	453	489		542	499	487
Muscat of Alexandria	3784	3965	3897	3569	3211	3477	3451	3193	2948	3037
Muscat of Hamburg					184	166	186	617	171	197
Ohanes					6	21	8	14	8	46
Olivette Noire					10	9	45	25	12	32
Palomino and Pedro Ximenes	2266	2102	1917	1679	1477	1372	1358	1215	1070	927
Perlette								6	5	0
Pinot Meunier					16	21	24	24	32	33
Pinot Noir		318	323	399	448	525	654	801	991	1078
Raffiat de Moncade										
Riesling	4272	4338	4361	3932	3700	3658	3552	3615	3648	3571
Rubired					36	33	30	30	27	29
Ruby Cabernet									136	286
Sauvignon Blanc					504	575	700	732	820	900
Semillon	2689	2648	2682	2591	2477	2447	2572	2526	2493	2649
Silvaner						130	126	119	115	106
Sultaniye	2591	3340	4261	2193	2273	2444	3577	2909	1741	2004
Syrah	6913	6284	5958	5367	4952	4818	4742	4711	4806	5088
Trebbiano Toscano					1465	1405	1320	1254	1169	1071
Verdelho					96	99	111	121	124	173
Other red	1386	1200	1182	1342	830	416	464	477	393	392
Other white	5521	5784	5801	5640	554	380	396	402	419	418
Total	**41605**	**41790**	**41986**	**37324**	**35178**	**35802**	**37055**	**37339**	**36413**	**38731**

Table 125: Winegrape area, by variety, 1993 to 2002 (ha)

Prime variety	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Afus Ali	254	256	242	202	156	117	165	109	97	56
Alphonse Lavallee	3	9								
Barbera							111	58	99	134
Cabernet Franc	399	580	533	567	524	508	559	699	743	806
Cabernet Sauvignon	5163	5497	6270	6542	7985	9769	13608	18701	24976	27343
Calmeria	2	2								
Canada Muscat							59	45	28	58
Cannon Hall Muscat (4N)	1	1								
Cardinal	17	25								
Chardonnay	4984	5691	6502	7896	10531	12748	15276	16575	17240	18556
Chenin Blanc	643	659	702	716	716	762	884	862	840	755
Colombard	837	835	934	998	1068	1185	1382	1563	1801	2216
Cot	258	259	278	291	273	272	399	429	429	452
Crouchen	230	213	171	145	122	111	83	105	97	106
Doradillo	644	611	622	522	455	378	306	284	247	239
Durif								104	178	311
Early Muscat	3	3								
Emperor	8	35								
Flame Seedless	10	14								
Garnacha Tinta	1911	1901	1933	1906	1889	1870	2018	2008	2119	2309
Gewurztraminer	535	560	615	596	521	524	531	494	521	498
Italia	35	25								
Korinthiaki	16	51	106	214	324	380	386	233	108	32
Marsanne			26	53	97	105	137	210	216	260
Mazuelo							48	50	87	62
Merlot	611	722	755	854	1128	1617	3436	5292	7668	8939
Monastrell	617	604	592	573	552	571	677	719	941	1105
Muscadelle	354	341	338	331	290	253	229	226	198	171
Muscat a petit grains rouge/rose					203	215	224	283	311	327
Muscat Blanc a Petits Grains	460	449	454	425	257	263	258	207	214	200
Muscat of Alexandria	3144	3089	3162	3023	2929	2562	2795	2487	2361	2172
Muscat of Hamburg	172	155	104	145						
Nebbiolo							9	16	48	69
Ohanes	18	25								
Olivette Noire	34	21								
Palomino and Pedro Ximenes	780	691								
Palomino Fino			358	330	269	226	161	140	122	97
Pedro Ximenez			290	250	212	168	146	114	89	95
Perlette		1								
Petit Verdot							110	284	720	1020
Pinot Meunier	35	45					58	86	105	137
Pinot Noir	1185	1282	1422	1453	1597	1789	2193	2685	3219	3768
Riesling	3546	3498	3534	3364	3298	3206	3190	3052	3129	3402
Rubired	29	28								
Ruby Cabernet	396	568	536	570	626	714	1099	1654	2422	2711
Sangiovese							311	215	371	560
Sauvignon Blanc	976	1098	1087	1178	1342	1626	1918	2215	2583	2742
Semillon	2904	3015	2986	3135	3756	4216	5307	5656	6499	6404
Silvaner	95	90								
Sultaniye	4214	6067	5724	5465	5885	4839	6095	4495	4537	3126
Syrah	5500	5987	6423	7154	9290	11963	16899	22848	29288	33796
Taminga			51	44	45	32	44	21	25	59
Tarrango			84	64	64	69	87	129	119	148
Tempranillo								46	30	64
Touriga Nacional							41	14	63	57
Trebbiano Toscano	1038	1073	940	907	841	739	689	589	680	644
Verdelho	183	203	220	327	439	553	708	953	1290	1490
Viognier							79	67	114	191
Other red	427	507	625	614	686	669	508	682	631	491
Other white	411	474	681	706	658	652	625	890	1571	989
Total	**43081**	**47259**	**49300**	**51559**	**59028**	**65673**	**83848**	**98593**	**119172**	**129168**

Table 126: Winegrape area, by variety, 2003 to 2012 (ha)

Prime variety	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Afus Ali	49									
Arneis								153		73
Barbera	122	150	145	150	152	153		116	108	100
Cabernet Franc	798	726	617	565	569	654		591	569	547
Cabernet Sauvignon	27459	28364	27915	27632	27404	27309	27537	25967	25650	25333
Canada Muscat	39									
Chardonnay	19169	22527	25582	28232	30773	30820	29831	27773	26566	25359
Chenin Blanc	708	734	666	686	665	614		541	525	508
Colombard	2354	2607	2584	2655	2685	2619	2660	2205	2103	2000
Cot	476	492	417	391	370	348		356	381	406
Crouchen	89	104	106	104	101	117		95		
Dolcetto								154	139	124
Doradillo	141	167	122	105	96	71				
Durif	302	307	371	329	439	417		417	451	484
Fiano										88
Garnacha Tinta	2173	2220	2018	1996	1981	1977		1748	1764	1779
Gewurztraminer	504	686	665	730	790	809		835	869	902
Gruner Veltliner										8
Korinthiaki	18									
Marsanne	247	223	182	186	190	207		238	214	189
Mazuelo	24									
Merlot	9476	10196	10333	10032	10191	10537	10990	10028	9623	9217
Molinara										
Monastrell	988	1000	825	839	754	764		692	699	706
Montepulciano										33
Muscadelle	161	156	164	161	153	153		68	75	81
Muscat a petit grains rouge/rose				223	233	217		230	239	247
Muscat a Petits Grains Rouge	253	254	270							
Muscat Blanc a Petits Grains	227	174	191	150	169	234		533	671	808
Muscat of Alexandria	2080	2060	2072	2064	2034	2090	2134	2044	2133	2221
Nebbiolo	75	105	89	80	84	94		98	103	108
Nero d'Avola										22
Palomino Fino	90	75	79	65	52	49				
Pedro Ximenez	65	57								
Petit Verdot	1169	1526	1407	1409	1334	1330		1223	1214	1204
Pinot Gris		207	322	659	1362	2078		3296	3494	3691
Pinot Meunier	110	142	121	181	109	104				
Pinot Noir	3834	4163	3964	4038	4146	4208	4770	4690	4729	4767
Raffiat de Moncade										
Riesling	3446	3806	4001	4087	4100	4270	4516	4114	3984	3854
Roussanne			36	39	42	58		83		
Ruby Cabernet	2497	1970	1655	1433	1202	1140		961	865	768
Sangiovese	614	486	471	404	450	495		589	570	551
Sauvignon Blanc	2748	3030	3213	3873	4545	5327	6135	6467	6635	6803
Savagnin Blanc								94	113	131
Semillon	6094	6070	5914	5865	6202	6453	6481	6112	5847	5581
Sultaniye	2570	2508	1462	755	1255	1291		430	312	194
Syrah	34105	36517	37583	39074	41486	42806	44082	42675	41882	41089
Taminga	32									
Tarrango	137	153	181	164	130	102		72		
Tempranillo	106	193	246	293	317	345		477	550	623
Touriga Nacional	66	61	56	51	52	45		48		
Trebbiano Toscano	480	416	338	312	226	219		86		
Tribidrag		86	90	104	118	128		150	125	99
Verdelho	1535	1589	1535	1634	1722	1712		1535	1431	1327
Vermentino										76
Viognier	257	462	667	743	1059	1217		1402	1285	1167
Other red	571	1007	1069	953	913	1358	8649	1149	1135	946
Other white	906	1636	2280	1819	1020	1319	9505	1254	1542	1168
Total	129361	139411	142025	145261	151673	156257	157290	151789	148586	145382

Table 127: Varietal shares of national winegrape area, 1956 to 1966 (%)

Prime variety	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*	*1964*	*1965*	*1966*
Albillo Real	1.3	1.7	0.8	1.0	0.9	0.8	1.1	1.0	1.1	0.9	0.7
Cabernet Franc	0.1	0.2	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.1
Cabernet Sauvignon				0.1	0.3	0.2	0.2	0.3	0.4	0.6	0.6
Chasselas	0.4	0.5	0.4	0.6	0.6	0.4	1.0	0.6	0.5	0.4	0.4
Cinsaut	0.3	0.4	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.6
Cot	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Doradillo	10.6	7.7	9.3	10.5	8.2	7.8	8.9	11.0	7.1	12.0	7.3
Garnacha Tinta	18.8	18.7	19.8	18.7	17.2	16.1	16.4	16.0	17.9	15.6	15.3
Jacquez	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Korinthiaki	1.0	1.6	1.6	1.2	1.0	3.7	1.0	0.3	0.6	0.4	0.1
Malaga Blanc	1.9	2.2	3.1	1.8	2.0	1.6	1.6	1.7	1.6	1.1	1.2
Marsanne		0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1
Mazuelo	0.5	0.7	0.8	0.6	0.6	0.6	0.7	0.4	0.6	0.4	0.4
Monastrell	4.1	5.5	4.4	3.9	3.4	3.2	3.5	2.8	3.5	3.6	2.6
Muscadelle	1.1	1.4	1.3	1.4	1.1	1.1	0.9	0.9	1.3	1.3	1.0
Muscat Blanc a Petits Grains	2.2	3.2	3.2	2.1	3.2	3.3	2.8	3.2	3.2	3.0	2.9
Muscat of Alexandria	13.6	13.0	14.0	11.1	15.0	14.1	13.0	15.6	12.4	12.0	11.8
Olivette Noire	0.4	0.5		0.1	0.0	0.0	0.1	1.1	0.5	0.4	0.3
Palomino Fino	0.8	0.7	0.9	1.3	1.6	1.9	1.9	3.2	3.5	5.1	5.5
Pedro Ximenez	9.1	7.3	7.8	8.2	7.5	7.4	7.7	8.3	8.9	9.7	9.3
Pinot Noir	0.3	0.1	0.2	0.2	0.2	0.1	0.3	0.3	0.4	0.1	
Riesling	3.4	3.2	3.7	2.1	2.4	1.7	2.4	1.3	2.0	1.7	1.9
Semillon	3.4	3.2	3.0	4.8	4.5	4.7	4.3	6.1	6.4	6.4	7.3
Sercial	1.1	1.0	0.9	0.9	0.5	0.8	0.7	0.4	0.8	0.6	0.5
Sultaniye	4.8	8.9	7.7	9.5	11.1	13.0	14.9	6.6	7.4	5.0	4.1
Syrah	13.0	12.9	11.5	14.6	10.7	11.1	9.5	12.2	12.4	12.3	11.8
Trebbiano Toscano	1.8	2.0	2.2	1.7	3.1	2.8	2.9	3.6	3.9	4.3	4.8
Verdelho	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.3	0.2	0.1
Other red	2.3	1.3	1.1	1.1	1.4	1.0	1.1	0.7	0.9	0.7	3.3
Other white	3.4	1.8	1.6	1.6	2.5	1.8	2.1	1.2	1.5	1.3	6.1
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 128: Varietal shares of national winegrape area, 1973 to 1982 (%)

Prime variety	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*
Afus Ali	1.4	2.1	1.4	1.7	0.9	0.7	0.7	0.8	0.5	0.4
Albillo Real	0.4	0.4	0.3	0.2						
Cabernet Sauvignon	4.3	5.1	6.1	5.9	7.5	8.0	8.4	8.6	8.8	9.0
Cannon Hall Muscat (4N)	0.1	0.1	0.0	0.1						
Canocazo	1.0	0.9	0.8	0.6						
Chardonnay	0.0	0.1	0.1	0.2				0.8	1.1	1.4
Chasselas	0.1	0.1	0.1	0.1						
Chenin Blanc	0.3	0.3	0.3	0.2			0.7	0.7	0.6	
Cinsaut	0.4	0.4	0.4	0.3						
Clairette	0.1	0.1	0.1	0.1						
Colombard								0.2	0.4	
Cot	0.6	0.7	0.8	0.8						
Crouchen							2.4	2.4	2.4	
Dolcetto										
Doradillo	6.5	5.8	5.5	4.4	4.9	4.7	4.6	4.5	4.3	4.2
Emperor	0.0	0.0	0.0	0.0						
Garnacha Blanca		0.1	0.1	0.1						
Garnacha Tinta	16.8	15.5	15.1	12.3	13.2	12.9	12.4	11.7	11.0	10.6
Gascon	0.1	0.1	0.1	0.1						
Gewurztraminer	0.1	0.2	0.3	0.3				0.8	1.1	
Korinthiaki	0.4	0.5	0.2	0.5	0.1	0.1	0.1	0.0	0.1	0.0
Malaga Blanc										
Marsanne	0.1	0.1	0.1	0.1						
Mazuelo	0.5	0.5	0.5	0.4						
Molinara	0.0	0.0	0.0	0.0						
Monastrell	4.4	4.1	4.1	3.5	3.9	3.9	3.8	3.4	3.3	3.1
Muscadelle	1.1	1.0	1.0	0.9						
Muscat Blanc a Petits Grains	1.1	1.0	1.0	0.8				0.8	1.0	1.0
Muscat of Alexandria	8.4	8.0	7.8	7.4	6.8	7.2	7.9	8.4	8.3	8.2
Muscat of Hamburg	0.8	0.9	0.7	0.6			0.7			
Ohanes	0.2	0.4	0.2	0.1			0.1			
Olivette Noire	0.3	0.5	0.3	0.2						
Ondenc	0.3	0.3	0.3	0.3						
Palomino and Pedro Ximenes					6.6	6.4	6.0	5.8	5.8	5.8
Palomino Fino	3.3	3.0	2.8	2.4						
Pedro Ximenez	5.0	4.4	4.1	3.2						
Pinot Noir	0.0	0.1	0.1	0.1					0.5	
Raffiat de Moncade	0.1	0.1	0.1	0.1						
Riesling	3.7	4.1	4.5	4.2	7.7	8.5	6.6	7.5	8.2	9.2
Sauvignon Blanc	0.1	0.1	0.1	0.1				0.3	0.4	
Semillon	5.4	5.9	5.7	4.8	5.4	5.5	5.6	5.8	6.1	6.2
Sercial	0.2	0.2	0.1	0.1						
Sultaniye	8.5	8.7	9.5	21.0	9.5	8.5	8.1	7.3	7.7	5.7
Syrah	19.6	20.2	21.4	18.5	21.5	20.9	20.5	20.0	18.8	18.5
Trebbiano Toscano	3.1	3.1	2.9	2.5	2.9	3.4	3.5	3.8	3.8	
Verdelho	0.1	0.0	0.1	0.1						
Wortley Hall	0.1	0.0	0.0	0.0						
Other red	0.4	0.5	0.4	0.3	4.7	4.7	3.5	3.6	3.0	3.6
Other white	0.4	0.5	0.4	0.4	4.5	4.6	4.5	2.6	2.8	13.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 129: Varietal shares of national winegrape area, 1983 to 1992 (%)

Prime variety	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*
Afus Ali	1.3	1.6	1.0	0.7	0.6	1.2	0.9	0.5	0.4	0.5
Alphonse Lavallee					0.0	0.0	0.0	0.0	0.0	0.0
Cabernet Franc						0.3	0.4	0.6	0.7	0.7
Cabernet Sauvignon	8.3	8.1	8.3	8.9	9.2	9.4	9.2	9.9	10.7	11.7
Calmeria					0.0	0.0	0.1	0.0	0.0	0.0
Cannon Hall Muscat (4N)					0.0	0.0	0.0	0.0	0.0	0.0
Cardinal					0.0	0.0	0.1	0.0	0.0	0.1
Chardonnay	2.1	2.9	3.7	5.0	6.0	6.5	7.5	8.4	10.4	11.5
Chenin Blanc					1.2	1.3	1.4	1.4	1.5	1.5
Cinsaut					0.0					
Colombard					1.3	1.6	1.5	1.7	1.9	2.0
Cot						0.6	0.6	0.6	0.6	0.7
Crouchen					1.7	1.6	1.3	1.1	1.0	0.8
Doradillo	3.8	3.5	3.3	3.2	3.2	2.9	2.6	2.3	2.2	1.8
Early Muscat						0.0	0.0	0.0	0.0	0.0
Emperor					0.0	0.0	0.1	0.0	0.0	0.0
Flame Seedless						0.0	0.0	0.0	0.0	0.0
Garnacha Tinta	9.5	8.4	7.7	7.1	6.6	6.3	5.9	5.7	5.6	5.1
Gascon										
Gewurztraminer					2.0	1.8	1.7	1.6	1.6	1.4
Isabella					0.0					
Italia					0.0	0.0	0.1	0.1	0.1	0.1
Korinthiaki	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Merlot					0.5	0.6	0.7	0.9	1.1	1.3
Molinara										
Monastrell	2.7	2.4	2.2	2.3	2.0	1.9	1.8	1.7	1.7	1.6
Muller Thurgau					0.0					
Muscadelle					1.1	1.1	1.1	1.1	1.1	0.9
Muscat a Petits Grains Rouge						0.3				
Muscat Blanc a Petits Grains	1.4	1.3	1.3	1.3	1.3	1.4		1.5	1.4	1.3
Muscat of Alexandria	9.1	9.5	9.3	9.6	9.1	9.7	9.3	8.6	8.1	7.8
Muscat of Hamburg					0.5	0.5	0.5	1.7	0.5	0.5
Ohanes					0.0	0.1	0.0	0.0	0.0	0.1
Olivette Noire					0.0	0.0	0.1	0.1	0.0	0.1
Palomino and Pedro Ximenes	5.4	5.0	4.6	4.5	4.2	3.8	3.7	3.3	2.9	2.4
Perlette								0.0	0.0	0.0
Pinot Meunier					0.0	0.1	0.1	0.1	0.1	0.1
Pinot Noir		0.8	0.8	1.1	1.3	1.5	1.8	2.1	2.7	2.8
Raffiat de Moncade										
Riesling	10.3	10.4	10.4	10.5	10.5	10.2	9.6	9.7	10.0	9.2
Rubired					0.1	0.1	0.1	0.1	0.1	0.1
Ruby Cabernet									0.4	0.7
Sauvignon Blanc					1.4	1.6	1.9	2.0	2.3	2.3
Semillon	6.5	6.3	6.4	6.9	7.0	6.8	6.9	6.8	6.8	6.8
Silvaner						0.4	0.3	0.3	0.3	0.3
Sultaniye	6.2	8.0	10.1	5.9	6.5	6.8	9.7	7.8	4.8	5.2
Syrah	16.6	15.0	14.2	14.4	14.1	13.5	12.8	12.6	13.2	13.1
Trebbiano Toscano					4.2	3.9	3.6	3.4	3.2	2.8
Verdelho					0.3	0.3	0.3	0.3	0.3	0.4
Other red	3.3	2.9	2.8	3.6	2.4	1.2	1.3	1.3	1.1	1.0
Other white	13.3	13.8	13.8	15.1	1.6	1.1	1.1	1.1	1.2	1.1
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 130: Varietal shares of national winegrape area, 1993 to 2002 (%)

Prime variety	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Afus Ali	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.0
Alphonse Lavallee	0.0	0.0								
Barbera							0.1	0.1	0.1	0.1
Cabernet Franc	0.9	1.2	1.1	1.1	0.9	0.8	0.7	0.7	0.6	0.6
Cabernet Sauvignon	12.0	11.6	12.7	12.7	13.5	14.9	16.2	19.0	21.0	21.2
Calmeria	0.0	0.0								
Canada Muscat							0.1	0.0	0.0	0.0
Cannon Hall Muscat (4N)	0.0	0.0								
Cardinal	0.0	0.1								
Chardonnay	11.6	12.0	13.2	15.3	17.8	19.4	18.2	16.8	14.5	14.4
Chenin Blanc	1.5	1.4	1.4	1.4	1.2	1.2	1.1	0.9	0.7	0.6
Colombard	1.9	1.8	1.9	1.9	1.8	1.8	1.6	1.6	1.5	1.7
Cot	0.6	0.5	0.6	0.6	0.5	0.4	0.5	0.4	0.4	0.3
Crouchen	0.5	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1
Doradillo	1.5	1.3	1.3	1.0	0.8	0.6	0.4	0.3	0.2	0.2
Durif								0.1	0.1	0.2
Early Muscat	0.0	0.0								
Emperor	0.0	0.1								
Flame Seedless	0.0	0.0								
Garnacha Tinta	4.4	4.0	3.9	3.7	3.2	2.8	2.4	2.0	1.8	1.8
Gewurztraminer	1.2	1.2	1.2	1.2	0.9	0.8	0.6	0.5	0.4	0.4
Italia	0.1	0.1								
Korinthiaki	0.0	0.1	0.2	0.4	0.5	0.6	0.5	0.2	0.1	0.0
Marsanne			0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Mazuelo							0.1	0.1	0.1	0.0
Merlot	1.4	1.5	1.5	1.7	1.9	2.5	4.1	5.4	6.4	6.9
Monastrell	1.4	1.3	1.2	1.1	0.9	0.9	0.8	0.7	0.8	0.9
Muscadelle	0.8	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.1
Muscat a petit grains rouge/rose					0.3	0.3	0.3	0.3	0.3	0.3
Muscat Blanc a Petits Grains	1.1	1.0	0.9	0.8	0.4	0.4	0.3	0.2	0.2	0.2
Muscat of Alexandria	7.3	6.5	6.4	5.9	5.0	3.9	3.3	2.5	2.0	1.7
Muscat of Hamburg	0.4	0.3	0.2	0.3						
Nebbiolo							0.0	0.0	0.0	0.1
Ohanes	0.0	0.1								
Olivette Noire	0.1	0.0								
Palomino and Pedro Ximenes	1.8	1.5								
Palomino Fino			0.7	0.6	0.5	0.3	0.2	0.1	0.1	0.1
Pedro Ximenez			0.6	0.5	0.4	0.3	0.2	0.1	0.1	0.1
Perlette		0.0								
Petit Verdot							0.1	0.3	0.6	0.8
Pinot Meunier	0.1	0.1					0.1	0.1	0.1	0.1
Pinot Noir	2.8	2.7	2.9	2.8	2.7	2.7	2.6	2.7	2.7	2.9
Riesling	8.2	7.4	7.2	6.5	5.6	4.9	3.8	3.1	2.6	2.6
Rubired	0.1	0.1								
Ruby Cabernet	0.9	1.2	1.1	1.1	1.1	1.1	1.3	1.7	2.0	2.1
Sangiovese							0.4	0.2	0.3	0.4
Sauvignon Blanc	2.3	2.3	2.2	2.3	2.3	2.5	2.3	2.2	2.2	2.1
Semillon	6.7	6.4	6.1	6.1	6.4	6.4	6.3	5.7	5.5	5.0
Silvaner	0.2	0.2								
Sultaniye	9.8	12.8	11.6	10.6	10.0	7.4	7.3	4.6	3.8	2.4
Syrah	12.8	12.7	13.0	13.9	15.7	18.2	20.2	23.2	24.6	26.2
Taminga			0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0
Tarrango			0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tempranillo								0.0	0.0	0.0
Touriga Nacional							0.0	0.0	0.1	0.0
Trebbiano Toscano	2.4	2.3	1.9	1.8	1.4	1.1	0.8	0.6	0.6	0.5
Verdelho	0.4	0.4	0.4	0.6	0.7	0.8	0.8	1.0	1.1	1.2
Viognier							0.1	0.1	0.1	0.1
Other red	1.0	1.1	1.3	1.2	1.2	1.0	0.6	0.7	0.5	0.4
Other white	1.0	1.0	1.4	1.4	1.1	1.0	0.7	0.9	1.3	0.8
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 131: Varietal shares of national winegrape area, 2003 to 2012 (%)

Prime variety	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Afus Ali	0.0									
Arneis								0.1		0.1
Barbera	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1
Cabernet Franc	0.6	0.5	0.4	0.4	0.4	0.4		0.4	0.4	0.4
Cabernet Sauvignon	21.2	20.3	19.7	19.0	18.1	17.5	17.5	17.1	17.3	17.4
Canada Muscat	0.0									
Chardonnay	14.8	16.2	18.0	19.4	20.3	19.7	19.0	18.3	17.9	17.4
Chenin Blanc	0.5	0.5	0.5	0.5	0.4	0.4		0.4	0.4	0.3
Colombard	1.8	1.9	1.8	1.8	1.8	1.7	1.7	1.5	1.4	1.4
Cot	0.4	0.4	0.3	0.3	0.2	0.2		0.2	0.3	0.3
Crouchen	0.1	0.1	0.1	0.1	0.1	0.1		0.1		
Dolcetto								0.1	0.1	0.1
Doradillo	0.1	0.1	0.1	0.1	0.1	0.0				
Durif	0.2	0.2	0.3	0.2	0.3	0.3		0.3	0.3	0.3
Fiano										0.1
Garnacha Tinta	1.7	1.6	1.4	1.4	1.3	1.3		1.2	1.2	1.2
Gewurztraminer	0.4	0.5	0.5	0.5	0.5	0.5		0.6	0.6	0.6
Gruner Veltliner										0.0
Korinthiaki	0.0									
Marsanne	0.2	0.2	0.1	0.1	0.1	0.1		0.2	0.1	0.1
Mazuelo	0.0									
Merlot	7.3	7.3	7.3	6.9	6.7	6.7	7.0	6.6	6.5	6.3
Molinara										
Monastrell	0.8	0.7	0.6	0.6	0.5	0.5		0.5	0.5	0.5
Montepulciano										0.0
Muscadelle	0.1	0.1	0.1	0.1	0.1	0.1		0.0	0.1	0.1
Muscat a petit grains rouge/rose				0.2	0.2	0.1		0.2	0.2	0.2
Muscat a Petits Grains Rouge	0.2	0.2	0.2							
Muscat Blanc a Petits Grains	0.2	0.1	0.1	0.1	0.1	0.1		0.4	0.5	0.6
Muscat of Alexandria	1.6	1.5	1.5	1.4	1.3	1.3	1.4	1.3	1.4	1.5
Nebbiolo	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1
Nero d'Avola										0.0
Palomino Fino	0.1	0.1	0.1	0.0	0.0	0.0				
Pedro Ximenez	0.1	0.0								
Petit Verdot	0.9	1.1	1.0	1.0	0.9	0.9		0.8	0.8	0.8
Pinot Gris		0.1	0.2	0.5	0.9	1.3		2.2	2.4	2.5
Pinot Meunier	0.1	0.1	0.1	0.1	0.1	0.1				
Pinot Noir	3.0	3.0	2.8	2.8	2.7	2.7	3.0	3.1	3.2	3.3
Raffiat de Moncade										
Riesling	2.7	2.7	2.8	2.8	2.7	2.7	2.9	2.7	2.7	2.7
Roussanne			0.0	0.0	0.0	0.0		0.1		
Ruby Cabernet	1.9	1.4	1.2	1.0	0.8	0.7		0.6	0.6	0.5
Sangiovese	0.5	0.3	0.3	0.3	0.3	0.3		0.4	0.4	0.4
Sauvignon Blanc	2.1	2.2	2.3	2.7	3.0	3.4	3.9	4.3	4.5	4.7
Savagnin Blanc								0.1	0.1	0.1
Semillon	4.7	4.4	4.2	4.0	4.1	4.1	4.1	4.0	3.9	3.8
Sultaniye	2.0	1.8	1.0	0.5	0.8	0.8		0.3	0.2	0.1
Syrah	26.4	26.2	26.5	26.9	27.4	27.4	28.0	28.1	28.2	28.3
Taminga	0.0									
Tarrango	0.1	0.1	0.1	0.1	0.1	0.1		0.0		
Tempranillo	0.1	0.1	0.2	0.2	0.2	0.2		0.3	0.4	0.4
Touriga Nacional	0.1	0.0	0.0	0.0	0.0	0.0		0.0		
Trebbiano Toscano	0.4	0.3	0.2	0.2	0.1	0.1		0.1		
Tribidrag		0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1
Verdelho	1.2	1.1	1.1	1.1	1.1	1.1		1.0	1.0	0.9
Vermentino										0.1
Viognier	0.2	0.3	0.5	0.5	0.7	0.8		0.9	0.9	0.8
Other red	0.4	0.7	0.8	0.7	0.6	0.9	5.5	0.8	0.8	0.7
Other white	0.7	1.2	1.6	1.3	0.7	0.8	6.0	0.8	1.0	0.8
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 132: Shares of national winegrape area premium/non-premium red and white, 1956 to 2012 (%)

Year	Premium red	Premium white	Non-premium red	Non-premium white	Other red	Other white	Total
1956	13.4	9.3	25.1	46.4	2.3	3.4	100
1957	13.2	9.5	27.4	46.7	1.3	1.8	100
1958	11.9	8.9	27.0	49.5	1.1	1.6	100
1959	15.1	9.4	24.8	48.0	1.1	1.6	100
1960	11.4	9.0	22.6	53.1	1.4	2.5	100
1961	11.5	8.6	24.0	53.2	1.0	1.8	100
1962	10.2	8.9	22.2	55.6	1.1	2.1	100
1963	12.9	9.4	21.3	54.4	0.7	1.2	100
1964	13.2	11.1	23.8	49.4	0.9	1.5	100
1965	13.1	10.4	21.2	53.3	0.7	1.3	100
1966	12.6	11.0	19.3	47.8	3.3	6.1	100
1973	24.6	11.3	23.9	39.5	0.4	0.4	100
1974	26.1	11.9	22.4	38.5	0.5	0.5	100
1975	28.4	12.6	21.3	36.9	0.4	0.4	100
1976	25.3	11.1	17.8	45.1	0.3	0.4	100
1977	29.0	13.0	17.3	31.6	4.7	4.5	100
1978	28.9	14.1	16.9	30.8	4.7	4.6	100
1979	28.9	12.9	17.0	33.3	3.5	4.5	100
1980	28.6	16.1	15.2	33.8	3.6	2.6	100
1981	28.1	17.9	14.4	33.8	3.0	2.8	100
1982	27.5	16.9	13.7	25.4	3.6	13.0	100
1983	24.9	18.8	12.4	27.3	3.3	13.3	100
1984	23.9	19.6	10.9	28.9	2.9	13.8	100
1985	23.3	20.5	10.0	29.6	2.8	13.8	100
1986	24.3	22.4	9.4	25.2	3.6	15.1	100
1987	25.1	30.8	9.3	30.9	2.4	1.6	100
1988	25.8	31.2	9.0	31.8	1.2	1.1	100
1989	25.5	31.9	8.7	31.6	1.3	1.1	100
1990	26.7	32.8	9.3	28.8	1.3	1.1	100
1991	29.2	35.9	8.3	24.4	1.1	1.2	100
1992	30.5	36.1	8.2	23.1	1.0	1.1	100
1993	30.5	34.7	7.5	25.3	1.0	1.0	100
1994	30.4	33.6	7.2	26.7	1.1	1.0	100
1995	31.8	34.3	6.8	24.4	1.3	1.4	100
1996	32.7	36.0	6.7	22.0	1.2	1.4	100
1997	35.2	37.2	6.2	19.1	1.2	1.1	100
1998	39.5	38.2	5.8	14.5	1.0	1.0	100
1999	45.0	35.2	5.4	13.0	0.6	0.7	100
2000	52.2	32.1	5.1	8.9	0.7	0.9	100
2001	57.0	28.7	5.1	7.3	0.5	1.3	100
2002	60.0	28.2	5.2	5.5	0.4	0.8	100
2003	60.8	28.6	4.7	4.7	0.4	0.7	100
2004	59.8	30.0	4.1	4.1	0.7	1.2	100
2005	59.0	31.9	3.5	3.2	0.8	1.6	100
2006	58.3	34.0	3.3	2.6	0.7	1.3	100
2007	57.4	35.7	2.9	2.7	0.6	0.7	100
2008	56.9	35.9	2.8	2.7	0.9	0.8	100
2009	55.6	31.5		1.4	5.5	6.0	100
2010	57.6	36.0	2.5	2.3	0.8	0.8	100
2011							
2012	58.2	35.5	2.5	2.3	0.7	0.8	100

Table 133: Shares of national winegrape area by varietal country of origin, 1956 to 2012 (%)

Year	France	Germany	Spain	Greece	Italy	Portugal	United States	Turkey	Croatia	Austria	United Kingdom	Thailand	Switzerland	Lebanon	Australia	Unknown and other varieties	Total
1956	18.4	3.4	45.4	14.6	4.0	1.2	0.0	4.8				1.9	0.4			5.7	100
1957	18.6	3.2	42.4	14.7	5.3	1.1	0.0	8.9				2.2	0.5			3.1	100
1958	16.4	3.7	43.9	15.5	5.4	1.1	0.1	7.7				3.1	0.4			2.7	100
1959	21.6	2.1	44.4	12.3	3.8	1.1	0.1	9.5				1.8	0.6			2.7	100
1960	17.5	2.4	39.4	16.0	6.3	0.7	0.1	11.1				2.0	0.6			3.9	100
1961	17.8	1.7	37.9	17.8	6.1	1.0	0.1	13.0				1.6	0.4			2.8	100
1962	16.0	2.4	40.3	13.9	5.8	0.8	0.1	14.9				1.6	1.0			3.1	100
1963	21.8	1.3	42.8	15.9	6.8	0.5	0.1	6.6				1.7	0.6			1.9	100
1964	22.2	2.0	42.7	13.0	7.1	1.1	0.1	7.4				1.6	0.5			2.4	100
1965	21.9	1.7	47.4	12.4	7.2	0.8	0.0	5.0				1.1	0.4			2.1	100
1966	21.8	1.9	41.0	11.9	7.7	0.6	0.0	4.1				1.2	0.4			9.4	100
1967																	
1968																	
1969																	
1970																	
1971																	
1972																	
1973	32.9	3.7	38.3	8.8	4.1	0.3	0.0	8.5			0.9		0.1	1.4		0.9	100
1974	34.9	4.1	35.0	8.5	4.2	0.2	0.0	8.7			1.0		0.1	2.1		1.2	100
1975	37.1	4.5	33.5	8.0	3.9	0.3	0.0	9.5			0.7		0.1	1.4		1.1	100
1976	32.6	4.2	27.3	7.9	3.3	0.2	0.0	21.0			0.7		0.1	1.7		1.0	100
1977	34.3	7.7	28.6	6.9	2.9			9.5						0.9		9.2	100
1978	34.5	8.5	27.8	7.3	3.4			8.5						0.7		9.3	100
1979	37.5	6.6	26.9	8.0	3.5			8.1			0.7			0.7		8.0	100
1980	38.9	7.5	25.4	8.4	4.6			7.3						0.8		7.1	100
1981	39.1	8.2	24.4	8.3	4.8			7.7						0.5		6.9	100
1982	35.1	9.2	23.7	8.2	1.0			5.7						0.4		16.6	100
1983	33.5	10.3	21.5	9.2	1.4			6.2						1.3		16.6	100
1984	33.1	10.4	19.4	9.5	1.3			8.0						1.6		16.7	100

Table 133 (cont.) Shares of national winegrape area by varietal country of origin, 1956 to 2012 (%)

Year	France	Germany	Spain	Greece	Italy	Portugal	United States	Turkey	Croatia	Austria	United Kingdom	Thailand	Switzerland	Lebanon	Australia	Unknown and other varieties	Total
1985	33.3	10.4	17.8	9.3	1.3			10.1						1.0		16.6	100
1986	36.2	10.5	17.1	9.6	1.3			5.9						0.7		18.7	100
1987	44.9	10.5	16.0	9.1	5.5	0.3	0.1	6.5			0.5			0.6		6.0	100
1988	46.0	10.2	15.2	10.0	5.3	0.3	0.1	6.8		0.4	0.5			1.2		4.0	100
1989	46.8	9.6	14.4	9.5	3.7	0.3	0.3	9.7		0.3	0.5			0.9		4.0	100
1990	48.5	9.7	13.5	8.6	4.9	0.3	0.2	7.8		0.3	1.7			0.5		4.0	100
1991	53.4	10.0	13.1	8.1	4.6	0.3	0.5	4.8		0.3	0.5			0.4		3.8	100
1992	55.7	9.2	11.8	7.9	4.1	0.4	0.9	5.2		0.3	0.5			0.5		3.5	100
1993	55.1	8.2	10.1	7.3	3.6	0.4	1.1	9.8		0.2	0.4			0.6		3.2	100
1994	54.3	7.4	9.3	6.6	3.3	0.4	1.4	12.8		0.2	0.3			0.5		3.3	100
1995	56.6	7.2	8.8	6.6	2.8	0.4	1.1	11.6			0.2			0.5	0.3	3.9	100
1996	59.6	6.5	8.0	6.3	2.6	0.6	1.1	10.6			0.3			0.4	0.2	3.7	100
1997	64.7	5.6	6.6	5.9	1.9	0.7	1.1	10.0						0.3	0.2	3.2	100
1998	70.7	4.9	5.7	4.8	1.5	0.8	1.1	7.4						0.2	0.2	2.8	100
1999	73.9	3.8	4.7	4.1	1.6	0.9	1.4	7.3						0.2	0.2	2.0	100
2000	79.0	3.1	4.1	3.0	1.1	1.0	1.7	4.6						0.1	0.2	2.1	100
2001	80.7	2.6	3.7	2.3	1.2	1.1	2.1	3.8						0.1	0.1	2.3	100
2002	83.0	2.6	3.7	2.0	1.2	1.2	2.1	2.4						0.0	0.2	1.5	100
2003	84.1	2.7	3.4	1.8	1.2	1.2	2.0	2.0						0.0	0.1	1.5	100
2004	84.5	2.7	3.2	1.7	1.0	1.2	1.4	1.8	0.1						0.1	2.4	100
2005	85.6	2.8	2.8	1.6	0.9	1.1	1.2	1.0	0.1						0.1	2.8	100
2006	86.9	2.8	2.7	1.6	0.8	1.2	1.0	0.5	0.1						0.1	2.4	100
2007	87.9	2.7	2.5	1.5	0.7	1.2	0.8	0.8	0.1						0.1	1.8	100
2008	87.5	2.7	2.5	1.5	0.8	1.1	0.7	0.8	0.1						0.1	2.2	100
2009	84.2	2.9		1.4												11.5	100
2010	88.1	2.7	2.3	1.5	1.1	1.0	0.6	0.3	0.1						0.0	2.1	100
2011	88.0	2.7	2.4	1.6	1.1	1.0	0.6	0.2	0.1							2.4	100
2012	88.1	2.7	2.5	1.7	1.4	0.9	0.5	0.1	0.1	0.0						2.1	100

Table 134 : Varieties most-commonly planted in Australia in 1860 and their likely prime names

Prime name	**A.C. Kelly's name**
First Division	
Pinot Gris	Pineat Gris
Pinot Blanc	Pineat Blanc
Pinot Noir	Burgundy
Pinot Meunier	Millers' Burgundy
Teinturer	Tinta
Second Division	
Muscat a Petits Grains Rouge	Muscat Gris
Muscat a Petits Grains Noirs	Muscat Noir
Muscat Blanc a Petits Grains	Muscat Blanc
Riesling	Reisling
Muscadelle	Tokay
Semillon	Large Reisling
Marsanne	Marsanne
Roussanne	Rousanne
Garnacha Blanca	White Grenache
Trebbiano Toscano	White Scyras
Gouais Blanc	Gouais, La Folle
Auxerrios	Aucarot
Verdelho	Verdeilho
Syrah	Scyras
Cabernet Sauvignon	Carbinet Sauvignen
Cot	Malbec
Third Division	
Parraleta	Carignan
Garnacha Tinta	Grenache
Monastrell	Mataro, Mourastel
Clairette	Blanquette
Castellano Blanco	Mantuo Castellano
Chenin Blanc	Albillo Castellano
Perruno	Perruno
Canocazo	Cano Vaso
Palomino Fino	Palomino
Pedro Ximenez	Pedro Ximenes
Muscat of Alexandria	Moscatel Gordo Blanco
Bebas Blanco	Belas Blanco
Doradilla	Doradilla
Chelva	Uva de Rey

Source: Kelly, A.C. (1861), *The Vine in Australia,* Sydney: Sands and Kenny, Ch. 12. Prime names derived from Robinson, Harding and Vouillamoz (2012) or VIVC. Thanks for suggesting some possibilities go to Peter Dry, who drew on, among other sources, Antcliff A.J. (1977), 'Variety Identification in Australia', *Australian Grapegrower and Winemaker* 160: 82-88, April.

Table 135: Emerging winegrape varieties, 2001 to 2012

	Bearing area (hectares)		**Total area** (including newly planted, hectares)		
	Australia		**Australia**	**South Australia**	
	2001*	2010	2012*	2006	2012
Arneis		153	81	12	18
Barbera	103	116	104	25	32
Dolcetto		154	124	20	18
Durif	181	417	500	17	37
Nebbiolo	50	98	122	39	47
Roussanne		83		18	27
Savagnin Blanc		94	140	13	56
Tempranillo	41	476	712	169	301
Tribidag (Zinfandel)		149	104	36	33
Viognier	117	1402	1197	506	521
SUB-TOTAL	**492+**	**3142**	**3081+**	**855**	**1090**
% of total	***0.40%***	***2.10%***	***2.10%***	***1.20%***	***1.40%***
Aglianico				1	10
Alicante Henri Bouschet				12	15
Alvarinho				4	15
Fiano			107	10	36
Graciano				7	15
Gruner Veltliner			18	0	15
Lagrain				16	19
Montepulciano			49	3	28
Nero d'Avola			33	1	25
Sagrantino				5	11
Saperavi				6	6
Vermentino			93	5	48
SUB-TOTAL			**300+**	**70**	**243**
% of total			***0.20%***	***0.10%***	***0.30%***
TOTAL	**130,602**	**151,788**	**148,509**	**72,720**	**76,533**

* Blank spaces mean data are unavailable, and not necessarily zero.

Table 136: Frequency of varietal names on Australian wine bottle labels, 2013, shares of bearing area and production, and average price, 2012

Variety	*Frequency (%)*	*Area (%)*	*prodn (%)*	*Price (A$ per ton)*	*Prodn value(%)*
Syrah	12.47	28.26	22.90	666	26.54
Chardonnay	10.46	17.44	22.01	535	20.50
Cabernet Sauvignon	10.61	17.43	13.12	671	15.31
Merlot	8.01	6.34	7.42	579	7.47
Sauvignon Blanc	6.39	4.68	5.15	573	5.13
Semillon	4.82	3.84	4.92	411	3.52
Pinot Gris	2.84	2.54	3.19	614	3.40
Pinot Noir	6.00	3.28	2.19	787	2.99
Muscat of Alexandria	0.56	1.53	3.42	405	2.42
Riesling	4.34	2.65	2.04	644	2.29
Colombard	0.27	1.38	3.35	224	1.31
Garnacha Tinta	2.55	1.22	0.94	669	1.10
Petit Verdot	1.89	0.83	1.27	397	0.88
Gewurztraminer	1.02	0.62	0.67	486	0.56
Viognier	3.38	0.80	0.57	557	0.55
Verdelho	2.42	0.91	0.76	417	0.55
Muscat Blanc a Petits Grains	0.86	0.56	0.77	404	0.54
Sangiovese	1.76	0.38	0.32	682	0.38
Monastrell	1.68	0.49	0.39	556	0.37
Chenin Blanc	0.92	0.35	0.46	445	0.36
Ruby Cabernet	0.18	0.53	0.72	271	0.34
Cabernet Franc	2.42	0.38	0.19	969	0.32
Tempranillo	1.98	0.43	0.22	688	0.26
Cot	1.48	0.28	0.18	702	0.22
Durif	0.67	0.33	0.26	452	0.21
Marsanne	0.71	0.13	0.11	568	0.11
Dolcetto	0.26	0.09	0.09	463	0.07
Vermentino	0.43	0.05	0.05	720	0.07
Savagnin Blanc	0.41	0.09	0.07	423	0.05
Barbera	0.62	0.07	0.03	581	0.03
Arneis	0.27	0.05	0.04	426	0.03
Tribidrag	0.54	0.07	0.03	394	0.02
Fiano	0.28	0.06	0.02	562	0.02
Montepulciano	0.13	0.02	0.01	587	0.01
Nero d'Avola	0.06	0.02	0.00	724	0.01
Others	6.31	1.89	2.14	*575*	2.07
Australia Total	**100.00**	**100.00**	**100.00**	**575**	**100.00**

Table 137: National winegrape production volume, by variety, 1956 to 1966 (tonnes)

Prime variety	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*	*1964*	*1965*	*1966*
Albillo Real	850	1405	711	906	668	751	1204	782	1142	899	598
Cabernet Franc	142	302	230	282	104	41	112	78	76	164	109
Cabernet Sauvignon				68	205	196	275	292	418	686	621
Chasselas	240	401	340	503	389	288	1009	388	438	391	320
Cinsaut	262	551	459	472	423	513	773	723	1058	1068	748
Cot	107	97	83	97	96	99	126	124	147	104	96
Doradillo	20345	19649	25413	27743	17809	20922	29603	26141	22392	38574	20017
Garnacha Tinta	21285	28290	32228	29231	22279	25538	32315	22466	33299	29750	25029
Jacquez	60	52	141	122	134	132	189	109	164	98	67
Korinthiaki	953	1992	2088	1561	996	4703	1562	385	887	601	163
Malaga Blanc	2403	3692	5460	3182	2867	2728	3497	2578	3273	2255	2159
Marsanne		80	77	138	149	97	192	224	190	200	156
Mazuelo	349	673	837	543	467	552	852	341	684	532	364
Monastrell	3844	6866	5886	4986	3574	4175	5624	3240	5371	5606	3498
Muscadelle	705	1200	1182	1215	781	1018	1021	706	1397	1399	945
Muscat Blanc a Petits Grains	2230	4341	4620	2887	3736	4636	4971	4005	5286	5022	4266
Muscat of Alexandria	25808	33066	37954	29006	32533	37533	42646	36552	38660	38143	32126
Olivette Noire	379	652		109	47	56	122	1468	816	649	430
Palomino Fino	1219	1536	2167	2915	2962	4317	5386	6229	9131	13685	12523
Pedro Ximenez	10279	10950	12550	12783	9608	11745	14988	11588	16345	18230	15012
Pinot Noir	142	80	158	119	153	97	311	194	319	50	
Riesling	2437	3101	3790	2071	1960	1711	2961	1172	2336	2012	1958
Semillon	4241	5262	5314	8215	6387	8206	9288	9410	13076	13434	13048
Sercial	572	721	693	675	323	575	600	235	687	549	339
Sultaniye	8133	20036	18644	22193	21375	30768	43634	13873	20476	14094	10076
Syrah	12472	16539	15824	19455	11775	14937	15891	14487	19558	19813	16417
Trebbiano Toscano	2640	3999	4646	3447	5112	5749	7445	6529	9277	10445	10059
Verdelho	98	62	224	129	147	239	267	128	374	223	162
Other red	1730	1304	1152	1120	1129	1010	1294	584	1114	865	3467
Other white	3555	2545	2462	2316	2997	2598	3756	1603	2564	2335	9027
Total	**127480**	**169444**	**185333**	**178489**	**151185**	**185930**	**231914**	**166634**	**210955**	**221876**	**183800**

Table 138: National winegrape production volume, by variety, 1973 to 1982 (tonnes)

Prime variety	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*
Afus Ali	4589	5649	5350	4612	4020	3164	2814	4299	2635	2762
Albillo Real	846	533	606	516						
Cabernet Sauvignon	7428	9132	15558	17999	22636	20504	24615	25685	23563	27945
Cannon Hall Muscat (4N)	189	209	166	191						
Canocazo	4169	3112	3926	3919						
Chardonnay	90	121	215	445				1893	2701	4139
Chasselas	219	170	190	256						
Chenin Blanc	536	656	357	868			2374	2623	2804	
Cinsaut	1139	939	1174	1073						
Clairette	169	306	158	122						
Colombard								1339	2734	
Cot	1642	1955	3133	3274						
Crouchen	8415	8963	9900	10686			13946	13192	13390	
Doradillo	32980	28648	36119	34052	36905	34488	35550	36837	33369	33841
Emperor	17	99	24	16						
Garnacha Blanca		498	1030	1168						
Garnacha Tinta	49847	46130	58538	45109	57343	46990	52331	52703	46296	52353
Gascon	141	148	243	230						
Gewurztraminer	167	276	397	680				2305	3501	
Korinthiaki	1012	1048	711	500	601	328	221	193	235	211
Marsanne	241	155	264	322						
Mazuelo	1244	864	901	1071						
Molinara	55	44	21	26						
Monastrell	10709	8689	14234	12733	17156	14342	12509	15245	13458	14730
Muscadelle	1768	1844	2155	2669						
Muscat Blanc a Petits Grains	3833	2153	2820	2474				4104	4555	4289
Muscat of Alexandria	41957	40688	49096	48435	52150	55726	60102	62530	63436	64153
Muscat of Hamburg	1549	1553	1616	1384			1919			
Ohanes	709	1085	621	423			370			
Olivette Noire	1168	1268	965	814						
Ondenc	699	667	108	892						
Palomino and Pedro Ximenes					31850	34772	35661	36074	35096	37495
Palomino Fino	15677	11409	14818	16390						
Pedro Ximenez	14360	13365	15691	15041						
Pinot Noir	85	94	204	238					1312	
Raffiat de Moncade	149	135	248	283						
Riesling	7278	8287	9976	10611	25195	29597	23114	24017	26434	33205
Sauvignon Blanc	138	161	315	399				879	1267	
Semillon	18171	20906	22134	24886	26689	24660	29102	30095	31320	30164
Sercial	361	268	180	283						
Sultaniye	36010	37329	58044	65932	62306	54448	49731	66361	52952	51042
Syrah	44840	54372	72257	68127	75370	62595	71626	69634	66189	64608
Trebbiano Toscano	11937	11626	14611	15989	17023	18927	20366	28008	24539	
Verdelho	196	168	177	272						
Wortley Hall	74	62	62	79						
Other red	492	850	1219	1623	11267	10672	12893	13372	10508	12314
Other white	837	1342	1795	2795	16671	18856	16183	10001	10235	66526
Total	328132	327976	422327	419907	457182	430069	465427	501389	472529	499777

Table 139: National winegrape production volume, by variety, 1983 to 1992 (tonnes)

Prime variety	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*
Afus Ali	6694	7470	5119	3253	2295	5361	4073	2609	1976	3143
Alphonse Lavallee					2	6	33	15	27	30
Cabernet Franc						841	1523	2050	2130	2955
Cabernet Sauvignon	19842	23672	27663	24996	24676	24971	31207	35736	32363	44906
Calmeria					15	7	312	29	54	36
Cannon Hall Muscat (4N)					4	2	19	9	3	18
Cardinal					3	21	201	105	44	151
Chardonnay	4627	8515	11402	16823	18594	20637	28419	34735	38767	48748
Chenin Blanc					6312	6381	8372	8178	8312	10799
Cinsaut					3					
Colombard					11367	11847	14773	14918	15521	20190
Cot						1802	2649	3044	2671	3045
Crouchen					9744	7948	7394	6870	5431	4700
Doradillo	31026	27467	27226	28063	29138	21396	23145	21586	19218	17539
Early Muscat					0	5	2	6	4	8
Emperor					2	36	195	58	30	117
Flame Seedless						5	151	109	25	51
Garnacha Tinta	35535	35233	38748	30607	30686	29427	33656	29890	29270	29834
Gewurztraminer					7249	6579	7598	7804	7473	6508
Isabella					12					
Italia					159	144	359	228	236	365
Korinthiaki	260	233	303	83	5	174	659	270	170	123
Merlot					1174	1321	2419	2937	3227	5105
Monastrell	11980	11166	12739	10323	9952	7728	10107	9838	8444	10031
Muller Thurgau					87					
Muscadelle					4347	4249	4544	4500	4119	4253
Muscat a Petits Grains Rouge						675				
Muscat Blanc a Petits Grains	5203	5801	6297	5364	5597	5618	0	6756	5737	6173
Muscat of Alexandria	67625	71224	74455	74240	76654	63650	82565	67148	63193	78295
Muscat of Hamburg					948	864	946	1007	796	825
Ohanes					49	216	80	153	79	579
Olivette Noire					61	63	341	161	74	212
Palomino and Pedro Ximenes	26711	27004	28536	25777	25595	21924	22401	20436	16726	14929
Perlette					0	0	0	53	49	2
Pinot Meunier					33	82	169	213	176	174
Pinot Noir		2049	2241	2645	3162	3957	6011	8408	8387	10625
Riesling	28867	36201	46481	42211	40005	30591	41176	41457	41522	39125
Rubired					682	594	664	542	535	570
Ruby Cabernet									1773	4367
Sauvignon Blanc					3883	4558	7315	8555	8627	11366
Semillon	28447	31905	36281	37551	36636	37004	40232	39537	36213	36947
Silvaner						1992	2414	2237	1956	2137
Sultaniye	50804	74641	92352	50137	40407	53327	75468	55723	40379	54788
Syrah	45787	56260	60391	50240	48873	48069	57873	58618	54844	56476
Trebbiano Toscano					23187	25264	23829	22305	17522	20391
Verdelho					983	828	1012	1366	1051	1564
Other red	9347	9469	10875	10811	8252	4434	5121	5473	4465	4878
Other white	57923	66476	77464	78065	7940	5548	6356	6054	5831	6579
Total	430678	494786	558573	491189	478773	460146	555783	531726	489450	563657

Table 140: National winegrape production volume, by variety, 1993 to 2002 (tonnes)

Prime variety	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Afus Ali	2437	2918	3123	3122	1981	1935	2366	1366	1109	831
Alphonse Lavallee	27	91								
Barbera							669	613	808	1034
Cabernet Franc	3244	5481	4745	7146	4897	5224	5365	5611	6168	6185
Cabernet Sauvignon	37990	48663	53090	70586	67990	94085	127494	156527	249288	257223
Calmeria	34	22								
Canada Muscat							904	586	441	776
Cannon Hall Muscat (4N)	5	5								
Cardinal	121	165								
Chardonnay	55311	63088	57123	94673	120228	152979	210770	200945	245199	256328
Chenin Blanc	11000	13250	11757	15586	13283	16439	16621	14624	13842	14567
Colombard	21695	22707	20726	27601	28432	30095	34781	38720	39112	60419
Cot	2755	2817	2953	3649	3250	3567	2857	3058	4288	3061
Crouchen	2871	3406	2591	2600	1686	2114	1136	1261	1648	1948
Doradillo	13125	14773	11867	14166	10668	9409	6597	6095	4903	6977
Durif								961	1500	3999
Early Muscat	13	11								
Emperor	96	358								
Flame Seedless	111	134								
Garnacha Tinta	19222	27313	20408	27095	24137	24025	24196	22854	22563	26260
Gewurztraminer	6467	6096	5835	6231	5264	5943	5357	4082	4345	5891
Italia	348	265								
Korinthiaki	167	817	1158	3693	4535	5562	5515	3553	1619	549
Marsanne			271	591	859	1216	1878	1993	2276	2399
Mazuelo							522	639	466	806
Merlot	4797	6503	6037	9491	10387	14468	31801	50946	80142	104423
Monastrell	8516	8697	7832	9287	7676	8331	9217	8813	11624	12452
Muscadelle	3543	3845	2897	3599	2662	2519	2106	1697	1620	1344
Muscat a petit grains rouge/rose					1634	1524	1411	1555	1581	1561
Muscat Blanc a Petits Grains	5735	5990	4222	5143	3716	3783	3334	2395	2463	2545

Table 140 (cont.) National winegrape production volume, by variety, 1993 to 2002

Prime variety	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Muscat of Alexandria	67909	68600	60445	68870	65584	58894	58017	55466	48970	51064
Muscat of Hamburg	820	738	418	841						
Nebbiolo							30	60	164	372
Ohanes	167	231								
Olivette Noire	241	131								
Palomino and Pedro Ximenes	10830	11703								
Palomino Fino			5135	5976	4584	3705	2581	2224	1652	1464
Pedro Ximenez			3522	3936	2677	2593	1981	1303	903	998
Perlette		8								
Petit Verdot							1045	1793	6140	14850
Pinot Meunier	194	228					498	609	1089	669
Pinot Noir	10011	12047	13546	15230	14172	19716	19668	19202	29514	21341
Riesling	34847	37026	32976	37668	33512	34028	30144	26725	26980	27838
Rubired	662	472								
Ruby Cabernet	5509	9995	8487	12198	11522	12675	18414	24653	31128	49974
Sangiovese							403	1780	3295	6344
Sauvignon Blanc	9599	12842	11989	15501	13656	19608	22834	20899	25326	28567
Semillon	39759	42985	31313	46164	53097	57682	80191	75043	88427	100785
Silvaner	1633	2140								
Sultaniye	76010	126904	93813	147779	98653	109306	117783	92323	73812	65358
Syrah	56430	65441	65403	84739	96330	135325	192330	221012	311045	326564
Taminga			974	1156	917	754	862	488	411	672
Tarrango			2152	1987	2240	2290	2199	2639	2666	2803
Tempranillo								541	212	445
Touriga Nacional							497	67	682	709
Trebbiano Toscano	19389	18484	11707	16585	14855	10990	10482	9700	7356	7800
Verdelho	1605	2073	1783	3157	3474	4399	7290	9497	13090	16121
Viognier							494	416	614	1211
Other red	5330	6439	6364	7039	6766	7711	5681	6635	6837	6106
Other white	5249	5885	8332	9283	8060	7733	7891	9168	13766	10868
Total	545824	661787	574994	782368	743382	870627	1076207	1111136	1391082	1514501

Table 141: National winegrape production volume, by variety, 2003 to 2012 (tonnes)

Prime variety	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Afus Ali	679									
Arneis								1464	1058	652
Barbera	829	1057	1408	1191	1081	1348		772	631	489
Cabernet Franc	5274	6106	5071	4346	2673	4001		3067	3032	2997
Cabernet Sauvignon	225723	319955	283877	274305	183052	258066	248453	213922	210740	207558
Canada Muscat	359									
Chardonnay	233748	311273	378253	397322	366936	428082	384188	298013	323148	348283
Chenin Blanc	11466	13727	12477	11497	8144	8537		6760	7034	7308
Colombard	53396	69750	77501	74827	56296	59202	62080	45856	49396	52936
Cot	3756	3827	3614	3203	1927	2713		2547	2672	2797
Crouchen	1336	2388	2276	1994	2103	2909		2394		
Dolcetto								1787	1574	1361
Doradillo	2964	4391	1596	1854	1946	1870				
Durif	3232	4111	5200	4442	4359	5352		4358	4250	4142
Fiano										340
Garnacha Tinta	19867	24987	25347	22697	15602	19755		11335	13127	14919
Gewurztraminer	5276	7491	9133	11051	8569	11563		9002	9771	10540
Gruner Veltliner										11
Korinthiaki	230	0	0							
Marsanne	1997	3254	1826	1731	1365	1051		1621	1665	1709
Mazuelo	417									
Merlot	92865	123944	132518	123084	90461	125285	126914	104874	111129	117383
Monastrell	11822	13992	9955	10882	6596	8401		5474	5784	6094
Montepulciano										178
Muscadelle	1084	1276	1397	1338	889	800		451	527	602
Muscat a petit grains rouge/rose				1628	1386	1320		1650	1685	1720
Muscat a Petits Grains Rouge	1285	1285	1684							
Muscat Blanc a Petits Grains	2460	1968	2702	1715	1701	3017		5380	8748	12115
Muscat of Alexandria	44553	52462	48412	50320	40580	39311	52042	48643	51399	54155
Nebbiolo	437	517	552	302	319	420		393	471	548

Table 141 (cont.) National winegrape production volume, by variety, 1956 to 2012 (tonnes)

Prime variety	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Nero d'Avola										70
Palomino Fino	1314	1168	1323	901	475	356				
Pedro Ximenez	597	549	0							
Petit Verdot	14956	23117	25011	26228	16333	23989		18956	19515	20074
Pinot Gris		2094	2824	5778	12340	26156		39347	44887	50426
Pinot Meunier	788	1659	1123	2211	607	1277				
Pinot Noir	27950	41690	36873	33921	26251	43923	31310	41392	37983	34574
Riesling	28994	36404	41219	38329	31002	39305	39620	33680	32999	32317
Roussanne			357	234	235	368		398		
Ruby Cabernet	37857	35687	33559	26382	17131	18748		13371	12351	11331
Sangiovese	6057	5234	6531	4716	3552	5630		5030	5052	5073
Sauvignon Blanc	21029	39774	38347	40501	36515	62420	63639	71909	76676	81442
Savagnin Blanc								804	931	1058
Semillon	77096	99237	96654	96785	75170	100031	81850	76620	77255	77890
Sultaniye	36032	57327	35041	14516	20627	17335		2618	2281	1944
Syrah	309000	436691	415300	422430	283741	441950	394068	403344	382781	362217
Taminga	414									
Tarrango	2486	3775	2891	2538	2200	2056		675		
Tempranillo	645	1429	2033	2736	1863	3680		2932	3177	3422
Touriga Nacional	663	647	519	442	311	315		284		
Trebbiano Toscano	6451	6469	5400	4399	2748	3012		971		
Tribidrag		1023	1183	1062	780	833		843	668	492
Verdelho	15359	18979	18612	19857	14643	20464		14247	13130	12012
Vermentino										839
Viognier	1657	3903	5476	6710	8370	12359		12405	10718	9031
Other red	6384	12341	14287	11463	8817	15060	87283	8299	8925	8343
Other white	8815	19598	29072	19801	10994	14764	112196	15358	20484	20657
Total	**1329600**	**1816556**	**1818431**	**1781668**	**1370690**	**1837034**	**1683643**	**1533246**	**1557648**	**1582049**

Table 142: Varietal shares of national winegrape production volume, 1956 to 1966 (%)

Prime variety	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*	*1964*	*1965*	*1966*
Albillo Real	0.7	0.8	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.3
Cabernet Franc	0.1	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Cabernet Sauvignon				0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3
Chasselas	0.2	0.2	0.2	0.3	0.3	0.2	0.4	0.2	0.2	0.2	0.2
Cinsaut	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.4
Cot	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
Doradillo	16.0	11.6	13.7	15.5	11.8	11.3	12.8	15.7	10.6	17.4	10.9
Garnacha Tinta	16.7	16.7	17.4	16.4	14.7	13.7	13.9	13.5	15.8	13.4	13.6
Jacquez	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Korinthiaki	0.7	1.2	1.1	0.9	0.7	2.5	0.7	0.2	0.4	0.3	0.1
Malaga Blanc	1.9	2.2	2.9	1.8	1.9	1.5	1.5	1.5	1.6	1.0	1.2
Marsanne		0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mazuelo	0.3	0.4	0.5	0.3	0.3	0.3	0.4	0.2	0.3	0.2	0.2
Monastrell	3.0	4.1	3.2	2.8	2.4	2.2	2.4	1.9	2.5	2.5	1.9
Muscadelle	0.6	0.7	0.6	0.7	0.5	0.5	0.4	0.4	0.7	0.6	0.5
Muscat Blanc a Petits Grains	1.7	2.6	2.5	1.6	2.5	2.5	2.1	2.4	2.5	2.3	2.3
Muscat of Alexandria	20.2	19.5	20.5	16.3	21.5	20.2	18.4	21.9	18.3	17.2	17.5
Olivette Noire	0.3	0.4		0.1	0.0	0.0	0.1	0.9	0.4	0.3	0.2
Palomino Fino	1.0	0.9	1.2	1.6	2.0	2.3	2.3	3.7	4.3	6.2	6.8
Pedro Ximenez	8.1	6.5	6.8	7.2	6.4	6.3	6.5	7.0	7.7	8.2	8.2
Pinot Noir	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	
Riesling	1.9	1.8	2.0	1.2	1.3	0.9	1.3	0.7	1.1	0.9	1.1
Semillon	3.3	3.1	2.9	4.6	4.2	4.4	4.0	5.6	6.2	6.1	7.1
Sercial	0.4	0.4	0.4	0.4	0.2	0.3	0.3	0.1	0.3	0.2	0.2
Sultaniye	6.4	11.8	10.1	12.4	14.1	16.5	18.8	8.3	9.7	6.4	5.5
Syrah	9.8	9.8	8.5	10.9	7.8	8.0	6.9	8.7	9.3	8.9	8.9
Trebbiano Toscano	2.1	2.4	2.5	1.9	3.4	3.1	3.2	3.9	4.4	4.7	5.5
Verdelho	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
Other red	1.4	0.8	0.6	0.6	0.7	0.5	0.6	0.4	0.5	0.4	1.9
Other white	2.8	1.5	1.3	1.3	2.0	1.4	1.6	1.0	1.2	1.1	4.9
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 143: Varietal shares of national winegrape production volume, 1973 to 1982 (%)

Prime variety	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*	*1981*	*1982*
Afus Ali	1.4	1.7	1.3	1.1	0.9	0.7	0.6	0.9	0.6	0.6
Albillo Real	0.3	0.2	0.1	0.1						
Cabernet Sauvignon	2.3	2.8	3.7	4.3	5.0	4.8	5.3	5.1	5.0	5.6
Cannon Hall Muscat (4N)	0.1	0.1	0.0	0.0						
Canocazo	1.3	0.9	0.9	0.9						
Chardonnay	0.0	0.0	0.1	0.1				0.4	0.6	0.8
Chasselas	0.1	0.1	0.0	0.1						
Chenin Blanc	0.2	0.2	0.1	0.2			0.5	0.5	0.6	
Cinsaut	0.3	0.3	0.3	0.3						
Clairette	0.1	0.1	0.0	0.0						
Colombard								0.3	0.6	
Cot	0.5	0.6	0.7	0.8						
Crouchen	2.6	2.7	2.3	2.5			3.0	2.6	2.8	
Doradillo	10.1	8.7	8.6	8.1	8.1	8.0	7.6	7.3	7.1	6.8
Emperor	0.0	0.0	0.0	0.0						
Garnacha Blanca		0.2	0.2	0.3						
Garnacha Tinta	15.2	14.1	13.9	10.7	12.5	10.9	11.2	10.5	9.8	10.5
Gascon	0.0	0.0	0.1	0.1						
Gewurztraminer	0.1	0.1	0.1	0.2				0.5	0.7	
Korinthiaki	0.3	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Marsanne	0.1	0.0	0.1	0.1						
Mazuelo	0.4	0.3	0.2	0.3						
Molinara	0.0	0.0	0.0	0.0						
Monastrell	3.3	2.6	3.4	3.0	3.8	3.3	2.7	3.0	2.8	2.9
Muscadelle	0.5	0.6	0.5	0.6						
Muscat Blanc a Petits Grains	1.2	0.7	0.7	0.6				0.8	1.0	0.9
Muscat of Alexandria	12.8	12.4	11.6	11.5	11.4	13.0	12.9	12.5	13.4	12.8
Muscat of Hamburg	0.5	0.5	0.4	0.3			0.4			
Ohanes	0.2	0.3	0.1	0.1			0.1			
Olivette Noire	0.4	0.4	0.2	0.2						
Ondenc	0.2	0.2	0.0	0.2						
Palomino and Pedro Ximenes					7.0	8.1	7.7	7.2	7.4	7.5
Palomino Fino	4.8	3.5	3.5	3.9						
Pedro Ximenez	4.4	4.1	3.7	3.6						
Pinot Noir	0.0	0.0	0.0	0.1					0.3	
Raffiat de Moncade	0.0	0.0	0.1	0.1						
Riesling	2.2	2.5	2.4	2.5	5.5	6.9	5.0	4.8	5.6	6.6
Sauvignon Blanc	0.0	0.0	0.1	0.1				0.2	0.3	
Semillon	5.5	6.4	5.2	5.9	5.8	5.7	6.3	6.0	6.6	6.0
Sercial	0.1	0.1	0.0	0.1						
Sultaniye	11.0	11.4	13.7	15.7	13.6	12.7	10.7	13.2	11.2	10.2
Syrah	13.7	16.6	17.1	16.2	16.5	14.6	15.4	13.9	14.0	12.9
Trebbiano Toscano	3.6	3.5	3.5	3.8	3.7	4.4	4.4	5.6	5.2	
Verdelho	0.1	0.1	0.0	0.1						
Wortley Hall	0.0	0.0	0.0	0.0						
Other red	0.1	0.3	0.3	0.4	2.5	2.5	2.8	2.7	2.2	2.5
Other white	0.3	0.4	0.4	0.7	3.6	4.4	3.5	2.0	2.2	13.3
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 144: Varietal shares of national winegrape production volume, 1983 to 1992 (%)

Prime variety	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*
Afus Ali	1.6	1.5	0.9	0.7	0.5	1.2	0.7	0.5	0.4	0.6
Alphonse Lavallee					0.0	0.0	0.0	0.0	0.0	0.0
Cabernet Franc						0.2	0.3	0.4	0.4	0.5
Cabernet Sauvignon	4.6	4.8	5.0	5.1	5.2	5.4	5.6	6.7	6.6	8.0
Calmeria					0.0	0.0	0.1	0.0	0.0	0.0
Cannon Hall Muscat (4N)					0.0	0.0	0.0	0.0	0.0	0.0
Cardinal					0.0	0.0	0.0	0.0	0.0	0.0
Chardonnay	1.1	1.7	2.0	3.4	3.9	4.5	5.1	6.5	7.9	8.6
Chenin Blanc					1.3	1.4	1.5	1.5	1.7	1.9
Cinsaut					0.0					
Colombard					2.4	2.6	2.7	2.8	3.2	3.6
Cot						0.4	0.5	0.6	0.5	0.5
Crouchen					2.0	1.7	1.3	1.3	1.1	0.8
Doradillo	7.2	5.6	4.9	5.7	6.1	4.6	4.2	4.1	3.9	3.1
Early Muscat						0.0	0.0	0.0	0.0	0.0
Emperor					0.0	0.0	0.0	0.0	0.0	0.0
Flame Seedless						0.0	0.0	0.0	0.0	0.0
Garnacha Tinta	8.3	7.1	6.9	6.2	6.4	6.4	6.1	5.6	6.0	5.3
Gewurztraminer					1.5	1.4	1.4	1.5	1.5	1.2
Isabella					0.0					
Italia					0.0	0.0	0.1	0.0	0.0	0.1
Korinthiaki	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Merlot					0.2	0.3	0.4	0.6	0.7	0.9
Monastrell	2.8	2.3	2.3	2.1	2.1	1.7	1.8	1.9	1.7	1.8
Muller Thurgau					0.0					
Muscadelle					0.9	0.9	0.8	0.8	0.8	0.8
Muscat a Petits Grains Rouge						0.1				
Muscat Blanc a Petits Grains	1.2	1.2	1.1	1.1	1.2	1.2		1.3	1.2	1.1
Muscat of Alexandria	15.7	14.4	13.3	15.1	16.0	13.8	14.9	12.6	12.9	13.9
Muscat of Hamburg					0.2	0.2	0.2	0.2	0.2	0.1
Ohanes					0.0	0.0	0.0	0.0	0.0	0.1
Olivette Noire					0.0	0.0	0.1	0.0	0.0	0.0
Palomino and Pedro Ximenes	6.2	5.5	5.1	5.2	5.3	4.8	4.0	3.8	3.4	2.6
Perlette								0.0	0.0	0.0
Pinot Meunier					0.0	0.0	0.0	0.0	0.0	0.0
Pinot Noir		0.4	0.4	0.5	0.7	0.9	1.1	1.6	1.7	1.9
Riesling	6.7	7.3	8.3	8.6	8.4	6.6	7.4	7.8	8.5	6.9
Rubired					0.1	0.1	0.1	0.1	0.1	0.1
Ruby Cabernet									0.4	0.8
Sauvignon Blanc					0.8	1.0	1.3	1.6	1.8	2.0
Semillon	6.6	6.4	6.5	7.6	7.7	8.0	7.2	7.4	7.4	6.6
Silvaner						0.4	0.4	0.4	0.4	0.4
Sultaniye	11.8	15.1	16.5	10.2	8.4	11.6	13.6	10.5	8.2	9.7
Syrah	10.6	11.4	10.8	10.2	10.2	10.4	10.4	11.0	11.2	10.0
Trebbiano Toscano					4.8	5.5	4.3	4.2	3.6	3.6
Verdelho					0.2	0.2	0.2	0.3	0.2	0.3
Other red	2.2	1.9	1.9	2.2	1.7	1.0	0.9	1.0	0.9	0.9
Other white	13.4	13.4	13.9	15.9	1.7	1.2	1.1	1.1	1.2	1.2
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 145: Varietal shares of national winegrape production volume, 1993 to 2002 (%)

Prime variety	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Afus Ali	0.4	0.4	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1
Alphonse Lavallee	0.0	0.0								
Barbera							0.1	0.1	0.1	0.1
Cabernet Franc	0.6	0.8	0.8	0.9	0.7	0.6	0.5	0.5	0.4	0.4
Cabernet Sauvignon	7.0	7.4	9.2	9.0	9.1	10.8	11.8	14.1	17.9	17.0
Calmeria	0.0	0.0								
Canada Muscat							0.1	0.1	0.0	0.1
Cannon Hall Muscat (4N)	0.0	0.0								
Cardinal	0.0	0.0								
Chardonnay	10.1	9.5	9.9	12.1	16.2	17.6	19.6	18.1	17.6	16.9
Chenin Blanc	2.0	2.0	2.0	2.0	1.8	1.9	1.5	1.3	1.0	1.0
Colombard	4.0	3.4	3.6	3.5	3.8	3.5	3.2	3.5	2.8	4.0
Cot	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2
Crouchen	0.5	0.5	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1
Doradillo	2.4	2.2	2.1	1.8	1.4	1.1	0.6	0.5	0.4	0.5
Durif								0.1	0.1	0.3
Early Muscat	0.0	0.0								
Emperor	0.0	0.1								
Flame Seedless	0.0	0.0								
Garnacha Tinta	3.5	4.1	3.5	3.5	3.2	2.8	2.2	2.1	1.6	1.7
Gewurztraminer	1.2	0.9	1.0	0.8	0.7	0.7	0.5	0.4	0.3	0.4
Italia	0.1	0.0								
Korinthiaki	0.0	0.1	0.2	0.5	0.6	0.6	0.5	0.3	0.1	0.0
Marsanne			0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Mazuelo							0.0	0.1	0.0	0.1
Merlot	0.9	1.0	1.0	1.2	1.4	1.7	3.0	4.6	5.8	6.9
Monastrell	1.6	1.3	1.4	1.2	1.0	1.0	0.9	0.8	0.8	0.8
Muscadelle	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1
Muscat a petit grains rouge/rose					0.2	0.2	0.1	0.1	0.1	0.1
Muscat Blanc a Petits Grains	1.1	0.9	0.7	0.7	0.5	0.4	0.3	0.2	0.2	0.2

Table 145 (cont.) Varietal shares of national winegrape production volume, 1993 to 2002 (%)

Prime variety	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
Muscat of Alexandria	12.4	10.4	10.5	8.8	8.8	6.8	5.4	5.0	3.5	3.4
Muscat of Hamburg	0.2	0.1	0.1	0.1						
Nebbiolo							0.0	0.0	0.0	0.0
Ohanes	0.0	0.0								
Olivette Noire	0.0	0.0								
Palomino and Pedro Ximenes	2.0	1.8								
Palomino Fino			0.9	0.8	0.6	0.4	0.2	0.2	0.1	0.1
Pedro Ximenez			0.6	0.5	0.4	0.3	0.2	0.1	0.1	0.1
Perlette		0.0								
Petit Verdot							0.1	0.2	0.4	1.0
Pinot Meunier	0.0	0.0					0.0	0.1	0.1	0.0
Pinot Noir	1.8	1.8	2.4	1.9	1.9	2.3	1.8	1.7	2.1	1.4
Riesling	6.4	5.6	5.7	4.8	4.5	3.9	2.8	2.4	1.9	1.8
Rubired	0.1	0.1								
Ruby Cabernet	1.0	1.5	1.5	1.6	1.5	1.5	1.7	2.2	2.2	3.3
Sangiovese							0.0	0.2	0.2	0.4
Sauvignon Blanc	1.8	1.9	2.1	2.0	1.8	2.3	2.1	1.9	1.8	1.9
Semillon	7.3	6.5	5.4	5.9	7.1	6.6	7.5	6.8	6.4	6.7
Silvaner	0.3	0.3								
Sultaniye	13.9	19.2	16.3	18.9	13.3	12.6	10.9	8.3	5.3	4.3
Syrah	10.3	9.9	11.4	10.8	13.0	15.5	17.9	19.9	22.4	21.6
Taminga			0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Tarrango			0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Tempranillo								0.0	0.0	0.0
Touriga Nacional							0.0	0.0	0.0	0.0
Trebbiano Toscano	3.6	2.8	2.0	2.1	2.0	1.3	1.0	0.9	0.5	0.5
Verdelho	0.3	0.3	0.3	0.4	0.5	0.5	0.7	0.9	0.9	1.1
Viognier							0.0	0.0	0.0	0.1
Other red	1.0	1.0	1.1	0.9	0.9	0.9	0.5	0.6	0.5	0.4
Other white	1.0	0.9	1.4	1.2	1.1	0.9	0.7	0.8	1.0	0.7
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 146: Varietal shares of national winegrape production volume, 2003 to 2012 (%)

Prime variety	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Afus Ali	0.1									
Arneis								0.1	0.1	0.0
Barbera	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.0	0.0
Cabernet Franc	0.4	0.3	0.3	0.2	0.2	0.2		0.2	0.2	0.2
Cabernet Sauvignon	17.0	17.6	15.6	15.4	13.4	14.0	14.8	14.0	13.5	13.1
Canada Muscat	0.0									
Chardonnay	17.6	17.1	20.8	22.3	26.8	23.3	22.8	19.4	20.7	22.0
Chenin Blanc	0.9	0.8	0.7	0.6	0.6	0.5		0.4	0.5	0.5
Colombard	4.0	3.8	4.3	4.2	4.1	3.2	3.7	3.0	3.2	3.3
Cot	0.3	0.2	0.2	0.2	0.1	0.1		0.2	0.2	0.2
Crouchen	0.1	0.1	0.1	0.1	0.2	0.2		0.2		
Dolcetto								0.1	0.1	0.1
Doradillo	0.2	0.2	0.1	0.1	0.1	0.1				
Durif	0.2	0.2	0.3	0.2	0.3	0.3		0.3	0.3	0.3
Fiano										0.0
Garnacha Tinta	1.5	1.4	1.4	1.3	1.1	1.1		0.7	0.8	0.9
Gewurztraminer	0.4	0.4	0.5	0.6	0.6	0.6		0.6	0.6	0.7
Gruner Veltliner										0.0
Korinthiaki	0.0									
Marsanne	0.2	0.2	0.1	0.1	0.1	0.1		0.1	0.1	0.1
Mazuelo	0.0									
Merlot	7.0	6.8	7.3	6.9	6.6	6.8	7.5	6.8	7.1	7.4
Monastrell	0.9	0.8	0.5	0.6	0.5	0.5		0.4	0.4	0.4
Montepulciano										0.0
Muscadelle	0.1	0.1	0.1	0.1	0.1	0.0		0.0	0.0	0.0
Muscat a petit grains rouge/rose				0.1	0.1	0.1		0.1	0.1	0.1
Muscat a Petits Grains Rouge	0.1	0.1	0.1							
Muscat Blanc a Petits Grains	0.2	0.1	0.1	0.1	0.1	0.2		0.4	0.6	0.8
Muscat of Alexandria	3.4	2.9	2.7	2.8	3.0	2.1	3.1	3.2	3.3	3.4
Nebbiolo	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0

Table 146 (cont.) Varietal shares of national winegrape production volume, 2003 to 2012 (%)

Prime variety	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Nero d'Avola										0.0
Palomino Fino	0.1	0.1	0.1	0.1	0.0	0.0				
Pedro Ximenez	0.0	0.0								
Petit Verdot	1.1	1.3	1.4	1.5	1.2	1.3		1.2	1.3	1.3
Pinot Gris		0.1	0.2	0.3	0.9	1.4		2.6	2.9	3.2
Pinot Meunier	0.1	0.1	0.1	0.1	0.0	0.1				
Pinot Noir	2.1	2.3	2.0	1.9	1.9	2.4	1.9	2.7	2.4	2.2
Riesling	2.2	2.0	2.3	2.2	2.3	2.1	2.4	2.2	2.1	2.0
Roussanne			0.0	0.0	0.0	0.0		0.0		
Ruby Cabernet	2.8	2.0	1.8	1.5	1.2	1.0		0.9	0.8	0.7
Sangiovese	0.5	0.3	0.4	0.3	0.3	0.3		0.3	0.3	0.3
Sauvignon Blanc	1.6	2.2	2.1	2.3	2.7	3.4	3.8	4.7	4.9	5.1
Savagnin Blanc								0.1	0.1	0.1
Semillon	5.8	5.5	5.3	5.4	5.5	5.4	4.9	5.0	5.0	4.9
Sultaniye	2.7	3.2	1.9	0.8	1.5	0.9		0.2	0.1	0.1
Syrah	23.2	24.0	22.8	23.7	20.7	24.1	23.4	26.3	24.6	22.9
Taminga	0.0									
Tarrango	0.2	0.2	0.2	0.1	0.2	0.1		0.0		
Tempranillo	0.0	0.1	0.1	0.2	0.1	0.2		0.2	0.2	0.2
Touriga Nacional	0.0	0.0	0.0	0.0	0.0	0.0		0.0		
Trebbiano Toscano	0.5	0.4	0.3	0.2	0.2	0.2		0.1		
Tribidrag		0.1	0.1	0.1	0.1	0.0		0.1	0.0	0.0
Verdelho	1.2	1.0	1.0	1.1	1.1	1.1		0.9	0.8	0.8
Vermentino										0.1
Viognier	0.1	0.2	0.3	0.4	0.6	0.7		0.8	0.7	0.6
Other red	0.5	0.7	0.8	0.6	0.6	0.8	5.2	0.5	0.6	0.5
Other white	0.7	1.1	1.6	1.1	0.8	0.8	6.7	1.0	1.3	1.3
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 147: National winegrape yield per hectare, by variety, 1973 to 1980 (t/ha)

Prime variety	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*
Afus Ali	10	7	10	6	10	11	9	13
Albillo Real	6	4	5	4				
Cabernet Sauvignon	5	5	6	6	7	6	6	7
Cannon Hall Muscat (4N)	4	5	8	4				
Canocazo	12	9	12	14				
Chardonnay	8	6	4	5				6
Chasselas	5	4	4	5				
Chenin Blanc	5	6	3	8			8	9
Cinsaut	8	6	8	7				
Clairette	6	7	4	4				
Colombard								12
Cot	8	7	9	9				
Crouchen							13	12
Doradillo	15	13	16	16	17	17	17	19
Emperor	5	8	5	6				
Garnacha Blanca		14	29	28				
Garnacha Tinta	9	8	10	8	10	8	9	10
Gascon	7	6	10	9				
Gewurztraminer	4	4	3	5				6
Korinthiaki	7	5	9	2	10	7	9	10
Marsanne	6	5	8	7				
Mazuelo	7	5	5	6				
Molinara	7	5	3	4				
Monastrell	7	6	9	8	10	8	7	10
Muscadelle	5	5	5	6				
Muscat Blanc a Petits Grains	11	5	7	7				11
Muscat of Alexandria	15	13	16	14	18	17	17	17
Muscat of Hamburg	6	5	6	5			6	
Ohanes	10	7	7	8			7	
Olivette Noire	10	7	8	8				
Ondenc	6	6	1	6				
Palomino and Pedro Ximenes					11	12	13	14
Palomino Fino	14	10	13	14				
Pedro Ximenez	8	8	10	10				
Pinot Noir	5	3	4	4				
Raffiat de Moncade	8	6	9	10				
Riesling	6	5	6	5	7	8	8	7
Sauvignon Blanc	6	6	6	6				6
Semillon	10	9	10	11	11	10	12	12
Sercial	5	4	3	5				
Sultaniye	12	11	15	7	15	15	14	21
Syrah	7	7	8	8	8	7	8	8
Trebbiano Toscano	11	10	13	13	13	13	13	17
Verdelho	7	9	4	5				
Wortley Hall	3	6	13	6				
Other red	4	4	8	11	5	5	8	8
Other white	7	7	12	15	8	9	8	9
Total	**10**	**9**	**11**	**9**	**10**	**10**	**10**	**11**

Table 148: National winegrape yield per hectare, by variety, 1981 to 1988 (t/ha)

Prime variety	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*
Afus Ali	11	15	12	11	12	13	12	12
Alphonse Lavallee							10	11
Cabernet Franc								7
Cabernet Sauvignon	6	7	6	7	8	8	8	7
Calmeria							11	12
Cannon Hall Muscat (4N)							6	4
Cardinal							8	7
Chardonnay	6	7	5	7	7	9	9	9
Chenin Blanc	10						15	14
Cinsaut							9	
Colombard	15						25	21
Cot								9
Crouchen	13						16	14
Doradillo	18	19	20	19	20	23	26	21
Early Muscat								5
Emperor							9	9
Flame Seedless								7
Garnacha Tinta	9	12	9	10	12	12	13	13
Gewurztraminer	7						10	10
Isabella							2	
Italia							12	11
Korinthiaki	8	13	10	10	12	17	13	12
Merlot							7	6
Monastrell	9	11	10	11	13	12	14	12
Muller Thurgau							9	
Muscadelle							11	11
Muscat a Petits Grains Rouge								7
Muscat Blanc a Petits Grains	10	10	9	11	11	11	12	11
Muscat of Alexandria	17	18	18	18	19	21	24	18
Muscat of Hamburg							5	5
Ohanes							8	10
Olivette Noire							6	7
Palomino and Pedro Ximenes	14	15	12	13	15	15	17	16
Pinot Meunier							2	4
Pinot Noir	6			6	7	7	7	8
Riesling	7	9	7	8	11	11	11	8
Rubired							19	18
Sauvignon Blanc	7						8	8
Semillon	12	11	11	12	14	14	15	15
Silvaner								15
Sultaniye	15	21	20	22	22	23	18	22
Syrah	8	8	7	9	10	9	10	10
Trebbiano Toscano	14						16	18
Verdelho							10	8
Other red	8	8	7	8	9	8	10	11
Other white	8	12	10	11	13	14	14	15
Total	**11**	**12**	**10**	**12**	**13**	**13**	**14**	**13**

Table 149: National winegrape yield per hectare, by variety, 1989 to 1996 (t/ha)

Prime variety	*1989*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*
Afus Ali	12	13	13	15	10	11	13	15
Alphonse Lavallee	10	9	9	9	9	10		
Cabernet Franc	9	10	8	10	8	9	9	13
Cabernet Sauvignon	9	10	8	10	7	9	8	11
Calmeria	11	10	15	15	16	13		
Cannon Hall Muscat (4N)	6	5	4	5	5	4		
Cardinal	8	8	7	7	7	7		
Chardonnay	10	11	10	11	11	11	9	12
Chenin Blanc	17	16	16	18	17	20	17	22
Colombard	26	24	23	27	26	27	22	28
Cot	13	13	12	12	11	11	11	13
Crouchen	15	16	14	16	12	16	15	18
Doradillo	24	25	25	24	20	24	19	27
Early Muscat	5	4	4	3	5	3		
Emperor	9	10	11	12	12	10		
Flame Seedless	9	8	10	12	11	10		
Garnacha Tinta	15	14	14	15	10	14	11	14
Gewurztraminer	12	13	13	12	12	11	9	10
Italia	11	11	11	11	10	11		
Korinthiaki	12	15	10	18	10	16	11	17
Marsanne							10	11
Merlot	9	9	8	10	8	9	8	11
Monastrell	16	16	14	16	14	14	13	16
Muscadelle	12	11	11	12	10	11	9	11
Muscat Blanc a Petits Grains		12	12	13	12	13	9	12
Muscat of Alexandria	24	21	21	26	22	22	19	23
Muscat of Hamburg	5	2	5	4	5	5	4	6
Ohanes	10	11	10	13	9	9		
Olivette Noire	8	7	6	7	7	6		
Palomino and Pedro Ximenes	16	17	16	16	14	17		
Palomino Fino							14	18
Pedro Ximenez							12	16
Perlette		9	10	10		9		
Pinot Meunier	7	9	6	5	6	5		
Pinot Noir	9	10	8	10	8	9	10	10
Riesling	12	11	11	11	10	11	9	11
Rubired	22	18	19	20	23	17		
Ruby Cabernet			13	15	14	18	16	21
Sauvignon Blanc	10	12	11	13	10	12	11	13
Semillon	16	16	15	14	14	14	10	15
Silvaner	19	19	17	20	17	24		
Sultaniye	21	19	23	27	18	21	16	27
Syrah	12	12	11	11	10	11	10	12
Taminga							19	26
Tarrango							26	31
Trebbiano Toscano	18	18	15	19	19	17	12	18
Verdelho	9	11	8	9	9	10	8	10
Other red	11	11	11	12	12	13	10	11
Other White	16	15	14	16	13	12	12	13
Total	**15**	**14**	**13**	**15**	**13**	**14**	**12**	**15**

Table 150: National winegrape yield per hectare, by variety, 1997 to 2004 (t/ha)

Prime variety	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*
Afus Ali	13	17	14	12	11	15	14	
Barbera			6	11	8	8	7	7
Cabernet Franc	9	10	10	8	8	8	7	8
Cabernet Sauvignon	9	10	9	8	10	9	8	11
Canada Muscat			15	13	16	13	9	
Chardonnay	11	12	14	12	14	14	12	14
Chenin Blanc	19	22	19	17	16	19	16	19
Colombard	27	25	25	25	22	27	23	27
Cot	12	13	7	7	10	7	8	8
Crouchen	14	19	14	12	17	18	15	23
Doradillo	23	25	22	21	20	29	21	26
Durif				9	8	13	11	13
Garnacha Tinta	13	13	12	11	11	11	9	11
Gewurztraminer	10	11	10	8	8	12	10	11
Korinthiaki	14	15	14	15	15	17	13	
Marsanne	9	12	14	9	11	9	8	15
Mazuelo			11	13	5	13	17	
Merlot	9	9	9	10	10	12	10	12
Monastrell	14	15	14	12	12	11	12	14
Muscadelle	9	10	9	8	8	8	7	8
Muscat a petit grains rouge/rose	8	7	6	5	5	5	5	5
Muscat Blanc a Petits Grains	14	14	13	12	12	13	11	11
Muscat of Alexandria	22	23	21	22	21	24	21	25
Nebbiolo			3	4	3	5	6	5
Palomino Fino	17	16	16	16	14	15	15	16
Pedro Ximenez	13	15	14	11	10	10	9	10
Petit Verdot			10	6	9	15	13	15
Pinot Gris								10
Pinot Meunier			9	7	10	5	7	12
Pinot Noir	9	11	9	7	9	6	7	10
Riesling	10	11	9	9	9	8	8	10
Ruby Cabernet	18	18	17	15	13	18	15	18
Sangiovese			1	8	9	11	10	11
Sauvignon Blanc	10	12	12	9	10	10	8	13
Semillon	14	14	15	13	14	16	13	16
Sultaniye	17	23	19	21	16	21	14	23
Syrah	10	11	11	10	11	10	9	12
Taminga	20	24	19	23	16	11	13	
Tarrango	35	33	25	20	22	19	18	25
Tempranillo				12	7	7	6	7
Touriga Nacional			12	5	11	12	10	11
Trebbiano Toscano	18	15	15	16	11	12	13	16
Tribidrag								12
Verdelho	8	8	10	10	10	11	10	12
Viognier			6	6	5	6	6	8
Other red	10	12	11	10	11	12	11	12
Other white	12	12	13	10	9	11	10	12
Total	**13**	**13**	**13**	**11**	**12**	**12**	**10**	**13**

Table 151: National winegrape yield per hectare, by variety, 2005 to 2012 (t/ha)

Prime variety	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Arneis						10		9
Barbera	10	8	7	9		7	6	5
Cabernet Franc	8	8	5	6		5	5	5
Cabernet Sauvignon	10	10	7	9	9	8	8	8
Chardonnay	15	14	12	14	13	11	12	14
Chenin Blanc	19	17	12	14		12	13	14
Colombard	30	28	21	23	23	21	23	26
Cot	9	8	5	8		7	7	7
Crouchen	21	19	21	25		25		
Dolcetto						12	11	11
Doradillo	13	18	20	26				
Durif	14	14	10	13		10	9	9
Fiano								4
Garnacha Tinta	13	11	8	10		6	7	8
Gewurztraminer	14	15	11	14		11	11	12
Gruner Veltliner								1
Marsanne	10	9	7	5		7	8	9
Merlot	13	12	9	12	12	10	12	13
Monastrell	12	13	9	11		8	8	9
Montepulciano								5
Muscadelle	9	8	6	5		7	7	7
Muscat a petit grains rouge/rose		7	6	6		7	7	7
Muscat a Petits Grains Rouge	6							
Muscat Blanc a Petits Grains	14	11	10	13		10	13	15
Muscat of Alexandria	23	24	20	19	24	24	24	24
Nebbiolo	6	4	4	4		4	5	5
Nero d'Avola								3
Palomino Fino	17	14	9	7				
Petit Verdot	18	19	12	18		15	16	17
Pinot Gris	9	9	9	13		12	13	14
Pinot Meunier	9	12	6	12				
Pinot Noir	9	8	6	10	7	9	8	7
Riesling	10	9	8	9	9	8	8	8
Roussanne	10	6	6	6		5		
Ruby Cabernet	20	18	14	16		14	14	15
Sangiovese	14	12	8	11		9	9	9
Sauvignon Blanc	12	10	8	12	10	11	12	12
Savagnin Blanc						9	8	8
Semillon	16	17	12	16	13	13	13	14
Sultaniye	24	19	16	13		6	7	10
Syrah	11	11	7	10	9	9	9	9
Tarrango	16	15	17	20		9		
Tempranillo	8	9	6	11		6	6	5
Touriga Nacional	9	9	6	7		6		
Trebbiano Toscano	16	14	12	14		11		
Tribidrag	13	10	7	7		6	5	5
Verdelho	12	12	9	12		9	9	9
Vermentino								11
Viognier	8	9	8	10		9	8	8
Other red	13	12	10	11	10	7	8	9
Other white	13	11	11	11	12	12	13	18
Total	**13**	**12**	**9**	**12**	**11**	**10**	**10**	**11**

Table 152: National winegrape price, by variety, 1999 to 2005 ($/t)

Prime variety	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*
Afus Ali	267	242	257	283	368	350	436
Alicante Henri Bouschet		1092					
Alphonse Lavallee	499	368					
Arneis							716
Barbera	600	829	515	641	593	367	613
Black America	701	700					1155
Black Sultana	300						
Cabernet Franc	1264	1308	1252	941	937	763	815
Cabernet Sauvignon	1468	1172	1232	1037	969	812	659
Canada Muscat	586	518	516	493	425		409
Cardinal	312						900
Carina	575	410	365	289	254		259
Chambourcin	670	879	751	812	969	864	914
Chardonnay	953	877	938	935	1060	1055	821
Chenin Blanc	529	523	533	464	472	376	518
Cinsaut		547		861	610		710
Colombard	370	348	374	392	370	358	342
Cot	1065	953	1009	916	922	742	831
Crouchen	276	420	447	471	456		487
Damaschino		230					550
Doradillo	254	238	259	266	256		254
Durif	969	532	644	652	511	539	489
Emerald Riesling	325	325	339	329	378		359
Emperor	498						
Flame Seedless	320	260					
Flora							468
Gamay Noir	1243	1545	1576	1363	631		1229
Garnacha Tinta	887	862	866	852	804	788	702
Gewurztraminer	611	608	672	672	583	582	527
Graciano							1155
Italia	315	307	334	365	380		517
Korinthiaki	508	435	381	715			
Lagrein							1400
Malvasia Bianca di Candia		326					
Marroo Seedless	495						
Mazuelo	539	496	428	374			320
Menindee Seedless	250						
Merlot	1283	973	1040	815	865	718	647
Monastrell	780	664	650	592	486	515	519
Mueller Thurgau		415					702
Muscadelle	614	603	744	794	895	691	609
Muscat a Petits Grains Rouge	509	466	939	839	880	878	822
Muscat Blanc a Petits Grains	424	378	413	419	418	441	523
Muscat Fleur d'Oranger		1300	1299	1300	1300		1164
Muscat of Alexandria	331	329	349	363	353	348	368
Muscat of Hamburg	606	526	681	445	544	576	526

Table 152 (cont.) National winegrape price, by variety, 1999 to 2005, (A$)

Prime variety	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*
Nebbiolo	1711	1446	1315	995	988	1071	1169
Negramoll	1028	956	1273	1269	657		659
Nyora	504						
Palomino Fino	275	263	271	289	260		320
Pedro Ximenez	296	269	296	317	298		456
Petit Verdot	1340	1068	895	625	600	470	428
Pinot Gris	1586	1476	1433	1506	1561	1452	1185
Pinot Meunier	1801	1810	1859	1661	1809		1360
Pinot Noir	1328	1339	1359	1158	1293	1182	1044
Riesling	697	692	907	925	1016	1018	987
Rkatsiteli	526						
Rose Cross	850	861	900				
Roussanne			1102	1067	1000	800	1184
Rubired	565	473	433	318	299	388	325
Ruby Cabernet	913	691	641	530	440	384	309
Ruby Seedless		262					
Saint Macaire	475	523	577	606	349		381
Sangiovese	1155	996	931	709	771	700	612
Sauvignon Blanc	899	916	1028	951	1069	1090	1115
Semillon	631	588	646	620	617	590	612
Silvaner							335
Sultaniye	321	311	314	300	309	295	288
Syrah	1341	1059	1167	1106	1005	893	812
Taminga	291	291	322	344	291	342	375
Tannat							429
Tarrango	494	486	545	512	562	526	435
Tempranillo	700	1177	921	731	751	811	842
Tinta Cao	780	756	750	600	926		600
Touriga Nacional	914	855	821	795	650		1003
Trebbiano Toscano	330	311	336	315	314	336	326
Tribidrag		392	524	401	514	407	565
Trincadeira	795	719	860	1300	700		
Valdiguie	400	401					
Viognier	943	1194	1457	1300	1262	1220	1161
Other red	412	216	641	113	756	969	701
Other white	201	215	280	426	447	397	407
Australia Total	**1026**	**901**	**1012**	**909**	**916**	**842**	**741**

Table 153: National winegrape price, by variety, 2006 to 2013 ($/t)

Prime variety	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
Afus Ali	560	253	400					
Alvarinho				674				
Arneis			512	420			426	621
Barbera	549	736	831		220		581	726
Cabernet Franc	739	777	908	528	627	654	969	868
Cabernet Sauvignon	619	711	908	730	640	604	671	759
Canada Muscat		370	443			516	539	449
Chambourcin	670		965					
Chardonnay	542	539	669	575	520	488	535	551
Chenin Blanc	490	529	630	523	425	390	445	420
Colombard	290	299	421	287	204	197	224	228
Cot	786	916	1021	730	658	616	702	759
Crouchen	481	489	500	264	423	383		374
Dolcetto				595			463	591
Doradillo		308	315					
Durif	471	546	568	527	430	345	452	498
Fiano				1167	1337	695	562	539
Gamay Noir			1200					
Garnacha Tinta	617	683	957	693	629	536	669	643
Gewurztraminer	519	506	615	505	503	447	486	443
Graciano			1158				511	618
Lagrein			750				516	415
Marsanne				581	619	429	568	430
Mazuelo		222	616					
Merlot	578	616	745	638	549	490	579	606
Monastrell	474	581	795	484	484	432	556	589
Montepulciano						377	587	664
Mueller Thurgau			398					
Muscadelle	807	843	799	444	471			546
Muscat a Petit Grains Rouge/Rose				542	450	579	594	545
Muscat a Petits Grains Rouge	957	1139	1184					
Muscat Blanc a Petits Grains	556	495	553	449	362	434	404	443
Muscat of Alexandria	355	373	485	356	275	349	405	374
Muscat of Hamburg	911		685					
Nebbiolo	1226	1088	1346		1220			
Nero D'Avola							724	604
Palomino Fino		315	449	329	358			367
Pedro Ximenez		623	796	643		318		
Petit Verdot	398	440	561	436	351	368	397	439
Pinot Gris	1084	1014	1014	724	709	643	614	668
Pinot Meunier	1395	1664	1788	1328	1201	1127	1277	1305
Pinot Noir	1024	1253	1455	907	898	825	787	899
Prosecco								1222
Riesling	807	833	992	736	721	662	644	651
Roussanne	1345	1250	1179	1263	1139	752	790	636

Table 153 (cont.) National winegrape price, by variety, 2006 to 2013 ($/t)

Prime variety	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
Ruby Cabernet	300	342	435	316	251	280	271	309
Sagrantino								1024
Saint Macaire			600					
Sangiovese	532	672	692	706	555	419	682	522
Sauvignon Blanc	1052	1140	1185	827	690	601	573	600
Savagnin Blanc					531	506	423	420
Semillon	527	579	620	519	447	423	411	438
Silvaner			1031					
Sultaniye	257	241	348	273	216		220	223
Syrah	715	738	979	710	664	585	666	727
Taminga	321	333	496					
Tannat			1435		505	277	466	796
Tarrango	356	302	504		272			
Tempranillo	672	738	999	749	683	786	688	695
Touriga Nacional		698	960	837	874	629	781	660
Trebbiano Toscano	283	274	353	202	316	244	221	248
Tribidrag	509	553	659	219	686	521	394	711
Verdelho				511	408	392	417	401
Vermentino				1284	614	822	720	694
Viognier	938	796	939	616	561	469	557	494
Other red	612	485	744					
Other white	560	402	470					
Australia Total	**621**	**654**	**833**	**641**	**579**	**529**	**575**	**601**

Table 154: National winegrape production value, by variety, 1999 to 2012 ($ million)

Prime variety	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Afus Ali	0.6	0.3	0.3	0.2	0.2									
Arneis														0.3
Barbera	0.4	0.5	0.4	0.7	0.5	0.4	0.9	0.7	0.8	1.1		0.2		0.3
Cabernet Franc	6.8	7.3	7.7	5.8	4.9	4.7	4.1	3.2	2.1	3.6		1.9	2.0	2.9
Cabernet Sauvignon	187.2	183.5	307.1	266.7	218.7	259.9	187.2	169.8	130.2	234.4	181.3	137.0	127.4	139.2
Canada Muscat	0.5	0.3	0.2	0.4	0.2									
Chardonnay	200.8	176.1	230.1	239.7	247.7	328.4	310.7	215.4	197.6	286.6	220.8	155.1	157.5	186.4
Chenin Blanc	8.8	7.6	7.4	6.8	5.4	5.2	6.5	5.6	4.3	5.4		2.9	2.7	3.3
Colombard	12.9	13.5	14.6	23.7	19.8	25.0	26.5	21.7	16.9	24.9	17.8	9.3	9.7	11.9
Cot	3.0	2.9	4.3	2.8	3.5	2.8	3.0	2.5	1.8	2.8		1.7	1.6	2.0
Crouchen	0.3	0.5	0.7	0.9	0.6		1.1	1.0	1.0	1.5		1.0		
Dolcetto														0.6
Doradillo	1.7	1.4	1.3	1.9	0.8		0.4		0.6	0.6				
Durif		0.5	1.0	2.6	1.7	2.2	2.5	2.1	2.4	3.0		1.9	1.5	1.9
Fiano														0.2
Garnacha Tinta	21.5	19.7	19.5	22.4	16.0	19.7	17.8	14.0	10.7	18.9		7.1	7.0	10.0
Gascon														
Gewurztraminer	3.3	2.5	2.9	4.0	3.1	4.4	4.8	5.7	4.3	7.1		4.5	4.4	5.1
Korinthiaki	2.8	1.5	0.6	0.4										
Marsanne												1.0	0.7	1.0
Mazuelo	0.3	0.3	0.2	0.3										
Merlot	40.8	49.6	83.4	85.1	80.3	89.0	85.7	71.2	55.7	93.3	80.9	57.6	54.4	67.9
Monastrell	7.2	5.8	7.6	7.4	5.7	7.2	5.2	5.2	3.8	6.7		2.6	2.5	3.4
Montepulciano														0.1
Muscadelle	1.3	1.0	1.2	1.1	1.0	0.9	0.9	1.1	0.7	0.6		0.2		
Muscat a petit grains rouge/rose												0.7	1.0	1.0
Muscat a Petits Grains Rouge					1.1	1.1	1.4							
Muscat Blanc a Petits Grains	1.4	0.9	1.0	1.1	1.0	0.9	1.4	1.0	0.8	1.7		1.9	3.8	4.9
Muscat Fleur d'Oranger														
Muscat of Alexandria	19.2	18.3	17.1	18.5	15.7	18.3	17.8	17.8	15.1	19.1	18.5	13.4	17.9	22.0
Nebbiolo	0.1	0.1	0.2	0.4	0.4	0.6	0.6	0.4	0.3	0.6		0.5		
Nero d'Avola														0.1
Palomino Fino	0.7	0.6	0.4	0.4	0.3		0.4		0.1	0.2				
Pedro Ximenez	0.6	0.4	0.3	0.3	0.2									
Petit Verdot	1.4	1.9	5.5	9.3	9.0	10.9	10.7	10.4	7.2	13.5		6.7	7.2	8.0

Table 154 (cont.) National winegrape production value, by variety, 1999 to 2012 ($ million)

Prime variety	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Pinot Gris						3.0	3.3	6.3	12.5	26.5		27.9	28.9	30.9
Pinot Meunier	0.9	1.1	2.0	1.1	1.4		1.5	3.1	1.0	2.3				
Pinot Noir	26.1	25.7	40.1	24.7	36.1	49.3	38.5	34.7	32.9	63.9	28.4	37.2	31.3	27.2
Riesling	21.0	18.5	24.5	25.7	29.5	37.1	40.7	30.9	25.8	39.0	29.2	24.3	21.9	20.8
Roussanne							0.4	0.3	0.3	0.4		0.5		
Ruby Cabernet	16.8	17.0	19.9	26.5	16.7	13.7	10.4	7.9	5.9	8.2		3.4	3.5	3.1
Sangiovese	0.5	1.8	3.1	4.5	4.7	3.7	4.0	2.5	2.4	3.9		2.8	2.1	3.5
Sauvignon Blanc	20.5	19.1	26.0	27.2	22.5	43.4	42.8	42.6	41.6	74.0	52.7	49.6	46.1	46.7
Savagnin Blanc												0.4	0.5	0.4
Semillon	50.6	44.1	57.1	62.5	47.5	58.5	59.2	51.0	43.5	62.0	42.5	34.2	32.7	32.0
Sultaniye	37.8	28.7	23.2	19.6	11.1	16.9	10.1	3.7	5.0	6.0		0.6		0.4
Syrah	258.0	234.0	362.9	361.2	310.5	390.0	337.0	302.2	209.5	432.5	279.6	268.0	224.1	241.3
Taminga	0.3	0.1	0.1	0.2	0.1									
Tarrango	1.1	1.3	1.5	1.4	1.4	2.0	1.3	0.9	0.7	1.0		0.2		
Tempranillo		0.6	0.2	0.3	0.5	1.2	1.7	1.8	1.4	3.7		2.0	2.5	2.4
Touriga Nacional	0.5	0.1	0.6	0.6	0.4		0.5		0.2	0.3		0.2		
Trebbiano Toscano	3.5	3.0	2.5	2.5	2.0	2.2	1.8	1.2	0.8	1.1		0.3		
Tribidrag						0.4	0.7	0.5	0.4	0.5		0.6	0.3	0.2
Verdelho												5.8	5.1	5.0
Vermentino														0.6
Viognier	0.5	0.5	0.9	1.6	2.1	4.8	6.4	6.3	6.7	11.6		7.0	5.0	5.0
Other	143.2	107.8	127.9	114.0	94.1	122.9	98.2	60.9	42.7	77.2	127.9	15.6	19.0	17.3
Total	**1104.6**	**1000.7**	**1407.4**	**1376.4**	**1218.6**	**1530.3**	**1348.0**	**1105.9**	**889.8**	**1539.7**	**1079.6**	**887.7**	**824.4**	**909.1**

Table 155: Varietal shares of national winegrape production value, 1999 to 2012 (%)

Prime variety	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Afus Ali	0.06	0.03	0.02	0.02	0.02									
Arneis														0.03
Barbera	0.04	0.05	0.03	0.05	0.04	0.03	0.06	0.06	0.09	0.07		0.02		0.03
Cabernet Franc	0.61	0.73	0.55	0.42	0.41	0.30	0.31	0.29	0.23	0.24		0.22	0.24	0.32
Cabernet Sauvignon	16.95	18.34	21.82	19.38	17.95	16.99	13.89	15.36	14.63	15.23	16.79	15.43	15.45	15.31
Canada Muscat	0.05	0.03	0.02	0.03	0.01									
Chardonnay	18.18	17.60	16.35	17.42	20.33	21.46	23.05	19.48	22.21	18.61	20.45	17.47	19.11	20.50
Chenin Blanc	0.80	0.76	0.52	0.49	0.44	0.34	0.48	0.51	0.48	0.35		0.32	0.33	0.36
Colombard	1.16	1.35	1.04	1.72	1.62	1.63	1.97	1.96	1.89	1.62	1.65	1.05	1.18	1.31
Cot	0.28	0.29	0.31	0.20	0.28	0.19	0.22	0.23	0.20	0.18		0.19	0.20	0.22
Crouchen	0.03	0.05	0.05	0.07	0.05		0.08	0.09	0.12	0.09		0.11		
Dolcetto														0.07
Doradillo	0.15	0.14	0.09	0.13	0.06		0.03		0.07	0.04				
Durif		0.05	0.07	0.19	0.14	0.14	0.19	0.19	0.27	0.20		0.21	0.18	0.21
Fiano														0.02
Garnacha Tinta	1.94	1.97	1.39	1.62	1.31	1.29	1.32	1.27	1.20	1.23		0.80	0.85	1.10
Gascon														
Gewurztraminer	0.30	0.25	0.21	0.29	0.25	0.28	0.36	0.52	0.49	0.46		0.51	0.53	0.56
Korinthiaki	0.25	0.15	0.04	0.03										
Marsanne												0.11	0.09	0.11
Mazuelo	0.03	0.03	0.01	0.02										
Merlot	3.70	4.95	5.92	6.18	6.59	5.82	6.36	6.44	6.26	6.06	7.50	6.48	6.60	7.47
Monastrell	0.65	0.58	0.54	0.54	0.47	0.47	0.38	0.47	0.43	0.43		0.30	0.30	0.37
Montepulciano														0.01
Muscadelle	0.12	0.10	0.09	0.08	0.08	0.06	0.06	0.10	0.08	0.04		0.02		
Muscat a petit grains rouge/rose												0.08	0.12	0.11
Muscat a Petits Grains Rouge					0.09	0.07	0.10							
Muscat Blanc a Petits Grains	0.13	0.09	0.07	0.08	0.08	0.06	0.10	0.09	0.09	0.11		0.22	0.46	0.54
Muscat Fleur d'Oranger														
Muscat of Alexandria	1.74	1.83	1.21	1.35	1.29	1.19	1.32	1.61	1.70	1.24	1.72	1.51	2.18	2.42
Nebbiolo	0.00	0.01	0.02	0.03	0.04	0.04	0.05	0.03	0.04	0.04		0.05		

Table 155 (cont.) Varietal shares of national winegrape production value, 1999 to 2012 (%)

Prime variety	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Nero d'Avola														0.01
Palomino Fino	0.06	0.06	0.03	0.03	0.03		0.03		0.02	0.01				
Pedro Ximenez	0.05	0.04	0.02	0.02	0.01									
Petit Verdot	0.13	0.19	0.39	0.67	0.74	0.71	0.79	0.94	0.81	0.87		0.75	0.87	0.88
Pinot Gris						0.20	0.25	0.57	1.41	1.72		3.14	3.50	3.40
Pinot Meunier	0.08	0.11	0.14	0.08	0.12		0.11	0.28	0.11	0.15				
Pinot Noir	2.36	2.57	2.85	1.79	2.97	3.22	2.86	3.14	3.70	4.15	2.63	4.19	3.80	2.99
Riesling	1.90	1.85	1.74	1.87	2.42	2.42	3.02	2.80	2.90	2.53	2.70	2.74	2.65	2.29
Roussanne							0.03	0.03	0.03	0.03		0.05		
Ruby Cabernet	1.52	1.70	1.42	1.92	1.37	0.90	0.77	0.71	0.66	0.53		0.38	0.42	0.34
Sangiovese	0.04	0.18	0.22	0.33	0.38	0.24	0.30	0.23	0.27	0.25		0.31	0.26	0.38
Sauvignon Blanc	1.86	1.91	1.85	1.97	1.84	2.83	3.17	3.85	4.68	4.81	4.88	5.59	5.59	5.13
Savagnin Blanc												0.05	0.06	0.05
Semillon	4.58	4.41	4.06	4.54	3.90	3.83	4.39	4.61	4.89	4.03	3.93	3.86	3.96	3.52
Sultaniye	3.42	2.87	1.64	1.43	0.91	1.10	0.75	0.34	0.56	0.39		0.06		0.05
Syrah	23.36	23.38	25.78	26.24	25.48	25.48	25.00	27.33	23.55	28.09	25.90	30.19	27.18	26.54
Taminga	0.02	0.01	0.01	0.02	0.01									
Tarrango	0.10	0.13	0.10	0.10	0.11	0.13	0.09	0.08	0.07	0.07		0.02		
Tempranillo		0.06	0.01	0.02	0.04	0.08	0.13	0.17	0.15	0.24		0.23	0.30	0.26
Touriga Nacional	0.04	0.01	0.04	0.04	0.04		0.04		0.02	0.02		0.03		
Trebbiano Toscano	0.31	0.30	0.18	0.18	0.17	0.14	0.13	0.11	0.08	0.07		0.03		
Tribidrag						0.03	0.05	0.05	0.05	0.04		0.07	0.04	0.02
Verdelho												0.66	0.62	0.55
Vermentino														0.07
Viognier	0.04	0.05	0.06	0.11	0.17	0.31	0.47	0.57	0.75	0.75		0.78	0.61	0.55
Other	12.96	10.77	9.09	8.29	7.72	8.03	7.29	5.51	4.80	5.01	11.85	1.75	2.31	1.91
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 156: Winegrape bearing area, by variety, cool climate regions, 2001 to 2012 (ha)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										45	26
Barbera	6	20	5	10	16	13	19	25		9	10
Cabernet Franc	127	147	163	137	94	97	100	89		82	86
Cabernet Sauvignon	5452	5608	5876	6280	6475	6433	6252	6434		6336	6291
Canada Muscat	1		0								
Carignan	7	0	0								
Chardonnay	2360	2474	2491	2824	2946	2941	3154	3477		3436	3193
Chenin Blanc	7	2	4	10	11	5	4	7		28	1
Colombard	7	4	6	6	8	6	5	18		32	0
Crouchen		0	0	2						0	
Currant	5	0									
Dolcetto										4	9
Doradillo	5	0									
Durif	5	7	3	7	27	12	8	19		13	7
Fiano											6
Grenache	27	4	13	19	31	30	28	48		51	7
Gruner Veltliner											4
Malbec	51	45	74	80	51	41	39	39		39	41
Marsanne	6	21	12	10	11	11	14	30		8	9
Mataro	30	19	70	58	36	7	7	14		12	25
Merlot	1342	1516	1643	1756	1723	1509	1466	1471		1455	1337
Meunier	61	79	65	85	76	71	73	68			
Montepulciano											9
Muscadelle	2	0	1	8	8	8	8	8		1	0
Muscat a Petits Grains Blanc	1	2	1	5	5	4	4	6		4	7
Muscat a Petits Grains Rouge	2	1	0		0	1	3	1		7	1
Muscat Gordo Blanco	13	2	8	8	18	5	6	17		10	1
Nebbiolo	3	9	13	20	17	17	18	20		22	27
Nero d'Avola											3

Table 156 (cont.) Winegrape bearing area, by variety, cool climate regions, 2001 to 2012 (ha)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	1	0	1	1	3	0	0	3			
Pedro Ximenes	2	2	2	2							
Petit Verdot	80	92	114	108	97	58	50	61		67	71
Pinot Gris				121	141	191	277	353		625	700
Pinot Noir	1726	2051	2128	2453	2288	2316	2495	2546		2779	2809
Riesling	332	358	376	485	466	477	425	608		603	452
Roussane					5	5	5	7		7	
Ruby Cabernet	10	13	8	28	33	26	25	36		5	0
Sangiovese	24	23	36	52	44	53	44	57		120	76
Sauvignon Blanc	639	635	659	833	866	899	1087	1248		1598	1670
Savagnin										11	20
Semillon	257	226	197	207	225	188	184	191		178	164
Shiraz	2886	3260	3290	3594	3921	3903	3832	4311		4130	3958
Sultana	64	12	37	28	18	4	4	0		0	0
Taminga	0	1	3								
Tarrango	4	1	0	0	2	0	4	2		0	
Tempranillo	6	12	14	28	34	36	34	33		50	56
Touriga	2	3	1	1	1	1	1	1		2	
Traminer	23	26	14	38	41	42	53	57		66	56
Trebbiano	5	3	5	3	4	3	1	0		0	
Verdelho	46	66	67	51	42	32	35	34		13	31
Vermentino											2
Viognier	14	37	40	72	104	124	127	130		177	113
Waltham Cross	1		0								
Zinfandel				7	5	7	9	12		15	3
Other Red	46	45	85	71	53	70	57	92		128	107
Other White	121	137	165	65	84	87	64	40		218	73
Australia Total	**15808**	**16965**	**17686**	**19568**	**20027**	**19734**	**20021**	**21614**		**22387**	**21463**

Table 157: Winegrape bearing area, by variety, warm climate regions, 2001 to 2012 (ha)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										29	16
Barbera	61	71	84	93	85	94	86	96		74	68
Cabernet Franc	495	565	525	479	432	410	413	478		462	372
Cabernet Sauvignon	10988	12629	12762	13018	12750	12966	13113	12774		12357	11481
Canada Muscat	0	16	6								
Carignan	5	21	1								
Chardonnay	7838	8262	8307	8827	9755	10613	11210	10783		9355	8063
Chenin Blanc	305	240	209	207	199	222	231	201		212	212
Colombard	29	46	54	45	53	34	34	44		43	20
Crouchen	26	16	11	9	7	7	4	4		2	
Currant	46	38	34								
Dolcetto										64	46
Doradillo	6	16	14	14	2	1	4	1			
Durif	54	101	109	116	124	128	160	141		128	136
Fiano											25
Grenache	1198	1287	1347	1439	1300	1377	1358	1367		1208	1302
Gruner Veltliner											2
Malbec	266	310	307	297	292	300	281	253		271	311
Marsanne	142	164	164	149	114	124	132	139		111	109
Mataro	186	227	240	253	260	313	326	329		428	391
Merlot	3095	3748	4071	4363	4400	4620	4667	4685		4386	3703
Meunier	39	36	41	55	41	61	33	35			
Montepulciano											7
Muscadelle	152	114	108	93	82	83	78	86		36	51
Muscat a Petits Grains Blanc	102	83	97	72	66	60	58	64		78	146
Muscat a Petits Grains Rouge	208	208	176	166	150	141	145	136		130	165
Muscat Gordo Blanco	27	32	29	27	56	18	21	12		40	10
Nebbiolo	41	40	51	63	64	56	60	70		68	77
Nero d'Avola											6

Table 157 (cont.) Winegrape bearing area, by variety, warm climate regions, 2001 to 2012 (ha)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	31	25	25	24	22	23	21	18			
Pedro Ximenes	53	74	37	34							
Petit Verdot	173	221	261	337	335	405	367	379		350	245
Pinot Gris				73	140	327	432	559		850	853
Pinot Noir	1212	1316	1241	1194	1139	1173	1120	1112		1129	1181
Riesling	2238	2439	2455	2732	2956	3012	3026	3058		2971	2869
Roussane					29	33	34	50		71	
Ruby Cabernet	86	124	111	90	81	75	75	71		33	23
Sangiovese	173	264	365	288	288	255	291	332		371	328
Sauvignon Blanc	1528	1647	1686	1773	1858	2173	2529	2911		3163	2957
Savagnin										72	80
Semillon	3339	3317	3097	3020	2975	2947	3052	3076		2929	2603
Shiraz	15134	18524	18481	19927	20321	21424	22795	23191		23650	22593
Sultana	169	114	163	163	152	62	38	37		4	17
Taminga	23	5	3								
Tarrango	12	35	18	5	17	4	2	5		13	
Tempranillo	16	37	64	108	138	150	172	188		269	375
Touriga	31	32	46	38	36	31	33	26		29	
Traminer	212	209	207	254	251	264	258	280		257	228
Trebbiano	80	71	44	43	37	30	23	39		14	
Verdelho	771	801	820	854	833	915	989	970		772	629
Vermentino											32
Viognier	91	127	180	284	393	405	477	566		569	543
Waltham Cross	38	19	24								
Zinfandel				40	43	55	63	77		89	70
Other red	726	509	535	605	636	706	627	629		431	343
Other white	538	383	399	410	481	678	286	269		311	283
Australia Total	**51983**	**58568**	**59008**	**62080**	**63393**	**66772**	**69125**	**69541**		**67829**	**62972**

Table 158: Winegrape bearing area, by variety, hot climate regions, 2001 to 2012 (ha)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										79	32
Barbera	36	49	33	50	45	44	46	32		33	22
Cabernet Franc	122	99	112	109	91	57	57	87		47	89
Cabernet Sauvignon	8557	9146	8839	9080	8709	8240	8039	8100		7275	7561
Canada Muscat	47	43	34								
Carignan	78	46	25								
Chardonnay	7069	7861	8376	10878	12883	14686	16412	16560		14982	14103
Chenin Blanc	529	517	495	517	456	459	430	407		300	295
Colombard	1765	2171	2295	2556	2523	2615	2647	2557		2130	1980
Crouchen	72	91	78	93	99	97	97	113		93	
Currant	728	713	566								
Dolcetto										87	68
Doradillo	238	228	128	152	120	104	92	70			
Durif	122	204	191	190	222	189	271	256		276	341
Fiano											57
Grenache	914	1037	827	765	692	595	598	562		488	469
Gruner Veltliner											1
Malbec	112	99	96	115	75	50	50	56		46	55
Marsanne	69	78	74	63	57	51	44	38		119	72
Mataro	732	867	688	692	545	522	437	422		252	289
Merlot	3232	3687	3763	4078	4215	3903	4057	4382		4186	4177
Meunier	7	22	6	3	5	49	3	1			
Montepulciano											16
Muscadelle	44	63	57	54	74	69	67	59		31	30
Muscat a Petits Grains Blanc	111	115	131	104	123	87	107	164		450	655
Muscat a Petits Grains Rouge	170	196	123	130	137	112	110	92		94	82
Muscat Gordo Blanco	2455	2389	2248	2176	2153	2209	2150	2143		1994	2210
Nebbiolo	7	23	11	22	8	7	5	4		7	4
Nero d'Avola											13

Table 158 (cont.) Winegrape bearing area, by variety, hot climate regions, 2001 to 2012 (ha)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	92	72	65	50	54	42	31	27			
Pedro Ximenes	34	24	26	23							
Petit Verdot	468	707	798	1082	975	946	918	890		806	889
Pinot Gris				13	43	141	654	1165		1822	2138
Pinot Noir	286	417	470	517	538	550	530	550		782	777
Riesling	558	634	622	598	580	602	650	603		540	533
Roussane					2	1	3	1		5	
Ruby Cabernet	2328	2580	2378	1859	1542	1332	1103	1034		923	745
Sangiovese	175	274	214	146	140	98	116	106		98	147
Sauvignon Blanc	434	471	414	428	489	803	930	1168		1706	2175
Savagnin										11	31
Semillon	2933	2879	2827	2844	2718	2738	2968	3187		3005	2814
Shiraz	11275	12042	12350	13005	13352	13759	14860	15303		14896	14538
Sultana	10065	10215	8929	8032	6880	6380	5621	4870		426	176
Taminga	22	57	39								
Tarrango	104	113	121	149	162	161	123	94		60	
Tempranillo	20	31	52	57	74	107	111	123		157	192
Touriga	39	28	28	25	20	20	19	19		17	
Traminer	286	263	283	399	374	424	479	473		512	618
Trebbiano	601	598	436	410	300	279	202	179		71	
Verdelho	476	623	649	684	662	688	698	708		751	667
Vermentino											43
Viognier	11	27	47	105	170	214	454	521		656	511
Waltham Cross	288	258	240								
Zinfandel				41	44	43	46	39		45	27
Other red	2097	2419	2488	3010	3305	3740	4413	4141		592	495
Other white	3005	3361	3431	3608	4129	4449	4159	3737		727	812
Australia Total	**62811**	**67840**	**66102**	**68913**	**69786**	**71661**	**74805**	**75042**		**61573**	**60947**

Table 159: Winegrape production, by variety, cool climate regions, 2001 to 2012 (tonnes)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										507	164
Barbera	49	60	14	43	87	79	23	159		39	35
Cabernet Franc	1261	674	991	1461	737	596	414	576		429	376
Cabernet Sauvignon	51587	20879	28940	67035	37410	36096	20755	41701		41315	29533
Canada Muscat	26		0								
Carignan	7	1	1								
Chardonnay	26653	13490	15040	29410	23822	22231	15180	34320		25335	19532
Chenin Blanc	100	12	17	115	149	91	59	122		61	9
Colombard	153	147	76	126	193	133	95	324		646	1
Crouchen		0	0	40						0	
Currant	0	0									
Dolcetto										21	130
Doradillo	107	0									
Durif	60	69	12	46	360	77	10	103		50	33
Fiano											30
Grenache	271	25	87	189	168	203	122	290		186	23
Gruner Veltliner											11
Malbec	581	208	679	695	466	212	140	284		276	269
Marsanne	46	90	36	87	105	76	77	94		75	44
Mataro	117	261	743	903	379	42	33	196		90	360
Merlot	11707	6574	9703	19236	13548	12155	6990	12137		12462	11538
Meunier	689	345	469	1105	749	518	452	821			
Montepulciano											45
Muscadelle	23	1	2	98	112	109	71	62		1	1
Muscat a Petits Grains Blanc	14	2	1	38	58	47	42	76		22	86
Muscat a Petits Grains Rouge	8	2	0		0	12	14	3		12	4
Muscat Gordo Blanco	207	0	113	146	380	73	55	265		260	4
Nebbiolo	23	48	53	84	141	65	61	94		72	149
Nero d'Avola											14

Table 159 (cont.) Winegrape production, by variety, cool climate regions, 2001 to 2012 (tonnes)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	17	3	3	5	21	3	1	13			
Pedro Ximenes	23	22	6	21							
Petit Verdot	768	734	982	1571	891	398	304	530		330	583
Pinot Gris				1245	985	1419	1433	3508		5841	4917
Pinot Noir	14850	6396	12189	20713	13795	13981	11141	22358		19572	13411
Riesling	2798	1508	2043	3467	3822	3391	1926	4847		4648	2361
Roussane					44	41	28	60		34	
Ruby Cabernet	77	139	46	321	705	511	356	455		4	1
Sangiovese	205	146	233	452	401	399	172	502		933	533
Sauvignon Blanc	5602	3895	3422	10337	8810	7409	7131	13490		13759	10291
Savagnin										76	97
Semillon	2236	1925	1578	2861	2812	1889	1471	2120		1611	1170
Shiraz	28058	15284	19164	36312	26531	26759	14451	35811		29209	22916
Sultana	304	5	125	163	88	1	43	1		0	1
Taminga	0	1	3								
Tarrango	21	18	1	1	10	0	78	46		0	
Tempranillo	32	25	41	155	250	188	112	340		247	222
Touriga	29	24	2	7	4	8	5	7		8	
Traminer	116	47	61	170	312	279	275	622		576	195
Trebbiano	27	2	3	3	70	28	1	1		1	
Verdelho	588	439	342	740	386	186	204	301		89	246
Vermentino											27
Viognier	38	114	190	497	573	662	620	1003		931	442
Waltham Cross	0		0								
Zinfandel				57	32	62	44	71		105	8
Other red	287	194	575	408	326	241	183	325		848	486
Other white	694	653	924	376	719	416	155	255		1019	380
Australia Total	**150457**	**74462**	**98910**	**200738**	**140447**	**131086**	**84732**	**178295**		**161701**	**120678**

Table 160: Winegrape production, by variety, warm climate regions, 2001 to 2012 (tonnes)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										83	78
Barbera	403	439	440	533	542	414	340	722		361	268
Cabernet Franc	4008	4217	3020	3269	2971	2730	1791	2384		2096	1679
Cabernet Sauvignon	87971	84518	77558	110970	89848	98451	62201	85746		68915	62398
Canada Muscat	1	235	40								
Carignan	38	154	21								
Chardonnay	83612	69043	63562	84820	92339	94682	70449	103028		51722	56673
Chenin Blanc	3823	2583	1822	2819	2670	2580	2063	2112		2279	2325
Colombard	421	756	739	772	1259	754	559	874		646	260
Crouchen	190	112	52	105	54	36	4	4		1	
Currant	83	42	0								
Dolcetto										414	361
Doradillo	62	493	461	365	21	20	36	10			
Durif	287	651	602	872	966	958	983	1063		774	735
Fiano											76
Grenache	9041	10732	8933	11901	13950	12508	7817	10842		5900	8669
Gruner Veltliner											0
Malbec	2545	1476	1814	1890	2289	2297	1392	1816		1732	1966
Marsanne	1245	1150	1008	1642	984	735	649	1152		866	812
Mataro	1363	1236	1325	1745	1999	2501	2304	2246		2839	2785
Merlot	23312	24861	26430	35463	35795	37571	27664	38844		28747	27833
Meunier	312	182	296	507	331	548	145	443			
Montepulciano											30
Muscadelle	1076	767	553	575	531	590	318	444		181	228
Muscat a Petits Grains Blanc	972	620	660	693	754	593	406	522		537	1013
Muscat a Petits Grains Rouge	784	693	582	560	774	672	517	617		783	753
Muscat Gordo Blanco	235	655	397	571	478	256	260	178		952	51
Nebbiolo	84	179	213	251	312	187	213	272		265	371
Nero d'Avola											13

Table 160 (cont.) Winegrape production, by variety, warm climate regions, 2001 to 2012 (tonnes)

Prime varie	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	174	246	89	147	216	181	116	86			
Pedro Xim	387	534	240	243							
Petit Verdo	1007	1548	1728	2427	2955	3627	2691	2973		3064	1652
Pinot Gris				731	1236	2096	3147	5370		7447	6994
Pinot Noir	11080	8348	9089	11035	10327	9649	6431	11340		8622	7436
Riesling	17599	15570	17510	22805	26756	24234	18948	25738		21186	20960
Roussane					293	193	150	304		298	
Ruby Cabe	961	2066	978	1201	1165	784	750	774		220	93
Sangiovese	1395	1640	2454	2004	2824	1974	1686	2668		2064	2110
Sauvignon	13379	14640	11111	20937	17654	18333	15202	26168		25341	22963
Savagnin										409	455
Semillon	31904	35922	26832	35238	35682	29987	23614	31938		22707	20731
Shiraz	123338	115055	112097	172769	163612	169876	104843	177495		166756	125601
Sultana	1148	679	425	696	516	26	161	37		26	34
Taminga	32	27	16								
Tarrango	106	581	180	56	138	47	22	82		89	
Tempranill	54	156	187	488	843	805	694	1618		1168	2055
Touriga	362	365	409	329	265	211	141	139		151	
Traminer	1493	1267	996	1799	1823	2296	1531	2963		1609	1202
Trebbiano	444	543	221	219	216	148	127	207		63	
Verdelho	6706	5900	6322	7632	7000	7694	6039	8894		4763	3682
Vermentino											256
Viognier	443	638	832	1780	2144	2452	2113	4031		2565	2674
Waltham C	45	33	20								
Zinfandel				221	261	301	263	285		296	358
Other red	1872	1495	1255	2257	2633	2086	1923	2254		2155	1920
Other whit	1189	1269	964	1848	2495	2770	1215	1028		2183	2574
**Australia '	**436986**	**414313**	**384483**	**547185**	**529920**	**538851**	**371919**	**559708**		**443276**	**393127**

Table 161: Winegrape production, by variety, hot climate regions, 2001 to 2012 (tonnes)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										874	409
Barbera	355	535	374	480	780	699	718	467		373	187
Cabernet Franc	902	1294	1263	1377	1363	1021	468	1041		542	943
Cabernet Sauvignon	109731	151825	119225	141950	156619	139758	100096	130619		103692	115627
Canada Muscat	414	541	319								
Carignan	421	651	396								
Chardonnay	134958	173795	155146	197043	262091	280410	281307	290734		220956	272078
Chenin Blanc	9919	11973	9627	10793	9659	8826	6022	6304		4419	4973
Colombard	38539	59515	52581	68852	76049	73941	55642	58004		44564	52676
Crouchen	1458	1836	1283	2244	2222	1958	2098	2906		2393	
Currant	1536	508	230								
Dolcetto										1352	870
Doradillo	4735	6484	2503	4026	1575	1834	1910	1041			
Durif	1152	3280	2618	3193	3875	3407	3365	4186		3534	3374
Fiano											234
Grenache	13251	15503	10847	12897	11229	9986	7663	8623		5249	6227
Gruner Veltliner											0
Malbec	1162	1378	1263	1243	859	694	394	613		539	563
Marsanne	985	1158	953	1526	737	921	638	624		679	853
Mataro	10145	10954	9754	11343	7577	8338	4259	5959		2546	2949
Merlot	45127	72987	56732	69245	83175	73359	55807	74304		63664	78012
Meunier	89	142	23	47	42	1145	9	13			
Montepulciano											103
Muscadelle	521	575	530	604	754	639	500	293		269	373
Muscat a Petits Grains Blanc	1478	1924	1798	1238	1891	1075	1253	2418		4821	11015
Muscat a Petits Grains Rouge	790	866	702	726	910	944	855	700		855	962
Muscat Gordo Blanco	48529	50410	44043	51745	47553	49991	40265	38868		47431	54100
Nebbiolo	57	145	172	181	99	51	45	54		56	27
Nero d'Avola											43

Table 161 (cont.) Winegrape production, by variety, hot climate regions, 2001 to 2012 (tonnes)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	1461	1216	1222	1016	1087	717	358	257			
Pedro Ximenes	493	443	351	286							
Petit Verdot	4365	12568	12246	19119	21165	22202	13337	20485		15562	17839
Pinot Gris				118	604	2263	7760	17278		26060	38516
Pinot Noir	3589	6597	6672	9942	12751	10292	8679	10225		13198	13727
Riesling	6583	10761	9442	10132	10642	10704	10128	8720		7847	8996
Roussane					20	0	57	4		66	
Ruby Cabernet	30090	47770	36833	34165	31689	25087	16026	17519		13146	11237
Sangiovese	1695	4557	3371	2779	3306	2344	1694	2459		2033	2429
Sauvignon Blanc	6346	10032	6496	8500	11884	14760	14182	22762		32809	48188
Savagnin										318	506
Semillon	54287	62938	48687	61138	58159	64910	50084	65973		52302	55989
Shiraz	159653	196225	177740	227611	225157	225796	164447	228645		207379	213700
Sultana	72360	64673	35482	56467	34438	14489	20422	17297		2592	1909
Taminga	379	645	396								
Tarrango	2539	2204	2305	3718	2743	2490	2100	1927		586	
Tempranillo	126	264	418	786	940	1743	1056	1722		1517	1145
Touriga	292	320	252	311	250	224	165	169		125	
Traminer	2736	4578	4219	5522	6998	8475	6762	7978		6817	9143
Trebbiano	6885	7255	6228	6247	5114	4223	2620	2804		908	
Verdelho	5796	9781	8695	10607	11227	11978	8400	11268		9394	8084
Vermentino											556
Viognier	132	460	635	1625	2758	3596	5637	7325		8908	5915
Waltham Cross	1064	798	658								
Zinfandel				745	890	700	473	478		441	125
Other Red	4678	4417	4554	9676	12780	9136	6712	12481		5297	5937
Other White	11883	8947	6927	17374	24407	16615	9626	13484		12157	17704
Australia Total	**803680**	**1025727**	**846207**	**1068634**	**1148064**	**1111738**	**914040**	**1099030**		**928269**	**1068244**

Table 162: Winegrape yield, by variety, cool climate regions, 2001 to 2012 (t/ha)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										11.4	6.3
Barbera	7.8	3.1	2.7	4.4	5.3	5.9	1.2	6.3		4.5	3.4
Cabernet Franc	9.9	4.6	6.1	10.7	7.8	6.1	4.1	6.5		5.3	4.4
Cabernet Sauvignon	9.5	3.7	4.9	10.7	5.8	5.6	3.3	6.5		6.5	4.7
Canada Muscat	19.8										
Carignan	1.0	13.8	10.0								
Chardonnay	11.3	5.5	6.0	10.4	8.1	7.6	4.8	9.9		7.4	6.1
Chenin Blanc	13.9	5.3	4.6	11.5	13.6	17.9	13.7	18.5		2.2	7.8
Colombard	22.5	33.2	13.6	21.6	25.4	22.5	21.1	18.4		20.1	2.5
Crouchen				24.8							
Currant											
Dolcetto										5.3	14.2
Doradillo	22.8										
Durif	11.8	10.1	4.2	6.7	13.3	6.6	1.2	5.3		4.0	4.7
Fiano											4.9
Grenache	10.0	6.7	6.9	9.9	5.4	6.7	4.4	6.0		3.6	3.2
Gruner Veltliner											2.6
Malbec	11.4	4.6	9.2	8.7	9.2	5.2	3.6	7.3		7.1	6.5
Marsanne	8.3	4.3	3.1	8.4	9.4	6.8	5.5	3.1		9.4	5.1
Mataro	3.9	13.8	10.6	15.5	10.5	6.4	4.6	14.1		7.6	14.3
Merlot	8.7	4.3	5.9	11.0	7.9	8.1	4.8	8.3		8.6	8.6
Meunier	11.3	4.3	7.2	13.0	9.9	7.3	6.2	12.2			
Montepulciano											4.8
Muscadelle	10.0	2.7	3.8	11.6	13.8	13.5	8.8	7.7		1.2	6.6
Muscat a Petits Grains Blanc	13.8	0.8	1.7	7.8	12.3	11.8	10.5	13.2		5.3	11.9
Muscat a Petits Grains Rouge	3.6	1.4	3.0			8.7	4.9	2.5		1.8	6.4
Muscat Gordo Blanco	15.4		14.2	18.5	21.6	13.7	9.5	15.9		26.5	8.5
Nebbiolo	8.9	5.2	4.0	4.2	8.2	3.8	3.3	4.7		3.3	5.5
Nero d'Avola											4.1

Table 162 (cont.) Winegrape yield, by variety, cool climate regions, 2001 to 2012 (t/ha)

Prime variety	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	12.4	15.7	5.0	8.2	7.3	15.0	3.0	3.9			
Pedro Ximenes	9.6	13.0	3.8	13.7							
Petit Verdot	9.6	8.0	8.6	14.5	9.2	6.9	6.1	8.7		4.9	8.2
Pinot Gris				10.3	7.0	7.4	5.2	9.9		9.3	7.0
Pinot Noir	8.6	3.1	5.7	8.4	6.0	6.0	4.5	8.8		7.0	4.8
Riesling	8.4	4.2	5.4	7.2	8.2	7.1	4.5	8.0		7.7	5.2
Roussane					8.8	8.0	5.3	8.4		4.5	
Ruby Cabernet	7.8	10.8	5.6	11.6	21.4	20.0	14.2	12.7		0.8	5.0
Sangiovese	8.7	6.5	6.5	8.7	9.2	7.5	3.9	8.8		7.8	7.0
Sauvignon Blanc	8.8	6.1	5.2	12.4	10.2	8.2	6.6	10.8		8.6	6.2
Savagnin										6.8	4.9
Semillon	8.7	8.5	8.0	13.8	12.5	10.0	8.0	11.1		9.1	7.1
Shiraz	9.7	4.7	5.8	10.1	6.8	6.9	3.8	8.3		7.1	5.8
Sultana	4.8	0.4	3.4	5.9	4.9	0.2	10.9	2.7			2.0
Taminga		0.9	1.0								
Tarrango	5.9	19.6		22.1	6.0		19.2	19.6			
Tempranillo	5.6	2.0	2.9	5.6	7.4	5.2	3.3	10.2		4.9	4.0
Touriga	13.6	7.0	1.7	9.5	5.7	9.8	7.3	7.6		4.9	
Traminer	5.0	1.8	4.4	4.4	7.7	6.7	5.2	10.9		8.7	3.5
Trebbiano	5.8	0.6	0.6	0.8	16.6	11.2	1.5	4.0		2.0	
Verdelho	12.7	6.6	5.1	14.6	9.3	5.8	5.8	8.8		7.2	8.0
Vermentino											11.8
Viognier	2.7	3.1	4.7	6.9	5.5	5.3	4.9	7.7		5.3	3.9
Waltham Cross											
Zinfandel				8.4	7.0	8.4	4.8	5.8		6.9	3.1
Other red	6.3	4.3	6.8	5.8	6.2	3.4	3.2	3.6		6.6	4.5
Other white	5.8	4.8	5.6	5.8	8.6	4.8	2.4	6.4		4.7	5.2
Australia Total	**9.5**	**4.4**	**5.6**	**10.3**	**7.0**	**6.6**	**4.2**	**8.2**		**7.2**	**5.6**

Table 163: Winegrape yield, by variety, warm climate regions, 2001 to 2012 (t/ha)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										2.9	5.0
Barbera	6.6	6.1	5.2	5.8	6.4	4.4	3.9	7.5		4.9	3.9
Cabernet Franc	8.1	7.5	5.8	6.8	6.9	6.7	4.3	5.0		4.5	4.5
Cabernet Sauvignon	8.0	6.7	6.1	8.5	7.0	7.6	4.7	6.7		5.6	5.4
Canada Muscat	5.0	15.1	7.3								
Carignan	7.8	7.4	18.8								
Chardonnay	10.7	8.4	7.7	9.6	9.5	8.9	6.3	9.6		5.5	7.0
Chenin Blanc	12.5	10.8	8.7	13.6	13.4	11.6	8.9	10.5		10.7	11.0
Colombard	14.4	16.5	13.8	17.2	23.6	22.2	16.4	19.7		14.9	13.0
Crouchen	7.3	6.9	4.6	12.0	7.3	5.1	1.1	0.9		0.3	
Currant	1.8	1.1									
Dolcetto										6.5	7.8
Doradillo	9.8	31.6	33.2	25.2	8.8	20.1	8.7	16.0			
Durif	5.4	6.5	5.5	7.5	7.8	7.5	6.2	7.5		6.0	5.4
Fiano											3.0
Grenache	7.5	8.3	6.6	8.3	10.7	9.1	5.8	7.9		4.9	6.7
Gruner Veltliner											0.0
Malbec	9.6	4.8	5.9	6.4	7.8	7.7	4.9	7.2		6.4	6.3
Marsanne	8.8	7.0	6.2	11.0	8.6	5.9	4.9	8.3		7.8	7.4
Mataro	7.3	5.4	5.5	6.9	7.7	8.0	7.1	6.8		6.6	7.1
Merlot	7.5	6.6	6.5	8.1	8.1	8.1	5.9	8.3		6.6	7.5
Meunier	8.0	5.1	7.3	9.2	8.1	8.9	4.4	12.5			
Montepulciano											4.0
Muscadelle	7.1	6.7	5.1	6.2	6.5	7.1	4.1	5.2		5.0	4.5
Muscat a Petits Grains Blanc	9.5	7.4	6.8	9.6	11.4	10.0	7.0	8.2		6.9	7.0
Muscat a Petits Grains Rouge	3.8	3.3	3.3	3.4	5.2	4.8	3.6	4.5		6.0	4.6
Muscat Gordo Blanco	8.8	20.5	13.6	20.9	8.6	14.5	12.4	14.9		24.1	5.1
Nebbiolo	2.1	4.5	4.2	4.0	4.9	3.4	3.5	3.9		3.9	4.8
Nero d'Avola											2.1

Table 163 (cont.) Winegrape yield, by variety, warm climate regions, 2001 to 2012 (t/ha)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	5.6	9.7	3.6	6.2	9.8	8.1	5.5	4.7			
Pedro Ximenes	7.3	7.2	6.4	7.2							
Petit Verdot	5.8	7.0	6.6	7.2	8.8	9.0	7.3	7.8		8.8	6.8
Pinot Gris				10.1	8.8	6.4	7.3	9.6		8.8	8.2
Pinot Noir	9.1	6.3	7.3	9.2	9.1	8.2	5.7	10.2		7.6	6.3
Riesling	7.9	6.4	7.1	8.3	9.1	8.0	6.3	8.4		7.1	7.3
Roussane					10.0	5.9	4.4	6.1		4.2	
Ruby Cabernet	11.1	16.6	8.8	13.3	14.3	10.5	10.0	11.0		6.7	4.0
Sangiovese	8.1	6.2	6.7	7.0	9.8	7.8	5.8	8.0		5.6	6.4
Sauvignon Blanc	8.8	8.9	6.6	11.8	9.5	8.4	6.0	9.0		8.0	7.8
Savagnin										5.7	5.7
Semillon	9.6	10.8	8.7	11.7	12.0	10.2	7.7	10.4		7.8	8.0
Shiraz	8.1	6.2	6.1	8.7	8.1	7.9	4.6	7.7		7.1	5.6
Sultana	6.8	6.0	2.6	4.3	3.4	0.4	4.3	1.0		6.3	2.0
Taminga	1.4	5.5	5.4								
Tarrango	8.5	16.5	10.2	10.9	7.9	13.1	11.0	15.1		7.0	
Tempranillo	3.3	4.2	2.9	4.5	6.1	5.4	4.0	8.6		4.3	5.5
Touriga	11.6	11.4	8.9	8.7	7.4	6.8	4.3	5.4		5.3	
Traminer	7.0	6.1	4.8	7.1	7.3	8.7	5.9	10.6		6.3	5.3
Trebbiano	5.6	7.6	5.0	5.1	5.8	4.9	5.5	5.3		4.4	
Verdelho	8.7	7.4	7.7	8.9	8.4	8.4	6.1	9.2		6.2	5.9
Vermentino											8.1
Viognier	4.9	5.0	4.6	6.3	5.5	6.1	4.4	7.1		4.5	4.9
Waltham Cross	1.2	1.7	0.8								
Zinfandel				5.6	6.1	5.5	4.2	3.7		3.3	5.1
Other red	2.6	2.9	2.3	3.7	4.1	3.0	3.1	3.6		5.0	5.6
Other white	2.2	3.3	2.4	4.5	5.2	4.1	4.2	3.8		7.0	9.1
Australia Total	**8.4**	**7.1**	**6.5**	**8.8**	**8.4**	**8.1**	**5.4**	**8.0**		**6.5**	**6.2**

Table 164: Winegrape yield, by variety, hot climate regions, 2001 to 2012 (t/ha)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Arneis										11.0	12.9
Barbera	10.0	11.0	11.3	9.7	17.2	16.0	15.5	14.6		11.2	8.6
Cabernet Franc	7.4	13.1	11.3	12.6	14.9	17.8	8.3	12.0		11.6	10.6
Cabernet Sauvignon	12.8	16.6	13.5	15.6	18.0	17.0	12.5	16.1		14.3	15.3
Canada Muscat	8.8	12.5	9.4								
Carignan	5.4	14.3	16.0								
Chardonnay	19.1	22.1	18.5	18.1	20.3	19.1	17.1	17.6		14.7	19.3
Chenin Blanc	18.8	23.2	19.4	20.9	21.2	19.2	14.0	15.5		14.7	16.9
Colombard	21.8	27.4	22.9	26.9	30.1	28.3	21.0	22.7		20.9	26.6
Crouchen	20.3	20.1	16.5	24.0	22.5	20.1	21.7	25.7		25.8	
Currant	2.1	0.7	0.4								
Dolcetto										15.6	12.8
Doradillo	19.9	28.4	19.5	26.5	13.1	17.6	20.7	14.8			
Durif	9.4	16.0	13.7	16.8	17.4	18.1	12.4	16.3		12.8	9.9
Fiano											4.1
Grenache	14.5	14.9	13.1	16.9	16.2	16.8	12.8	15.4		10.7	13.3
Gruner Veltliner											0.0
Malbec	10.4	13.9	13.2	10.8	11.5	13.8	7.9	11.0		11.8	10.3
Marsanne	14.4	14.9	12.9	24.2	13.0	18.1	14.4	16.3		5.7	11.9
Mataro	13.9	12.6	14.2	16.4	13.9	16.0	9.8	14.1		10.1	10.2
Merlot	14.0	19.8	15.1	17.0	19.7	18.8	13.8	17.0		15.2	18.7
Meunier	12.9	6.4	4.1	17.4	8.3	23.2	3.4	9.5			
Montepulciano											6.6
Muscadelle	11.9	9.1	9.2	11.1	10.2	9.2	7.5	4.9		8.8	12.3
Muscat a Petits Grains Blanc	13.3	16.7	13.8	11.9	15.4	12.4	11.7	14.7		10.7	16.8
Muscat a Petits Grains Rouge	4.6	4.4	5.7	5.6	6.7	8.4	7.8	7.6		9.1	11.7
Muscat Gordo Blanco	19.8	21.1	19.6	23.8	22.1	22.6	18.7	18.1		23.8	24.5
Nebbiolo	8.1	6.3	16.3	8.2	11.9	6.8	8.3	13.5		7.7	6.5
Nero d'Avola											3.4

Table 164 (cont.) Winegrape yield, by variety, hot climate regions, 2001 to 2012 (t/ha)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012
Palomino	15.9	16.8	18.9	20.2	20.0	17.1	11.6	9.4			
Pedro Ximenes	14.7	18.5	13.4	12.7							
Petit Verdot	9.3	17.8	15.3	17.7	21.7	23.5	14.5	23.0		19.3	20.1
Pinot Gris				9.2	14.1	16.0	11.9	14.8		14.3	18.0
Pinot Noir	12.6	15.8	14.2	19.2	23.7	18.7	16.4	18.6		16.9	17.7
Riesling	11.8	17.0	15.2	17.0	18.3	17.8	15.6	14.5		14.5	16.9
Roussane					11.0		20.2	3.2		13.8	
Ruby Cabernet	12.9	18.5	15.5	18.4	20.6	18.8	14.5	16.9		14.2	15.1
Sangiovese	9.7	16.7	15.8	19.0	23.6	23.9	14.6	23.3		20.8	16.5
Sauvignon Blanc	14.6	21.3	15.7	19.9	24.3	18.4	15.3	19.5		19.2	22.2
Savagnin										28.2	16.5
Semillon	18.5	21.9	17.2	21.5	21.4	23.7	16.9	20.7		17.4	19.9
Shiraz	14.2	16.3	14.4	17.5	16.9	16.4	11.1	14.9		13.9	14.7
Sultana	7.2	6.3	4.0	7.0	5.0	2.3	3.6	3.6		6.1	10.8
Taminga	16.9	11.2	10.2								
Tarrango	24.4	19.5	19.0	24.9	17.0	15.5	17.0	20.5		9.8	
Tempranillo	6.5	8.5	8.0	13.7	12.7	16.3	9.5	14.0		9.7	6.0
Touriga	7.4	11.5	9.0	12.2	12.8	11.4	8.9	9.1		7.3	
Traminer	9.6	17.4	14.9	13.8	18.7	20.0	14.1	16.9		13.3	14.8
Trebbiano	11.5	12.1	14.3	15.2	17.1	15.1	12.9	15.6		12.7	
Verdelho	12.2	15.7	13.4	15.5	17.0	17.4	12.0	15.9		12.5	12.1
Vermentino											13.1
Viognier	11.6	16.8	13.4	15.4	16.2	16.8	12.4	14.1		13.6	11.6
Waltham Cross	3.7	3.1	2.7								
Zinfandel				18.0	20.1	16.1	10.3	12.3		9.8	4.7
Other red	2.2	1.8	1.8	3.2	3.9	2.4	1.5	3.0		8.9	12.0
Other white	4.0	2.7	2.0	4.8	5.9	3.7	2.3	3.6		16.7	21.8
Australia Total	**12.8**	**15.1**	**12.8**	**15.5**	**16.5**	**15.5**	**12.2**	**14.6**		**15.1**	**17.5**

Table 165: Winegrape Varietal Similarity Index, 1990, 2000 and 2010

(a) Australia relative to the world

Year	
1990	0.31
2000	0.45
2010	0.62

(b) Australia relative to France

Year	
2000	0.47
2010	0.58

(c) Australia relative to a decade earlier

Year	*1990*	*2000*
2000	0.83	
2010	0.76	0.98

Table 166: National and global shares of bearing areas of varieties with highest Varietal Intensity Index (VII), 2000 and 2010

	National share, %, 2010	Global share, %, 2010	Aust.'s global rank, 2010	VII 2010	*VII 2000*
Tarrango	0.0	100.0	1	30.3	*37.4*
Verdelho	1.0	76.6	1	23.2	*29.5*
Muscat a Petits Grai	0.2	37.5	2	11.4	*28.4*
Semillon	4.0	27.6	2	8.4	*9.3*
Syrah	28.1	23.0	2	7.0	*10.4*
Petit Verdot	0.8	17.0	2	5.1	*18.2*
Ruby Cabernet	0.6	16.8	3	5.1	*12.2*
Chardonnay	18.3	14.0	3	4.2	*4.4*
Marsanne	0.2	13.7	2	4.1	*5.3*
Arneis	0.1	13.6	2	4.1	*n.a.*
Crouchen	0.1	13.1	2	4.0	*1.6*
Sultaniye	0.3	12.6	3	3.8	*26.8*
Viognier	0.9	12.3	2	3.7	*1.4*
Durif	0.3	11.7	2	3.6	*5.6*
Cabernet Sauvignon	17.1	9.0	4	2.7	*4.2*
Riesling	2.7	8.2	3	2.5	*2.7*
Muscat of Alexandri	1.3	7.8	6	2.4	*3.2*
Pinot Gris	2.2	7.6	3	2.3	*n.a.*
Colombard	1.5	6.9	4	2.1	*1.8*
Sauvignon Blanc	4.3	5.9	7	1.8	*1.5*
Gewurztraminer	0.5	5.8	6	1.8	*1.8*
Pinot Noir	3.1	5.4	6	1.6	*2.0*
Savagnin Blanc	0.1	5.0	5	1.5	*n.a.*
Roussanne	0.1	4.8	4	1.4	*n.a.*
Muscadelle	0.0	4.1	2	1.2	*3.4*
Merlot	6.6	3.8	8	1.1	*1.4*
Other varieties	5.5	n.a.	n.a.	n.a.	*n.a.*
TOTAL	100.0	3.3	8	n.a.	*n.a.*

[a] Includes all varieties in Australia that had a VII above one in 2010

Table 167: Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Adelaide Hills				**Adelaide Plains**			
	2001	2006	2012		2001	2006	2012
Gruner Veltliner			20.8	Sangiovese		7.6	5.3
Arneis			5.9	Tribidrag		2.3	4.0
Montepulciano			5.6	Monastrell		2.7	3.7
Sauvignon Blanc	6.0	5.7	5.6	Chenin Blanc		2.6	2.6
Pinot Noir	6.6	5.2	4.7	Sauvignon Blanc		1.9	2.5

Alpine Valleys				**Australian Capital Territory**			
	2001	2006	2012		2001	2006	2012
Sangiovese	0.7	10.2	21.1	Viognier		31.0	18.9
Barbera	6.3	7.3	12.6	Sangiovese			7.8
Arneis			10.1	Riesling	1.9	4.9	3.9
Nebbiolo		3.5	9.9	Tempranillo		4.1	2.5
Savagnin Blanc			8.4	Semillon	0.4	1.0	1.8

Barossa - other				**Barossa Valley**			
	2001	2006	2012		2001	2006	2012
Nebbiolo		30.3	23.8	Garnacha Tinta	4.7	5.2	5.1
Cot	3.7	4.6	5.8	Gruner Veltliner			4.5
Savagnin Blanc			4.4	Monastrell	2.1	3.2	4.3
Garnacha Tinta	5.1	4.8	3.8	Tempranillo	0.7	2.1	2.1
Durif			2.5	Syrah	1.7	1.8	2.0

Beechworth				**Bendigo**			
	2001	2006	2012		2001	2006	2012
Nebbiolo		31.0	49.9	Tribidrag		1.2	5.2
Sangiovese	21.2	15.5	12.2	Fiano			2.9
Pinot Noir	7.3	8.4	4.5	Cot	5.4	0.7	2.4
Viognier	6.4	7.4	3.2	Syrah	2.4	2.1	2.0
Petit Verdot		2.3	2.1	Viognier	4.6	2.4	1.9

Big Rivers - other				**Blackwood Valley**			
	2001	2006	2012		2001	2006	2012
Muscat Blanc a Petits Grains			8.5	Sauvignon Blanc	3.4	5.2	3.5
Marsanne		6.5	7.9	Semillon	1.0	0.9	2.1
Pinot Gris		12.8	4.8	Viognier	0.7	1.4	2.1
Chenin Blanc	1.1	2.3	3.2	Tempranillo			2.0
Chardonnay	1.9	1.7	2.3	Cabernet Sauvignon	1.2	1.3	1.6

Canberra District (NSW)				**Central Ranges - other**			
	2001	2006	2012		2001	2006	2012
Gruner Veltliner			33.8	Muscat a Petits Grains Rouge	3.6	0.7	32.6
Riesling	4.6	4.4	4.6	Barbera		4.5	28.3
Sangiovese		2.9	4.5	Cabernet Franc	0.6	3.0	24.4
Viognier	7.1	3.7	3.4	Dolcetto			16.6
Cabernet Franc	1.6	4.4	2.5	Arneis			14.0

Table 167 (cont.) Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Central Victoria - other				**Central Western Australia**			
	2001	2006	2012		2001	2006	2012
Viognier	2.6	1.3	9.9	Tribidrag		12.5	85.9
Sangiovese		0.4	4.5	Chenin Blanc	9.8	10.0	48.5
Ruby Cabernet			2.2	Garnacha Tinta		0.2	13.3
Syrah	1.4	1.9	2.1	Muscat of Alexandria		0.0	4.5
Merlot	1.1	0.1	1.0	Tempranillo			3.7

Clare Valley				**Coonawarra**			
	2001	2006	2012		2001	2006	2012
Riesling	5.8	5.9	9.2	Cabernet Sauvignon		3.2	3.5
Cot	3.1	5.2	6.0	Cabernet Franc		2.2	1.5
Cabernet Franc	1.3	1.4	2.4	Merlot		1.2	1.1
Nebbiolo	0.6	1.4	1.5	Cot		1.2	0.9
Tempranillo	0.8	0.8	1.5	Syrah		0.8	0.7

Cowra				**Currency Creek**			
	2001	2006	2012		2001	2006	2012
Verdelho	5.7	4.4	4.1	Vermentino			9.3
Cot	2.0	2.2	3.1	Tempranillo		1.0	2.8
Chardonnay	2.7	2.6	2.5	Sangiovese	0.9	0.4	1.9
Semillon	1.5	1.3	1.6	Cabernet Franc			1.6
Merlot	1.0	1.0	1.1	Syrah	1.5	1.3	1.6

Eastern Plains, Inland and North of WA				**Eden Valley**			
	2001	2006	2012		2001	2006	2012
Muscat a Petits Grains Rouge			65.6	Savagnin Blanc			9.0
Garnacha Tinta			27.4	Riesling	10.3	8.1	8.7
Verdelho			24.5	Montepulciano			2.1
Semillon			2.9	Garnacha Tinta	1.0	0.9	1.8
Chardonnay	0.1	0.0	1.3	Viognier	9.2	2.3	1.6

Far North - Other				**Fleurieu - other**			
	2001	2006	2012		2001	2006	2012
Syrah	2.7	2.0	2.7	Nebbiolo	4.6		23.3
Cabernet Sauvignon	0.9	2.9	1.4	Tribidrag			2.9
Arneis				Garnacha Tinta	3.3	0.6	2.7
Arneis				Chardonnay	0.8	0.9	1.7
Arneis				Barbera			1.4

Geelong				**Geographe**			
	2001	2006	2012		2001	2006	2012
Nero d'Avola			18.7	Barbera		1.4	4.5
Pinot Noir	12.5	14.2	12.5	Cabernet Franc	1.0		4.4
Cabernet Franc	1.9	3.0	2.9	Cot	1.0	1.8	4.1
Durif		1.5	2.0	Tribidrag		8.5	3.9
Pinot Gris		6.4	1.9	Tempranillo		2.3	2.9

Table 167 (cont.) Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Gippsland				**Glenrowan**			
	2001	2006	2012		2001	2006	2012
Arneis			59.5	Muscat a Petits Grains Rouge		4.3	30.2
Pinot Noir	9.9	9.1	9.6	Durif			3.3
Savagnin Blanc			5.2	Cabernet Sauvignon		2.0	2.0
Gewurztraminer	3.5	3.7	3.2	Merlot		1.3	1.8
Sauvignon Blanc	3.5	3.2	1.7	Syrah		2.0	1.6

Goulburn Valley				**Grampians**			
	2001	2006	2012		2001	2006	2012
Marsanne	35.9	26.6	29.6	Dolcetto			3.1
Tribidrag		1.6	4.6	Syrah	2.0	2.5	2.3
Viognier	6.4	8.1	3.5	Riesling	2.0	1.4	2.2
Durif	0.7	1.3	1.9	Sangiovese	2.2	0.4	1.9
Tempranillo		2.1	1.9	Nebbiolo		1.7	1.4

Granite Belt				**Great Southern**			
	2001	2006	2012		2001	2006	2012
Muscat a Petits Grains Rouge	20.5	11.2	16.1	Cabernet Franc	2.9	2.5	7.7
Muscat Blanc a Petits Grains	4.0	6.2	5.7	Cot	5.2	2.5	3.1
Verdelho	1.1	2.1	4.0	Sauvignon Blanc	3.5	3.7	2.8
Marsanne	2.4	2.6	3.6	Riesling	3.2	3.3	2.7
Cabernet Franc	2.6	5.8	3.4	Semillon	1.0	1.2	1.5

Greater Perth - other				**Gundagai**			
	2001	2006	2012		2001	2006	2012
Chenin Blanc	15.8	21.9	48.7	Barbera			7.0
Cot	1.0		7.2	Sangiovese			5.4
Verdelho	2.4	10.3	5.8	Syrah		1.6	2.0
Semillon	0.3	0.9	3.4	Cabernet Sauvignon		1.4	1.3
Sauvignon Blanc	5.1	0.4	3.1	Pinot Noir			0.8

Hastings River				**Hastings River - other**			
	2001	2006	2012		2001	2006	2012
Savagnin Blanc			39.6	Verdelho		6.7	
Verdelho	4.6		7.8	Viognier		5.2	
Viognier			7.1	Semillon		3.2	
Petit Verdot			4.3	Petit Verdot		2.8	
Muscat Blanc a Petits Grains			3.8	Pinot Noir		2.1	

Heathcote				**Henty**			
	2001	2006	2012		2001	2006	2012
Nebbiolo		7.2	14.7	Pinot Noir	10.7	13.8	13.2
Dolcetto			8.4	Riesling	4.8	4.1	5.0
Gewurztraminer		0.1	6.1	Pinot Gris		11.0	1.4
Tempranillo		19.5	6.0	Chardonnay	1.6	1.1	1.2
Sangiovese		6.8	4.1	Cabernet Franc	1.0		0.7

Table 167 (cont.) Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Hilltops				**Hunter**			
	2001	2006	2012		2001	2006	2012
Nebbiolo			14.7	Verdelho	7.5	8.5	11.9
Tribidrag		4.1	5.0	Semillon	3.6	4.4	5.2
Barbera		2.4	4.1	Sultaniye			4.9
Tempranillo		0.1	4.0	Barbera	0.8	1.2	3.7
Cabernet Sauvignon	1.8	2.0	1.9	Sangiovese	0.1	0.8	1.7

Hunter Valley - other				**Kangaroo Island**			
	2001	2006	2012		2001	2006	2012
Verdelho	4.1	7.3	20.2	Fiano			20.8
Cabernet Sauvignon	0.5	0.4	2.9	Sangiovese		1.5	12.0
Merlot	1.3	1.2	0.6	Cabernet Franc	2.6	1.8	10.7
Syrah	0.7	1.0	0.3	Tribidrag			7.4
				Cot			5.0

King Valley				**Langhorne Creek**			
	2001	2006	2012		2001	2006	2012
Dolcetto			16.4	Cot	2.8	3.6	3.5
Arneis			7.4	Dolcetto			2.2
Barbera			7.2	Tribidrag		2.1	2.2
Sangiovese			7.1	Cabernet Sauvignon	2.1	1.9	1.8
Vermentino			6.6	Garnacha Tinta	0.9	1.9	1.7

Limestone Coast - other				**Lower Murray - other**			
	2001	2006	2012		2001	2006	2012
Montepulciano			9.5	Monastrell	3.1	13.1	20.0
Dolcetto			6.3	Garnacha Tinta	2.9	3.6	7.8
Monastrell			3.8	Colombard	1.4	1.1	2.6
Cot	1.2		2.6	Chardonnay	0.8	1.5	1.4
Cabernet Sauvignon	2.7	2.8	2.3	Merlot	0.5	1.2	1.4

Macedon Ranges				**Manjimup**			
	2001	2006	2012		2001	2006	2012
Nebbiolo			12.7	Sauvignon Blanc			7.5
Cabernet Franc		8.7	9.2	Cabernet Franc			6.4
Pinot Noir		12.5	8.3	Semillon			4.1
Viognier			3.7	Verdelho			2.8
Chardonnay		1.7	1.7	Pinot Noir			2.4

Margaret River				**McLaren Vale**			
	2001	2006	2012		2001	2006	2012
Chenin Blanc	2.4	5.2	4.6	Garnacha Tinta	4.3	4.9	4.5
Sauvignon Blanc	5.3	4.6	3.9	Nero d'Avola			4.0
Tribidrag		2.9	3.7	Barbera	4.0	1.3	2.3
Semillon	2.5	2.7	3.6	Vermentino			2.2
Cot	1.8	2.9	3.3	Monastrell	0.3	0.8	2.1

Table 167 (cont.) Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Mornington Peninsula				**Mount Benson**			
	2001	2006	2012		2001	2006	2012
Pinot Noir	15.7	15.4	13.1	Sauvignon Blanc	5.7	2.7	2.7
Arneis			7.5	Cabernet Franc	1.9	1.4	2.4
Pinot Gris		20.5	4.6	Verdelho	1.3	0.5	2.0
Chardonnay	2.2	1.5	1.4	Cabernet Sauvignon	1.7	1.7	1.6
Fiano			1.2	Merlot	2.3	1.5	1.4

Mount Gambier				**Mount Lofty Ranges - other**			
	2001	2006	2012		2001	2006	2012
Pinot Noir			8.7	Montepulciano			42.7
Sauvignon Blanc			8.4	Sangiovese	5.8	0.7	3.4
Riesling			1.4	Tempranillo			3.1
Chardonnay			1.3	Syrah	1.4	2.6	2.3
Cabernet Sauvignon			0.3	Durif			1.7

Mudgee				**Murray Darling - NSW**			
	2001	2006	2012		2001	2006	2012
Barbera	4.2	4.3	4.2	Fiano			8.5
Tribidrag		2.2	3.7	Muscat of Alexandria	2.6	2.7	4.1
Sangiovese	2.8	3.0	3.1	Pinot Gris		0.0	3.7
Cabernet Franc	1.0	0.7	1.6	Colombard	2.0	2.3	2.8
Cabernet Sauvignon	1.5	1.4	1.6	Savagnin Blanc			2.5

Murray Darling - VIC				**New England Australia**			
	2001	2006	2012		2001	2006	2012
Sultaniye	4.5	5.2	9.2	Barbera			23.0
Muscat of Alexandria	1.6	2.2	3.7	Nebbiolo			20.3
Colombard	1.9	1.8	2.7	Durif			6.5
Chardonnay	1.0	1.2	1.7	Tempranillo			6.2
Merlot	1.0	0.9	1.3	Sangiovese			5.2

North East Victoria - other				**North West Victoria - other**			
	2001	2006	2012		2001	2006	2012
Marsanne			10.2	Fiano			80.0
Verdelho	0.2	0.2	9.4	Muscat of Alexandria	1.8	2.2	11.4
Cot	2.0	0.4	8.1	Tribidrag			11.0
Viognier		3.6	4.6	Durif			9.5
Pinot Gris		17.2	3.2	Ruby Cabernet	1.6	0.6	6.1

Northern Rivers - other				**Northern Slopes - other**			
	2001	2006	2012		2001	2006	2012
Verdelho	3.3	11.6	4.4	Verdelho		2.7	6.7
Muscat a Petits Grains Rouge			2.2	Cabernet Sauvignon	0.9	0.9	2.4
Chenin Blanc			2.0	Merlot	1.9	2.4	2.4
Pinot Gris			1.6	Syrah	1.6	1.2	0.8
Merlot	1.1	0.4	1.1	Sauvignon Blanc	0.2	0.4	0.7

Table 167 (cont.) Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Northern Territory				**Orange**			
	2001	2006	2012		2001	2006	2012
Sultaniye	0.7	1.7		Barbera		2.3	4.2
Ruby Cabernet		0.0		Tribidrag		2.1	3.9
Syrah	0.0	0.0		Cabernet Franc	0.7	2.1	2.6
				Arneis			2.2
				Nebbiolo			2.1

Padthaway				**Peel**			
	2001	2006	2012		2001	2006	2012
Cot	3.7	4.0	2.5	Chenin Blanc			21.0
Cabernet Franc	1.6	2.5	2.1	Vermentino			12.5
Riesling	3.7	2.2	1.7	Tribidrag			7.6
Pinot Gris		2.4	1.4	Viognier			6.5
Chardonnay	1.8	1.2	1.4	Cot			4.1

Pemberton				**Perricoota**			
	2001	2006	2012		2001	2006	2012
Sauvignon Blanc			7.1	Durif			5.9
Tribidrag			3.8	Muscat a Petits Grains Rouge		1.6	3.3
Pinot Noir			2.7	Sangiovese	4.6	11.1	2.7
Verdelho			2.3	Barbera			2.4
Semillon			1.7	Monastrell	20.7	9.3	2.2

Perth Hills				**Port Phillip - other**			
	2001	2006	2012		2001	2006	2012
Chenin Blanc	25.1	10.5	63.4	Sangiovese			9.7
Muscadelle	37.4	1.5	30.6	Pinot Noir	10.2	12.9	5.9
Tribidrag		13.7	15.1	Riesling	0.5		3.2
Verdelho	13.2	4.6	11.8	Sauvignon Blanc	3.3	4.9	2.0
Viognier	6.4	9.5	5.2	Cabernet Franc	7.2	2.3	1.4

Pyrenees				**Queensland - other**			
	2001	2006	2012		2001	2006	2012
Barbera	5.9	6.3	9.8	Muscat a Petits Grains Rouge	14.3	4.4	19.2
Marsanne		8.5	7.0	Vermentino			10.8
Nebbiolo	9.7	5.2	4.1	Marsanne	0.1	1.2	7.5
Sangiovese	6.2	6.6	3.6	Verdelho	0.5	1.0	5.3
Cabernet Franc	6.5	1.8	2.5	Chenin Blanc	0.3	0.3	4.7

Riverina				**Riverland**			
	2001	2006	2012		2001	2006	2012
Ruby Cabernet	3.3	4.6	4.9	Petit Verdot	3.7	3.4	3.1
Muscat Blanc a Petits Grains	1.8	1.7	4.5	Colombard	2.5	3.0	2.8
Durif	6.4	5.4	4.3	Muscat of Alexandria	3.1	2.9	2.7
Gewurztraminer	4.1	3.8	4.0	Montepulciano			2.7
Nero d'Avola			2.6	Vermentino			2.6

Table 167 (cont.) Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Robe				**Rutherglen**			
	2001	2006	2012		2001	2006	2012
Marsanne			2.3	Muscat a Petits Grains Rouge	51.6	66.8	72.9
Cabernet Sauvignon			1.9	Muscadelle	41.1	58.0	70.9
Sauvignon Blanc			1.7	Durif	35.1	39.2	23.7
Merlot			1.6	Muscat Blanc a Petits Grains	1.4	5.1	6.6
Petit Verdot			1.4	Tempranillo	2.0	3.6	2.8

Shoalhaven Coast				**South Burnett**			
	2001	2006	2012		2001	2006	2012
Arneis			89.5	Barbera		12.3	21.5
Tribidrag			44.1	Nebbiolo		14.6	12.4
Savagnin Blanc			25.2	Verdelho	2.3	5.5	7.3
Verdelho		12.1	13.2	Sangiovese		6.5	5.7
Cot		5.4	9.0	Semillon	1.2	2.3	2.7

South Coast - other				**South West Australia - other**			
	2001	2006	2012		2001	2006	2012
Savagnin Blanc			3.7	Viognier	2.4	1.3	8.0
Verdelho	3.4	3.4	3.2	Verdelho	2.6	3.4	7.0
Colombard			3.0	Merlot	2.1	1.9	3.7
Tempranillo			2.5	Sauvignon Blanc	3.5	5.4	2.8
Chardonnay	1.7	1.5	1.9	Semillon	1.1	0.9	1.7

Southern Fleurieu				**Southern Flinders Ranges**			
	2001	2006	2012		2001	2006	2012
Savagnin Blanc			17.1	Syrah		2.2	3.0
Montepulciano			5.9	Nebbiolo		1.4	1.8
Viognier		2.9	5.0	Cabernet Sauvignon		0.7	0.7
Arneis			3.6	Merlot		1.3	0.5
Sauvignon Blanc	1.4	1.5	2.5	Riesling		0.0	0.2

Southern Highlands				**Southern NSW - other**			
	2001	2006	2012		2001	2006	2012
Tempranillo		13.8	29.6	Marsanne	5.9	7.2	20.3
Arneis			10.7	Viognier			7.9
Savagnin Blanc			8.0	Pinot Noir	0.8	4.2	4.8
Nebbiolo			7.1	Riesling	0.4	3.5	4.2
Pinot Noir		4.5	4.5	Chenin Blanc			2.6

Strathbogie Ranges				**Sunbury**			
	2001	2006	2012		2001	2006	2012
Tribidrag		6.4	11.2	Barbera		6.3	10.6
Pinot Noir		5.5	5.2	Cabernet Franc	4.2	2.7	5.7
Sauvignon Blanc		5.6	3.8	Pinot Noir	3.9	5.1	3.3
Chardonnay		1.1	2.0	Fiano			2.4
Merlot		1.8	1.7	Viognier		1.8	1.9

Table 167 (cont.) Winegrape Varietal Intensity Index based on area, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Swan District				**Swan Hill (NSW)**			
	2001	2006	2012		2001	2006	2012
Muscadelle	6.6	15.9	49.0	Semillon	0.1	0.8	3.5
Chenin Blanc	20.1	34.7	40.4	Colombard	0.8	0.8	3.3
Verdelho	5.3	7.3	16.1	Cot			2.7
Garnacha Tinta	5.2	4.5	5.8	Sauvignon Blanc		0.9	2.0
Tribidrag		0.8	3.2	Chenin Bla	0.7	0.9	1.3

Swan Hill (VIC)				**Tasmania**			
	2001	2006	2012		2001	2006	2012
Dolcetto			21.3	Pinot Noir	12.5	17.2	12.8
Vermentino			5.2	Pinot Gris		6.2	3.2
Sultaniye	3.6	4.1	5.0	Riesling	3.6	3.9	3.0
Muscat a Petits Grains	3.8	7.2	3.5	Sauvignon	3.9	2.8	2.6
Chenin Blanc	1.1	1.0	3.0	Gewurztrar	2.2	2.1	2.2

The Peninsulas				**Tumbarumba**			
	2001	2006	2012		2001	2006	2012
Viognier			6.1	Pinot Noir	11.3	11.9	11.0
Merlot	2.7	2.5	2.6	Chardonna	3.5	2.9	2.7
Cabernet Sauvignon	1.3	1.9	1.5	Pinot Gris		0.8	0.7
Syrah	1.4	1.5	1.3	Sauvignon	1.3	2.3	0.7
Riesling	1.1	1.3	1.1	Riesling		0.9	0.6

Upper Goulburn				**Western Australian SE Coastal**			
	2001	2006	2012		2001	2006	2012
Pinot Noir		11.8	9.0	Muscat a Petits Grains		4.9	19.6
Nebbiolo			5.8	Riesling	0.6	1.5	6.3
Marsanne			5.4	Sauvignon	8.5	6.8	2.8
Sauvignon Blanc		2.3	2.3	Merlot	1.1	0.4	1.6
Riesling		3.1	2.0	Syrah	1.1	1.1	1.2

Western Plains - other				**Western Victoria - other**			
	2001	2006	2012		2001	2006	2012
Savagnin Blanc			15.3	Vermentino			14.0
Petit Verdot	0.3	2.5	5.0	Pinot Noir	5.8	2.1	8.8
Muscat Blanc a Petits Grains			4.9	Petit Verdot		0.8	2.2
Verdelho	1.2	8.3	3.9	Cabernet S	1.6	1.1	1.7
Barbera			3.0	Tempranillo			1.7

Wrattonbully				**Yarra Valley**			
	2001	2006	2012		2001	2006	2012
Cabernet Sauvignon		2.9	2.6	Pinot Noir	10.5	10.3	9.3
Pinot Gris		0.1	1.7	Nebbiolo		7.5	3.1
Merlot		1.7	1.7	Arneis			3.1
Syrah		1.2	0.9	Cabernet F	1.4	1.5	1.6
Pinot Noir		0.5	0.9	Chardonna	2.0	1.4	1.6

Table 168: Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Adelaide Hills				**Adelaide Plains**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Gruner Veltliner			66.1	Tribidrag		2.4	17.2
Nero d'Avola			15.4	Sangiovese		7.3	6.1
Montepulciano			13.4	Chenin Blanc		2.8	3.3
Arneis			9.0	Garnacha Tinta		4.1	3.2
Pinot Noir	9.3	7.1	7.7	Sauvignon Blanc		2.4	3.0

Alpine Valleys				**Australian Capital Territory**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Arneis			28.0	Tempranillo		0.8	27.9
Sangiovese	0.5	5.7	25.6	Cabernet Franc	15.0	0.7	14.1
Nebbiolo		7.2	18.5	Pinot Gris		3.5	9.4
Dolcetto			11.4	Pinot Noir	5.5	0.5	8.8
Savagnin Blanc			9.7	Riesling	3.9	6.1	5.6

Barossa - other				**Barossa Valley**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Nebbiolo		36.9	22.3	Garnacha Tinta	3.6	4.9	7.2
Garnacha Tinta	3.9	5.4	9.7	Tribidrag		1.6	5.1
Durif			5.7	Monastrell	1.4	1.9	5.0
Cot	5.5	4.9	5.4	Tempranillo	0.6	2.1	3.4
Viognier			3.0	Savagnin Blanc			3.0

Beechworth				**Bendigo**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Nebbiolo		97.7	45.0	Fiano			4.6
Sangiovese	29.8	20.5	11.2	Cot	15.3	0.7	4.0
Pinot Noir	8.8	9.2	7.5	Nebbiolo		7.1	3.5
Pinot Gris		19.0	2.0	Syrah	2.6	2.5	2.9
Petit Verdot		1.0	1.6	Sangiovese	6.4	0.5	2.8

Big Rivers - other				**Blackwood Valley**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Marsanne		8.9	10.8	Tempranillo			9.2
Muscat Blanc a Petits Grains			8.9	Sauvignon Blanc	4.0	7.9	5.1
Pinot Gris		8.3	4.7	Semillon	0.9	1.4	3.1
Chenin Blanc	1.4	4.0	4.3	Cot	0.1		2.8
Chardonnay	2.4	2.2	1.8	Verdelho	1.8	2.9	2.1

Canberra District (NSW)				**Central Ranges - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Gruner Veltliner			359.7	Cabernet Franc	0.9	4.1	98.1
Sangiovese		4.5	16.7	Barbera			78.6
Riesling	5.2	5.6	9.3	Dolcetto			43.2
Savagnin Blanc			4.4	Arneis			41.6
Pinot Noir	5.7	3.8	4.4	Sangiovese			41.0

Table 168 (cont.) Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Central Victoria - other				Central Western Australia			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Viognier	4.7	0.8	7.3	Chenin Blanc	44.8	28.1	69.3
Sangiovese		0.3	4.4	Garnacha Tinta			19.1
Ruby Cabernet			2.9	Tempranillo			14.0
Syrah	1.3	1.6	2.8	Muscat of Alexandria		0.0	3.5
Cabernet Sauvignon	0.9	0.0	0.7	Syrah	1.0	0.7	1.0

Clare Valley				Coonawarra			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Riesling	7.7	6.7	15.7	Cabernet Sauvignon		2.9	3.5
Cot	3.1	6.9	8.4	Cabernet Franc		3.8	3.5
Barbera		1.3	4.3	Merlot		1.1	1.7
Nero d'Avola			3.4	Cot		0.9	1.2
Cabernet Franc	2.0	1.3	3.2	Syrah		1.0	1.0

Cowra				Currency Creek			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Cot	2.5	3.3	9.6	Vermentino			16.5
Merlot	0.5	0.6	1.8	Sangiovese	1.1	0.3	6.9
Semillon	1.4	1.5	1.8	Tempranillo		0.4	3.5
Chardonnay	2.4	2.3	1.6	Cabernet Franc			2.7
Cabernet Sauvignon	0.5	0.5	1.5	Syrah	1.4	1.6	2.0

Eastern Plains, Inland & North of WA				Eden Valley			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Verdelho			44.0	Riesling	13.1	10.6	12.7
Semillon			6.8	Savagnin Blanc			7.2
Chardonnay	0.5	0.1	1.5	Tribidrag		0.7	5.4
Afus Ali				Montepulciano			3.5
Afus Ali				Cabernet Franc	0.9	1.2	2.3

Far North - Other				Fleurieu - other			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Syrah	3.1	2.6	3.3	Nebbiolo	9.6		79.4
Cabernet Sauvignon	0.7	2.5	1.9	Barbera			8.8
				Garnacha Tinta	2.8	0.5	4.5
				Sangiovese			2.5
				Cabernet Franc	1.2	30.0	2.1

Geelong				Geographe			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Pinot Noir	12.3	17.1	16.9	Cot	0.9	1.6	8.2
Cabernet Franc	1.5	2.7	3.0	Tempranillo		3.9	5.5
Sauvignon Blanc	4.8	2.4	1.6	Tribidrag		8.0	3.6
Chardonnay	1.7	0.8	1.3	Barbera		0.4	3.5
Pinot Gris		11.4	1.1	Semillon	1.2	1.5	3.5

Table 168 (cont.) Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Gippsland				**Glenrowan**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Arneis			60.3	Muscat a Petits Grains Rouge		2.6	33.1
Pinot Noir	13.5	14.3	12.5	Cabernet Sauvignon		3.2	3.4
Savagnin Blanc			5.8	Syrah		1.3	1.9
Cabernet Franc	1.8	4.2	2.9	Merlot	1.8		0.4
Sauvignon Blanc	2.1	2.3	1.9	Sauvignon Blanc			0.3

Goulburn Valley				**Grampians**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Marsanne	44.6	32.2	46.7	Sangiovese	0.9	0.6	5.5
Viognier	9.3	5.4	4.3	Riesling	2.4	1.9	3.6
Durif	0.3	1.2	4.0	Dolcetto			3.6
Tempranillo		1.9	3.7	Barbera			3.2
Vermentino			3.4	Syrah	2.1	2.7	2.9

Granite Belt				**Great Southern**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Barbera		4.7	22.9	Cabernet Franc	3.1	2.5	9.3
Muscat a Petits Grains Rouge	15.7	8.2	9.2	Cot	2.4	2.9	4.8
Tempranillo		4.9	8.6	Sauvignon Blanc	4.3	7.9	3.8
Cot	0.9	2.3	8.4	Riesling	4.1	4.7	3.7
Muscat Blanc a Petits Grains	7.8	9.1	7.8	Semillon	0.9	2.0	2.0

Greater Perth - other				**Gundagai**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Cot	0.2		21.3	Barbera			12.1
Chenin Blanc	16.0	17.8	15.6	Cabernet Sauvignon		1.9	4.1
Semillon	0.6	1.7	5.3	Pinot Noir			2.3
Sauvignon Blanc	10.8	0.6	3.5	Syrah		1.4	1.5
Chardonnay	0.8	0.7	0.8	Merlot		2.0	0.5

Hastings River				**Hastings River - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Savagnin Blanc			106.3				
Muscat Blanc a Petits Grains			10.8				
Petit Verdot			5.7				
Viognier			4.8				
Verdelho	3.6		4.3				

Heathcote				**Henty**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Dolcetto			18.5	Pinot Noir	13.5	17.3	18.6
Nebbiolo		11.9	10.3	Riesling	4.9	6.3	6.1
Tempranillo		17.3	5.2	Pinot Gris		30.8	1.5
Sangiovese		11.1	4.0	Chardonnay	1.1	0.9	1.1
Marsanne			2.5	Sauvignon Blanc	1.0	1.3	0.3

Table 168 (cont.) Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Hilltops				**Hunter**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Nebbiolo			50.9	Verdelho	10.1	10.3	20.3
Tempranillo		0.0	4.0	Semillon	3.0	3.7	7.1
Pinot Gris		0.0	3.9	Barbera	0.4	1.0	6.4
Tribidrag		7.3	3.8	Sultaniye			2.7
Cabernet Sauvignon	1.7	2.1	3.7	Cabernet Franc	1.0	0.6	2.1

Hunter Valley - other				**Kangaroo Island**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Verdelho	4.8	10.7	35.7	Cot			49.3
Cabernet Sauvignon	0.4	0.4	5.4	Fiano			46.1
				Cabernet Franc	3.9	6.9	45.6
				Sangiovese		5.9	34.8
				Tribidrag			17.0

King Valley				**Langhorne Creek**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Nebbiolo			12.2	Tribidrag		1.5	5.0
Dolcetto			10.1	Cot	3.0	2.6	4.1
Barbera			9.9	Montepulciano			3.1
Sangiovese			9.1	Garnacha Tinta	0.6	2.2	2.6
Arneis			8.2	Riesling	0.3	1.2	2.1

Limestone Coast - other				**Lower Murray - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Dolcetto			10.6	Monastrell	1.7		16.7
Monastrell			8.4	Garnacha Tinta	2.6	1.2	9.2
Montepulciano			6.7	Colombard	1.6		2.1
Cot	1.2		5.9	Petit Verdot	0.3		1.8
Cabernet Franc	2.0		2.7	Cabernet Sauvignon	1.5	1.2	1.6

Macedon Ranges				**Manjimup**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Pinot Noir		19.6	16.4	Sauvignon Blanc			9.1
Cabernet Franc		11.9	12.2	Cabernet Franc			6.2
Nebbiolo			7.6	Semillon			5.4
Riesling		1.7	2.9	Verdelho			3.3
Barbera		27.1	1.3	Pinot Noir			2.5

Margaret River				**McLaren Vale**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Chenin Blanc	2.4	6.5	6.5	Garnacha Tinta	3.7	5.3	5.5
Tribidrag		2.3	5.4	Barbera	4.1	1.6	4.4
Cot	1.6	2.2	4.5	Nero d'Avola			3.5
Sauvignon Blanc	6.7	6.9	4.0	Sangiovese	1.3	1.9	2.7
Cabernet Franc	2.6	3.3	3.7	Tempranillo	0.8	1.8	2.3

Table 168 (cont.) Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Mornington Peninsula				**Mount Benson**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Pinot Noir	17.5	20.2	18.3	Sauvignon Blanc	8.8	3.1	3.9
Arneis			10.0	Cabernet Franc	2.6	2.9	2.1
Pinot Gris		33.4	4.6	Verdelho	1.0	0.5	2.1
Fiano			3.4	Merlot	2.0	1.6	1.7
Savagnin Blanc			1.6	Cabernet Sauvignon	1.6	1.6	1.4

Mount Gambier				**Mount Lofty Ranges - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Pinot Noir			11.0	Montepulciano			47.8
Sauvignon Blanc			8.1	Tempranillo			5.5
Riesling			3.0	Sangiovese	6.3	0.1	3.9
Chardonnay			1.2	Syrah	1.2	2.5	3.1
Cabernet Franc			0.2	Durif			2.5

Mudgee				**Murray Darling - NSW**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Barbera	2.4	4.8	11.5	Nero d'Avola			3.8
Tribidrag		0.8	7.0	Fiano			3.6
Merlot	1.1	1.6	2.9	Pinot Gris		0.0	3.2
Vermentino			2.1	Muscat of Alexandria	2.3	2.1	2.1
Cabernet Sauvignon	1.4	1.3	2.0	Sauvignon Blanc	0.2	0.5	2.0

Murray Darling - VIC				**New England Australia**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Sultaniye	3.9	3.9	6.6	Nebbiolo			58.1
Muscat of Alexandria	1.5	1.8	2.3	Barbera			43.7
Colombard	1.9	1.7	1.7	Tempranillo			10.5
Chardonnay	1.2	1.5	1.5	Durif			9.3
Merlot	1.2	1.1	1.1	Gewurztraminer			6.1

North East Victoria - other				**North West Victoria - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Cabernet Franc	4.7	1.2	14.3	Muscat of Alexandria	2.2	2.9	12.2
Verdelho	0.3	0.1	13.6	Ruby Cabernet	2.2	0.1	7.2
Cot	2.5	0.4	6.3	Chenin Blanc	1.2		6.5
Viognier		2.2	3.8	Garnacha Tinta	0.4	1.0	3.3
Pinot Gris		17.0	3.8	Colombard	1.7	1.8	2.3

Northern Rivers - other				**Northern Slopes - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Verdelho	4.5	17.2	8.0	Syrah	1.4	1.6	3.2
Muscat a Petits Grains Rouge			2.6	Cabernet Sauvignon	1.1	1.0	2.1
Chardonnay	0.8	0.5	0.5				
Syrah	0.5	0.2	0.3				
Afus Ali	38.6						

Table 168 (cont.) Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Northern Territory				**Orange**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Riesling	10.3			Tribidrag		3.1	4.5
Semillon	3.1			Barbera		2.4	3.6
Syrah	1.8			Cabernet Franc	1.2	2.4	2.7
				Merlot	2.0	2.0	2.2
				Cabernet Sauvignon	1.4	1.5	1.9

Padthaway				**Peel**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Monastrell		2.0	4.9	Vermentino			22.6
Cot	6.3	7.1	4.4	Cot			20.0
Cabernet Franc	2.0	5.1	4.4	Tribidrag			16.7
Savagnin Blanc			4.1	Cabernet Franc		21.7	12.1
Riesling	3.7	2.7	1.8	Monastrell			11.1

Pemberton				**Perricoota**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Sauvignon Blanc			8.1	Durif			7.3
Pinot Noir			3.7	Muscat a Petits Grains Rouge		4.5	3.5
Tribidrag			2.8	Sangiovese	5.2	2.6	3.0
Semillon			2.3	Cabernet Franc			2.9
Verdelho			2.3	Cabernet Sauvignon	1.2	1.9	1.9

Perth Hills				**Port Phillip - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Chenin Blanc	29.4	13.6	97.3	Pinot Noir	9.2	13.2	8.4
Verdelho	16.1	7.3	26.5	Sangiovese			6.1
Tempranillo		9.7	12.1	Riesling	0.1		1.8
Muscadelle	45.0	2.9	11.4	Syrah	0.3	0.6	1.4
Viognier	8.0	10.5	3.9	Cabernet Sauvignon	0.5	0.7	1.2

Pyrenees				**Queensland - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Nebbiolo	0.3	8.2	4.3	Muscat a Petits Grains Rouge	42.6	72.7	52.3
Barbera	2.0	4.0	4.1	Vermentino			31.5
Marsanne		8.5	3.9	Verdelho	2.5	8.6	8.6
Pinot Noir	2.2	1.7	3.4	Muscat Blanc a Petits Grains	5.4	25.6	7.6
Cabernet Franc	5.3	1.9	2.9	Ruby Cabernet	0.7	3.1	5.4

Riverina				**Riverland**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Durif	6.5	5.2	4.5	Petit Verdot	2.8	2.4	2.5
Muscat Blanc a Petits Grains	1.7	1.6	4.1	Montepulciano			2.1
Gewurztraminer	3.9	3.1	4.0	Colombard	1.6	1.7	1.8
Ruby Cabernet	2.3	3.0	3.4	Arneis			1.7
Marsanne	3.9	3.7	3.3	Muscat of Alexandria	2.1	1.7	1.4

Table 168 (cont.) Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Robe				**Rutherglen**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Marsanne			4.0	Muscadelle	45.1	64.5	156.5
Cabernet Sauvignon			1.9	Muscat a Petits Grains Rouge	86.9	84.0	151.4
Pinot Noir			1.7	Durif	41.3	33.5	43.8
Petit Verdot			1.7	Tempranillo	6.7	1.2	8.2
Merlot			1.4	Marsanne	9.6	10.5	8.2

Shoalhaven Coast				**South Burnett**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Arneis			109.8	Barbera		17.6	34.2
Savagnin Blanc			44.1	Verdelho	2.1	7.5	27.5
Verdelho		14.1	21.5	Nebbiolo		20.5	25.5
Ruby Cabernet			5.4	Sangiovese		10.7	16.2
Sangiovese		14.1	5.4	Garnacha Tinta		1.3	6.9

South Coast - other				**South West Australia - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Savagnin Blanc			6.2	Verdelho	4.0	3.2	7.6
Chardonnay	1.4	1.0	2.1	Merlot	1.7	1.6	3.6
Pinot Gris			1.8	Viognier	1.9	2.0	2.8
Tempranillo			1.4	Semillon	1.0	1.2	2.7
Semillon	1.8	0.8	1.1	Sauvignon Blanc	3.1	8.6	2.4

Southern Fleurieu				**Southern Flinders Ranges**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Savagnin Blanc			21.7	Syrah		2.1	3.6
Viognier		3.1	5.0	Nebbiolo			1.3
Sauvignon Blanc	2.1	1.5	3.2	Cabernet Sauvignon		0.7	0.8
Arneis			2.9	Merlot		1.4	0.7
Nebbiolo			2.3	Riesling		0.0	0.1

Southern Highlands				**Southern NSW - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Tempranillo		10.6	220.8	Pinot Noir	0.7	2.0	8.1
Arneis			8.0	Riesling	0.5	1.5	6.3
Savagnin Blanc			1.6	Chenin Blanc			5.7
Riesling		9.1	1.2	Pinot Gris			4.1
Pinot Noir		5.3	1.2	Merlot	0.4	0.1	1.1

Strathbogie Ranges				**Sunbury**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Tribidrag		15.9	8.7	Barbera		11.5	27.3
Pinot Noir		7.9	6.0	Fiano			6.1
Cabernet Franc			3.8	Cabernet Franc	3.2	1.8	4.5
Sauvignon Blanc		6.2	2.5	Tempranillo		2.2	2.8
Chardonnay		1.2	2.1	Pinot Noir	5.8	3.3	2.2

Table 168 (cont.) Winegrape Varietal Intensity Index based on production volume, five highest in each region, 2001, 2006 and 2012 (Ranked according to the Intensity Index in 2012)

Swan District				**Swan Hill (NSW)**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Muscadelle	11.3	24.4	118.3	Semillon	0.3	0.7	4.4
Chenin Blanc	29.9	46.7	51.7	Sauvignon Blanc		0.9	2.8
Verdelho	11.8	12.0	22.4	Chenin Blanc	1.3	1.6	1.8
Viognier	2.6	0.2	3.8	Colombard	0.8	0.8	1.5
Cot	0.6	1.2	1.7	Cabernet Sauvignon	0.4	0.9	1.0

Swan Hill (VIC)				**Tasmania**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Dolcetto			8.9	Pinot Noir	17.8	22.9	19.1
Muscat a Petits Grains Rouge	4.2	4.7	5.9	Riesling	3.2	4.5	3.8
Vermentino			3.9	Pinot Gris		11.1	2.8
Chenin Blanc	1.6	1.5	2.5	Sauvignon Blanc	2.9	3.3	2.4
Monastrell	1.1	1.1	2.4	Arneis			1.4

The Peninsulas				**Tumbarumba**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Viognier			2.4	Pinot Noir	14.0	11.1	16.0
Merlot	2.8	3.0	2.2	Chardonnay	2.6	2.8	2.5
Syrah	1.2	1.3	2.2	Tempranillo		0.5	0.7
Riesling	1.9	2.0	1.3	Pinot Gris		0.4	0.6
Cabernet Sauvignon	1.6	2.0	1.2	Sauvignon Blanc	2.2	2.1	0.5

Upper Goulburn				**Western Australian South East Coastal**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Pinot Noir		21.1	22.8	Muscat a Petits Grains Rouge			29.1
Nebbiolo			10.0	Riesling	0.6	2.9	10.6
Riesling		5.2	2.4	Sauvignon Blanc	13.1	10.3	4.3
Sauvignon Blanc		5.8	1.5	Chardonnay	1.0	0.5	1.0
Chardonnay		0.8	1.0	Merlot	1.4	0.4	0.9

Western Plains - other				**Western Victoria - other**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Barbera			32.0	Vermentino			24.5
Verdelho	3.0	12.4	10.2	Pinot Noir	8.1	0.7	5.8
Garnacha Tinta		6.1	9.2	Cabernet Sauvignon	1.6	1.3	3.2
Muscat Blanc a Petits Grains			7.0	Merlot	1.2	1.1	1.9
Riesling	0.0		6.6	Syrah	1.3	1.3	1.0

Wrattonbully				**Yarra Valley**			
	2001	*2006*	*2012*		*2001*	*2006*	*2012*
Cabernet Sauvignon		3.0	2.4	Pinot Noir	11.4	12.4	12.9
Merlot		1.9	2.0	Arneis			5.8
Pinot Gris		0.0	1.6	Nebbiolo		7.4	4.3
Barbera		1.3	1.5	Cabernet Franc	1.3	1.7	2.2
Cot		2.1	1.4	Chardonnay	1.9	1.3	1.6

Table 169: Winegrape Varietal Similarity Index, by region, relative to the world, 2001 and 2010

Region	*2001*	*2010*
Australia	**0.45**	**0.62**
Adelaide Hills	0.43	0.58
Adelaide Plains		0.59
Alpine Valleys	0.48	0.67
Aus. Capital Terr.	0.33	0.51
Barossa other	0.32	0.34
Barossa Valley	0.35	0.44
Beechworth	0.43	0.65
Bendigo	0.29	0.47
Big Rivers other	0.56	0.53
Blackwood Valley	0.43	0.59
C. Ranges Other	0.58	0.63
Canberra ACT		0.53
Canberra NSW	0.40	0.61
Central Vic Other	0.37	0.43
Central WA	0.40	0.56
Clare Valley	0.37	0.51
Coonawarra		0.54
Cowra	0.34	0.45
Currency Creek	0.37	0.57
Eastern Plain ect.	0.39	0.37
Eden Valley	0.31	0.46
Far North Other	0.26	0.44
Fleurieu other	0.42	0.51
Geelong	0.31	0.39
Geographe	0.43	0.65
Gippsland	0.36	0.44
Glenrowan		0.54
Goulburn Valley	0.39	0.60
Grampians	0.32	0.39
Granite Belt	0.56	0.70
Great Southern	0.42	0.59
Greater Perth other	0.38	0.40
Gundagai		0.46
Hastings River	0.41	0.41
Heathcote		0.41
Henty	0.32	0.34
Hilltops	0.38	0.57
Hunter	0.29	0.44
Hunter Valley other	0.34	0.36
Kangaroo Island	0.34	0.54
King Valley		0.70
Langhorne Creek	0.37	0.59
Limestone C. Other	0.37	0.62
Lower Murray other	0.39	0.56
Macedon Ranges		0.43
Manjimup		0.63
Margaret River	0.42	0.63
McLaren Vale	0.37	0.48
Mornington Pen.	0.33	0.33
Mount Benson	0.43	0.65
Mt Lofty Rgs other	0.40	0.45

Table 169 (cont.) Winegrape Varietal Similarity Index, by region, relative to the world, 2001 and 2010

Region	*2001*	*2010*
Mudgee	0.38	0.61
Murray Darling NSW	0.41	0.61
Murray Darling VIC	0.30	0.59
N. E. Vic Other	0.49	0.69
N. W. Vic Other	0.29	0.62
New England		0.30
Nthn Rivers Other	0.44	0.43
Nthn Slopes Other	0.35	0.66
Nthn Territory	0.50	
Orange	0.39	0.64
Padthaway	0.39	0.62
Peel		0.62
Pemberton		0.47
Peninsulas	0.37	0.57
Perricoota	0.41	0.57
Perth Hills	0.30	0.48
Pt Phillip Other	0.37	0.44
Pyrenees	0.36	0.48
Queensland other	0.55	0.55
Riverina	0.33	0.54
Riverland	0.41	0.59
Robe		0.60
Rutherglen	0.26	0.41
SE Coastal WA	0.38	0.51
Shoalhaven Coast		0.53
South Burnett	0.61	0.56
South Coast Other	0.46	0.56
Southern Fleurieu	0.36	0.56
Southern Highlands		0.68
Sthn Flinders		0.32
Sthn NSW Other	0.32	0.48
Strathbogie Rgs		0.60
Sunbury	0.35	0.52
SW Australia Other	0.46	0.59
Swan District	0.54	0.55
Swan Hill NSW	0.36	0.60
Swan Hill VIC	0.41	0.60
Tasmania	0.33	0.32
The Peninsulas		
Tumbarumba	0.25	0.39
Upper Goulburn		0.58
West Plains Other	0.61	0.47
West Vic Other	0.40	0.60
Wrattonbully		0.60
Yarra Valley	0.37	0.51

Table 170: Each region's three most similar winegrape regions in the world according to the Varietal Similarity Index, 2001 and 2010

2001							
Adelaide Hills	0.94	AUYarra Valley	0.93	AUGippsland	0.92	AUAlpine/Bchworth
Alpine/Bchworth	0.94	AUBlackwood Valley	0.93	AUSW Australia Other	0.93	AUN. E. Vic Other
Aus. Capital Terr.	0.94	AUPyrenees	0.93	AUBarossaother	0.90	AUCentral Vic Other
Barossaother	0.94	AUFar North Other	0.94	AUBarossaValley	0.93	AUAus. Capital Terr.
BarossaValley	0.97	AUMcLaren Vale	0.97	AUSthn NSW Other	0.96	AUMt LoftyRgsOther
Beechworth	0.95	AUWest Vic Other	0.88	AUYarra Valley	0.88	AUCanberra District
Bendigo	0.99	AUFar North Other	0.97	AUGrampians	0.97	AUMcLaren Vale
Big Rivers Other	0.85	AUSth Coast Other	0.84	AUHunter Vall.Other	0.84	AUGranite Belt
Blackwood Valley	0.98	AUSW Australia Other	0.97	AUGeographe	0.96	AUGreat Southern
Canberra District	0.95	AUPadthaway	0.95	AUSunbury	0.95	AUCentral Vic Other
C. Ranges Other	0.97	AUNthn Territory	0.97	AUQueensland Other	0.96	Romania
Central Vic Other	0.98	AUSunbury	0.96	AUGoulburnValley	0.96	AUPadthaway
Central WA	0.87	AUEastern Plains etc.	0.84	PTAcores	0.83	PTMadeira
ClareValley	0.96	AUHilltops	0.96	AUGreat Southern	0.95	AUMudgee
Cowra	0.96	AUHunter Vall.Other	0.96	AUHunter	0.92	USShasta
Currency Creek	0.99	AULanghorne Creek	0.98	AULower Murr.Other	0.97	AUHilltops
Eastern Plains etc.	0.99	ITBelluno	0.97	PTAcores	0.95	PTMadeira
Eden Valley	0.92	AUClareValley	0.89	AUCanberra District	0.88	AUSunbury
Far North Other	0.99	AUBendigo	0.97	AUGrampians	0.96	AUPyrenees
Fleurieuother	0.99	AUMudgee	0.98	AUSouthern Fleurieu	0.98	AUMt LoftyRgsOther
Geelong	0.97	AUGippsland	0.97	AUPt Phillip Other	0.96	AUMornington Pen.
Geographe	0.98	AUGreat Southern	0.97	AUMudgee	0.97	AUOrange
Gippsland	0.98	AUYarra Valley	0.97	AUGeelong	0.96	AUPt Phillip Other
GoulburnValley	0.96	AUOrange	0.96	AUMt LoftyRgsOther	0.96	AUCentral Vic Other
Grampians	0.97	AUMcLaren Vale	0.97	AUBendigo	0.97	AUMcLaren Vale
Granite Belt	0.92	AUSouth Burnett	0.87	AUNthn Rivers Other	0.87	AUSth Coast Other
Greater Per. Other	0.75	AUSwan District	0.69	AUPerth Hills	0.63	AUCentral WA
Great Southern	0.98	AUGeographe	0.97	AUSW Australia Other	0.97	AUPadthaway
Hastings River	0.91	AUNthn Rivers Other	0.89	AUSth Coast Other	0.82	AUGranite Belt
Henty	0.94	AUGippsland	0.92	AUTasmania	0.92	AUGeelong
Hilltops	0.98	AULanghorne Creek	0.98	AUKangaroo Island	0.98	AUMudgee
Hunter	0.98	AUHunter Vall.Other	0.96	AUCowra	0.88	USShasta
Hunter Vall.Other	0.98	AUHunter	0.96	AUCowra	0.87	USShasta
Kangaroo Island	0.98	AULanghorne Creek	0.98	AUMudgee	0.98	AUHilltops
Langhorne Creek	0.99	AUCurrency Creek	0.98	AUHilltops	0.98	AULower Murr.Other
Limestone C.Other	0.96	AULanghorne Creek	0.96	AULower Murr.Other	0.96	AUCurrency Creek
Lower Murr.Other	0.98	AUCurrency Creek	0.98	AULanghorne Creek	0.97	AUHilltops
Margaret River	0.95	AUGeographe	0.94	AUBlackwood Valley	0.94	AUSW Australia Other
McLaren Vale	0.99	AUMt LoftyRgsOther	0.98	AUFleurieuother	0.97	AUGrampians
Mornington Pen.	0.96	AUTasmania	0.96	AUGeelong	0.95	AUPt Phillip Other
Mount Benson	0.96	AUN. E. Vic Other	0.95	AUOrange	0.94	AUGeographe
Mt Lofty Rgs Other	0.99	AUMcLaren Vale	0.98	AUFleurieuother	0.98	AUMudgee
Mudgee	0.99	AUOrange	0.99	AUFleurieuother	0.98	AUKangaroo Island
Murray Dar. NSW	0.95	AUMurray Dar. VIC	0.89	AUSwan Hil lNSW	0.88	AUSwan Hill VIC
Murray Dar. VIC	0.97	AUN. W. Vic Other	0.95	AUMurray Dar. NSW	0.93	AUSwan Hil lNSW
N. E. Vic Other	0.96	AUMount Benson	0.96	AUSW Australia Other	0.95	AUGreat Southern
Nthn Rivers Other	0.91	AUHastings River	0.89	AUSth Coast Other	0.87	AUGranite Belt
Nthn Slopes Other	0.96	AUMt LoftyRgsOther	0.96	AUSthn NSW Other	0.96	AUSouthern Fleurieu
Nthn Territory	0.97	AUC. Ranges Other	0.95	AUQueensland Other	0.95	Romania
N. W. Vic Other	0.97	AUSwan Hil lNSW	0.97	AUMurray Dar. VIC	0.95	AUSwan Hill VIC
Orange	0.99	AUMudgee	0.98	AUFleurieuother	0.98	AUKangaroo Island
Padthaway	0.97	AUGreat Southern	0.96	AUCentral Vic Other	0.96	AUBlackwood Valley
Perricoota	0.91	AULower Murr.Other	0.91	AUFleurieuother	0.91	AURiverland
Perth Hills	0.80	AUCowra	0.77	AUCentral Vic Other	0.77	AUHunter

Table 170 (cont.) Each region's three most similar winegrape regions in the world according to the Varietal Similarity Index, 2001 and 2010

2001 (cont.)						
Pt Phillip Other	0.97	AUGeelong	0.96	AUGippsland	0.95	AUMornington Pen.
Pyrenees	0.96	AUMt LoftyRgsOther	0.96	AUMcLaren Vale	0.96	AUFar North Other
Queensland Other	0.97	AUC. Ranges Other	0.96	DEAhr	0.95	AUNorthern Territory
Riverina	0.93	AUNthn Slopes Other	0.92	AUSthn NSW Other	0.90	AUSouthern Fleurieu
Riverland	0.97	AUMt LoftyRgsOther	0.96	AUMudgee	0.95	AUFleurieuother
Rutherglen	0.92	AUBendigo	0.91	AUFar North Other	0.90	AUGrampians
South Burnett	0.92	AUGranite Belt	0.82	AUBig Rivers Other	0.81	AUCentral WA
Sth Coast Other	0.89	AUNthn Rivers Other	0.89	AUHastings River	0.87	AUGranite Belt
Southern Fleurieu	0.98	AUFleurieuother	0.98	AUMudgee	0.98	AUMt LoftyRgsOther
Sthn NSW Other	0.98	AUMt LoftyRgsOther	0.98	AUSouthern Fleurieu	0.97	AUMcLaren Vale
SW Australia Other	0.98	AUBlackwood Valley	0.97	AUGeographe	0.97	AUGreat Southern
Sunbury	0.98	AUCentral Vic Other	0.96	AUMt LoftyRgsOther	0.96	AUMudgee
Swan District	0.80	AUSouth Burnett	0.76	AUCentral WA	0.75	AUGreater Per.Other
Swan Hil lNSW	0.97	AUSwan Hill VIC	0.97	AUN. W. Vic Other	0.93	AUMurray Dar. VIC
Swan Hill VIC	0.97	AUSwan Hil lNSW	0.95	AUN. W. Vic Other	0.90	AUMurray Dar. VIC
Tasmania	0.96	AUMornington Pen.	0.95	NZWairarapa	0.94	AUGippsland
ThePeninsulas	0.93	AUOrange	0.92	AUKangaroo Island	0.92	AUMudgee
Tumbarumba	0.96	USSan mateo	0.95	FRBourgogne	0.95	USSanta Cruz
SE Coastal WA	0.95	AUGeographe	0.94	AUSW Australia Other	0.94	AUBlackwood Valley
West Plains Other	0.88	AUC. Ranges Other	0.82	AUNthn Territory	0.81	AUQueensland Other
West Vic Other	0.95	AUBeechworth	0.94	AUN. E. Vic Other	0.93	AUHilltops
Yarra Valley	0.98	AUGippsland	0.94	AUAdelaide Hills	0.94	AUPt Phillip Other

2010						
Adelaide Hills	0.96	AUStrathbogie Rgs	0.92	AUPemberton	0.92	CLValparaiso
Adelaide Plains	0.98	AUGoulburn Valley	0.97	AUSouthern Fleurieu	0.97	AUSE Coastal WA
Alpine Valleys	0.93	AUKing Valley	0.90	AUStrathbogie Rgs	0.89	AUC. Ranges Other
Aus. Capital Terr.	0.81	DEHessische Bergs.	0.77	DEGermany	0.76	USColorado
Barossa other	1.00	AUSthn Flinders	0.99	AUGrampians	0.99	USVentura
Barossa Valley	0.99	AUMt LoftyRgsOther	0.99	AUMcLaren Vale	0.99	AUBendigo
Beechworth	0.97	AUOrange	0.96	AUMudgee	0.96	AUNthn Slopes Other
Bendigo	0.99	AUMcLaren Vale	0.99	AUMt LoftyRgsOther	0.99	AUBarossa Valley
Big Rivers other	0.97	AUMurray Dar. NSW	0.92	AUMurray Dar. VIC	0.91	AUCowra
Blackwood Valley	0.97	AUGeographe	0.97	AUMargaret River	0.97	AUGreat Southern
C. Ranges Other	0.93	AUMurray Dar. VIC	0.93	AUMurray Dar. NSW	0.92	AUBeechworth
Canberra ACT	0.89	AUEden Valley	0.89	AUCanberra NSW	0.89	AUGoulburn Valley
Canberra NSW	0.97	AUThe Peninsulas	0.95	AUCurrency Creek	0.95	AUGlenrowan
Central Vic Other	0.99	AUGrampians	0.99	AUHeathcote	0.99	AUBendigo
Central WA	0.96	AUMcLaren Vale	0.95	AUBendigo	0.95	AUMt LoftyRgsOther
Clare Valley	0.95	AUCanberra NSW	0.94	AUEden Valley	0.91	AUThePeninsulas
Coonawarra	0.98	AUWrattonbully	0.97	USRed Mountain	0.97	CLMetropolitana
Cowra	0.98	AUHunter Vall.Other	0.95	USTehama	0.93	AUMurray Dar. VIC
Currency Creek	0.99	AUKangaroo Island	0.98	AULanghorne Creek	0.98	AUThe Peninsulas
Eastern Plain ect.	0.84	AUSwan District	0.75	AUPerth Hills	0.65	AUQueensland other
Eden Valley	0.94	AUClare Valley	0.89	AUCanberra ACT	0.85	AUCanberra NSW
Far North Other	0.98	AUKangaroo Island	0.97	AUGlenrowan	0.96	AUFleurieu other
Fleurieu other	0.98	AULanghorne Creek	0.98	AUHilltops	0.98	AUKangaroo Island
Geelong	0.97	AUMacedon Ranges	0.95	AUPort Phillip other	0.94	AUGippsland
Geographe	0.98	AUMargaret River	0.97	AUBlackwood Valley	0.97	AUGreat Southern
Gippsland	0.99	AUMacedon Ranges	0.99	AUPort Phillip other	0.98	AUYarra Valley
Glenrowan	0.97	AUThe Peninsulas	0.97	AUCurrency Creek	0.97	AUFar North Other
Goulburn Valley	0.98	AUAdelaidePlains	0.98	AUOrange	0.97	AUSouthern Fleurieu
Grampians	0.99	AUHeathcote	0.99	AUBarossa other	0.99	AUCentral Vic Other
Granite Belt	0.94	AUNthn Slopes Other	0.94	AUBeechworth	0.94	AUSwan Hill NSW

Table 170 (cont.) Each Australian region's 3 most similar winegrape regions in the world according to the Varietal Similarity Index, 2001 and 2010

2010 (cont.)							
Great Southern	0.97	AUBlackwood Valley	0.97	AUGeographe	0.95	AUMargaret River
Greater Per. Other	0.92	AUBarossa Valley	0.92	AUMt LoftyRgsOther	0.92	AUBarossa other
Gundagai	0.98	AUMcLaren Vale	0.97	AUBendigo	0.97	AUSouthern Fleurieu
Hastings River	0.89	AUShoalhaven Coast	0.81	AUNthn Rivers other	0.72	NZAuckland
Heathcote	0.99	AUGrampians	0.99	AUCentral Vic Other	0.98	AUBarossa other
Henty	0.97	AUTasmania	0.96	AUMornington Pen.	0.95	NZCanterbury
Hilltops	0.99	AULanghorne Creek	0.98	AUFleurieu other	0.97	AUCurrency Creek
Hunter	0.96	AURiverina	0.94	AUSouth Coast other	0.91	AUWest Plains Other
Hunter Vall.Other	0.98	AUCowra	0.97	USTehama	0.94	FRYonne
Kangaroo Island	0.99	AUCurrency Creek	0.98	AUFar North Other	0.98	AUFleurieu other
KingValley	0.93	AUAlpine Valleys	0.89	AUStrathbogie Rgs	0.87	CABritish Colombia
Langhorne Creek	0.99	AUHilltops	0.98	AUFleurieu other	0.98	AUCurrency Creek
Limestone C.Other	0.97	AUWrattonbully	0.96	AUCoonawarra	0.94	AUHilltops
Lower Murr. Other	0.98	AUPerricoota	0.98	AURiverland	0.96	AUGundagai
Macedon Ranges	0.99	AUGippsland	0.99	AUPort Phillip other	0.98	USSanta Cruz
Manjimup	0.88	USSacramento	0.88	AUSW Australia Other	0.87	AUMargaret River
Margaret River	0.98	AUGeographe	0.97	AUBlackwood Valley	0.95	AUGreat Southern
McLaren Vale	0.99	AUMt LoftyRgsOther	0.99	AUBarossa Valley	0.99	AUBendigo
Mornington Pen.	0.97	USSanta Cruz	0.96	AUTasmania	0.96	AUHenty
Mount Benson	0.97	AUGeographe	0.96	AUOrange	0.96	AUBlackwood Valley
Mt Lofty Rgs Other	0.99	AUBarossa Valley	0.99	AUMcLaren Vale	0.99	AUBendigo
Mudgee	0.98	AUPadthaway	0.98	AUOrange	0.98	AULanghorne Creek
Murray Dar. NSW	0.97	AUMurray Dar. VIC	0.97	AUBig Rivers other	0.95	AUSwan Hill VIC
Murray Dar. VIC	0.97	AUMurray Dar. NSW	0.95	AURiverland	0.95	AUSwan Hill VIC
N. E. Vic Other	0.96	USHorse Heaven Hills	0.94	USWahluke Slope	0.93	USSan Luis Obispo
N. W. Vic Other	0.93	AUSwanHill NSW	0.93	AURiverland	0.92	AUMudgee
New England	0.79	AUHunter	0.74	AURiverina	0.72	AUCowra
Nthn Rivers other	0.87	NZGisborne	0.87	AUHunter Vall.Other	0.85	USTehama
Nthn Slopes Other	0.97	AUMudgee	0.96	AUOrange	0.96	AUPadthaway
Orange	0.98	AUPadthaway	0.98	AUGoulburn Valley	0.98	AUMudgee
Padthaway	0.98	AUMudgee	0.98	AUOrange	0.98	AULanghorne Creek
Peel	0.96	AUHilltops	0.95	AUPadthaway	0.95	AULanghorne Creek
Pemberton	0.96	CLValparaiso	0.92	AUAdelaide Hills	0.91	AUSW Australia Other
Perricoota	0.98	AURiverland	0.98	AULower Murr.Other	0.96	AUPadthaway
Perth Hills	0.95	AUSwan District	0.87	AUWest Plains Other	0.86	AUSouth Coast other
Pt Phillip Other	0.99	AUMacedon Ranges	0.99	AUGippsland	0.96	USSanta Cruz
Pyrenees	0.96	AUBendigo	0.95	AUMcLaren Vale	0.95	AUMt LoftyRgsOther
Queensland Other	0.95	AUSouth Burnett	0.94	AUSwan Hill NSW	0.94	AUSouthern Fleurieu
Riverina	0.96	AUHunter	0.94	AUSouth Coast other	0.94	AUSwan Hill VIC
Riverland	0.98	AUPerricoota	0.98	AULower Murr.Other	0.96	AUSwan Hill VIC
Robe	0.97	AUPadthaway	0.96	AUPerricoota	0.96	AURiverland
Rutherglen	0.95	AUMt LoftyRgsOther	0.95	AUGrampians	0.95	AUBendigo
Shoalhaven Coast	0.89	AUHastings River	0.81	AUSouth Coast other	0.77	AUNthn Rivers other
South Burnett	0.97	AUMudgee	0.96	AUSouthern Fleurieu	0.95	AUQueensland other
South Coast other	0.94	AUHunter	0.94	AURiverina	0.91	AUSwan Hill VIC
Southern Fleurieu	0.97	AUAdelaidePlains	0.97	AUGundagai	0.97	AUMcLaren Vale
Southern Highlands	0.90	AUStrathbogie Rgs	0.89	AUAdelaide Hills	0.88	AUUpper Goulburn
Sthn NSW Other	0.86	AUAdelaide Plains	0.83	AUGoulburn Valley	0.82	AUSouthern Fleurieu
Sthn Flinders	1.00	AUBarossa other	0.99	USVentura	0.99	AUGrampians
Strathbogie Rgs	0.97	AUUpper Goulburn	0.96	AUAdelaide Hills	0.90	AUAlpine Valleys
Sunbury	0.94	AUAdelaidePlains	0.93	AUSouthern Fleurieu	0.92	AUSE Coastal WA
SW Australia Other	0.92	AUBlackwood Valley	0.92	AUMargaret River	0.91	AUPemberton
Swan District	0.95	AUPerthHills	0.84	AUEastern Plains Inlan	0.82	AUQueensland other
Swan Hill NSW	0.96	AUSouthern Fleurieu	0.95	AUMudgee	0.95	AUSouth Burnett

Table 170 (cont.) Each Australian region's 3 most similar winegrape regions in the world according to the Varietal Similarity Index, 2001 and 2010

2010 (cont.)							
Swan Hill VIC	0.96	AURiverland	0.95	AUMurray Dar. NSW	0.95	AUMurray Dar. VIC
Tasmania	0.98	NZCanterbury	0.97	AUHenty	0.96	AUMornington Pen.
The Peninsulas	0.98	AUCurrency Creek	0.98	AULanghorne Creek	0.97	AUGlenrowan
Tumbarumba	0.95	USSanta Barbara	0.94	AUMacedon Ranges	0.94	AUGippsland
Upper Goulburn	0.97	AUYarra Valley	0.97	AUStrathbogie Rgs	0.93	AUGippsland
SE Coastal WA	0.97	AUAdelaide Plains	0.96	AUGoulburn Valley	0.96	AUWest Plains Other
West Plains Other	0.96	AUSE Coastal WA	0.95	AULower Murr.Other	0.95	AUGundagai
West Vic Other	0.94	AUCanberra NSW	0.93	AULanghorne Creek	0.93	AUHilltops
Wrattonbully	0.98	AUCoonawarra	0.97	AULimestone C.Other	0.95	AUHilltops
Yarra Valley	0.98	AUGippsland	0.97	AUUpper Goulburn	0.96	AUMacedon Ranges

Country codes are Algeria(DZ), Argentina(AR), Armenia(AM), Australia(AU), Austria(AT), Brazil(BR), Bulgaria(BG), Canada(CA), Chile(CL), China(CN), Croatia(HR), Cyprus(CY), Czech Rep.(CZ), France(FR), Georgia(GE), Germany(DE), Greece(EL), Hungary(HU), Italy(IT), Japan(JP), Kazakhstan(KZ), Luxembourg(LU), Mexico(MX), Moldova(MD), Morocco(MA), Myanmar(MM), New Zealand(NZ), Peru(PE), Portugal(PT), Romania(RO), Russia(RU), Serbia(RS), Slovakia(SK), Slovenia(SI), South Africa(ZA), Spain(ES), Switzerland(CH), Thailand(TH), Tunisia(TN), Turkey(TR), Ukraine(UA), United Kingdom(UK), United States(US), and Uruguay(UY).

Table 171: Winegrape Varietal Intensity Index, based on area, relative to world, 1990, 2000 and 2010 (Australian top 40 varieties ranked acording to area in 2010)

Variety	*1990*	*2000*	*2010*
Syrah	19.0	11.1	7.0
Chardonnay	6.4	5.6	4.2
Cabernet Sauvignon	4.1	4.2	2.7
Merlot	0.3	1.2	1.1
Sauvignon Blanc	2.3	1.7	1.8
Semillon	11.3	10.7	8.4
Pinot Noir	2.7	1.9	1.4
Riesling	9.8	3.5	2.5
Pinot Gris		0.0	2.3
Colombard	2.4	2.0	2.1
Muscat of Alexandria	7.0	4.2	2.3
Garnacha Tinta	1.1	0.5	0.3
Verdelho		28.8	23.1
Viognier		1.0	3.6
Petit Verdot		9.5	5.1
Ruby Cabernet		11.0	5.1
Gewurztraminer	5.2	2.3	1.8
Monastrell	0.8	0.5	0.3
Cabernet Franc	0.8	0.7	0.3
Sangiovese	0.0	0.2	0.2
Chenin Blanc	1.2	0.9	0.5
Muscat Blanc a Petits Grains	4.3	0.4	0.5
Tempranillo	0.0	0.0	0.1
Sultaniye	1.5	15.5	3.8
Durif		4.3	3.5
Cot	1.9	0.9	0.3
Marsanne		6.9	4.1
Muscat a Petit Grains Rouge		28.0	11.4
Dolcetto		0.0	0.7
Arneis		0.0	4.1
Tribidrag	0.0	0.0	0.1
Barbera	0.0	0.1	0.1
Nebbiolo		0.2	0.5
Crouchen		2.3	4.0
Savagnin Blanc		0.0	1.5
Trebbiano Toscano	0.9	0.2	0.0
Roussanne		0.0	1.4
Tarrango		53.3	30.1
Muscadelle		5.1	1.3
Touriga Nacional		0.2	0.1

Table 172: Price, yield, production and Varietal Quality Indexes, key varieties, 2001 and 2010

	Price (AUD/t)		Yield (t/ha)		Prodn. volume (%)		Area (%)		Prodn. value (%)		VQI	
	2001	2010	2001	2010	2001	2010	2001	2010	2001	2010	2001	2010
Syrah	1238	664	10.6	9.5	22.4	26.3	22.4	28.1	28.1	30.2	1.26	1.15
Chardonnay	987	520	14.2	10.7	17.6	19.4	13.2	18.3	17.7	17.5	1.00	0.90
Cabernet Sauvignon	1252	640	10	8.2	17.9	14	19.1	17.1	22.8	15.5	1.27	1.11
Merlot	1086	549	10.5	10.5	5.8	6.8	5.9	6.6	6.4	6.5	1.10	0.95
Semillon	732	447	13.5	12.5	6.4	5	5	4	4.7	3.9	0.74	0.77
Sauvignon Blanc	1063	690	9.7	11.1	1.8	4.7	2	4.3	2	5.6	1.08	1.19
Muscat of Alexandri	369	275	19.6	23.8	3.5	3.2	1.9	1.3	1.3	1.5	0.38	0.48
Colombard	380	204	21.7	20.8	2.8	3	1.4	1.5	1.1	1.1	0.39	0.35
Pinot Noir	1563	898	9.2	8.8	2.1	2.7	2.5	3.1	3.4	4.2	1.59	1.55
Pinot Gris	1426	709		11.9		2.6		2.2		3.1	1.45	1.23
Riesling	1001	721	8.6	8.2	1.9	2.2	2.4	2.7	2	2.7	1.02	1.25
Petit Verdot	988	351	8.5	15.5	0.4	1.2	0.6	0.8	0.4	0.8	1.00	0.61
Verdelho	874	408	10.1	9.3	0.9	0.9	1	1	0.8	0.7	0.89	0.71
Ruby Cabernet	651	251	12.8	13.9	2.2	0.9	1.9	0.6	1.5	0.4	0.66	0.43
Viognier	1451	561	5.3	8.8	0	0.8	0.1	0.9	0.1	0.8	1.47	0.97
Garnacha Tinta	883	629	10.5	6.5	1.6	0.7	1.6	1.2	1.5	0.8	0.90	1.09
Gewurztraminer	676	503	8.3	10.8	0.3	0.6	0.4	0.5	0.2	0.5	0.69	0.87
Chenin Blanc	519	425	16.5	12.5	1	0.4	0.6	0.4	0.5	0.3	0.53	0.74
Monastrell	693	484	12.3	7.9	0.8	0.4	0.7	0.5	0.6	0.3	0.70	0.84
Muscat Blanc a Peti	450	362	11.5	10.1	0.2	0.4	0.2	0.4	0.1	0.2	0.46	0.63
Sangiovese	978	555	8.9	8.5	0.2	0.3	0.3	0.4	0.2	0.3	0.99	0.96
Durif	680	430	8.3	10.5	0.1	0.3	0.1	0.3	0.1	0.2	0.69	0.74
Cabernet Franc	1110	627	8.3	5.2	0.4	0.2	0.6	0.4	0.5	0.2	1.13	1.09
Tempranillo	962	683	5.1	6.2	0	0.2	0	0.3	0	0.2	0.98	1.18
Sultaniye	312	216	7.2	6.1	5.3	0.2	7.9	0.3	1.7	0.1	0.32	0.37
Cot	1042	658	10	7.2	0.3	0.2	0.3	0.2	0.3	0.2	1.06	1.14
Crouchen	451	423	16.9	25.1	0.1	0.2	0.1	0.1	0.1	0.1	0.46	0.73

Table 172 (cont.) Price, yield, production and Varietal Quality Indexes, Australian key varieties, 2001 and 2010

	Price (AUD/t)		Yield (t/ha)		Prodn. volume (%)		Area (%)		Prodn. value (%)		VQI	
	2001	2010	2001	2010	2001	2010	2001	2010	2001	2010	2001	2010
Dolcetto				11.6		0.1		0.1				
Muscat a Petits Gr. I	922	450	4.2	7.2	0.1	0.1	0.3	0.2	0.1	0.1	0.94	0.78
Marsanne	819	619	10.5	6.8	0.2	0.1	0.2	0.2	0.1	0.1	0.83	1.07
Arneis				9.6		0.1		0.1				
Trebbiano	350	316	10.7	11.3	0.5	0.1	0.5	0.1	0.2	0	0.36	0.55
Tribidrag	1195	686		5.6		0.1		0.1		0.1	1.21	1.19
Savagnin Blanc		531		8.6		0.1		0.1		0		0.92
Barbera	605	220	7.8	6.7	0.1	0.1	0.1	0.1	0	0	0.61	0.38
Tarrango	653	272	22.2	9.3	0.2	0	0.1	0	0.1	0	0.66	0.47
Muscadel	747	471	8.2	6.7	0.1	0	0.2	0	0.1	0	0.76	0.82
Roussann	1600	1139		4.8		0		0.1		0.1	1.63	1.97
Nebbiolo	1011	1220	3.3	4	0	0	0	0.1	0	0.1	1.03	2.11
Touriga N	1017	874	9.4	6	0	0	0.1	0	0.1	0	1.03	1.51
Doradillo	259		19.7		0.4		0.2		0.1		0.26	
Palomino	272	358	13.3		0.1		0.1		0		0.28	0.62
Afus Ali	260		3.4		0.1		0.3		0		0.26	
Pedro Xin	302		10.1		0.1		0.1		0		0.31	
Canada M	516		9.1		0		0		0		0.52	
Taminga	321		9		0		0		0		0.33	
Fiano		1337										2.31
Vermentino		614										1.06
Korinthial			2.1		0.1		0.6					
Pinot Meu	1715	1201	10.2		0.1		0.1		0.1		1.74	2.08
Mazuelo	428		5.2		0		0.1		0		0.43	
Tannat		505										0.87
Other reds	738	712	2.4	7.2	0.5	0.5	2.2	0.8	0.4	0.7	0.75	0.93
Other whi	587	535	3.8	12.2	1	1	2.8	0.8	0.6	0.9	0.6	1.23
Total	**984**	**578**	**10.7**	**10.1**	**100**	**100**	**100**	**100**	**100**	**100**	**1**	**1**
Sub-total												
All reds	1081	638	9.9	9.1	56	55	60	61	67	61	1.1	1.1
All whites	740	466	11.7	11.6	44	45	40	39	33	39	0.75	0.81

Table 173: National winegrape Varietal Quality Index, by variety, 1999 to 2005

Prime variety	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*
Afus Ali	0.3	0.3	0.3	0.3	0.4	0.4	0.6
Alicante Henri Bouschet		1.2					
Alphonse Lavallee	0.5	0.4					
Arneis							1.0
Barbera	0.6	0.9	0.5	0.7	0.6	0.4	0.8
Black America	0.7	0.8					1.6
Black Sultana	0.3						
Cabernet Franc	1.2	1.5	1.2	1.0	1.0	0.9	1.1
Cabernet Sauvignon	1.4	1.3	1.2	1.1	1.1	1.0	0.9
Canada Muscat	0.6	0.6	0.5	0.5	0.5		0.6
Cardinal	0.3						1.2
Carina	0.6	0.5	0.4	0.3	0.3		0.3
Chambourcin	0.7	1.0	0.7	0.9	1.1	1.0	1.2
Chardonnay	0.9	1.0	0.9	1.0	1.2	1.3	1.1
Chenin Blanc	0.5	0.6	0.5	0.5	0.5	0.4	0.7
Cinsaut		0.6		0.9	0.7		1.0
Colombard	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Cot	1.0	1.1	1.0	1.0	1.0	0.9	1.1
Crouchen	0.3	0.5	0.4	0.5	0.5		0.7
Damaschino		0.3					0.7
Doradillo	0.2	0.3	0.3	0.3	0.3		0.3
Durif	0.9	0.6	0.6	0.7	0.6	0.6	0.7
Emerald Riesling	0.3	0.4	0.3	0.4	0.4		0.5
Emperor	0.5						
Flame Seedless	0.3	0.3					
Flora							0.6
Gamay Noir	1.2	1.7	1.6	1.5	0.7		1.7
Garnacha Tinta	0.9	1.0	0.9	0.9	0.9	0.9	0.9
Gewurztraminer	0.6	0.7	0.7	0.7	0.6	0.7	0.7
Graciano							1.6
Italia	0.3	0.3	0.3	0.4	0.4		0.7
Korinthiaki	0.5	0.5	0.4	0.8			
Lagrein							1.9
Malvasia Bianca di Candia		0.4					
Marroo Seedless	0.5						
Mazuelo	0.5	0.6	0.4	0.4			0.4
Menindee Seedless	0.2						
Merlot	1.3	1.1	1.0	0.9	0.9	0.9	0.9
Monastrell	0.8	0.7	0.6	0.7	0.5	0.6	0.7
Mueller Thurgau		0.5					0.9
Muscadelle	0.6	0.7	0.7	0.9	1.0	0.8	0.8
Muscat a Petits Grains Rouge	0.5	0.5	0.9	0.9	1.0	1.0	1.1
Muscat Blanc a Petits Grains	0.4	0.4	0.4	0.5	0.5	0.5	0.7
Muscat Fleur d'Oranger		1.4	1.3	1.4	1.4		1.6
Muscat of Alexandria	0.3	0.4	0.3	0.4	0.4	0.4	0.5
Muscat of Hamburg	0.6	0.6	0.7	0.5	0.6	0.7	0.7

Table 173 (cont.) National winegrape Varietal Quality Index, by variety, 1999 to 2005

Prime variety	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*
Nebbiolo	1.7	1.6	1.3	1.1	1.1	1.3	1.6
Negramoll	1.0	1.1	1.3	1.4	0.7		0.9
Nyora	0.5						
Palomino Fino	0.3	0.3	0.3	0.3	0.3		0.4
Pedro Ximenez	0.3	0.3	0.3	0.3	0.3		0.6
Petit Verdot	1.3	1.2	0.9	0.7	0.7	0.6	0.6
Pinot Gris	1.5	1.6	1.4	1.7	1.7	1.7	1.6
Pinot Meunier	1.8	2.0	1.8	1.8	2.0		1.8
Pinot Noir	1.3	1.5	1.3	1.3	1.4	1.4	1.4
Riesling	0.7	0.8	0.9	1.0	1.1	1.2	1.3
Rkatsiteli	0.5						
Rose Cross	0.8	1.0	0.9				
Roussanne			1.1	1.2	1.1	0.9	1.6
Rubired	0.6	0.5	0.4	0.4	0.3	0.5	0.4
Ruby Cabernet	0.9	0.8	0.6	0.6	0.5	0.5	0.4
Ruby Seedless		0.3					
Saint Macaire	0.5	0.6	0.6	0.7	0.4		0.5
Sangiovese	1.1	1.1	0.9	0.8	0.8	0.8	0.8
Sauvignon Blanc	0.9	1.0	1.0	1.0	1.2	1.3	1.5
Semillon	0.6	0.7	0.6	0.7	0.7	0.7	0.8
Silvaner							0.5
Sultaniye	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Syrah	1.3	1.2	1.2	1.2	1.1	1.1	1.1
Taminga	0.3	0.3	0.3	0.4	0.3	0.4	0.5
Tannat							0.6
Tarrango	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Tempranillo	0.7	1.3	0.9	0.8	0.8	1.0	1.1
Tinta Cao	0.8	0.8	0.7	0.7	1.0		0.8
Touriga Nacional	0.9	0.9	0.8	0.9	0.7		1.4
Trebbiano Toscano	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Tribidrag		0.4	0.5	0.4	0.6	0.5	0.8
Trincadeira	0.8	0.8	0.8	1.4	0.8		
Valdiguie	0.4	0.4					
Viognier	0.9	1.3	1.4	1.4	1.4	1.4	1.6
Other red	0.4	0.2	0.6	0.1	0.8	1.2	0.9
Other white	0.2	0.2	0.3	0.5	0.5	0.5	0.5
Australia Total	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**

Table 174: National winegrape Varietal Quality Index, by variety, 2006 to 2013

Prime variety	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
Afus Ali	0.9	0.4	0.5					
Alvarinho				1.1				
Arneis			0.6	0.7			0.7	1.0
Barbera	0.9	1.1	1.0		0.4		1.0	1.2
Cabernet Franc	1.2	1.2	1.1	0.8	1.1	1.2	1.7	1.4
Cabernet Sauvignon	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.3
Canada Muscat		0.6	0.5			1.0	0.9	0.7
Chambourcin	1.1		1.2					
Chardonnay	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9
Chenin Blanc	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.7
Colombard	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Cot	1.3	1.4	1.2	1.1	1.1	1.2	1.2	1.3
Crouchen	0.8	0.7	0.6	0.4	0.7	0.7		0.6
Dolcetto				0.9			0.8	1.0
Doradillo		0.5	0.4					
Durif	0.8	0.8	0.7	0.8	0.7	0.7	0.8	0.8
Fiano				1.8	2.3	1.3	1.0	0.9
Gamay Noir			1.4					
Garnacha Tinta	1.0	1.0	1.1	1.1	1.1	1.0	1.2	1.1
Gewurztraminer	0.8	0.8	0.7	0.8	0.9	0.8	0.8	0.7
Graciano			1.4				0.9	1.0
Lagrein			0.9				0.9	0.7
Marsanne				0.9	1.1	0.8	1.0	0.7
Mazuelo		0.3	0.7					
Merlot	0.9	0.9	0.9	1.0	0.9	0.9	1.0	1.0
Monastrell	0.8	0.9	1.0	0.8	0.8	0.8	1.0	1.0
Montepulciano						0.7	1.0	1.1
Mueller Thurgau			0.5					
Muscadelle	1.3	1.3	1.0	0.7	0.8			0.9
Muscat a Petit Grains Rouge/Rose				0.8	0.8	1.1	1.0	0.9
Muscat a Petits Grains Rouge	1.5	1.7	1.4					
Muscat Blanc a Petits Grains	0.9	0.8	0.7	0.7	0.6	0.8	0.7	0.7
Muscat of Alexandria	0.6	0.6	0.6	0.6	0.5	0.7	0.7	0.6
Muscat of Hamburg	1.5		0.8					
Nebbiolo	2.0	1.7	1.6		2.1			
Nero D'Avola							1.3	1.0
Palomino Fino		0.5	0.5	0.5	0.6			0.6
Pedro Ximenez		1.0	1.0	1.0		0.6		
Petit Verdot	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.7
Pinot Gris	1.7	1.5	1.2	1.1	1.2	1.2	1.1	1.1
Pinot Meunier	2.2	2.5	2.1	2.1	2.1	2.1	2.2	2.2
Pinot Noir	1.7	1.9	1.7	1.4	1.6	1.6	1.4	1.5
Prosecco								2.0
Riesling	1.3	1.3	1.2	1.1	1.2	1.3	1.1	1.1
Roussanne	2.2	1.9	1.4	2.0	2.0	1.4	1.4	1.1

Table 174 (cont.) National winegrape Varietal Quality Index, by variety, 2006 to 2013

Prime variety	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*
Ruby Cabernet	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5
Sagrantino								1.7
Saint Macaire			0.7					
Sangiovese	0.9	1.0	0.8	1.1	1.0	0.8	1.2	0.9
Sauvignon Blanc	1.7	1.7	1.4	1.3	1.2	1.1	1.0	1.0
Savagnin Blanc					0.9	1.0	0.7	0.7
Semillon	0.8	0.9	0.7	0.8	0.8	0.8	0.7	0.7
Silvaner			1.2					
Sultaniye	0.4	0.4	0.4	0.4	0.4		0.4	0.4
Syrah	1.2	1.1	1.2	1.1	1.1	1.1	1.2	1.2
Taminga	0.5	0.5	0.6					
Tannat			1.7		0.9	0.5	0.8	1.3
Tarrango	0.6	0.5	0.6		0.5			
Tempranillo	1.1	1.1	1.2	1.2	1.2	1.5	1.2	1.2
Touriga Nacional		1.1	1.2	1.3	1.5	1.2	1.4	1.1
Trebbiano Toscano	0.5	0.4	0.4	0.3	0.5	0.5	0.4	0.4
Tribidrag	0.8	0.8	0.8	0.3	1.2	1.0	0.7	1.2
Verdelho				0.8	0.7	0.7	0.7	0.7
Vermentino				2.0	1.1	1.6	1.3	1.2
Viognier	1.5	1.2	1.1	1.0	1.0	0.9	1.0	0.8
Other red	1.0	0.7	0.9					
Other white	0.9	0.6	0.6					
Australia total	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**

Section IV — Tables:

Appendix of Australian macroeconomic data since the early 1800s

Table A1: Total population, by State, 1788 to 2013

Year	SA	NSW	Vic.	WA	Tas	Qld	NT	ACT	Australia
1788		859							859
1789		645							645
1790		2056							2056
1791		2873							2873
1792		3264							3264
1793		3514							3514
1794		3579							3579
1795		3466							3466
1796		4100							4100
1797		4344							4344
1798		4588							4588
1799		5088							5088
1800		5217							5217
1801		5945							5945
1802		7014							7014
1803		7061			177				7238
1804		7040			558				7598
1805		6950			757				7707
1806		7162			748				7910
1807		7948			846				8794
1808		9105			1158				10263
1809		10262			1298				11560
1810		10096			1470				11566
1811		10287			1588				11875
1812		10936			1694				12630
1813		12157			1800				13957
1814		12183			1903				14086
1815		13116			1947				15063
1816		15518			2035				17553
1817		17848			3344				21192
1818		22438			3421				25859
1819		26059			5413				31472
1820		28024			5519				33543
1821		29665			5827				35492
1822		29680			7684				37364
1823		30623			10009				40632
1824		35769			12303				48072
1825		38313			14192				52505
1826		38890			14992				53882
1827		39467			16833				56300
1828		40069			18128				58197
1829		40916		1003	20015				61934
1830		44588		1172	24279				70039
1831		48000		1341	26640				75981
1832		53524		1510	28903				83937
1833		62112		1655	34328				98095
1834		66068		1800	37688				105556

Table A1 (cont.) Total population, by State, 1788 to 2013

Year	SA	NSW	Vic.	WA	Tas	Qld	NT	ACT	Australia
1835		71304		1878	40172				113354
1836	546	78752	177	1956	43689				125120
1837	3273	82892	3590	2035	42698				134488
1838	6000	91316	6860	1928	45764				151868
1839	10315	103306	10131	2154	44033				169939
1840	14630	114067	13401	2311	45999				190408
1841	15485	128632	16671	2760	57420				220968
1842	16340	142376	19941	3476	58851				240984
1843	17196	145924	23211	3853	60664				250848
1844	18999	151978	26482	4350	62478				264287
1845	22460	158166	29752	4479	64291				279148
1846	25893	163825	32879	4547	66105				293249
1847	31153	164146	40863	4717	67918				308797
1848	38666	170020	50785	4622	68235				332328
1849	52904	184144	63116	4645	68553				373362
1850	63700	188458	78442	5886	68870				405356
1851	66538	197265	97489	7186	69187				437665
1852	68663	204656	168321	8711	63445				513796
1853	78944	224324	222436	9334	65954				600992
1854	92545	241813	283942	11743	64874				694917
1855	97387	266001	347305	12605	69962				793260
1856	107886	288361	390384	13158	76940				876729
1857	109917	306562	456522	13368	83918				970287
1858	118665	335990	496146	14543	85484				1050828
1859	122735	327459	521072	14837	87682	23520			1097305
1860	124159	338003	529653	15092	88752	25788			1121447
1861	128197	352954	538999	15641	89865	31212			1156868
1862	133687	361731	545576	16806	90012	39722			1187534
1863	139673	371592	559647	18544	90378	53272			1233106
1864	146769	383657	582955	19888	91447	67523			1292239
1865	156116	399368	607897	20872	93111	80250			1357614
1866	165192	418337	625697	21876	94928	90971			1417001
1867	170891	436113	640952	22759	96316	96871			1463902
1868	174722	453294	659813	23720	97741	102412			1511702
1869	179088	471657	684043	24473	98964	107631			1565856
1870	183077	489388	710344	24894	100038	112217			1619958
1871	186595	507348	735188	25291	101393	118508			1674323
1872	190236	525449	752939	25652	102467	125125			1721868
1873	194757	543515	766618	25904	103673	134218			1768685
1874	200966	563408	779958	26204	104286	147136			1821958
1875	207161	583673	790521	26729	104000	161724			1873808
1876	217318	603328	800179	27338	104644	175645			1928452
1877	231358	628067	812180	27958	106354	188990			1994907
1878	245127	656954	824427	28427	108576	198137			2061648
1879	258577	689865	835838	28876	111250	202850			2127256
1880	270724	724904	850181	29350	113648	208130			2196937
1881	281182	759084	866285	29859	116280	216445			2269135

Table A1 (cont.) Total population, by State, 1788 to 2013

Year	SA	NSW	Vic.	WA	Tas	Qld	NT	ACT	Australia
1882	289032	793214	883365	30586	119124	232089			2347410
1883	297000	832401	902609	31551	121877	261472			2446910
1884	305427	877301	924115	32816	124971	291101			2555731
1885	309130	921535	947808	34753	127763	309134			2650123
1886	308012	963693	976778	38282	130025	324496			2741286
1887	308374	999063	1009597	42212	133366	342096			2834708
1888	309746	1029449	1052277	43817	136709	359523			2931521
1889	312021	1059215	1092008	44737	139769	374327			3022077
1890	316768	1093708	1119333	47081	143224	386803			3106917
1891	321834	1133223	1146050	50840	147969	396256			3196172
1892	330057	1168164	1163560	55873	150681	405036			3273371
1893	340154	1194827	1172459	61746	150304	414335			3333825
1894	346845	1219126	1179163	73251	151451	424492			3394328
1895	350371	1243629	1183916	91047	153701	436528			3459192
1896	352018	1263934	1182763	118666	157096	447885			3522362
1897	352202	1283977	1180978	148656	161629	458000			3585442
1898	353575	1306517	1182194	163687	166200	469078			3641251
1899	357056	1328330	1185411	168568	170400	480588			3690353
1900	360703	1349760	1192377	175113	172631	490081			3740665
1901	362108	1363373	1203137	188135	172525	501432	4765		3795475
1902	355934	1389635	1207527	204705	175173	510450	4574		3847998
1903	355437	1413741	1205296	219643	180375	514483	4354		3893329
1904	356968	1439943	1202814	233963	183007	521815	4220		3942730
1905	359940	1470916	1206046	246681	184478	528928	4128		4001117
1906	363110	1504732	1213672	254362	184272	536200	3976		4060324
1907	367710	1543663	1225503	255510	184791	542730	3822		4123729
1908	377994	1573347	1240488	257822	187485	553619	3655		4194410
1909	388439	1598015	1261169	263279	190227	569950	3538		4274617
1910	397700	1632990	1282477	271019	191005	591591	3403		4370185
1911	411663	1663237	1320652	286712	190120	614709	3312	1781	4492186
1912	423697	1742205	1357824	301040	190768	633244	3332	2037	4654147
1913	437294	1818768	1395881	313383	194361	655565	3608	2450	4821310
1914	445408	1868650	1427512	322668	196041	679319	3686	2646	4945930
1915	446401	1889574	1431632	321247	196238	692699	4323	2468	4984582
1916	441665	1891818	1414480	313066	194265	684609	4757	2613	4947273
1917	442003	1903760	1411381	306339	194177	682113	4851	2493	4947117
1918	451382	1942213	1424054	308198	198193	697798	4871	2427	5029136
1919	468319	1999820	1473013	319955	204959	723285	4654	2311	5196316
1920	486619	2067715	1512093	330023	210350	745957	4211	2174	5359142
1921	497001	2108485	1537042	334084	213404	762072	3914	2487	5458489
1922	504910	2155522	1570883	341375	215379	776806	3698	2838	5571411
1923	515372	2201531	1607850	350772	216420	795103	3689	3360	5694097
1924	526648	2244403	1641944	363152	216274	814078	3716	3912	5814127
1925	539920	2295516	1671537	372970	215552	836844	3829	4809	5940977
1926	553800	2346903	1696758	380930	213800	857071	3946	6215	6059423
1927	565284	2403881	1727734	392071	213051	870643	4451	7469	6184584
1928	570863	2460410	1751974	407576	215471	884815	4459	8198	6303766

Table A1 (cont.) Total population, by State, 1788 to 2013

Year	SA	NSW	Vic.	WA	Tas	Qld	NT	ACT	Australia
1929	572457	2503026	1770133	420756	217752	897569	4467	8541	6394701
1930	573242	2532289	1786217	429079	220933	910319	4979	8961	6466019
1931	575717	2555871	1799241	432347	224811	924825	4959	8801	6526572
1932	578010	2579741	1808618	435041	227084	935575	4917	8925	6577911
1933	581034	2601799	1820497	438780	228450	945481	4863	9078	6629982
1934	583474	2623717	1830326	442354	229289	955810	4949	9434	6679353
1935	585268	2645875	1838206	446874	229867	966654	5133	9736	6727613
1936	587934	2668314	1845941	452294	231426	979297	5303	10294	6780803
1937	589663	2695351	1853765	457328	234463	990643	5476	10901	6837590
1938	593242	2722378	1865251	463808	236328	1001996	5804	11534	6900341
1939	597048	2750205	1878918	469780	238845	1015043	6382	12505	6968726
1940	599136	2777898	1900426	473397	241134	1026541	8354	13775	7040661
1941	601193	2800537	1932412	473988	240389	1036555	10279	14629	7109982
1942	609172	2831080	1959496	476619	241087	1036016	8946	14223	7176639
1943	613327	2857547	1973533	476745	242860	1047421	9574	13644	7234651
1944	619409	2886204	1989870	481498	245618	1061467	10440	14200	7308706
1945	627102	2917415	2006649	487510	248596	1076610	10512	15012	7389406
1946	635127	2945220	2025475	492771	252192	1090238	10568	15883	7467474
1947	646686	2983810	2053916	502951	257636	1105882	10866	17029	7578776
1948	661370	3020058	2091581	514621	263445	1127318	11984	19182	7709559
1949	680287	3093277	2142529	532603	270327	1155638	13068	21161	7908890
1950	709475	3193208	2209013	557878	278785	1191081	14309	23545	8177294
1951	732537	3279415	2276272	580317	288294	1223719	15179	24658	8420391
1952	755042	3341476	2343610	600615	298361	1255896	15087	26570	8636657
1953	776355	3386556	2395851	621034	306318	1287231	15534	28724	8817603
1954	796364	3428549	2452741	639963	311055	1313738	16293	30424	8989127
1955	820161	3492799	2520481	657323	315565	1344445	17670	32738	9201182
1956	848563	3556672	2592670	674459	321039	1377393	19155	35352	9425303
1957	874201	3624311	2656363	687448	328435	1408732	20620	37999	9638109
1958	896987	3696049	2717371	699915	335382	1436156	21746	41110	9844716
1959	921106	3762339	2783951	711737	341423	1464469	23623	46618	10055266
1960	944861	3834085	2857032	722900	346913	1491114	25107	52562	10274574
1961	970118	3913967	2926075	737596	353628	1516334	26272	58852	10502842
1962	987867	3986796	2983715	766205	355682	1551249	46034	66180	10743728
1963	1010500	4050230	3041442	788457	360590	1578309	48330	73300	10951158
1964	1037495	4109559	3105685	808300	364554	1610809	51528	80499	11168429
1965	1066884	4176686	3165594	826481	367970	1644028	54142	88417	11390202
1966	1094332	4238546	3221247	849112	371470	1674058	56964	96488	11602217
1967	1109975	4297400	3277183	879815	375397	1701047	61953	103554	11806324
1968	1122758	4364219	3328451	915757	379916	1730614	67558	112173	12021446
1969	1140015	4445959	3388417	955660	385079	1764206	73137	121645	12274118
1970	1158623	4530444	3450523	994201	388180	1795394	79301	133851	12530517
1971	1176483	4611705	3510362	1031614	391242	1830463	86424	144132	12782425
1972	1214909	4794608	3661084	1081634	400465	1898942	91909	160405	13303956
1973	1228627	4842799	3707460	1101921	403150	1952285	97192	173223	13506657
1974	1242633	4894788	3754761	1127887	406283	2007472	101286	186392	13721502
1975	1265103	4933662	3788394	1155499	410039	2051820	92101	198780	13895398

Table A1 (cont.) Total population, by State, 1788 to 2013

Year	SA	NSW	Vic.	WA	Tas	Qld	NT	ACT	Australia
1976	1274618	4960845	3811360	1178928	412449	2091743	98313	207398	14035654
1977	1286024	5002656	3837834	1204454	415071	2130182	103962	213604	14193787
1978	1296041	5054983	3864925	1227903	417779	2172269	109711	217935	14361546
1979	1301239	5110477	3886929	1246800	420741	2215258	114178	220888	14516510
1980	1307962	5171766	3914238	1269270	423605	2267615	118828	224431	14697715
1981	1325176	5266894	3968398	1320221	428283	2387943	127718	229484	15054117
1982	1337783	5328221	4012687	1354971	430974	2456475	132784	234996	15288891
1983	1353208	5374915	4054498	1381011	435100	2503285	139519	241960	15483496
1984	1365333	5431752	4097640	1403032	440070	2547078	145293	247084	15677282
1985	1376838	5496467	4140421	1436900	444576	2597100	152356	255908	15900566
1986	1387499	5574251	4183842	1477398	448235	2648778	156578	262188	16138769
1987	1398959	5666219	4234945	1513355	449820	2703516	159040	268787	16394641
1988	1412323	5752254	4295300	1558914	452781	2780869	160536	274105	16687082
1989	1425461	5803079	4348225	1596225	458410	2864007	162097	279219	16936723
1990	1438882	5862497	4400707	1624390	464520	2928713	165047	285012	17169768
1991	1450862	5928072	4435083	1647408	468549	2990441	167043	291523	17378981
1992	1457241	5977823	4458219	1668515	471258	3057138	170420	296519	17557133
1993	1461102	6020171	4466738	1690348	472983	3130986	173590	300490	17716408
1994	1463977	6071872	4483205	1718549	474076	3198877	176761	303289	17890606
1995	1466605	6143971	4517353	1751933	475148	3271743	182829	307022	18116604
1996	1471997	6214548	4552904	1783556	475529	3330579	187342	310655	18327110
1997	1479003	6274966	4586156	1810928	474215	3380394	191259	310281	18507202
1998	1487042	6338790	4629345	1840078	473450	3427505	194390	312300	18702900
1999	1495218	6409971	4677581	1866265	473294	3481034	197757	315431	18916551
2000	1500129	6485081	4730855	1892531	473200	3537670	200045	318941	19138452
2001	1507825	6558484	4790212	1917752	473890	3611203	201751	322874	19383991
2002	1515723	6599441	4845024	1938610	475998	3700791	201549	325950	19603086
2003	1524727	6634509	4900176	1966130	481411	3788560	201708	327596	19824817
2004	1532562	6669206	4957147	1994241	484778	3872351	203857	329498	20043640
2005	1544852	6718023	5023203	2029936	488098	3964175	207385	333505	20309177
2006	1561300	6786160	5103965	2076867	491515	4055845	211029	338381	20625062
2007	1578489	6883852	5199503	2135006	495858	4159990	216618	344176	21013492
2008	1597880	7001782	5313285	2208928	501774	4275551	222526	351101	21472827
2009	1618578	7101504	5419249	2263747	506461	4367454	227783	357859	21862635
2010	1632482	7179891	5495711	2319063	510219	4436882	230299	364833	22169380
2011	1646951	7261592	5582670	2391592	511944	4518605	232703	371108	22517165
2012	1662205	7356011	5683539	2478321	512449	4612996	238093	378018	22921632
2013	1674693	7439182	5768605	2535701	513435	4676395	241775	382863	23232649

Table A2: Male share of population and male/female ratio, 1796 to 2013

Year	Male (%)	Sex ratio	Year	Male (%)	Sex ratio	Year	Male (%)	Sex ratio
1796	72	2.57	1842	64	1.76	1888	54	1.17
1797	73	2.67	1843	63	1.73	1889	54	1.17
1798	73	2.76	1844	62	1.66	1890	54	1.16
1799	75	2.96	1845	62	1.63	1891	54	1.15
1800	72	2.63	1846	62	1.62	1892	53	1.15
1801	74	2.78	1847	62	1.61	1893	53	1.14
1802	74	2.88	1848	61	1.54	1894	53	1.14
1803	72	2.53	1849	59	1.47	1895	53	1.13
1804	70	2.33	1850	59	1.43	1896	53	1.13
1805	70	2.33	1851	59	1.42	1897	53	1.13
1806	68	2.14	1852	59	1.45	1898	53	1.12
1807	68	2.08	1853	60	1.48	1899	53	1.12
1808	66	1.98	1854	60	1.48	1900	53	1.11
1809	66	1.93	1855	59	1.45	1901	52	1.10
1810	66	1.91	1856	60	1.47	1902	52	1.10
1811	65	1.84	1857	59	1.45	1903	52	1.09
1812	64	1.81	1858	59	1.46	1904	52	1.09
1813	65	1.87	1859	59	1.42	1905	52	1.09
1814	66	1.94	1860	58	1.40	1906	52	1.08
1815	65	1.89	1861	57	1.34	1907	52	1.08
1816	67	1.99	1862	57	1.31	1908	52	1.08
1817	67	2.02	1863	56	1.27	1909	52	1.08
1818	67	2.02	1864	56	1.27	1910	52	1.08
1819	68	2.11	1865	56	1.25	1911	52	1.09
1820	71	2.44	1866	55	1.24	1912	52	1.09
1821	74	2.81	1867	55	1.23	1913	52	1.09
1822	75	2.95	1868	55	1.23	1914	52	1.08
1823	74	2.90	1869	55	1.22	1915	51	1.04
1824	77	3.29	1870	55	1.21	1916	50	0.98
1825	77	3.30	1871	55	1.20	1917	49	0.97
1826	77	3.28	1872	54	1.19	1918	50	0.98
1827	76	3.25	1873	54	1.18	1919	51	1.04
1828	77	3.34	1874	54	1.18	1920	51	1.03
1829	76	3.13	1875	54	1.18	1921	51	1.03
1830	76	3.08	1876	54	1.18	1922	51	1.04
1831	75	3.01	1877	54	1.19	1923	51	1.04
1832	74	2.87	1878	54	1.18	1924	51	1.04
1833	73	2.71	1879	54	1.18	1925	51	1.04
1834	72	2.60	1880	54	1.17	1926	51	1.04
1835	72	2.61	1881	54	1.18	1927	51	1.05
1836	71	2.50	1882	54	1.17	1928	51	1.04
1837	71	2.40	1883	54	1.18	1929	51	1.04
1838	69	2.26	1884	54	1.18	1930	51	1.04
1839	68	2.12	1885	54	1.18	1931	51	1.03
1840	67	2.02	1886	54	1.18	1932	51	1.03
1841	65	1.88	1887	54	1.18	1933	51	1.03

Table A2 (cont.) Male share of population and male/female ratio, 1796 to 2013

Year	Male (%)	Sex ratio	Year	Male (%)	Sex ratio
1934	51	1.03	1972	50	1.01
1935	51	1.03	1973	50	1.01
1936	51	1.03	1974	50	1.01
1937	51	1.02	1975	50	1.01
1938	51	1.02	1976	50	1.00
1939	51	1.02	1977	50	1.00
1940	50	1.02	1978	50	1.00
1941	50	1.02	1979	50	1.00
1942	50	1.01	1981	50	1.00
1943	50	1.01	1982	50	1.00
1944	50	1.01	1983	50	1.00
1945	50	1.00	1984	50	1.00
1946	50	1.00	1985	50	1.00
1947	50	1.00	1986	50	1.00
1948	50	1.01	1987	50	1.00
1949	50	1.01	1988	50	1.00
1950	50	1.02	1989	50	0.99
1951	51	1.02	1990	50	0.99
1952	51	1.03	1991	50	0.99
1953	51	1.02	1992	50	0.99
1954	51	1.02	1993	50	0.99
1955	51	1.03	1994	50	0.99
1956	51	1.03	1995	50	0.99
1957	51	1.02	1996	50	0.99
1958	51	1.02	1997	50	0.99
1959	51	1.02	1998	50	0.99
1960	51	1.02	1999	50	0.99
1961	50	1.02	2000	50	0.98
1962	50	1.02	2001	50	0.98
1963	50	1.02	2002	50	0.99
1964	50	1.02	2003	50	0.99
1965	50	1.01	2004	50	0.99
1966	50	1.01	2005	50	0.99
1967	50	1.01	2006	50	0.99
1968	50	1.01	2007	50	0.99
1969	50	1.01	2008	50	0.99
1970	50	1.01	2009	50	0.99
1971	50	1.01	2010	50	0.99

Table A3: Total crop area, by State, 1821 to 2013* ('000 ha)

Year	SA	NSW	Vic	WA	Tas	Qld	Other	Total
1821		13.1						
1825		18.4						
1828		28.9			13.8			*43*
1829		*28.0*			15.7			*44*
1830		24.5			22.7			*47*
1831		*25.9*			21.9			*48*
1832		*27.4*			22.9			*50*
1833		*28.8*			24.8			*54*
1834		30.3			27.9			*58*
1835		32.1			35.3			*67*
1836		35.4	0.0		36.2			*72*
1837	0.0	37.3	0.0		32.1			*69*
1838	0.0	37.5	0.1		43.7			*81*
1839	0.2	38.4	0.8		40.6			*80*
1840	1.0	49.7	1.3		50.2			*102*
1841	2.7	44.6	2.0		*51.9*			*101*
1842	8.0	48.1	3.3		*53.6*			*113*
1843	11.6	54.1	4.9		*55.3*			*126*
1844	10.9	52.0	6.7		*57.0*			*127*
1845	10.6	55.9	10.2		*58.7*			*135*
1846	13.5	61.1	11.5		*60.4*			*146*
1847	14.7	52.0	12.8		*62.1*			*142*
1848	19.8	50.0	14.7		*63.8*			*148*
1849	18.2	55.0	16.3		*65.5*			*155*
1850	26.2	55.0	18.6	2.8	67.2	*0.2*		170
1851	26.3	58.7	21.2	2.8	68.4	*0.3*		178
1852	32.8	61.9	23.3	2.8	61.5	*0.4*		183
1853	*39.0*	53.0	14.9	3.2	50.2	*0.5*		161
1854	*46.0*	55.8	14.1	4.0	46.9	*0.6*		185
1855	52.6	53.0	22.2	5.7	51.8	*0.7*		186
1856	52.6	69.2	46.6	5.7	61.9	*0.8*		237
1857	82.2	75.3	72.8	7.3	53.0	*0.9*		291
1858	95.5	74.5	93.9	7.3	54.2	*1.0*		328
1859	106.8	89.8	121.0	8.5	59.5	*1.1*		387
1860	123.8	100.4	145.2	10.5	59.5	*1.2*		441
1861	145.3	99.6	156.7	10.1	61.9	1.2		475
1862	162.3	107.2	165.9	10.9	66.0	1.6		514
1863	170.8	113.3	171.6	11.3	63.9	2.4		533
1864	180.5	119.8	183.7	13.4	69.2	4.5		571
1865	199.1	125.9	168.4	14.6	63.9	4.9		577
1866	221.4	147.3	181.3	15.4	64.8	5.7		636
1867	244.4	176.9	203.6	17.4	68.0	9.7		720
1868	278.4	162.3	216.1	18.6	62.3	13.0		751
1869	278.0	170.8	234.3	20.2	60.7	15.8		780
1870	292.2	190.2	275.6	19.8	65.6	19.0		862
1871	324.6	157.8	280.5	22.3	63.5	21.0		870
1872	339.1	157.8	289.0	23.5	62.3	24.3		896

Table A3 (cont.) Total crop area, by State, 1821 to 2013 ('000 ha)

Year	SA	NSW	Vic	WA	Tas	Qld	Other	Total
1873	373.1	172.4	279.2	21.4	63.1	25.1		934
1874	394.6	172.8	285.7	21.0	58.7	25.9		959
1875	423.7	174.8	281.7	18.2	61.1	28.3		988
1876	450.0	165.5	298.3	19.4	57.9	31.2		1022
1877	497.4	186.6	329.0	18.6	51.4	34.8		1118
1878	585.6	201.1	415.6	20.6	53.0	40.5		1316
1879	640.2	228.2	458.1	21.0	58.3	45.7		1452
1880	727.6	235.5	494.5	22.7	63.5	44.9		1589
1881	844.6	254.6	626.9	25.9	57.1	46.1		1855
1882	872.5	236.3	622.8	21.4	59.9	51.0		1864
1883	886.3	267.1	646.3	23.1	59.9	61.1		1944
1884	921.9	284.1	711.9	23.5	56.7	63.5		2062
1885	935.7	297.5	733.7	30.4	59.1	75.7		2132
1886	930.4	298.7	755.6	24.3	58.7	80.1		2148
1887	924.7	338.7	754.4	34.0	61.5	85.0		2198
1888	919.5	346.4	831.2	26.7	60.7	76.5		2261
1889	914.2	323.4	828.4	26.7	69.6	78.1		2240
1890	908.5	383.2	849.0	29.5	76.9	94.3		2342
1891	847.4	345.2	822.3	28.3	63.5	91.1		2198
1892	780.3	342.4	856.7	25.9	68.0	98.3		2172
1893	824.8	409.1	907.7	32.4	72.4	100.4		2347
1894	880.2	488.5	946.2	34.0	77.7	98.3		2525
1895	863.6	536.6	984.6	32.8	87.0	111.3		2616
1896	847.0	545.9	976.5	39.7	86.2	115.3		2611
1897	830.4	671.8	1078.1	45.3	91.9	130.7		2848
1898	840.6	737.4	1110.9	53.8	97.9	150.5		2991
1899	895.2	893.2	1299.5	69.6	104.4	146.9		3409
1900	905.7	987.9	1278.4	75.3	91.1	170.4		3509
1901	959.1	990.3	1260.2	81.3	90.7	184.9		3567
1902	905.3	922.0	1200.3	87.8	94.3	195.5		3405
1903	900.4	910.2	1314.0	93.1	100.0	111.3		3429
1904	913.4	1030.3	1371.5	114.9	105.2	229.5		3765
1905	921.1	1082.5	1344.4	132.3	91.5	218.1		3790
1906	913.0	1149.4	1303.1	147.7	93.1	211.7		3818
1907	872.9	1143.9	1337.1	186.6	99.2	226.6		3866
1908	916.6	1041.3	1308.4	199.9	104.0	215.7		3786
1909	939.7	1099.6	1401.1	236.7	108.9	216.9		4003
1910	1023.9	1287.3	1480.8	292.2	110.9	245.6		4441
1911	1111.3	1370.3	1599.4	346.0	116.1	269.9		4813
1912	1199.9	1468.6	1473.1	434.2	109.3	212.9	1.6	4900
1913	1239.6	1512.3	1650.7	485.6	115.7	270.3	1.6	5276
1914	1282.9	1848.6	1777.0	622.4	106.8	302.7	1.6	5942
1915	1328.2	1945.4	1870.9	756.0	110.9	320.9	2.0	6334
1916	1523.3	2345.6	2311.2	885.9	134.8	295.4	1.6	7498
1917	1467.8	2089.8	1963.2	811.4	109.7	358.2	0.8	6801
1918	1246.5	1805.3	1663.3	679.9	96.3	294.6	0.8	5787
1919	1259.0	1575.1	1595.7	649.5	102.8	212.9	0.8	5396

Table A3 (cont.) Total crop area, by State, 1821 to 2013 ('000 ha)

Year	SA	NSW	Vic	WA	Tas	Qld	Other	Total
1920	1238.0	1526.1	1619.2	658.8	109.7	228.2	0.8	5381
1921	1307.6	1807.0	1817.1	730.5	120.2	315.6	0.8	6099
1922	1367.5	1799.3	1833.3	769.7	119.0	325.8	0.8	6215
1923	1446.8	1899.6	1968.0	920.7	121.0	349.7	0.8	6707
1924	1441.9	1946.6	1894.8	940.1	112.9	352.9	0.8	6690
1925	1439.5	1987.9	1926.8	1097.1	106.8	433.0	0.8	6992
1926	1450.4	1837.7	1794.0	1186.6	107.6	418.5	0.8	6796
1927	1571.8	1859.2	1916.2	1345.6	117.0	381.2	1.2	7192
1928	1696.5	2022.7	2000.0	1505.5	120.2	431.8	1.6	7778
1929	1885.9	2202.8	2228.2	1723.6	110.5	422.9	1.2	8575
1930	2010.1	2226.2	2257.8	1847.8	107.2	423.3	2.0	8875
1931	2195.9	2756.4	2717.9	1939.3	108.5	463.0	2.8	10184
1932	2112.5	2067.6	2188.2	1603.8	100.0	492.1	2.4	8567
1933	2091.1	2562.9	2070.4	1725.2	112.9	504.2	3.2	9070
1934	2055.4	2543.1	2131.5	1706.6	116.6	531.4	2.8	9087
1935	1873.3	2301.9	1893.2	1554.4	118.2	524.9	2.4	8268
1936	1806.2	2321.3	1796.4	1520.0	97.9	540.3	2.0	8084
1937	1852.7	2411.2	1783.5	1572.6	106.4	609.5	2.4	8338
1938	1911.8	2618.4	1886.7	1701.3	103.2	655.2	3.2	8880
1939	1911.8	2852.7	2031.2	1910.6	98.3	702.1	3.2	9510
1940	1838.1	2582.8	2024.3	1753.5	104.4	698.1	3.2	9004
1941	1721.6	2579.5	1807.8	1629.7	102.8	702.1	2.4	8546
1942	1609.1	2399.8	1916.2	1558.9	113.7	683.9	2.4	8284
1943	1390.9	2143.7	1575.1	1139.6	121.4	705.8	2.8	7079
1944	1151.0	1941.3	1429.8	1125.9	135.6	711.0	2.8	6497
1945	1315.3	2041.7	1797.2	1129.1	138.8	727.2	2.8	7152
1946	1582.4	2463.8	2209.6	1191.8	132.3	737.4	3.6	8321
1947	1620.8	2635.0	2120.6	1452.9	122.6	654.4	3.6	8610
1948	1605.4	2900.8	2093.1	1629.3	112.1	748.3	4.5	9093
1949	1568.2	2311.2	1980.2	1705.8	111.7	790.0	4.0	8471
1950	1517.6	2294.6	1881.4	1780.3	114.0	832.5	4.0	8424
1951	1542.3	1926.8	1836.5	1881.8	122.2	840.6	2.0	8152
1952	1548.0	1903.7	1823.1	1899.2	123.8	818.3	2.4	8119
1953	1529.7	1957.5	1821.1	1949.0	129.9	980.6	2.4	8370
1954	1632.5	2195.5	1917.0	1874.9	142.5	955.5	2.4	8720
1955	1711.5	2182.9	1903.7	2068.8	131.9	1049.4	2.4	9051
1956	1707.8	2290.6	1947.4	2162.3	137.6	1053.8	3.2	9303
1957	1729.3	1533.4	1579.9	2117.4	122.2	999.2	2.4	8084
1958	1713.1	2023.9	1793.2	2272.4	121.8	1052.2	2.4	8979
1959	1795.2	2760.0	2039.7	2482.8	144.5	1154.2	4.0	10380
1960	1780.7	2888.3	1949.4	2628.5	130.2	1184.5	3.6	10565
1961	2184.9	3255.4	2363.0	2780.7	153.4	1237.2	4.0	11979
1962	2033.2	3354.1	2276.8	2878.2	156.2	1301.5	3.6	12004
1963	2223.8	3603.0	2556.9	3027.9	167.1	1412.4	4.0	12995
1964	2418.0	3641.0	2469.4	2798.5	159.9	1483.2	4.0	12974
1965	2414.0	4182.1	2621.2	3037.2	168.4	1605.4	5.3	14034
1966	2440.3	3663.3	2516.8	3512.7	160.7	1666.9	4.9	13966

Table A3 (cont.) Total crop area, by State, 1821 to 2013 ('000 ha)

Year	SA	NSW	Vic	WA	Tas	Qld	Other	Total
1967	2625.7	5026.7	2737.8	3568.2	184.5	1863.6	5.7	16012
1968	2602.2	5255.0	2529.3	3698.1	174.4	1994.3	5.3	16259
1969	3117.8	6301.1	3200.7	3970.9	197.9	2181.7	7.3	18977
1970	2290.0	4999.0	2212.0	3912.0	98.0	2208.0	8.0	15727
1971	2189.0	4413.0	2162.0	3933.0	174.0	2022.0	8.0	14901
1972	2478.0	4428.0	2477.0	3854.0	150.0	2137.0	11.0	15535
1973	2258.0	4627.0	2331.0	3931.0	138.0	2094.0	16.0	15395
1974	2668.0	5042.0	2577.0	4273.0	174.0	1909.0	12.0	16655
1975	2429.0	4385.0	2258.0	3873.0	153.0	2006.0	11.0	15115
1976	2247.0	4545.0	2308.0	4308.0	136.0	2120.0	12.0	15676
1977	2159.0	4743.0	2405.0	4512.0	141.0	2123.0	7.0	16090
1978	2652.0	5142.0	2478.0	5011.0	121.0	2214.0	3.0	17621
1979	2989.0	5253.0	2690.0	5094.0	153.0	2398.0	5.0	18582
1980	2771.0	5243.0	2243.0	5281.0	79.0	2334.0	3.0	17954
1981	2908.0	5376.0	2663.0	5689.0	151.0	2617.0	5.0	19409
1982	2865.0	5744.0	2184.0	5963.0	90.0	2765.0	3.0	19614
1983	2856.0	5200.0	2234.0	6380.0	98.0	2648.0	4.0	19420
1984	3108.0	6566.0	2655.0	6526.0	101.0	2998.0	6.0	21960
1985	2902.0	5789.0	2569.0	6723.0	99.0	3047.0	7.0	21136
1986	3039.0	5990.0	2528.0	5970.0	88.0	3231.0	8.0	20854
1987	3066.0	5325.0	2317.0	5930.0	78.0	3036.0	12.0	19764
1988	2870.0	4908.0	2159.0	5334.0	84.0	2870.0	14.0	18239
1989	2842.0	4560.0	1990.0	5082.0	82.0	2842.0	15.0	17413
1990	2580.0	4077.0	1989.0	5174.0	83.0	2580.0	10.0	16493
1991	2933.0	4073.0	2063.0	5359.0	75.0	2872.0	6.0	17381
1992	2920.0	3846.0	2039.0	5216.0	76.0	2302.0	5.0	16404
1993	3073.0	3906.0	2258.0	5668.0	73.0	2316.0	5.0	17299
1994	2940.0	4209.0	2317.0	6100.0	78.0	2394.0	5.0	18043
1995	2991.0	3432.0	2296.0	6182.0	77.0	2056.0	4.0	17038
1996	3219.0	4757.0	2439.0	6419.0	75.0	2495.0	4.0	19408
1997	3279.0	5589.0	2552.0	6950.0	73.0	2685.0	5.0	21133
1998	3290.0	5648.0	2565.0	7328.0	78.0	2682.0	4.0	21595
1999	3648.0	6173.0	2749.0	7597.0	76.0	3014.0	7.0	23264
2000	3670.0	6114.0	3081.0	7691.0	77.0	3130.0	6.0	23769
2001	3982.0	6723.0	3044.0	7731.0	79.0	2955.0	7.0	24521
2002	4175.0	6635.0	2958.0	7525.0	78.0	2683.0	6.0	24060
2003	4339.0	6040.0	3290.0	7557.0	75.0	2265.0	9.0	23575
2004	4454.0	7241.0	3479.0	8079.0	73.0	2745.0	9.0	26080
2005	4397.0	7674.0	3570.0	8329.0	71.0	2694.0	8.0	26743
2006	4168.0	6941.0	3252.0	7623.0	68.0	2503.0	9.0	24564
2007	4450.0	6687.0	3428.0	6669.0	62.0	2215.0	19.0	23530
2008	4257.0	6816.0	3655.0	7396.0	52.0	2183.0	15.0	24374
2009	4493.0	7650.0	4189.0	8306.0	73.0	2795.0	7.0	27513
2010	4080.0	6940.0	3989.0	8564.0	66.0	2321.0	8.0	25968
2011	5036.0	9209.0	4489.0	9707.0	133.0	3466.0	39.0	32079
2012	5024.0	9228.0	4450.0	9895.0	128.0	3243.0	25.0	31993
2013	4980.0	9099.0	4473.0	9648.0	118.0	3270.0	23.0	31611

* A change in definition of crop area led to its increase in all states from 2011

Table A4: Current and real GDP and real GDP per capita, levels and annual growth rates, 1825 to 2013

Year	Current prices GDP ($million)	Real GDP ($million, 2010-11 prices)	Real GDP per capita ($'000 per person)	Real GDP annual growth, %/year	Real GDP per capita annual growth rate, %/year
1825	3	242	4.6		
1826	4	256	4.8	6.0	3.3
1827	4	273	4.9	6.7	2.1
1828	4	301	5.2	10.0	6.4
1829	5	336	5.4	11.6	4.9
1830	5	433	6.2	29.0	14.1
1831	6	529	7.0	22.3	12.7
1832	6	566	6.7	6.9	-3.3
1833	7	602	6.1	6.4	-9.0
1834	9	652	6.2	8.3	0.6
1835	12	794	7.0	21.8	13.5
1836	14	912	7.3	14.8	4.0
1837	14	957	7.1	5.0	-2.3
1838	15	1017	6.7	6.3	-5.8
1839	17	1020	6.0	0.3	-10.4
1840	20	1203	6.3	17.9	5.2
1841	21	1332	6.0	10.7	-4.6
1842	17	1220	5.1	-8.4	-16.0
1843	16	1312	5.2	7.5	3.3
1844	16	1580	6.0	20.4	14.3
1845	18	1773	6.4	12.2	6.3
1846	20	1964	6.7	10.8	5.5
1847	22	2331	7.6	18.7	12.7
1848	25	2818	8.5	20.9	12.3
1849	27	3168	8.5	12.4	0.1
1850	29	3249	8.0	2.5	-5.6
1851	33	3662	8.4	12.7	4.4
1852	58	4762	9.3	30.0	10.8
1853	97	6073	10.1	27.5	9.0
1854	125	6634	9.5	9.2	-5.5
1855	135	6732	8.5	1.5	-11.1
1856	135	8059	9.2	19.7	8.3
1857	140	9012	9.3	11.8	1.0
1858	146	8413	8.0	-6.6	-13.8
1859	154	9398	8.6	11.7	7.0
1860	164	10852	9.7	15.5	13.0
1861	168	10989	9.5	1.3	-1.8
1862	169	10946	9.2	-0.4	-3.0
1863	167	11028	8.9	0.7	-3.0
1864	168	11808	9.1	7.1	2.2
1865	172	12372	9.1	4.8	-0.3
1866	181	12751	9.0	3.1	-1.3
1867	189	13931	9.5	9.3	5.8
1868	196	15080	10.0	8.2	4.8
1869	202	15511	9.9	2.9	-0.7
1870	209	16147	10.0	4.1	0.6
1871	212	16403	9.8	1.6	-1.7
1872	227	16968	9.9	3.4	0.6
1873	267	18773	10.6	10.6	7.7

Table A4 (cont.) Current and real GDP and real GDP per capita, levels and annual growth rates, 1825 to 2013

Year	Current prices GDP ($million)	Real GDP ($million, 2010-11 prices)	Real GDP per capita ($'000 per person)	Real GDP annual growth, %/year	Real GDP per capita annual growth rate, %/year
1874	288	20025	11.0	6.7	3.5
1875	301	21461	11.5	7.2	4.2
1876	311	22538	11.7	5.0	2.0
1877	314	22959	11.5	1.9	-1.5
1878	324	24549	11.9	6.9	3.5
1879	334	25872	12.2	5.4	2.1
1880	344	26734	12.2	3.3	0.1
1881	363	28396	12.5	6.2	2.8
1882	382	28590	12.2	0.7	-2.7
1883	412	29821	12.2	4.3	0.1
1884	430	31945	12.5	7.1	2.6
1885	442	33084	12.5	3.6	-0.1
1886	453	34325	12.5	3.8	0.3
1887	473	36346	12.8	5.9	2.4
1888	503	38336	13.1	5.5	2.0
1889	536	40142	13.3	4.7	1.6
1890	553	41055	13.2	2.3	-0.5
1891	540	41865	13.1	2.0	-0.9
1892	496	40726	12.4	-2.7	-5.0
1893	431	37023	11.1	-9.1	-10.7
1894	401	36633	10.8	-1.1	-2.8
1895	386	36202	10.5	-1.2	-3.0
1896	401	36469	10.4	0.7	-1.1
1897	418	36787	10.3	0.9	-0.9
1898	441	38521	10.6	4.7	3.1
1899	478	41290	11.2	7.2	5.8
1900	492	42604	11.4	3.2	1.8
1901	505	41889	11.0	-1.7	-3.1
1902	535	46132	12.0	10.1	8.6
1903	515	43113	11.1	-6.5	-7.6
1904	539	48047	12.2	11.4	10.0
1905	535	47235	11.8	-1.7	-3.1
1906	577	49376	12.2	4.5	3.0
1907	648	56331	13.7	14.1	12.3
1908	645	52023	12.4	-7.6	-9.2
1909	690	54044	12.6	3.9	1.9
1910	750	57143	13.1	5.7	3.4
1911	824	62302	13.9	9.0	6.1
1912	884	61385	13.2	-1.5	-4.9
1913	966	64145	13.3	4.5	0.9
1914	1040	67174	13.6	4.7	2.1
1915	1009	63808	12.8	-5.0	-5.7
1916	1167	64764	13.1	1.5	2.3
1917	1231	62920	12.7	-2.8	-2.8
1918	1279	62354	12.4	-0.9	-2.5
1919	1379	63445	12.2	1.7	-1.5
1920	1509	65909	12.3	3.9	0.7
1921	1664	68965	12.6	4.6	2.7

Table A4 (cont.) Current and real GDP and real GDP per capita, levels and annual growth rates, 1825 to 2013

Year	Current prices GDP ($million)	Real GDP ($million, 2010-11 prices)	Real GDP per capita ($'000 per person)	Real GDP annual growth, %/year	Real GDP per capita annual growth rate, %/year
1922	1659	72695	13.0	5.4	3.3
1923	1818	76398	13.4	5.1	2.8
1924	1889	79844	13.7	4.5	2.4
1925	2074	86671	14.6	8.5	6.2
1926	1998	87654	14.5	1.1	-0.8
1927	2082	90845	14.7	3.6	1.5
1928	2094	90360	14.3	-0.5	-2.4
1929	2062	91182	14.3	0.9	-0.5
1930	1886	86631	13.4	-5.0	-6.0
1931	1550	74257	11.4	-14.3	-15.1
1932	1457	75846	11.5	2.1	1.3
1933	1522	82753	12.5	9.1	8.3
1934	1633	86859	13.0	5.0	4.2
1935	1724	91734	13.6	5.6	4.9
1936	1895	97362	14.4	6.1	5.3
1937	2068	100270	14.7	3.0	2.1
1938	2236	107352	15.6	7.1	6.1
1939	2190	107312	15.4	0.0	-1.0
1940	2384	109386	15.5	1.9	0.9
1941	2583	117585	16.5	7.5	6.4
1942	3007	134826	18.8	14.7	13.6
1943	3442	146573	20.3	8.7	7.8
1944	3498	144828	19.8	-1.2	-2.2
1945	3422	136457	18.5	-5.8	-6.8
1946	3534	130820	17.5	-4.1	-5.1
1947	3758	126857	16.7	-3.0	-4.5
1948	4512	137116	17.8	8.1	6.3
1949	5207	143883	18.2	4.9	2.3
1950	6145	155559	19.0	8.1	4.6
1951	8152	164530	19.5	5.8	2.7
1952	8797	169352	19.6	2.9	0.4
1953	9969	168036	19.1	-0.8	-2.8
1954	10886	178610	19.9	6.3	4.3
1955	11595	189255	20.6	6.0	3.5
1956	12551	198770	21.1	5.0	2.5
1957	13659	202676	21.0	2.0	-0.3
1958	13976	206997	21.0	2.1	0.0
1959	15011	222364	22.1	7.4	5.2
1960	16591	235783	22.9	6.0	3.8
1961	17543	241642	23.0	2.5	0.3
1962	17745	244978	22.8	1.4	-0.9
1963	19192	260355	23.8	6.3	4.3
1964	21210	278641	24.9	7.0	4.9
1965	23154	295319	25.9	6.0	3.9

Table A4 (cont.) Current and real GDP and real GDP per capita, levels and annual growth rates, 1825 to 2013

Year	Current prices GDP ($million)	Real GDP ($million, 2010-11 prices)	Real GDP per capita ($'000 per person)	Real GDP annual growth, %/year	Real GDP per capita annual growth rate, %/year
1966	24329	302213	26.0	2.3	0.5
1967	27121	321305	27.2	6.3	4.5
1968	29155	337782	28.1	5.1	3.2
1969	32692	361637	29.5	7.1	4.9
1970	36851	387656	30.9	7.2	5.0
1971	40313	403159	31.5	4.0	1.9
1972	44468	418874	31.5	3.9	-0.2
1973	49747	429977	31.8	2.7	1.1
1974	60284	447672	32.6	4.1	2.5
1975	71135	453204	32.6	1.2	0.0
1976	83237	465110	33.1	2.6	1.6
1977	96055	481732	33.9	3.6	2.4
1978	104887	486005	33.8	0.9	-0.3
1979	118583	506087	34.9	4.1	3.0
1980	134472	521559	35.5	3.1	1.8
1981	152337	539299	35.8	3.4	1.0
1982	175746	556761	36.4	3.2	1.7
1983	189230	543876	35.1	-2.3	-3.5
1984	213745	569689	36.3	4.7	3.5
1985	235452	598543	37.6	5.1	3.6
1986	260153	625997	38.8	4.6	3.0
1987	285530	642470	39.2	2.6	1.0
1988	324577	678762	40.7	5.6	3.8
1989	368118	705368	41.6	3.9	2.4
1990	404724	730662	42.6	3.6	2.2
1991	415598	728098	41.9	-0.4	-1.6
1992	423379	731216	41.6	0.4	-0.6
1993	444496	761274	43.0	4.1	3.2
1994	467504	792096	44.3	4.0	3.0
1995	496424	823697	45.5	4.0	2.7
1996	529705	856592	46.7	4.0	2.8
1997	556982	890004	48.1	3.9	2.9
1998	589345	930268	49.7	4.5	3.4
1999	621524	976358	51.6	5.0	3.8
2000	662037	1013910	53.0	3.8	2.6
2001	706895	1033167	53.3	1.9	0.6
2002	754948	1073597	54.8	3.9	2.8
2003	800911	1107426	55.9	3.2	2.0
2004	859487	1153355	57.5	4.1	3.0
2005	920899	1190111	58.6	3.2	1.8
2006	994803	1226323	59.5	3.0	1.5
2007	1083060	1272776	60.6	3.8	1.9
2008	1175949	1320746	61.5	3.8	1.5
2009	1252218	1342514	61.4	1.6	-0.2
2010	1293380	1370540	61.8	2.1	0.7
2011	1406670	1400692	63.2	2.2	2.2
2012	1486071	1451117	65.5	3.6	3.6
2013	1522825	1490297	67.2	2.7	2.7

Table A5: Current GDP, by State, 1861 to 1978 ($'000)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1861	13710	35440	73516	1371	8007	4289	136333
1862	13653	37326	66607	1465	8075	4416	131541
1863	13713	35393	63908	1513	8367	5351	128246
1864	16377	36320	63194	1798	8280	6822	132790
1865	16313	37453	62372	1806	8478	7438	133860
1866	16749	40600	67433	1791	9117	8269	143960
1867	17996	39284	66881	1847	8444	9721	144173
1868	16651	43580	70543	2049	8695	10538	152055
1869	18018	46612	71975	2106	8348	10327	157386
1870	16331	44839	78844	2240	8843	12020	163117
1871	19052	45931	68307	2118	8518	14372	158298
1872	18677	52121	81239	2203	8985	15779	179003
1873	24981	60944	90029	2509	10566	18694	207724
1874	24733	67992	86315	2624	9504	19756	210923
1875	28186	72834	92581	2659	9973	21062	227295
1876	28771	80010	91172	2678	10404	21210	234245
1877	30346	81965	94191	2392	10800	21398	241092
1878	33889	85145	88136	2775	11576	22948	244469
1879	33170	84717	93178	2732	11466	21558	246821
1880	38459	92954	94287	2702	11484	22471	262358
1881	31577	101231	98544	2868	11732	25604	271555
1882	34080	115508	107824	3269	13065	29429	303176
1883	33364	131799	113777	3791	13650	31724	328106
1884	33974	129163	121750	3921	14073	33812	336691
1885	32427	133929	124487	4315	15270	35571	346000
1886	27713	124068	129976	4265	13817	33947	333786
1887	30752	135768	135497	5428	15192	37384	360020
1888	35237	145696	144967	5282	15946	41954	389082
1889	33978	154559	146276	6462	17113	45724	404114
1890	35406	154422	145160	6115	16719	45290	403113
1891	31936	162023	130138	6165	16257	40017	386535
1892	27918	145668	115654	6814	15123	37584	348760
1893	26638	127361	104854	8795	12592	37204	317444
1894	26089	124106	95262	12919	13534	35690	307600
1895	24811	123936	94782	15672	12945	35893	308040
1896	26271	131791	98705	22279	14344	39734	333123
1897	25148	130973	99641	29328	15017	42533	342640
1898	27681	139835	112456	34138	16208	46201	376518
1899	29824	143686	108095	38412	17637	50594	388249
1900	31786	148352	115108	39543	18316	49548	402653
1901	31520	155415	115983	44145	18535	49969	415568
1902	32508	156306	121219	46616	19078	54359	430086
1903	32531	155117	110661	50019	17849	49609	415786
1904	35092	152239	121094	48188	17889	52100	426602
1905	35010	163651	121915	47359	17482	54813	440230
1906	40279	181796	128386	46652	18838	58621	474571
1907	41591	218495	137359	46014	19906	66613	529978

Table A5 (cont.) Current GDP, by State, 1861 to 1978 ($'000)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1908	45875	208727	146795	44699	21128	71267	538492
1909	49362	216345	155550	47693	20687	74532	564169
1910	53478	240149	171903	50252	21026	83677	620485
1911	57848	259281	185911	52475	21493	92544	669552
1912	61167	285536	196687	58830	22108	96377	720704
1913	65107	311109	210447	57151	23309	109142	776266
1914	66987	331476	230837	59521	24020	124021	836862
1915	59900	323589	220548	57125	24936	121966	808063
1916	80229	350356	249596	60457	29614	122942	893194
1917	82648	379396	258149	62838	30903	126697	940631
1918	83516	385493	269328	61070	32655	131314	963376
1919	94239	413423	313596	67319	36110	136374	1061061
1920	102863	474733	360271	82719	40016	142319	1202921
1921	123108	532775	396211	85536	42693	158551	1338874
1922	113009	527908	385955	84189	42843	154455	1308359
1923	125248	577044	438319	88137	42123	180461	1451331
1924	134210	596760	447841	94391	43520	189836	1506558
1925	146279	660873	483835	104181	44971	215148	1655287
1926	156649	654713	459548	104677	43773	205046	1624406
1927	152399	688012	480789	114891	45587	196551	1678230
1928	142878	683267	475580	122934	45762	207833	1678254
1929	133366	671776	469427	118383	45626	200871	1639448
1930	120347	589809	441339	104823	42065	189925	1488309
1931	93057	479336	358460	83623	35627	166924	1217028
1932	95759	446570	327768	86766	32771	148975	1138609
1933	93312	460715	340491	87069	32080	154777	1168444
1934	98172	498873	362751	92614	35760	168299	1256468
1935	103191	527655	373885	100432	36300	172484	1313946
1936	117515	578197	419021	108303	40493	181091	1444620
1937	129408	654500	471225	116050	45270	195203	1611656
1938	139330	701241	502983	121765	50599	220367	1736283
1939	130764	686929	483676	124179	51539	223771	1700859
1940	141274	714172	513543	134921	53358	243516	1800784
1941	147950	783739	568740	133305	56232	258180	1948147
1942	178055	881170	660774	147155	62880	279865	2209900
1943	207385	989905	730970	158949	69985	334426	2491620
1944	210073	1031503	743057	158735	74397	339779	2557543
1945	210659	1054860	760368	165085	76582	343876	2611430
1946	222958	1118628	785771	177504	80057	357461	2742379
1947	231426	1120630	806049	179164	77023	334976	2749268
1948	301520	1384615	968875	225703	88801	413130	3382644
1949	360292	1804649	1046712	266690	133174	605831	4217347
1950	437081	2162421	1260506	337322	161432	708335	5067098
1951	599212	2918870	1648922	465423	217204	919076	6768708
1952	652324	3032067	1786524	480262	259484	963902	7174564
1953	722560	3290706	1896730	526506	257773	1119933	7814209
1954	746649	3578681	2015994	574126	265282	1219722	8400454

Table A5 (cont.) Current GDP, by State, 1861 to 1978 ($'000)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1955	807222	3794045	2154883	631020	293324	1289306	8969800
1956	893140	4016775	2281537	667094	347179	1365440	9571165
1957	954978	4532106	2355802	678031	350887	1510786	10382590
1958	946091	4564141	2395567	672456	368622	1498766	10445642
1959	1028219	4900963	2539789	737102	373225	1617243	11196542
1960	1129385	5561748	2737350	824296	414085	1783022	12449885
1961	1220244	5849126	2841425	896785	435130	1830436	13073146
1962	1218714	5979430	2807442	924513	452349	1841081	13223529
1963	1348214	6536591	2976891	1027239	496524	2058131	14443590
1964	1551532	7175268	3265426	1120880	525427	2349645	15988178
1965	1712887	7860693	3565411	1200994	588839	2505531	17434356
1966	1740024	7832929	3602769	1364678	593994	2621234	17755628
1967	1845288	8564717	3848329	1558916	660855	2888928	19367032
1968	1906386	9056036	4005895	1780626	690211	3067185	20506339
1969	2183258	10304141	4326217	2079838	760955	3439968	23094377
1970	2371754	11364918	4777838	2313987	847166	3708718	25384381
1971	2585049	12409464	5056737	2704458	886423	4042839	27684970
1972	2891799	13657193	5560649	3006324	960988	4655113	30732065
1973	3226589	15523083	6096013	3323374	1088501	5446836	34704396
1974	3941690	18117812	7386723	4181080	1282191	6656202	41565698
1975	4684210	20928811	8461262	4929011	1530190	8208093	48741576
1976	5417409	23830725	9741396	5913668	1728221	9493536	56124955
1977	6118189	26841980	11124714	6803113	2021942	10839094	63749031
1978	6699558	29593529	12203969	7376043	2201541	11748263	69822904

Table A6: Real GDP, by State, 1861 to 1978 ($'000, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1861	11250	30243	63081	1092	6564	3815	116046
1862	10697	31406	58801	1067	6918	3853	112744
1863	11345	31725	57846	1205	7526	4933	114579
1864	13930	34526	59892	1423	7921	6679	124371
1865	13933	35666	56503	1367	7992	7011	122471
1866	14717	37493	59942	1469	8445	7634	129698
1867	17899	39699	63789	1744	8564	9873	141568
1868	16115	43109	68219	1752	8970	10513	148676
1869	17353	46711	70364	1956	8923	10749	156054
1870	15096	40910	76355	2055	8249	11679	154345
1871	18571	46101	65312	2058	8784	14554	155380
1872	17261	48866	72262	2092	8468	14659	163608
1873	21729	54796	76406	2309	9712	16752	181704
1874	22051	62156	75802	2223	8817	17940	188990
1875	25488	68167	82949	2437	9376	19450	207867
1876	25957	75029	80031	2258	9827	19585	212688
1877	28519	77898	83973	2124	10363	20098	222975
1878	33032	85089	83860	2527	11671	22693	238871
1879	32708	85150	86274	2580	11575	21274	239562
1880	39407	92765	88055	2749	11395	22486	256857
1881	32093	102394	91426	2884	11915	25998	266710
1882	30881	108013	94650	2940	12335	27563	276382
1883	31232	125130	101194	3457	13042	30186	304241
1884	32614	126246	109288	3664	13888	33249	318950
1885	30883	130228	112379	3947	15102	34581	327120
1886	27486	123426	120051	3999	13808	33708	322478
1887	29718	134247	126101	5146	15352	37061	347625
1888	33539	142660	134922	5175	15833	41362	373491
1889	31252	149002	133044	6009	17107	44214	380628
1890	33963	147262	129791	6016	16293	43656	376980
1891	32583	170276	128667	6262	17097	41528	396413
1892	30054	161548	117749	7237	16878	40841	374306
1893	30645	147924	115127	9608	14604	43172	361079
1894	32754	154578	114515	12882	16902	44114	375745
1895	30582	153276	116266	15027	16007	44110	375268
1896	29739	153548	109469	21745	17213	45781	377495
1897	28785	150873	107442	28689	17746	48521	382056
1898	31481	158645	119408	33371	18582	52195	413683
1899	33759	157781	119854	37889	19175	55819	424277
1900	36327	167735	125368	39398	20340	56070	445237
1901	33857	166601	127352	42912	19775	53274	443771
1902	34053	167318	127557	45145	20348	56662	451083
1903	33809	162649	119120	48786	18679	51801	434845
1904	39871	167155	138106	49020	19368	57199	470720
1905	38058	173926	134005	47889	18694	58641	471213
1906	42952	187709	137824	45539	19500	60912	494436
1907	43581	221640	145195	43424	20112	67664	541617

Table A6 (cont.) Real GDP, by State, 1861 to 1978 ($'000, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1908	44617	207804	147303	40709	21151	69903	531487
1909	50986	222971	159473	44470	21249	76248	575398
1910	54204	240383	173884	46082	20997	83458	619007
1911	57848	259281	185911	47557	21493	92544	664634
1912	55317	263567	182206	48876	20695	88622	659284
1913	59824	285309	195838	47279	21408	99849	709506
1914	57901	287151	202542	47413	20696	106785	722487
1915	46606	252907	169974	41421	19623	92787	623319
1916	61321	263709	181320	42554	21538	89225	659667
1917	60758	267243	179875	41789	21662	87002	658329
1918	56576	261034	172367	37633	21855	85978	635444
1919	58317	261829	184892	38055	23022	84669	650783
1920	54290	257696	184387	40558	21698	75885	634515
1921	69345	298507	218901	44361	24079	88932	744125
1922	66123	307902	214367	45412	24961	90556	749321
1923	68940	320118	236475	44948	23088	98416	791986
1924	74119	331407	238424	47606	23643	103092	818291
1925	78955	360948	265156	49947	24165	114477	893648
1926	83848	357727	249911	50740	24081	110142	876449
1927	81698	372143	259905	55344	24786	105773	899649
1928	75736	363829	252935	57540	24253	110816	885109
1929	70676	356216	263748	56152	24494	107086	878371
1930	70638	342643	270263	50895	25207	114141	873788
1931	60297	307560	233506	47240	23356	114822	786780
1932	67969	308373	226248	50983	23948	108275	785797
1933	66846	321557	227477	52277	22805	112828	803789
1934	68081	338976	252147	52676	24574	117220	853674
1935	68977	347094	241731	58760	24386	116709	857656
1936	74750	366537	262222	58887	25631	116466	904492
1937	77791	393893	286897	59171	26955	118819	963525
1938	81712	413946	308049	63787	30034	132121	1029649
1939	74919	393463	281858	66390	30529	132678	979837
1940	77341	392067	285893	64796	29658	130146	979900
1941	76617	409370	301036	61882	29793	131728	1010425
1942	85628	426761	324253	63127	31405	134156	1065330
1943	94319	457501	341768	66336	33002	153433	1146359
1944	94421	474574	346770	66755	34592	156256	1173369
1945	94071	483379	353266	68889	35889	157570	1193064
1946	97399	500314	354202	72420	36951	162014	1223299
1947	93860	475610	342203	69894	32685	141200	1155452
1948	111968	525376	371725	72368	33456	147282	1262176
1949	116604	607000	389123	84781	44122	192374	1434005
1950	128211	654014	445252	97233	48757	203736	1577203
1951	135313	697222	471086	100910	52214	206066	1662811
1952	144556	707949	509398	106297	57808	215457	1741466
1953	141058	665245	486117	102813	50902	217498	1663632
1954	145975	713940	514542	111387	52472	236528	1774844

Table A6 (cont.) Real GDP, by State, 1861 to 1978 ($'000, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1955	158606	762874	565222	122486	57776	251398	1918362
1956	169721	780355	600927	126533	65741	259859	2003137
1957	169408	820553	592077	120789	62928	266870	2032625
1958	170263	835615	610850	121358	66696	268750	2073531
1959	188264	907392	678216	134745	69017	297220	2274855
1960	198019	987282	713933	144904	73236	312657	2430032
1961	207866	1005856	741150	153346	74850	313453	2496522
1962	206698	1019033	732094	157735	77405	316594	2509559
1963	226506	1105875	786791	173723	84006	350653	2727554
1964	248888	1169912	846990	181145	85641	377623	2910198
1965	267926	1239123	916763	189268	92649	391904	3097633
1966	263488	1195705	903020	208181	90841	397303	3058537
1967	273304	1271261	951260	229398	97444	424753	3247420
1968	272747	1295739	944898	250872	97687	438437	3300381
1969	308197	1437994	1035994	286391	105868	486198	3660643
1970	316872	1500678	1104343	292860	110526	492840	3818119
1971	328379	1551046	1148413	328603	111298	516417	3984157
1972	347727	1602426	1209231	345730	113753	560317	4179185
1973	345449	1669099	1182987	344396	115576	573852	4231359
1974	369354	1709149	1272131	376662	118607	608787	4454690
1975	378492	1660363	1229599	382126	120637	647048	4418265
1976	382438	1651278	1230138	408834	119284	659962	4451934
1977	389670	1683938	1278358	419820	126115	678674	4576575
1978	397042	1722348	1328681	424839	128504	692242	4693655

Table A7: Real GDP per capita, by State, 1861 to 1978 ($, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1861	88	86	117	70	73	122	100
1862	80	87	108	63	77	97	95
1863	81	85	103	65	83	93	93
1864	95	90	103	72	87	99	96
1865	89	89	93	65	86	87	90
1866	89	90	96	67	89	84	92
1867	105	91	100	77	89	102	97
1868	92	95	103	74	92	103	98
1869	97	99	103	80	90	100	100
1870	82	84	107	83	82	104	95
1871	100	91	89	81	87	123	93
1872	91	93	96	82	83	117	95
1873	112	101	100	89	94	125	103
1874	110	110	97	85	85	122	104
1875	123	117	105	91	90	120	111
1876	119	124	100	83	94	112	110
1877	123	124	103	76	97	106	112
1878	135	130	102	89	107	115	116
1879	126	123	103	89	104	105	113
1880	146	128	104	94	100	108	117
1881	114	135	106	97	102	120	118
1882	107	136	107	96	104	119	118
1883	105	150	112	110	107	115	124
1884	107	144	118	112	111	114	125
1885	100	141	119	114	118	112	123
1886	89	128	123	104	106	104	118
1887	96	134	125	122	115	108	123
1888	108	139	128	118	116	115	127
1889	100	141	122	134	122	118	126
1890	107	135	116	128	114	113	121
1891	101	150	112	123	116	105	124
1892	91	138	101	130	112	101	114
1893	90	124	98	156	97	104	108
1894	94	127	97	176	112	104	111
1895	87	123	98	165	104	101	108
1896	84	121	93	183	110	102	107
1897	82	118	91	193	110	106	107
1898	89	121	101	204	112	111	114
1899	95	119	101	225	113	116	115
1900	101	124	105	225	118	114	119
1901	93	122	106	228	115	106	117
1902	96	120	106	221	116	111	117
1903	95	115	99	222	104	101	112
1904	112	116	115	210	106	110	119
1905	106	118	111	194	101	111	118
1906	118	125	114	179	106	114	122
1907	119	144	118	170	109	125	131

Table A7 (cont.) Real GDP per capita, by State, 1861 to 1978 ($, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1908	118	132	119	158	113	126	127
1909	131	140	126	169	112	134	135
1910	136	147	136	170	110	141	142
1911	141	156	141	166	113	151	148
1912	131	151	134	162	108	140	142
1913	137	157	140	151	110	152	147
1914	130	154	142	147	106	157	146
1915	104	134	119	129	100	134	125
1916	139	139	128	136	111	130	133
1917	137	140	127	136	112	128	133
1918	125	134	121	122	110	123	126
1919	125	131	126	119	112	117	125
1920	112	125	122	123	103	102	118
1921	140	142	142	133	113	117	136
1922	131	143	136	133	116	117	134
1923	134	145	147	128	107	124	139
1924	141	148	145	131	109	127	141
1925	146	157	159	134	112	137	150
1926	151	152	147	133	113	129	145
1927	145	155	150	141	116	121	145
1928	133	148	144	141	113	125	140
1929	123	142	149	133	112	119	137
1930	123	135	151	119	114	125	135
1931	105	120	130	109	104	124	121
1932	118	120	125	117	105	116	119
1933	115	124	125	119	100	119	121
1934	117	129	138	119	107	123	128
1935	118	131	132	131	106	121	127
1936	127	137	142	130	111	119	133
1937	132	146	155	129	115	120	141
1938	138	152	165	138	127	132	149
1939	125	143	150	141	128	131	141
1940	129	141	150	137	123	127	139
1941	127	146	156	131	124	127	142
1942	141	151	165	132	130	129	148
1943	154	160	173	139	136	146	158
1944	152	164	174	139	141	147	161
1945	150	166	176	141	144	146	161
1946	153	170	175	147	147	149	164
1947	145	159	167	139	127	128	152
1948	169	174	178	141	127	131	164
1949	171	196	182	159	163	166	181
1950	181	205	202	174	175	171	193
1951	185	213	207	174	181	168	197
1952	191	212	217	177	194	172	202
1953	182	196	203	166	166	169	189
1954	183	208	210	174	169	180	197

Table A7 (cont.) Real GDP per capita, by State, 1861 to 1978 ($, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1955	193	218	224	186	183	187	208
1956	200	219	232	188	205	189	213
1957	194	226	223	176	192	189	211
1958	190	226	225	173	199	187	211
1959	204	241	244	189	202	203	226
1960	210	258	250	200	211	210	237
1961	214	257	253	208	212	207	238
1962	209	256	245	206	218	204	234
1963	224	273	259	220	233	222	249
1964	240	285	273	224	235	234	261
1965	251	297	290	229	252	238	272
1966	241	282	280	245	245	237	264
1967	246	296	290	261	260	250	275
1968	243	297	284	274	257	253	275
1969	270	323	306	300	275	276	298
1970	273	331	320	295	285	275	305
1971	279	336	327	319	284	282	312
1972	286	334	330	320	284	295	314
1973	281	345	319	313	287	294	313
1974	297	349	339	334	292	303	325
1975	299	337	325	331	294	315	318
1976	300	333	323	347	289	316	317
1977	303	337	333	349	304	319	322
1978	306	341	344	346	308	319	327

Table A8: Real GDP per capita annual growth rates, by State, 1861 to 1978 (%, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1861							
1862	-8.8	1.3	-7.9	-9.1	5.2	-20.6	-5.4
1863	1.5	-1.7	-4.1	2.3	8.3	-4.5	-2.1
1864	16.8	5.4	-0.6	10.2	4.0	6.8	3.6
1865	-6.0	-0.8	-9.5	-8.5	-0.9	-11.7	-6.3
1866	-0.2	0.4	3.1	2.6	3.6	-4.0	1.5
1867	17.6	1.6	3.9	14.1	0.0	21.5	5.7
1868	-11.9	4.5	3.9	-3.6	3.2	0.7	1.7
1869	5.1	4.1	-0.5	8.2	-1.8	-2.7	1.3
1870	-14.9	-15.6	4.5	3.3	-8.5	4.2	-4.4
1871	20.7	8.7	-17.4	-1.4	5.1	18.0	-2.6
1872	-8.8	2.3	8.0	0.2	-4.6	-4.6	2.4
1873	23.0	8.4	3.8	9.3	13.4	6.5	8.1
1874	-1.7	9.4	-2.5	-4.8	-9.7	-2.3	1.0
1875	12.1	5.9	8.0	7.5	6.6	-1.4	6.9
1876	-2.9	6.5	-4.7	-9.4	4.2	-7.3	-0.6
1877	3.2	-0.3	3.4	-8.1	3.8	-4.6	1.3
1878	9.3	4.4	-1.6	17.0	10.3	7.7	3.7
1879	-6.1	-4.7	1.5	0.5	-3.2	-8.4	-2.8
1880	15.1	3.7	0.3	4.8	-3.6	3.0	3.8
1881	-21.6	5.4	1.9	3.1	2.2	11.2	0.5
1882	-6.4	0.9	1.5	-0.5	1.0	-1.1	0.2
1883	-1.6	10.4	4.6	14.0	3.3	-2.8	5.6
1884	1.5	-4.3	5.5	1.9	3.8	-1.1	0.4
1885	-6.4	-1.8	0.3	1.7	6.4	-2.1	-1.1
1886	-10.7	-9.4	3.7	-8.0	-10.2	-7.1	-4.7
1887	8.0	4.9	1.6	16.7	8.4	4.3	4.2
1888	12.4	3.1	2.7	-3.1	0.6	6.2	3.9
1889	-7.5	1.5	-5.0	13.7	5.7	2.7	-1.1
1890	7.0	-4.3	-4.8	-4.9	-7.1	-4.4	-3.7
1891	-5.6	11.6	-3.2	-3.6	1.6	-7.1	2.2
1892	-10.1	-8.0	-9.9	5.2	-3.1	-3.8	-7.8
1893	-1.1	-10.5	-3.0	20.1	-13.3	3.3	-5.3
1894	4.8	2.4	-1.1	13.0	14.9	-0.3	2.2
1895	-7.6	-2.8	1.1	-6.2	-6.7	-2.8	-2.0
1896	-3.2	-1.4	-5.8	11.0	5.2	1.2	-1.2
1897	-3.3	-3.3	-1.7	5.3	0.2	3.6	-0.6
1898	8.9	3.3	11.0	5.6	1.8	5.0	6.6
1899	6.2	-2.2	0.1	10.2	0.6	4.4	1.2
1900	6.5	4.6	4.0	0.1	4.7	-1.5	3.5
1901	-7.2	-1.7	0.7	1.4	-2.7	-7.1	-1.8
1902	2.3	-1.5	-0.2	-3.3	1.3	4.5	0.3
1903	-0.6	-4.4	-6.4	0.7	-10.9	-9.3	-4.7
1904	17.4	0.9	16.2	-5.7	2.2	8.9	6.9
1905	-5.3	1.9	-3.2	-7.3	-4.3	1.1	-1.4
1906	11.9	5.5	2.2	-7.8	4.4	2.5	3.4
1907	0.2	15.1	4.3	-5.1	2.8	9.7	7.9

Table A8 (cont.) Real GDP per capita annual growth rates, by State, 1861 to 1978 (%, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1908	-0.4	-8.0	0.2	-7.1	3.7	1.3	-3.5
1909	11.2	5.6	6.5	7.0	-1.0	6.0	6.2
1910	3.8	5.5	7.2	0.7	-1.6	5.5	5.2
1911	3.1	5.9	3.8	-2.4	2.8	6.7	4.5
1912	-7.1	-3.0	-4.7	-2.1	-4.0	-7.0	-4.3
1913	4.8	3.7	4.6	-7.1	1.5	8.8	3.9
1914	-5.0	-2.0	1.1	-2.6	-4.2	3.2	-0.7
1915	-19.7	-12.9	-16.3	-12.3	-5.3	-14.8	-14.4
1916	33.0	4.1	8.0	5.4	10.9	-2.7	6.6
1917	-1.0	0.7	-0.6	0.4	0.6	-2.1	-0.2
1918	-8.8	-4.3	-5.0	-10.5	-1.2	-3.4	-5.1
1919	-0.7	-2.6	3.7	-2.6	1.9	-5.0	-0.9
1920	-10.4	-4.8	-2.9	3.3	-8.2	-13.1	-5.5
1921	25.1	13.6	16.8	8.0	9.4	14.7	15.1
1922	-6.1	0.9	-4.2	0.2	2.7	-0.1	-1.3
1923	2.1	1.8	7.8	-3.7	-7.9	6.2	3.4
1924	5.2	1.5	-1.3	2.3	2.5	2.3	1.2
1925	3.9	6.5	9.2	2.2	2.6	8.0	6.9
1926	3.5	-3.1	-7.2	-0.5	0.5	-6.1	-3.8
1927	-4.5	1.6	2.1	6.0	3.3	-5.5	0.6
1928	-8.2	-4.5	-4.0	0.0	-3.2	3.1	-3.5
1929	-6.9	-3.8	3.2	-5.5	-0.1	-4.7	-2.2
1930	-0.2	-4.9	1.5	-11.1	1.4	5.1	-1.6
1931	-15.0	-11.1	-14.2	-7.9	-8.9	-1.0	-10.8
1932	12.3	-0.7	-3.6	7.3	1.5	-6.8	-0.9
1933	-2.2	3.4	-0.1	1.7	-5.3	3.1	1.5
1934	1.4	4.5	10.2	-0.1	7.4	2.8	5.4
1935	1.0	1.5	-4.5	10.4	-1.0	-1.6	-0.3
1936	7.9	4.7	8.0	-1.0	4.4	-1.5	4.6
1937	3.8	6.4	8.9	-0.6	3.8	0.9	5.6
1938	4.4	4.0	6.7	6.3	10.5	9.9	5.9
1939	-8.9	-5.9	-9.2	2.8	0.6	-0.9	-5.8
1940	2.9	-1.3	0.3	-3.1	-3.8	-3.0	-1.0
1941	-1.3	3.6	3.6	-4.6	0.8	0.2	2.1
1942	10.3	3.1	6.2	1.4	5.1	1.9	4.5
1943	9.4	6.2	4.7	5.1	4.3	13.1	6.7
1944	-0.9	2.7	0.6	-0.4	3.6	0.5	1.3
1945	-1.6	0.8	1.0	1.9	2.5	-0.6	0.6
1946	2.2	2.5	-0.7	4.0	1.5	1.5	1.5
1947	-5.4	-6.2	-4.7	-5.4	-13.4	-14.1	-6.9
1948	16.6	9.1	6.7	1.2	0.1	2.3	7.4
1949	1.2	12.8	2.2	13.2	28.5	27.4	10.8
1950	5.4	4.4	11.0	9.5	7.2	2.8	6.4
1951	2.2	3.8	2.7	-0.2	3.6	-1.6	2.4
1952	3.6	-0.3	5.0	1.8	7.0	1.9	2.1
1953	-5.1	-7.3	-6.7	-6.5	-14.2	-1.5	-6.4
1954	0.9	6.0	3.4	5.1	1.5	6.6	4.6

Table A8 (cont.) Real GDP per capita annual growth rates, by State, 1861 to 1978 (%, 1910-11 prices)

Year	SA	NSW	Vic	WA	Tas	Qld	Total
1955	5.5	4.9	6.9	7.1	8.5	3.9	5.6
1956	3.4	0.5	3.4	0.7	11.8	0.9	1.9
1957	-3.1	3.2	-3.8	-6.3	-6.4	0.4	-0.8
1958	-2.0	-0.1	0.9	-1.3	3.8	-1.2	-0.1
1959	7.7	6.7	8.4	9.2	1.6	8.5	7.4
1960	2.5	6.8	2.6	5.9	4.4	3.3	4.5
1961	2.2	-0.2	1.4	3.7	0.3	-1.4	0.5
1962	-2.3	-0.5	-3.1	-1.0	2.8	-1.3	-1.7
1963	7.1	6.8	5.4	7.0	7.0	8.9	6.6
1964	7.0	4.3	5.4	1.7	0.8	5.5	4.6
1965	4.7	4.2	6.2	2.2	7.2	1.7	4.4
1966	-4.1	-4.9	-3.2	7.1	-2.9	-0.4	-3.1
1967	2.3	4.9	3.5	6.3	6.1	5.2	4.3
1968	-1.3	0.4	-2.2	5.1	-0.9	1.5	-0.2
1969	11.3	8.9	7.7	9.4	6.9	8.8	8.6
1970	1.2	2.4	4.7	-1.7	3.6	-0.4	2.2
1971	2.1	1.5	2.2	8.1	-0.1	2.8	2.3
1972	2.5	-0.6	1.0	0.3	-0.1	4.6	0.8
1973	-1.8	3.1	-3.4	-2.2	0.9	-0.4	-0.3
1974	5.7	1.3	6.2	6.9	1.8	3.2	3.6
1975	0.7	-3.6	-4.2	-1.0	0.8	4.0	-2.1
1976	0.3	-1.1	-0.6	4.9	-1.7	0.0	-0.2
1977	1.0	1.1	3.2	0.5	5.1	1.0	1.7
1978	1.1	1.2	3.2	-0.7	1.2	0.0	1.4

Table A9: Nominal rates of assistance to agricultural and manufacturing sectors and wine, and relative rate of assistance to manufacturing, Australia, 1904 to 2013 (%)

Year	NRA, drying grapes	NRA, wine grapes	NRA, all agric.	NRA, wine manuf.*	NRA, all manu-facturing	RRA, manuf. rel. to agric.	ERA, wine & brandy*
1904	94	na	6	52	33	27	na
1905	130	na	12	48	32	21	na
1906	60	na	7	45	31	24	na
1907	68	na	7	42	29	23	na
1908	107	na	8	39	29	21	na
1909	85	na	8	43	34	26	na
1910	111	na	9	44	34	24	na
1911	107	na	9	35	33	24	na
1912	137	na	9	43	32	22	na
1913	48	na	8	45	31	23	na
1914	49	na	6	na	31	25	na
1915	36	na	5	63	32	27	na
1916	39	na	5	57	28	23	na
1917	30	na	5	65	28	22	na
1918	39	na	6	83	23	17	na
1919	28	na	4	84	22	17	na
1920	24	na	5	38	25	20	na
1921	14	na	3	27	24	20	na
1922	23	na	4	89	29	25	na
1923	47	na	4	78	28	24	na
1924	70	na	6	76	28	22	na
1925	28	na	4	70	30	26	na
1926	25	na	5	77	32	27	na
1927	23	na	5	81	33	28	na
1928	31	na	5	96	35	29	na
1929	68	na	5	na	36	31	na
1930	56	na	7	na	43	35	na
1931	57	na	7	na	52	44	na
1932	57	na	9	na	63	52	na
1933	59	na	8	na	57	47	na
1934	13	na	6	na	56	48	na
1935	5	na	9	na	51	40	na
1936	46	na	6	na	49	41	na
1937	20	na	4	na	48	43	na
1938	15	na	3	na	43	39	na
1939	14	na	6	na	49	42	na
1940	8	na	4	na	47	41	na
1941	5	na	4	na	53	48	na
1942	5	na	5	na	42	36	na
1943	5	na	6	na	46	38	na
1944	5	na	9	na	46	35	na
1945	5	na	11	na	48	35	na
1946	5	na	7	na	41	33	na

Table A9 (cont.) Nominal rates of assistance to agricultural and manufacturing sectors and wine, and relative rate of assistance to manufacturing, Australia, 1904 to 2013 (%)

Year	NRA, drying grapes	NRA, wine grapes	NRA, all agric.	NRA, wine manuf*	NRA, all manu-facturing	RRA, manuf. rel. to agric.	ERA, wine & brandy*
1947	8	na	-13	na	41	59	na
1948	10	na	-4	na	30	34	na
1949	12	na	-4	na	27	31	na
1950	13	na	-4	15	26	31	na
1951	2	na	-2	14	25	27	na
1952	23	na	-1	13	23	24	na
1953	4	na	3	43	34	30	na
1954	7	na	5	17	26	21	na
1955	7	na	6	17	23	17	na
1956	4	na	5	21	22	17	na
1957	4	na	7	20	22	15	na
1958	4	na	9	17	20	11	na
1959	4	na	6	17	22	15	na
1960	12	na	8	28	21	13	na
1961	11	na	10	28	20	10	na
1962	12	na	10	27	22	13	na
1963	12	na	9	28	22	13	na
1964	8	na	6	29	22	16	na
1965	7	na	8	28	23	15	na
1966	12	na	9	29	22	14	na
1967	13	na	8	29	22	15	na
1968	15	na	13	25	23	11	na
1969	33	32	12	56	24	13	11
1970	21	21	12	50	23	14	14
1971	44	52	17	40	23	11	18
1972	27	53	11	47	22	14	18
1973	34	51	7	47	22	16	22
1974	0	50	6	41	17	12	38
1975	7	50	4	40	15	12	24
1976	36	36	4	41	16	13	25
1977	27	30	5	36	15	12	17
1978	0	17	7	37	15	11	25
1979	3	17	4	13	15	12	16
1980	-3	17	3	9	15	13	12
1981	4	21	4	12	15	13	16
1982	19	21	4	11	16	14	13
1983	31	21	8	37	16	13	65
1984	45	16	5	36	13	11	64
1985	21	16	4	23	13	11	37
1986	18	16	5	19	12	10	28
1987	17	16	8	18	12	8	26
1988	25	18	5	18	11	8	25
1989	22	21	4	16	10	8	19
1990	18	16	4	12	9	7	14

Table A9 (cont.) Nominal rates of assistance to agricultural and manufacturing sectors and wine, and relative rate of assistance to manufacturing, Australia, 1904 to 2013 (%)

Year	NRA, drying grapes	NRA, wine grapes	NRA, all agric.	NRA, wine manuf.*	NRA, all manu-facturing	RRA, manuf. rel. to agric.	ERA, wine & brandy*
1991	18	15	6	13	9	6	16
1992	19	14	5	8	8	6	9
1993	16	13	4	18	7	5	18
1994	26	10	4	11	6	4	14
1995	12	9	4	10	5	3	13
1996	5	7	4	8	5	3	11
1997	5	4	4	3	4	2	8
1998	6	4	3	3	3	2	8
1999	6	4	3	3	3	2	8
2000	4	4	2	3	3	2	8
2001	4	3	1	<3	2	2	8
2002	<3	3	1	<3	2	2	<8
2003	<3	5	1	<3	2	2	<8
2004	<3	4	1	<3	2	2	<8
2005	<3	<4	1	<3	2	2	<8
2006	<3	<4	1	<3	2	2	<8
2007	<3	<4	1	<3	2	2	<8
2008	<3	<4	2	<3	2	1	<8
2009	<3	<4	1	<3	2	2	<8
2010	<3	<4	1	<3	2	2	<8
2011	<3	<4	1	<3	2	2	<8
2012	<3	<4	1	<3	2	2	<8
2013	<3	<4	1	<3	2	2	<8

* Wine's NRA pre-1969 is just customs revenue as % of sparking + still wine import value

Wine's NRA from 1969 includes brandy

Wine's ERA is the effective rate after taking into account the inflated price of winegrapes

Table A10: Sectoral shares of current GDP, NSW and SA, 1840 to 2013 (%)

	SA				NSW			
Year	Agri-cultural	Mining	Manufact uring	Total SA	Agri-cultural	Mining	Manufact uring	Total NSW
1840	18.8			100	47.0			100
1841	28.7			100	40.8			100
1842	36.8			100	37.4			100
1843	41.2			100	34.4			100
1844	43.1	1.5		100	31.6			100
1845	40.5	3.2		100	33.4			100
1846	38.9	13.5		100	30.5			100
1847	32.5	14.0		100	28.3			100
1848	30.8	16.8		100	32.5			100
1849	33.5	12.4		100	29.6			100
1850	28.7	15.5		100	31.1			100
1851	30.5	11.3		100	31.9			100
1852	33.1	14.4		100	18.9	23.8		100
1853	34.3	5.1		100	21.6	13.4		100
1854	27.1	1.6		100	19.7	5.3		100
1855	35.1	2.0		100	30.2	1.9		100
1856	38.9	5.7		100	29.1	1.6		100
1857	34.7	7.2		100	23.1	6.3		100
1858	35.6	5.5		100	27.5	5.8		100
1859	28.6	5.3		100	15.5	10.1		100
1860	34.7	5.9		100	23.3	9.6		100
1861	33.0	5.9	6.6	100	23.4	10.7	5.3	100
1862	31.2	7.2	6.8	100	19.8	13.9	5.1	100
1863	31.6	7.1	6.8	100	19.3	11.0	5.1	100
1864	37.4	7.5	5.8	100	20.8	8.8	5.8	100
1865	36.4	6.0	6.1	100	22.8	8.6	6.2	100
1866	30.8	8.8	5.9	100	23.2	7.0	7.3	100
1867	34.6	7.5	5.6	100	18.3	7.3	8.5	100
1868	30.3	6.7	6.0	100	18.1	7.1	10.0	100
1869	33.7	6.2	5.6	100	23.2	5.8	9.0	100
1870	31.3	6.2	6.1	100	26.2	5.3	8.7	100
1871	37.7	6.0	5.2	100	20.2	7.3	9.1	100
1872	34.3	7.6	5.5	100	19.3	8.4	10.0	100
1873	38.2	5.4	4.5	100	20.8	8.6	10.5	100
1874	33.6	4.9	4.7	100	26.8	6.4	9.6	100
1875	37.5	4.7	4.5	100	25.9	5.7	11.0	100
1876	38.2	3.6	4.5	100	26.7	5.2	12.0	100
1877	34.4	3.2	4.6	100	26.3	5.2	12.9	100
1878	37.0	2.0	4.5	100	25.1	4.8	11.7	100
1879	32.8	1.8	5.0	100	25.3	4.6	11.3	100
1880	35.0	1.5	4.7	100	28.4	4.1	10.5	100
1881	31.0	2.2	4.9	100	23.2	4.4	10.6	100
1882	34.9	2.3	6.3	100	24.7	4.5	10.3	100
1883	31.8	2.0	5.3	100	23.8	4.6	9.8	100
1884	39.4	2.4	3.2	100	23.1	4.3	10.8	100

Table A10 (cont.) Sectoral shares of current GDP, NSW and SA, 1840 to 2013 (%)

	SA				NSW			
Year	Agri-cultural	Mining	Manufact uring	Total SA	Agri-cultural	Mining	Manufact uring	Total NSW
1885	34.4	1.7	4.0	100	20.2	3.9	11.7	100
1886	28.5	1.6	5.4	100	21.5	4.5	12.0	100
1887	32.7	1.7	5.5	100	23.5	4.4	11.6	100
1888	37.2	1.7	5.4	100	23.7	5.0	11.0	100
1889	31.4	1.6	6.2	100	23.5	5.5	10.2	100
1890	31.3	1.3	8.5	100	23.9	6.1	10.4	100
1891	31.3	1.2	8.1	100	26.1	7.3	9.6	100
1892	26.8	1.0	10.5	100	25.7	6.5	10.7	100
1893	31.9	1.3	8.7	100	28.1	7.7	9.5	100
1894	30.7	1.5	9.3	100	27.5	7.4	10.3	100
1895	28.9	1.6	10.1	100	26.3	6.8	10.9	100
1896	29.9	1.4	9.9	100	25.9	6.4	11.0	100
1897	23.5	1.8	10.1	100	28.2	6.8	11.2	100
1898	24.8	1.6	10.3	100	28.1	6.4	10.3	100
1899	27.7	2.4	10.0	100	27.1	8.1	10.5	100
1900	25.8	2.1	11.2	100	27.0	8.2	11.0	100
1901	26.3	2.6	13.0	100	24.8	6.6	10.9	100
1902	24.4	2.8	12.7	100	22.1	5.5	11.0	100
1903	27.0	3.0	12.2	100	26.5	6.7	10.6	100
1904	28.8	2.9	11.7	100	25.6	7.1	11.1	100
1905	27.3	3.2	12.6	100	28.7	7.5	11.0	100
1906	30.3	3.1	12.3	100	29.7	7.6	11.5	100
1907	29.7	2.6	13.8	100	28.4	9.3	11.1	100
1908	31.3	2.1	14.1	100	27.3	7.9	12.4	100
1909	30.9	1.6	14.0	100	26.8	6.7	12.5	100
1910	31.5	1.3	14.2	100	28.2	6.9	12.6	100
1911	28.8	1.0	14.6	100	26.7	7.1	13.4	100
1912	27.0	1.0	14.8	100	23.6	7.7	13.9	100
1913	27.8	1.3	14.8	100	22.9	7.3	13.9	100
1914	24.5	1.3	14.6	100	22.9	5.9	13.6	100
1915	19.5	1.5	15.8	100	22.7	5.7	14.1	100
1916	36.8	1.8	12.4	100	24.7	5.8	13.4	100
1917	33.0	2.1	12.6	100	24.4	6.4	13.0	100
1918	30.0	3.5	13.8	100	24.2	6.6	13.6	100
1919	32.1	3.1	11.8	100	22.5	4.0	13.4	100
1920	32.9	1.5	11.7	100	23.4	3.7	13.8	100
1921	35.1	1.9	10.3	100	23.0	4.2	13.7	100
1922	24.9	1.6	13.2	100	19.1	4.7	14.4	100
1923	26.9	0.5	13.3	100	21.0	4.6	14.5	100
1924	28.4	1.3	13.7	100	20.9	5.2	15.0	100
1925	29.1	1.3	13.0	100	24.0	5.0	14.3	100
1926	25.9	1.3	13.3	100	21.3	5.0	16.0	100
1927	23.3	1.4	15.0	100	22.2	4.7	16.6	100
1928	23.1	1.6	16.4	100	20.4	4.0	17.8	100
1929	23.0	1.5	16.9	100	20.2	3.0	19.2	100

Table A10 (cont.) Sectoral shares of current GDP, NSW and SA, 1840 to 2013 (%)

	SA				NSW			
Year	Agri-cultural	Mining	Manufact uring	Total SA	Agri-cultural	Mining	Manufact uring	Total NSW
1930	20.5	1.9	16.8	100	17.9	2.8	20.5	100
1931	16.9	3.0	15.1	100	18.0	2.6	18.3	100
1932	28.1	2.6	12.3	100	20.9	2.7	17.2	100
1933	25.8	1.2	14.4	100	21.6	2.6	17.7	100
1934	27.5	1.6	14.3	100	24.3	2.6	17.0	100
1935	24.7	2.0	14.5	100	19.8	2.7	17.6	100
1936	25.6	4.0	15.5	100	20.5	2.7	18.2	100
1937	28.0	3.8	15.2	100	23.9	2.5	18.2	100
1938	25.9	3.5	15.9	100	18.9	2.9	19.1	100
1939	21.9	4.5	17.6	100	16.7	2.8	21.4	100
1940	27.9	4.8	16.9	100	20.7	2.9	21.8	100
1941	17.3	4.7	20.9	100	16.9	2.5	24.1	100
1942	21.1	3.6	24.7	100	17.7	2.5	24.9	100
1943	23.6	2.7	24.4	100	17.8	2.2	23.9	100
1944	24.8	2.7	23.9	100	18.4	2.2	24.1	100
1945	23.3	2.7	22.9	100	15.7	2.2	23.9	100
1946	23.9	2.1	20.4	100	16.5	2.0	20.4	100
1947	29.3	2.5	24.1	100	17.3	2.8	28.7	100
1948	37.4	2.2	23.2	100	22.8	3.1	27.7	100
1949	24.2	2.3	22.6	100	16.0	3.0	27.3	100
1950	26.5	1.4	21.9	100	19.8	2.5	25.3	100
1951	32.7	1.5	20.9	100	24.7	2.5	24.4	100
1952	23.7	1.4	23.2	100	14.2	3.2	28.0	100
1953	25.6	1.2	22.0	100	17.4	2.7	26.2	100
1954	20.9	1.2	23.9	100	16.2	2.5	27.3	100
1955	18.6	1.6	24.5	100	12.1	2.6	28.9	100
1956	17.8	1.7	23.9	100	11.5	2.6	29.9	100
1957	20.5	1.7	23.0	100	12.5	2.3	28.5	100
1958	15.8	1.7	24.5	100	8.7	2.0	30.4	100
1959	16.9	1.7	23.4	100	10.3	1.7	29.8	100
1960	11.9	1.8	24.8	100	10.0	1.6	29.9	100
1961	14.5	1.7	23.8	100	8.7	1.6	29.7	100
1962	13.0	2.0	24.6	100	8.9	1.6	29.3	100
1963	12.7	1.6	24.2	100	9.0	1.3	28.8	100
1964	14.8	1.7	23.5	100	9.9	1.6	28.4	100
1965	13.4	1.7	25.0	100	9.0	1.8	29.1	100
1966	11.6	1.8	23.9	100	6.2	2.2	28.3	100
1967	13.5	1.8	23.6	100	8.6	2.0	27.8	100
1968	8.6	1.7	25.6	100	5.7	1.9	28.2	100
1969	11.4	1.5	25.3	100	6.5	1.7	26.8	100
1970	9.5	1.9	25.0	100	5.5	2.2	26.0	100
1971	7.8	1.8	25.0	100	4.1	1.8	26.0	100
1972	9.2	1.8	22.8	100	4.0	2.1	24.9	100
1973	10.0	2.0	22.8	100	5.8	1.8	23.7	100
1974	12.7	1.6	22.0	100	6.4	1.8	23.5	100

Table A10 (cont.) Sectoral shares of current GDP, NSW and SA, 1840 to 2013 (%)

	SA				NSW			
Year	Agri-cultural	Mining	Manufact uring	Total SA	Agri-cultural	Mining	Manufact uring	Total NSW
1975	9.4	1.4	22.3	100	4.4	2.5	23.2	100
1976	7.3	1.3	21.8	100	4.2	2.6	22.4	100
1977	7.0	1.3	20.4	100	4.6	2.8	22.1	100
1978	5.6	1.1	19.9	100	3.7	2.7	22.0	100
1979								
1980								
1981								
1982	7.6	0.7	18.4	100	3.5	2.4	18.3	100
1983	4.4	1.3	18.2	100	2.2	2.8	16.9	100
1984	6.5	2.9	17.6	100	3.9	2.5	17.2	100
1985	5.5	3.5	16.6	100	3.3	2.1	17.2	100
1986	4.8	4.7	16.5	100	3.0	2.4	16.9	100
1987	5.0	3.4	16.1	100	2.8	2.5	15.7	100
1988	5.2	3.1	16.4	100	3.1	2.0	15.0	100
1989	5.3	2.6	17.0	100	3.3	1.8	14.3	100
1990	6.3	2.5	17.5	100	3.2	1.9	13.7	100
1991	4.2	2.5	15.9	100	2.4	1.7	12.8	100
1992	4.6	2.6	15.7	100	2.1	1.6	12.9	100
1993	5.0	2.6	15.5	100	2.1	1.5	13.5	100
1994	5.1	2.3	16.0	100	2.2	1.6	14.0	100
1995	5.1	2.1	15.5	100	1.9	1.6	13.8	100
1996	6.1	2.5	15.3	100	2.1	1.6	13.3	100
1997	5.7	1.9	15.9	100	2.2	1.6	12.0	100
1998	5.8	2.1	16.4	100	2.0	1.6	12.2	100
1999	6.2	1.8	15.0	100	1.9	1.7	11.9	100
2000	6.0	1.9	14.5	100	2.0	1.4	11.4	100
2001	7.7	1.8	13.5	100	2.3	1.6	11.0	100
2002	8.7	2.0	12.8	100	2.7	1.6	10.1	100
2003	6.4	1.7	13.5	100	1.9	1.4	10.9	100
2004	6.8	1.8	13.5	100	1.9	1.2	10.6	100
2005	5.8	2.5	12.6	100	1.9	1.6	10.2	100
2006	5.9	3.3	12.8	100	1.7	2.0	9.9	100
2007	4.6	4.0	12.2	100	1.3	2.1	8.9	100
2008	5.3	3.7	11.9	100	1.3	2.2	9.0	100
2009	4.8	3.5	10.7	100	1.4	3.2	8.5	100
2010	4.4	3.3	10.1	100	1.3	2.5	8.2	100
2011	5.8	4.7	9.0	100	1.6	3.0	7.9	100
2012	4.8	4.1	8.5	100	1.4	3.0	7.6	100
2013	5.4	3.3	7.7	100	1.6	2.7	7.3	100

Table A11: Sectoral shares of current GDP, Vic and WA, 1850 to 2013 (%)

	Vic				WA			
Year	Agri-cultural	Mining	Manufactu ring	Total Vic	Agri-cultural	Mining	Manufactur ing	Total WA
1850	41.3			100				100
1851	34.3	11.0		100				100
1852	7.9	52.1		100				100
1853	7.7	40.5		100				100
1854	10.8	31.0		100				100
1855	11.9	39.3		100				100
1856	14.6	39.4		100				100
1857	15.7	34.1		100				100
1858	17.2	31.5		100				100
1859	19.4	26.8		100				100
1860	20.8	24.7		100				100
1861	18.7	24.2	2.4	100	33.0	1.3	7.7	100
1862	16.9	24.4	2.7	100	33.3	1.2	7.2	100
1863	17.6	21.7	2.6	100	34.9	1.3	8.2	100
1864	17.2	22.7	2.7	100	39.9	1.1	6.0	100
1865	19.7	20.9	3.3	100	42.9	1.2	4.0	100
1866	20.8	19.2	4.3	100	37.1	1.2	4.4	100
1867	20.9	18.6	5.3	100	38.0	1.2	4.7	100
1868	21.0	17.1	5.6	100	40.3	1.1	4.7	100
1869	21.0	18.8	6.2	100	43.4	1.2	4.0	100
1870	23.0	15.7	6.3	100	43.7	1.2	4.5	100
1871	19.7	15.4	7.1	100	41.1	1.3	5.1	100
1872	20.9	13.6	7.4	100	41.9	1.3	5.4	100
1873	22.2	11.9	7.6	100	35.2	1.1	5.2	100
1874	21.4	11.0	9.1	100	36.1	1.1	5.7	100
1875	23.6	9.7	9.1	100	36.0	1.1	5.9	100
1876	24.5	8.7	9.6	100	37.3	1.1	6.2	100
1877	26.7	7.1	9.6	100	42.1	1.2	7.8	100
1878	25.1	7.3	10.5	100	43.6	1.0	6.8	100
1879	22.1	6.7	10.0	100	43.4	1.0	7.3	100
1880	22.6	7.2	11.1	100	45.2	1.1	7.4	100
1881	22.5	7.2	12.0	100	42.6	1.0	7.0	100
1882	21.6	6.8	11.8	100	38.5	0.9	7.3	100
1883	22.3	5.9	11.6	100	38.5	0.7	7.6	100
1884	23.4	5.3	11.7	100	35.8	0.7	7.9	100
1885	20.9	5.0	11.4	100	33.6	0.6	8.4	100
1886	19.6	4.4	9.9	100	32.1	0.7	8.9	100
1887	19.3	3.9	10.2	100	30.6	1.1	6.9	100
1888	18.4	3.7	10.5	100	31.7	0.5	6.9	100
1889	17.4	3.7	11.0	100	28.2	2.1	6.7	100
1890	19.3	3.7	11.0	100	32.9	3.0	9.5	100
1891	21.4	3.8	11.6	100	30.3	3.9	8.4	100
1892	24.3	4.7	10.4	100	25.0	7.1	7.5	100
1893	25.2	5.3	10.4	100	19.9	10.1	5.9	100
1894	22.2	5.9	10.5	100	15.9	12.4	8.4	100

Table A11 (cont.) Sectoral shares of current GDP, Vic and WA, 1850 to 2013 (%)

	Vic				WA			
Year	Agri-cultural	Mining	Manufactu ring	Total Vic	Agri-cultural	Mining	Manufactur ing	Total WA
1895	22.4	6.5	11.8	100	11.7	11.5	8.7	100
1896	21.7	6.8	12.3	100	11.3	9.1	10.2	100
1897	25.0	6.9	12.1	100	10.1	17.2	7.7	100
1898	23.3	6.2	11.5	100	9.6	22.4	6.9	100
1899	23.0	6.4	12.5	100	10.2	31.0	6.5	100
1900	24.0	6.2	13.1	100	10.3	29.5	7.4	100
1901	25.4	5.8	12.1	100	11.1	30.7	8.5	100
1902	25.5	5.4	12.0	100	11.8	30.9	8.6	100
1903	22.4	5.8	13.2	100	12.4	31.2	8.0	100
1904	25.9	5.5	12.7	100	12.1	30.4	8.4	100
1905	25.2	5.5	13.5	100	14.2	30.0	8.7	100
1906	25.0	5.1	13.9	100	14.9	27.5	8.7	100
1907	24.5	4.9	14.4	100	15.8	26.0	8.5	100
1908	25.8	4.2	14.6	100	15.4	24.3	8.6	100
1909	25.4	3.8	14.7	100	18.7	21.3	8.3	100
1910	24.9	3.3	14.6	100	19.0	17.9	8.3	100
1911	24.1	2.8	15.2	100	18.5	15.4	9.1	100
1912	22.6	2.5	16.0	100	21.0	12.4	9.2	100
1913	23.2	2.2	16.0	100	15.9	12.7	10.1	100
1914	22.5	1.9	15.6	100	19.6	11.9	10.0	100
1915	19.7	1.9	16.8	100	18.0	12.3	9.6	100
1916	26.7	1.4	15.5	100	24.2	11.0	8.0	100
1917	24.3	1.1	15.4	100	23.7	11.4	7.5	100
1918	24.9	1.0	15.9	100	22.6	9.2	7.8	100
1919	26.4	0.7	15.0	100	24.5	7.7	7.0	100
1920	26.4	0.6	16.7	100	27.7	6.2	7.7	100
1921	23.6	0.7	17.1	100	25.2	5.4	8.7	100
1922	18.0	0.6	19.0	100	23.9	4.2	8.9	100
1923	21.7	0.6	17.7	100	24.9	3.9	9.3	100
1924	22.3	0.5	18.0	100	26.6	3.7	9.2	100
1925	22.7	0.4	16.7	100	28.4	3.1	9.0	100
1926	20.5	0.4	17.3	100	25.1	2.9	9.2	100
1927	20.6	0.5	18.5	100	27.8	2.5	8.8	100
1928	20.2	0.5	19.8	100	27.5	2.3	9.4	100
1929	20.9	0.5	20.4	100	24.3	2.3	9.9	100
1930	17.8	0.5	23.9	100	22.1	2.7	10.6	100
1931	18.1	0.6	19.9	100	17.0	5.1	9.2	100
1932	20.9	0.5	19.5	100	22.9	7.1	7.8	100
1933	19.8	0.5	20.6	100	24.2	7.9	8.6	100
1934	21.4	0.6	19.9	100	23.6	8.5	8.7	100
1935	18.8	0.6	20.3	100	22.5	8.6	9.4	100
1936	21.5	0.6	20.1	100	22.7	9.0	10.4	100
1937	24.6	0.7	20.0	100	22.8	10.4	10.4	100
1938	22.4	0.7	20.8	100	21.5	11.9	10.6	100
1939	17.0	0.7	23.0	100	18.1	13.2	10.7	100

Table A11 (cont.) Sectoral shares of current GDP, Vic and WA, 1850 to 2013 (%)

	Vic				WA			
Year	Agri-cultural	Mining	Manufactu ring	Total Vic	Agri-cultural	Mining	Manufactur ing	Total WA
1940	21.5	0.8	24.7	100	23.1	13.7	10.2	100
1941	18.9	0.9	27.5	100	19.0	15.2	10.3	100
1942	19.9	0.6	30.2	100	21.7	12.8	10.9	100
1943	20.8	0.5	30.1	100	22.9	9.0	11.9	100
1944	20.8	0.4	30.1	100	24.2	5.9	13.3	100
1945	20.2	0.4	29.2	100	23.4	5.1	13.4	100
1946	18.4	0.4	27.7	100	23.0	4.8	13.5	100
1947	21.8	0.5	29.7	100	28.2	5.6	15.6	100
1948	22.8	0.5	30.2	100	35.0	5.2	14.8	100
1949	34.4	0.4	27.1	100	26.4	4.9	17.1	100
1950	19.6	0.3	26.1	100	27.2	4.1	16.1	100
1951	24.2	0.3	24.4	100	36.1	4.0	15.4	100
1952	17.3	0.4	26.6	100	21.7	3.8	18.4	100
1953	17.1	0.6	26.3	100	20.6	3.8	18.9	100
1954	15.1	0.6	27.5	100	18.8	4.3	19.5	100
1955	14.2	0.6	27.7	100	14.2	4.2	19.6	100
1956	13.4	0.6	27.7	100	17.6	3.7	21.0	100
1957	13.3	0.6	28.1	100	16.0	3.6	21.4	100
1958	11.2	0.6	29.1	100	12.3	3.7	22.1	100
1959	11.4	0.6	28.7	100	15.4	3.4	20.9	100
1960	10.8	0.6	29.4	100	15.7	3.3	20.5	100
1961	11.2	0.6	28.4	100	14.8	3.1	20.9	100
1962	9.6	0.8	28.6	100	15.6	3.0	20.8	100
1963	9.8	0.7	29.4	100	15.0	2.6	20.6	100
1964	10.5	0.7	28.7	100	15.7	2.4	19.9	100
1965	9.9	0.7	28.7	100	14.2	2.3	21.2	100
1966	8.6	0.7	29.1	100	17.3	2.3	19.0	100
1967	8.7	0.7	29.6	100	15.6	3.7	18.9	100
1968	6.2	0.7	29.9	100	13.2	5.7	19.2	100
1969	7.2	0.7	28.9	100	13.3	7.0	17.0	100
1970	6.7	1.0	28.3	100	7.9	10.4	16.9	100
1971	5.6	2.1	28.0	100	8.6	11.0	15.8	100
1972	5.9	2.5	27.3	100	8.4	12.2	14.7	100
1973	6.2	2.5	23.9	100	10.0	11.6	14.1	100
1974	6.1	2.5	27.4	100	15.4	9.7	14.0	100
1975	4.1	2.6	26.8	100	10.9	11.0	14.0	100
1976	3.3	2.7	26.0	100	10.4	10.9	14.5	100
1977	3.3	2.5	26.0	100	8.9	11.4	15.0	100
1978	3.5	2.7	24.5	100	7.2	10.5	14.8	100
1979								
1980								
1981								
1982	3.3	4.5	19.9	100	8.2	7.7	13.6	100
1983	2.3	3.7	19.1	100	7.9	9.4	12.5	100
1984	3.8	4.7	19.1	100	6.4	10.8	11.8	100

Table A11 (cont.) Sectoral shares of current GDP, Vic and WA, 1850 to 2013 (%)

	Vic				WA			
Year	Agri-cultural	Mining	Manufactu ring	Total Vic	Agri-cultural	Mining	Manufactur ing	Total WA
1985	2.8	4.8	18.8	100	8.3	9.5	11.8	100
1986	2.8	3.9	18.2	100	6.3	11.2	11.5	100
1987	3.1	2.6	17.9	100	5.9	11.6	10.1	100
1988	3.2	2.9	17.5	100	5.7	11.9	9.9	100
1989	3.3	2.7	16.9	100	6.6	10.3	10.2	100
1990	3.5	3.5	17.1	100	5.6	14.5	10.3	100
1991	2.7	4.0	15.5	100	3.7	17.6	8.9	100
1992	2.9	3.5	15.7	100	3.9	17.7	8.4	100
1993	3.1	3.7	16.2	100	4.8	16.5	8.3	100
1994	3.1	3.4	16.4	100	4.5	16.0	8.4	100
1995	2.6	3.0	16.5	100	4.4	17.5	8.3	100
1996	3.2	2.8	16.0	100	4.7	18.9	8.1	100
1997	2.8	2.4	16.2	100	4.1	18.7	8.1	100
1998	2.6	2.3	16.0	100	3.6	18.7	8.2	100
1999	2.5	1.9	14.9	100	3.7	18.5	7.7	100
2000	2.6	2.6	14.5	100	4.2	18.3	7.9	100
2001	3.2	2.7	13.4	100	3.5	21.6	7.8	100
2002	3.5	2.5	13.0	100	4.3	19.9	8.4	100
2003	2.5	2.5	12.7	100	3.2	19.5	8.9	100
2004	2.8	2.1	12.9	100	4.1	17.3	9.0	100
2005	2.7	2.7	12.2	100	3.3	20.3	8.3	100
2006	2.6	3.0	11.5	100	3.2	24.1	8.1	100
2007	2.2	3.3	10.8	100	2.0	25.6	7.9	100
2008	2.8	2.9	10.5	100	2.7	25.5	7.7	100
2009	2.5	2.9	9.8	100	2.3	28.7	7.4	100
2010	2.5	2.4	9.3	100	1.8	27.1	6.0	100
2011	2.6	2.1	8.6	100	1.1	34.5	5.1	100
2012	2.5	1.9	8.1	100	1.8	32.5	4.9	100
2013	2.4	1.9	7.6	100	1.3	29.2	5.0	100

Table A12: Sectoral shares of current GDP, Tas and Qld, 1840 to 2013 (%)

	Tasmania				Qld			
Year	Agri-cultural	Mining	Manufactu ring	Total Tasmania	Agri-cultural	Mining	Manufactu ring	Total Qld
1840	55.4			100				
1841	53.9			100				
1842	42.8			100				
1843	42.7			100				
1844	41.8			100				
1845	44.1			100				
1846	52.9			100				
1847	61.6			100				
1848	50.4			100				
1849	49.2			100				
1850	48.5			100				
1851	45.6			100				
1852	45.1			100				
1853	49.5			100				
1854	46.9			100				
1855	45.8			100				
1856	44.1			100				
1857	47.0			100				
1858	43.2			100				
1859	46.8			100				
1860	43.8			100				
1861	38.9		6.3	100	23.8	0.9	4.2	100
1862	40.2		7.1	100	26.8	1.5	4.1	100
1863	41.2		8.6	100	23.6	1.5	3.4	100
1864	38.8		9.6	100	25.5	1.6	2.6	100
1865	37.1		10.2	100	30.3	1.5	2.4	100
1866	36.3		11.1	100	29.1	2.9	2.2	100
1867	35.6	0.1	12.8	100	33.3	1.9	1.9	100
1868	32.2	0.1	12.4	100	36.9	2.7	2.7	100
1869	34.7	0.0	11.2	100	34.0	3.7	4.2	100
1870	34.4	0.2	11.4	100	34.4	2.1	7.2	100
1871	30.9	0.3	11.0	100	34.1	4.2	7.0	100
1872	31.5	0.3	12.0	100	33.5	3.8	7.3	100
1873	31.0	0.4	14.3	100	23.1	3.9	7.3	100
1874	28.2	0.6	15.9	100	23.8	3.9	5.8	100
1875	30.6	0.9	14.4	100	26.7	4.9	5.8	100
1876	29.4	2.7	15.9	100	28.3	6.1	6.1	100
1877	27.0	5.7	16.0	100	28.8	6.3	6.4	100
1878	25.8	6.9	13.1	100	26.2	7.1	6.3	100
1879	25.0	8.9	14.4	100	26.6	8.1	7.3	100
1880	28.2	9.1	13.8	100	27.5	6.5	6.4	100
1881	23.4	9.7	16.6	100	24.6	7.5	7.0	100
1882	24.2	8.0	16.5	100	23.8	6.6	7.3	100
1883	25.3	7.7	15.3	100	24.2	7.6	7.9	100
1884	25.0	6.3	13.8	100	23.8	6.4	7.9	100

Table A12 (cont.) Sectoral shares of current GDP, Tas and Qld, 1840 to 2013 (%)

	Tasmania				Qld			
Year	Agri-cultural	Mining	Manufactu ring	Total Tasmania	Agri-cultural	Mining	Manufactu ring	Total Qld
1885	23.7	6.4	13.7	100	21.3	6.8	8.5	100
1886	24.7	6.7	14.1	100	21.4	7.5	8.3	100
1887	24.4	7.2	11.4	100	20.9	8.0	8.1	100
1888	22.5	7.0	11.7	100	21.7	6.2	8.1	100
1889	23.4	5.4	10.5	100	21.0	6.8	8.2	100
1890	23.6	4.7	10.8	100	21.4	5.5	8.3	100
1891	21.9	6.1	11.5	100	23.3	6.3	9.5	100
1892	23.5	6.9	9.0	100	25.6	7.2	9.0	100
1893	26.0	9.4	9.1	100	29.9	6.4	10.5	100
1894	25.3	10.7	8.5	100	26.5	5.5	9.9	100
1895	24.2	9.2	6.7	100	27.1	5.7	11.6	100
1896	21.3	8.3	10.5	100	27.3	7.3	11.8	100
1897	24.0	12.6	12.0	100	29.0	9.1	10.5	100
1898	24.2	11.8	12.9	100	25.9	7.8	10.9	100
1899	22.4	17.7	13.1	100	29.5	7.2	12.7	100
1900	21.5	18.4	12.6	100	25.5	6.6	11.5	100
1901	20.7	19.3	11.1	100	26.0	6.7	12.2	100
1902	22.7	17.4	9.7	100	27.9	9.5	10.8	100
1903	29.3	14.5	10.7	100	24.1	4.7	10.1	100
1904	27.0	14.3	11.3	100	27.4	5.4	9.6	100
1905	26.9	14.5	11.1	100	29.9	7.7	10.0	100
1906	27.1	16.9	10.5	100	29.6	7.0	10.6	100
1907	27.2	20.9	10.5	100	30.3	7.8	11.2	100
1908	26.6	19.6	10.6	100	30.7	7.5	11.2	100
1909	27.5	14.4	12.3	100	30.5	7.4	11.3	100
1910	28.1	13.5	13.4	100	30.6	6.7	12.3	100
1911	28.0	12.1	13.3	100	31.6	6.7	12.8	100
1912	29.3	11.1	12.8	100	28.8	5.3	13.5	100
1913	29.9	11.5	12.5	100	30.6	6.3	14.0	100
1914	27.4	10.6	12.6	100	32.6	8.1	13.9	100
1915	27.8	7.2	13.3	100	34.3	7.5	14.1	100
1916	31.0	7.4	12.7	100	33.8	6.5	13.5	100
1917	23.9	8.8	12.4	100	35.4	7.6	13.9	100
1918	23.0	8.5	12.1	100	36.3	8.6	14.1	100
1919	24.5	7.8	11.8	100	33.6	7.1	13.6	100
1920	28.1	5.7	11.1	100	31.2	7.1	14.0	100
1921	27.7	5.8	11.3	100	30.3	10.5	14.7	100
1922	25.5	3.3	10.9	100	30.6	10.9	15.8	100
1923	29.7	3.6	11.2	100	31.5	9.0	14.2	100
1924	26.3	4.6	14.2	100	29.7	8.5	14.4	100
1925	26.7	5.0	12.5	100	33.7	10.4	13.5	100
1926	24.5	5.7	12.7	100	29.8	9.8	13.6	100
1927	25.9	5.8	13.2	100	28.3	9.9	13.0	100
1928	24.2	4.8	13.9	100	32.1	11.1	14.1	100
1929	25.8	4.8	14.0	100	30.9	10.3	15.0	100

Table A12 (cont.) Sectoral shares of current GDP, Tas and Qld, 1840 to 2013 (%)

	Tasmania				Qld			
Year	Agri-cultural	Mining	Manufactu ring	Total Tasmania	Agri-cultural	Mining	Manufactu ring	Total Qld
1930	21.4	6.0	15.6	100	31.3	11.6	15.6	100
1931	22.7	4.9	14.2	100	34.5	12.2	14.7	100
1932	25.2	3.5	14.4	100	34.7	13.0	13.7	100
1933	22.6	3.8	15.3	100	33.0	11.6	14.1	100
1934	26.9	3.8	13.9	100	35.4	11.5	13.3	100
1935	25.6	3.3	13.6	100	32.8	10.5	13.3	100
1936	24.7	4.3	15.6	100	32.5	10.7	13.5	100
1937	23.7	5.9	17.0	100	33.7	11.0	14.1	100
1938	23.7	7.5	17.3	100	34.4	10.2	13.6	100
1939	25.8	6.1	17.6	100	34.9	10.4	14.5	100
1940	23.5	6.5	20.4	100	35.3	11.2	14.7	100
1941	20.0	8.3	19.8	100	33.0	10.6	14.3	100
1942	23.2	6.8	19.9	100	29.0	9.6	15.5	100
1943	23.1	5.7	20.0	100	29.4	9.2	15.4	100
1944	25.8	5.0	20.8	100	30.4	9.9	15.8	100
1945	27.7	4.4	19.5	100	30.1	10.6	16.0	100
1946	23.4	3.8	19.9	100	28.4	10.2	15.1	100
1947	23.0	5.8	24.8	100	30.9	8.7	19.1	100
1948	22.4	7.5	24.8	100	34.9	10.2	19.0	100
1949	15.3	7.4	25.4	100	28.6	1.4	18.2	100
1950	16.9	6.1	24.8	100	30.7	1.5	17.6	100
1951	20.2	7.0	23.6	100	33.5	1.8	16.8	100
1952	15.7	7.8	23.6	100	22.3	1.5	19.1	100
1953	17.4	4.7	23.8	100	27.5	1.8	17.3	100
1954	14.7	4.4	25.1	100	24.6	1.7	17.9	100
1955	16.3	4.4	26.2	100	23.7	2.0	18.4	100
1956	17.2	4.4	26.4	100	23.0	2.5	18.4	100
1957	14.9	4.1	27.2	100	24.5	2.5	17.6	100
1958	16.3	2.7	27.6	100	20.1	1.9	18.5	100
1959	13.3	2.4	28.3	100	21.4	1.9	18.3	100
1960	13.0	2.5	28.2	100	20.2	2.3	17.4	100
1961	12.0	2.3	27.6	100	19.5	2.4	17.6	100
1962	11.9	2.1	27.5	100	18.6	2.1	18.1	100
1963	11.7	2.1	27.8	100	19.6	2.1	17.6	100
1964	12.1	2.5	28.0	100	20.0	2.2	17.8	100
1965	12.3	2.7	27.6	100	17.3	2.4	18.2	100
1966	11.1	3.1	26.3	100	15.6	2.6	18.1	100
1967	11.2	3.7	25.7	100	16.6	3.4	17.6	100
1968	8.9	3.4	25.0	100	14.8	3.0	18.4	100
1969	9.6	3.8	25.2	100	15.7	3.6	18.3	100
1970	8.8	5.7	25.0	100	13.2	5.4	17.6	100
1971	7.8	4.4	25.2	100	11.7	4.8	17.6	100
1972	8.0	4.6	23.6	100	12.0	4.6	17.0	100
1973	9.6	4.3	24.1	100	12.5	5.2	16.9	100
1974	10.1	4.8	23.4	100	11.5	6.5	15.8	100

Table A12 (cont.) Sectoral shares of current GDP, Tas and Qld, 1840 to 2013 (%)

	Tasmania				Qld			
Year	Agri-cultural	Mining	Manufactu ring	Total Tasmania	Agri-cultural	Mining	Manufactu ring	Total Qld
1975	7.0	3.8	23.2	100	10.8	6.9	17.0	100
1976	6.3	3.4	23.7	100	9.1	6.9	16.7	100
1977	7.0	4.4	23.2	100	8.9	7.3	15.9	100
1978	7.2	5.3	20.2	100	8.1	7.1	15.7	100
1979								
1980								
1981								
1982	5.9	3.7	17.0	100	6.7	6.2	13.8	100
1983	5.7	4.6	16.2	100	4.6	6.4	13.4	100
1984	6.4	3.1	17.0	100	6.4	6.9	12.8	100
1985	5.8	2.5	16.5	100	5.9	7.8	12.6	100
1986	5.8	1.7	16.9	100	5.4	7.8	12.3	100
1987	6.1	2.8	12.3	100	5.7	7.3	11.8	100
1988	6.6	2.8	15.4	100	5.7	5.8	11.7	100
1989	6.6	2.8	15.8	100	5.6	4.6	11.0	100
1990	7.7	2.5	16.7	100	6.0	7.2	11.1	100
1991	6.7	1.5	15.3	100	4.9	6.5	10.1	100
1992	6.4	1.8	14.6	100	4.2	6.6	10.1	100
1993	7.0	1.5	14.5	100	4.4	6.9	10.1	100
1994	7.8	1.5	14.2	100	4.8	6.0	10.8	100
1995	7.0	2.1	14.6	100	4.1	5.4	10.8	100
1996	7.4	1.7	14.4	100	4.2	6.1	10.5	100
1997	7.9	1.9	14.8	100	4.3	5.9	10.3	100
1998	7.8	1.4	14.6	100	4.0	6.1	10.8	100
1999	8.1	1.1	15.9	100	4.2	5.4	10.4	100
2000	8.1	1.3	15.4	100	4.2	5.4	9.9	100
2001	9.4	1.6	14.8	100	4.4	6.7	9.7	100
2002	10.1	1.0	14.3	100	4.7	6.9	9.2	100
2003	8.2	0.9	14.4	100	3.6	6.0	9.4	100
2004	7.4	0.8	14.9	100	3.6	5.3	9.8	100
2005	7.5	0.9	12.9	100	3.6	6.9	9.5	100
2006	7.8	1.2	11.7	100	3.1	10.0	9.1	100
2007	7.3	1.2	12.4	100	2.7	9.5	9.0	100
2008	7.5	1.2	12.6	100	2.1	9.4	9.0	100
2009	8.1	1.3	10.8	100	2.5	13.9	7.7	100
2010	7.4	1.3	9.9	100	2.7	9.0	7.7	100
2011	7.4	1.4	8.8	100	2.6	10.2	7.4	100
2012	7.7	1.5	7.3	100	2.7	9.9	7.1	100
2013	7.6	1.4	6.9	100	2.7	8.8	6.5	100

Table A13: Sectoral shares of current GDP, ACT/NT and Australia, 1840 to 2013 (%)

	NT/ACT				Australia			
Year	Agri-cultural	Mining	Manufacturing	Total NT/ACT	Agri-cultural	Mining	Manufacturing	Total Australia
1840					43.3		4.5	100
1841					42.6		3.0	100
1842					38.4		3.1	100
1843					36.3	0.0	2.4	100
1844					33.8	0.1	2.5	100
1845					35.3	0.2	2.4	100
1846					35.6	1.6	2.7	100
1847					32.8	1.8	3.2	100
1848					31.6	2.6	3.7	100
1849					32.8	2.0	3.7	100
1850					34.6	2.8	3.8	100
1851					33.5	5.0	4.0	100
1852					15.5	36.4	2.8	100
1853					15.8	27.9	3.2	100
1854					16.9	18.8	3.8	100
1855					21.6	21.6	2.9	100
1856					22.6	23.3	3.0	100
1857					21.0	21.7	4.5	100
1858					23.1	19.5	4.6	100
1859					23.5	18.0	4.3	100
1860					23.7	16.7	4.7	100
1861					22.8	16.5	3.9	100
1862					21.2	17.1	4.2	100
1863					21.6	14.7	4.2	100
1864					22.8	14.2	4.4	100
1865					24.6	13.0	4.9	100
1866					24.3	12.2	5.6	100
1867					23.8	11.7	6.4	100
1868					23.2	10.9	7.1	100
1869					25.0	11.3	7.1	100
1870					26.5	9.8	7.2	100
1871					24.2	9.9	7.6	100
1872					23.8	9.8	8.1	100
1873					24.4	8.7	8.4	100
1874					25.3	7.5	8.7	100
1875					26.8	6.8	9.0	100
1876					27.6	6.3	9.7	100
1877					27.9	5.8	10.1	100
1878					27.1	5.6	9.8	100
1879					25.4	5.5	9.7	100
1880					27.4	5.2	9.6	100
1881					24.2	5.6	10.3	100
1882					24.8	5.4	10.3	100
1883					24.4	5.2	10.0	100
1884					25.1	4.7	10.2	100

Table A13 (cont.) Sectoral shares of current GDP, ACT/NT and Australia, 1840 to 2013 (%)

	NT/ACT				Australia			
Year	Agri-cultural	Mining	Manufacturing	Total NT/ACT	Agri-cultural	Mining	Manufacturing	Total Australia
1885					22.2	4.5	10.6	100
1886					21.6	4.6	10.3	100
1887					22.6	4.4	10.1	100
1888					22.8	4.4	10.0	100
1889					21.7	4.6	9.9	100
1890					22.7	4.7	10.2	100
1891					24.5	5.4	10.2	100
1892					25.2	5.6	10.3	100
1893					27.4	6.4	9.8	100
1894					25.4	6.6	10.1	100
1895					24.6	6.5	10.9	100
1896					24.0	6.5	11.3	100
1897					25.3	7.9	11.0	100
1898					24.3	7.9	10.5	100
1899					24.4	9.8	11.0	100
1900					24.0	9.5	11.4	100
1901					23.6	9.2	11.3	100
1902					22.9	9.1	11.1	100
1903					23.6	9.2	11.1	100
1904					24.7	9.0	11.1	100
1905					26.1	9.3	11.5	100
1906					26.9	8.8	11.8	100
1907					26.6	9.3	11.9	100
1908					26.7	8.1	12.6	100
1909					26.6	7.1	12.7	100
1910					27.2	6.5	12.9	100
1911					26.2	6.1	13.6	100
1912					24.3	5.9	14.1	100
1913					24.2	5.8	14.3	100
1914					24.3	5.3	14.0	100
1915					23.2	5.1	14.6	100
1916					27.8	4.7	13.5	100
1917					26.6	5.1	13.4	100
1918					26.4	5.2	13.9	100
1919					26.1	3.7	13.3	100
1920					26.5	3.2	14.0	100
1921					25.4	3.8	14.1	100
1922					21.1	3.9	15.4	100
1923					23.5	3.5	14.9	100
1924					23.6	3.7	15.3	100
1925					25.7	3.9	14.4	100
1926					23.0	3.9	15.3	100
1927					23.0	3.7	16.0	100
1928					22.6	3.6	17.1	100
1929					22.4	3.0	18.0	100

Table A13 (cont.) Sectoral shares of current GDP, ACT/NT and Australia, 1840 to 2013 (%)

	NT/ACT				Australia			
Year	Agri-cultural	Mining	Manufacturing	Total NT/ACT	Agri-cultural	Mining	Manufacturing	Total Australia
1930					20.2	3.3	19.7	100
1931					20.3	3.6	17.3	100
1932					23.6	3.8	16.2	100
1933					23.1	3.5	17.1	100
1934					25.2	3.6	16.4	100
1935					22.0	3.5	16.8	100
1936					23.0	3.7	17.3	100
1937					25.5	3.7	17.4	100
1938					22.8	4.0	18.0	100
1939					20.0	4.2	19.7	100
1940					23.7	4.5	20.4	100
1941					19.9	4.3	22.5	100
1942					20.5	3.7	24.2	100
1943					21.2	3.2	23.7	100
1944					21.8	3.0	24.0	100
1945					20.4	3.1	23.5	100
1946					19.8	2.8	21.3	100
1947					22.2	3.1	26.5	100
1948					26.4	3.4	26.0	100
1949					19.5	2.2	21.5	100
1950					19.8	1.9	20.3	100
1951					24.2	2.0	19.5	100
1952					15.3	2.3	21.9	100
1953					17.7	2.0	20.8	100
1954					15.9	1.9	21.8	100
1955					13.4	2.0	22.6	100
1956					13.2	2.1	23.1	100
1957					13.9	2.0	22.6	100
1958					10.8	1.7	23.9	100
1959					11.9	1.5	23.4	100
1960					11.1	1.6	23.6	100
1961					10.6	1.6	23.4	100
1962					10.3	1.5	23.5	100
1963					10.5	1.4	23.3	100
1964					11.4	1.5	22.9	100
1965					10.3	1.6	23.5	100
1966					8.8	1.9	22.8	100
1967					10.1	2.1	22.5	100
1968					7.6	2.1	23.0	100
1969					8.5	2.3	22.1	100
1970					6.9	3.2	21.6	100
1971					5.9	3.1	21.4	100
1972					6.1	3.3	20.4	100
1973					7.3	3.3	19.6	100
1974					8.2	3.3	19.4	100

Table A13 (cont.) Sectoral shares of current GDP, ACT/NT and Australia, 1840 to 2013 (%)

	NT/ACT				Australia			
Year	Agri-cultural	Mining	Manufacturing	Total NT/ACT	Agri-cultural	Mining	Manufacturing	Total Australia
1975					6.3	3.8	19.4	100
1976					5.6	3.9	19.0	100
1977					5.6	4.1	18.6	100
1978					4.8	3.9	18.2	100
1979					6.2	5.2	19.2	100
1980					6.3	6.0	19.2	100
1981					5.3	6.3	19.2	100
1982				100	4.9	6.2	19.0	100
1983				100	3.6	6.4	17.8	100
1984	0.4	7.6	3.4	100	4.9	6.6	17.6	100
1985	0.4	4.1	3.2	100	4.5	6.6	17.4	100
1986	0.4	5.0	2.9	100	4.0	6.5	17.2	100
1987	0.3	6.2	2.5	100	3.9	5.1	16.4	100
1988	0.4	6.9	2.8	100	4.1	4.7	16.1	100
1989	0.4	4.9	2.8	100	4.3	3.8	15.4	100
1990	2.3	8.3	3.3	100	4.2	4.5	13.9	100
1991	2.3	9.1	2.8	100	3.2	4.8	12.7	100
1992	1.9	8.3	3.2	100	3.1	4.7	12.7	100
1993	2.0	7.9	3.1	100	3.3	4.7	13.0	100
1994	2.2	5.3	3.3	100	3.4	4.4	13.3	100
1995	2.3	4.8	3.2	100	3.0	4.3	13.2	100
1996	2.4	5.1	3.3	100	3.4	4.6	12.8	100
1997	2.4	5.0	3.2	100	3.3	4.4	12.4	100
1998	2.4	4.5	3.1	100	3.1	4.4	12.6	100
1999	2.5	3.7	2.9	100	3.1	4.1	12.0	100
2000	2.4	6.1	3.1	100	3.1	4.2	11.6	100
2001	2.7	6.5	3.2	100	3.5	5.0	11.0	100
2002	2.4	5.8	3.1	100	3.9	4.8	10.6	100
2003	1.6	6.1	2.9	100	2.9	4.6	10.9	100
2004	1.5	4.6	3.5	100	3.1	4.0	10.9	100
2005	1.5	4.3	3.1	100	2.9	5.0	10.3	100
2006	1.3	5.4	3.2	100	2.7	6.6	9.9	100
2007	1.1	5.9	3.1	100	2.2	7.1	9.3	100
2008	1.0	7.4	2.9	100	2.3	7.1	9.2	100
2009	1.0	8.8	3.3	100	2.3	9.1	8.5	100
2010	1.1	6.2	3.3	100	2.2	7.3	8.0	100
2011	1.0	7.0	3.2	100	2.3	9.4	7.4	100
2012	0.8	6.5	2.8	100	2.3	9.0	7.1	100
2013	0.8	5.3	2.2	100	2.2	8.0	6.7	100

Table A14: Value of gold, wool, all agricultural, all mining, and all merchandise exports, 1901 to 2013 ($million)

year	Gold	Wool	All agricultural	All mining	All merchandise
1901	27	30	52	38	95
1902	26	25	42	38	83
1903	34	28	41	45	91
1904	31	34	60	45	110
1905	19	40	68	34	108
1906	30	45	78	48	133
1907	19	58	92	42	140
1908	27	46	72	46	124
1909	16	51	88	31	126
1910	7	58	111	25	144
1911	21	52	105	40	152
1912	22	53	99	45	152
1913	4	53	113	29	150
1914	3				145
1915	4	44	89	19	116
1916	20	53	93	42	144
1917	23	57	131	47	190
1918	13	49	111	32	157
1919	4	86	166	24	212
1920	11	101	234	30	289
1921	11	68	186	27	253
1922	7	96	194	19	248
1923	4	114	196	22	230
1924	6	112	194	25	232
1925	2	127	262	22	318
1926	9	126	246	31	291
1927	23	120	231	40	284
1928	6	132	237	23	274
1929	6	123	244	21	277
1930	54	73	164	70	245
1931	29	64	155	40	204
1932	23	64	150	33	212
1933	43	73	101	53	237
1934	16	114	183	29	242
1935	16	79	160	28	221
1936	21	105	194	38	267
1937	24	125	234	44	317
1938	28	94	219	49	307
1939	30	85	182	52	271
1940	40	114	205	65	334
1941	44	79	188	60	309
1942	18	116	199	37	334
1943		89	152	7	246
1944		92	183	7	285
1945		99	202	11	303
1946		139	275	22	385

Table A14 (cont.) Value of gold, wool, all agricultural, all mining, and all merchandise exports, 1901 to 2013 ($million)

year	Gold	Wool	All agricultural	All mining	All merchandise
1947		253	445	37	608
1948		297	638	37	802
1949		463	878	62	1075
1950		626	1042	58	1217
1951		1266	1734	71	1948
1952		647	1072	95	1326
1953		805	1407	130	1690
1954		821	1342	190	1622
1955		706	1242	82	1520
1956		675	1205	85	1537
1957		967	1505	124	1954
1958		747	1205	93	1610
1959		604	1215	93	1612
1960		772	1397	100	1860
1961		668	1421	127	1884
1962		745	1660	169	2165
1963		758	1671	139	2158
1964		960	2177	178	2764
1965		806	1961	201	2605
1966		785	1888	293	2655
1967		807	2054	317	2954
1968		716	1885	431	2968
1969		796	1925	552	3242
1970		761	2164	1268	3998
1971	20	544	2184	1430	4244
1972	20	582	2515	1545	4746
1973	25	1155	3443	1809	6086
1974	35	1157	3644	2246	6833
1975	46	754	3972	3420	8620
1976	50	969	4431	3869	9589
1977	34	1474	5440	4813	11572
1978	48	1180	5469	5211	12158
1979	80	1423	6356	5928	14234
1980	113	1587	8840	7400	18869
1981	56	1833	8647	7480	19018
1982	94	1835	4918	8289	19662
1983	290	1883	5188	10058	21226
1984	400	2052	5362	11524	23968
1985	601	2552	6180	14952	30102
1986	1137	3111	7162	16285	32492
1987	2047	3862	8957	17399	36487
1988	3107	5706	11580	19980	41903
1989	3021	5956	16454	21196	44187
1990	3764	4298	15829	24932	48927
1991	4136	3086	14573	28032	52538
1992	4605	3747	16314	28305	55427

Table A14 (cont.) Value of gold, wool, all agricultural, all mining, and all merchandise exports, 1901 to 2013 ($million)

year	Gold	Wool	All agricultural	All mining	All merchandise
1993	4580	3334	17829	29762	60634
1994	5521	3327	19551	29881	64419
1995	4907	4092	20285	30373	67101
1996	5850	3500	22581	34452	76146
1997	6878	3739	24353	36052	80934
1998	7226	3959	25905	40926	88538
1999	6413	2579	25362	38919	85783
2000	5164	2950	27723	44066	97665
2001	5229	3876	33449	57018	120307
2002	5300	3678	35272	55953	121090
2003	5719	3575	30999	54883	115925
2004	7031	2775	29833	53402	109418
2005	6472	2811	31090	68362	127811
2006	7371	2532	31078	85941	154044
2007	10738	3060	31216	99296	169620
2008	12274	2798	30755	111326	182925
2009	17510	2319	34946	158600	231615
2010	14300	2302	31309	134803	201805
2011	14259	3047	35531	174880	247022
2012	16652	3124	39773	189201	265109
2013	16239	2869	41190	173171	249088

Table A15: Shares of wine, wool, other agricultural, gold, and other mining products in the total value of merchandise exports, 1901 to 2013 (%)

Year	Wine	Wool	Other agric-ultural	Gold	Other mining	All merchandise
1901	0.3	31.9	22.8	28.3	11.3	100
1902	0.3	30.8	19.8	31.7	14.0	100
1903	0.3	30.6	13.5	37.4	12.3	100
1904	0.2	31.0	23.4	28.5	12.0	100
1905	0.2	36.6	25.9	17.6	14.0	100
1906	0.2	34.1	24.4	22.3	14.0	100
1907	0.1	41.4	24.2	13.5	16.3	100
1908	0.2	36.9	20.6	22.1	15.0	100
1909	0.2	40.6	29.3	12.4	12.3	100
1910	0.2	40.1	37.3	5.2	12.3	100
1911	0.2	34.3	34.7	13.6	12.5	100
1912	0.2	34.7	29.9	14.5	15.3	100
1913	0.2	35.0	40.3	2.9	16.5	100
1914	n.a.	n.a.	n.a.	n.a.	n.a.	100
1915	0.2	38.0	38.0	3.8	12.6	100
1916	0.2	37.2	27.1	13.9	15.0	100
1917	0.1	30.0	38.9	12.0	12.7	100
1918	0.1	31.3	39.2	8.2	12.2	100
1919	0.2	40.4	37.5	2.1	9.2	100
1920	0.2	34.9	45.8	3.8	6.6	100
1921	0.2	26.7	46.4	4.2	6.6	100
1922	0.1	38.8	39.5	2.8	4.7	100
1923	0.1	49.7	35.3	1.9	7.7	100
1924	0.2	48.4	34.8	2.4	8.5	100
1925	0.1	39.8	42.6	0.6	6.3	100
1926	0.3	43.4	41.0	3.0	7.5	100
1927	0.6	42.4	38.5	8.0	6.2	100
1928	0.8	48.2	37.5	2.0	6.5	100
1929	0.4	44.5	43.1	2.2	5.3	100
1930	0.5	29.9	36.6	21.9	6.4	100
1931	0.5	31.3	43.9	14.0	5.6	100
1932	0.9	30.3	39.9	10.9	4.5	100
1933	0.7	30.7	11.3	18.2	4.1	100
1934	0.7	47.1	27.6	6.8	5.1	100
1935	0.7	35.6	36.0	7.4	5.2	100
1936	0.7	39.2	32.8	8.0	6.1	100
1937	0.7	39.5	33.7	7.4	6.5	100
1938	0.6	30.6	40.1	9.0	6.8	100
1939	0.7	31.4	34.8	11.1	8.1	100
1940	0.6	34.0	26.8	12.0	7.5	100
1941	0.3	25.6	34.8	14.2	5.2	100
1942	0.3	34.8	24.5	5.4	5.6	100
1943	0.2	36.1	25.7	0.0	2.7	100
1944	0.3	32.1	31.9	0.0	2.6	100
1945	0.4	32.6	33.8	0.0	3.6	100

Table A15: Shares of wine, wool, other agricultural, gold, and other mining products in the total value of merchandise exports, 1901 to 2013 (%)

Year	Wine	Wool	Other agric-ultural	Gold	Other mining	All merchandise
1946	0.4	36.1	34.9	0.0	5.7	100
1947	0.4	41.6	31.2	0.0	6.1	100
1948	0.4	37.0	42.2	0.0	4.6	100
1949	0.2	43.1	38.4	0.0	5.8	100
1950	0.1	51.4	34.1	0.0	4.8	100
1951	0.1	65.0	24.0	0.0	3.6	100
1952	0.1	48.8	31.9	0.0	7.2	100
1953	0.1	47.6	35.5	0.0	7.7	100
1954	0.1	50.6	32.0	0.0	11.7	100
1955	0.1	46.4	35.2	0.0	5.4	100
1956	0.1	43.9	34.4	0.0	5.5	100
1957	0.1	49.5	27.4	0.0	6.3	100
1958	0.1	46.4	28.3	0.0	5.8	100
1959	0.1	37.5	37.8	0.0	5.8	100
1960	0.1	41.5	33.5	0.0	5.4	100
1961	0.1	35.5	39.8	0.0	6.7	100
1962	0.1	34.4	42.1	0.0	7.8	100
1963	0.1	35.1	42.2	0.0	6.4	100
1964	0.1	34.7	43.9	0.0	6.4	100
1965	0.1	30.9	44.2	0.0	7.7	100
1966	0.1	29.6	41.4	0.0	11.0	100
1967	0.1	27.3	42.1	0.0	10.7	100
1968	0.1	24.1	39.3	0.0	14.5	100
1969	0.1	24.6	34.7	0.0	17.0	100
1970	0.1	19.0	35.0	0.0	31.7	100
1971	0.1	12.8	38.6	0.5	33.2	100
1972	0.1	12.3	40.6	0.4	32.1	100
1973	0.1	19.0	37.5	0.4	29.3	100
1974	0.1	16.9	36.3	0.5	32.4	100
1975	0.1	8.7	37.3	0.5	39.1	100
1976	0.1	10.1	36.0	0.5	39.8	100
1977	0.0	12.7	34.2	0.3	41.3	100
1978	0.0	9.7	35.2	0.4	42.5	100
1979	0.0	10.0	34.6	0.6	41.1	100
1980	0.0	8.4	38.4	0.6	38.6	100
1981	0.1	9.6	35.8	0.3	39.0	100
1982	0.1	9.3	15.6	0.5	41.7	100
1983	0.1	8.9	15.5	1.4	46.0	100
1984	0.1	8.6	13.7	1.7	46.4	100
1985	0.1	8.5	12.0	2.0	47.7	100
1986	0.1	9.6	12.4	3.5	46.6	100
1987	0.1	10.6	13.8	5.6	42.1	100
1988	0.2	13.6	13.8	7.4	40.3	100
1989	0.3	13.5	23.5	6.8	41.1	100
1990	0.2	8.8	23.3	7.7	43.3	100
1991	0.3	5.9	21.5	7.9	45.5	100

Table A15: Shares of wine, wool, other agricultural, gold, and other mining products in the total value of merchandise exports, 1901 to 2013 (%)

Year	Wine	Wool	Other agric-ultural	Gold	Other mining	All merchandise
1992	0.4	6.8	22.2	8.3	42.8	100
1993	0.5	5.5	23.4	7.6	41.5	100
1994	0.6	5.2	24.6	8.6	37.8	100
1995	0.6	6.1	23.6	7.3	38.0	100
1996	0.6	4.6	24.4	7.7	37.6	100
1997	0.7	4.6	24.7	8.5	36.0	100
1998	1.0	4.5	23.8	8.2	38.1	100
1999	1.2	3.0	25.4	7.5	37.9	100
2000	1.4	3.0	24.0	5.3	39.8	100
2001	1.5	3.2	23.1	4.3	43.0	100
2002	1.7	3.0	24.4	4.4	41.8	100
2003	2.1	3.1	21.6	4.9	42.4	100
2004	2.3	2.5	22.4	6.4	42.4	100
2005	2.1	2.2	20.0	5.1	48.4	100
2006	1.8	1.6	16.7	4.8	51.0	100
2007	1.7	1.8	14.9	6.3	52.2	100
2008	1.5	1.5	13.8	6.7	54.1	100
2009	1.0	1.0	13.0	7.6	60.9	100
2010	1.1	1.1	13.3	7.1	59.7	100
2011	0.8	1.2	12.4	5.8	65.0	100
2012	0.7	1.2	13.1	6.3	65.1	100
2013	0.7	1.2	14.7	6.5	63.0	100

Table A16: Merchandise exports, imports, and shares of GDP, current prices, 1822 to 2013 (%)

Year	Exports $m	Imports $m	Exports as share of GDP (%)	Imports as share of GDP (%)	Exports + imports as share of GDP (%)
1822	0.1	0.0	4.4	1.7	6.1
1823	0.0	0.0	1.7	1.1	2.8
1824	0.0	0.1	0.9	4.0	4.9
1825	0.0	0.8	1.4	22.8	24.2
1826	0.1	0.9	2.5	25.4	27.9
1827	0.1	1.0	3.1	26.5	29.6
1828	0.2	1.6	4.3	37.9	42.2
1829	0.3	1.8	5.4	39.0	44.3
1830	0.3	1.6	5.5	29.6	35.0
1831	0.9	1.7	16.1	29.5	45.6
1832	1.1	2.0	17.8	33.6	51.3
1833	1.1	2.2	16.0	32.6	48.6
1834	1.6	3.0	18.2	34.5	52.7
1835	2.4	3.5	20.5	30.0	50.5
1836	2.6	3.7	19.4	27.0	46.4
1837	3.2	3.6	22.2	25.0	47.2
1838	3.3	5.0	22.0	32.9	55.0
1839	4.3	6.7	25.2	39.4	64.6
1840	5.2	8.6	25.4	42.1	67.5
1841	4.4	8.2	21.5	39.8	61.3
1842	4.1	4.7	23.3	27.1	50.4
1843	3.9	4.8	24.2	30.0	54.2
1844	3.7	3.1	23.5	19.2	42.6
1845	4.7	3.9	26.8	22.3	49.1
1846	5.3	5.1	26.5	25.5	52.0
1847	6.3	6.3	28.8	28.7	57.5
1848	6.2	5.2	25.3	21.0	46.3
1849	6.2	6.0	23.6	22.8	46.3
1850	7.8	7.3	27.3	25.4	52.7
1851	9.0	8.0	27.1	24.1	51.1
1852	29	15	50.3	25.8	76.1
1853	37	53	37.5	54.4	91.8
1854	36	57	28.9	45.5	74.4
1855	38	39	28.0	28.7	56.6
1856	44	47	32.4	34.6	67.0
1857	45	54	32.1	38.5	70.6
1858	42	49	28.7	33.4	62.1
1859	43	50	28.0	32.5	60.4
1860	42	51	25.5	31.2	56.7
1861	35	35	20.7	21.0	41.7
1862	36	41	21.4	24.4	45.9
1863	39	43	23.2	25.5	48.7
1864	38	41	22.6	24.4	47.0
1865	39	41	22.9	24.1	47.0
1866	38	43	21.0	23.6	44.6
1867	37	32	19.5	16.9	36.4

Table A16 (cont.) Merchandise exports, imports, and shares of GDP, current prices, 1822 to 2013 (%)

Year	Exports $m	Imports $m	Exports as Share of GDP (%)	Imports as Share of GDP (%)	Exports and imports as Share of GDP (%)
1868	43	37	22.1	18.8	40.9
1869	40	40	19.9	19.7	39.6
1870	36	36	17.3	17.1	34.3
1871	43	34	20.5	16.1	36.6
1872	45	38	19.8	16.6	36.4
1873	53	49	19.8	18.4	38.2
1874	51	49	17.8	17.1	34.9
1875	50	50	16.6	16.6	33.2
1876	47	48	15.1	15.4	30.5
1877	46	52	14.7	16.5	31.2
1878	48	52	14.7	16.1	30.8
1879	42	48	12.7	14.5	27.2
1880	55	46	15.8	13.3	29.2
1881	55	58	15.2	16.0	31.2
1882	55	72	14.3	18.9	33.2
1883	60	71	14.6	17.2	31.8
1884	57	74	13.3	17.2	30.5
1885	53	74	12.1	16.7	28.8
1886	43	68	9.6	15.1	24.7
1887	47	59	9.9	12.5	22.4
1888	58	74	11.5	14.7	26.2
1889	59	75	11.0	14.0	25.1
1890	59	70	10.6	12.7	23.3
1891	72	75	13.3	14.0	27.3
1892	67	60	13.5	12.1	25.6
1893	66	48	15.4	11.0	26.4
1894	64	44	16.0	10.9	26.9
1895	67	46	17.4	12.0	29.5
1896	66	59	16.4	14.8	31.2
1897	76	64	18.1	15.3	33.4
1898	80	63	18.2	14.3	32.5
1899	97	69	20.4	14.4	34.7
1900	92	83	18.7	16.8	35.5
1901	71	76	14.0	15.1	29.1
1902	59	72	11.0	13.4	24.4
1903	60	67	11.6	13.0	24.5
1904	79	66	14.7	12.2	26.8
1905	90	67	16.8	12.6	29.4
1906	106	78	18.3	13.5	31.8
1907	124	91	19.1	14.1	33.2
1908	100	89	15.5	13.8	29.3
1909	113	92	16.3	13.3	29.6
1910	139	107	18.6	14.3	32.9
1911	135	119	16.4	14.4	30.8
1912	133	140	15.1	15.8	30.9

Table A16 (cont.) Merchandise exports, imports, and shares of GDP, current prices, 1822 to 2013 (%)

Year	Exports $m	Imports $m	Exports as share of GDP (%)	Imports as share of GDP (%)	Exports + imports as share of GDP (%)
1913	150	143	15.5	14.8	30.3
1914	145	146	14.0	14.0	27.9
1915	116	117	11.5	11.6	23.0
1916	140	142	12.0	12.2	24.1
1917	220	140	17.9	11.4	29.2
1918	187	111	14.6	8.7	23.3
1919	203	174	14.7	12.6	27.4
1920	276	193	18.3	12.8	31.1
1921	239	311	14.4	18.7	33.1
1922	245	189	14.8	11.4	26.2
1923	238	238	13.1	13.1	26.2
1924	244	253	12.9	13.4	26.3
1925	320	260	15.5	12.5	28.0
1926	282	274	14.1	13.7	27.8
1927	265	298	12.7	14.3	27.0
1928	274	268	13.1	12.8	25.9
1929	274	267	13.3	13.0	26.2
1930	192	247	10.2	13.1	23.3
1931	180	124	11.6	8.0	19.6
1932	194	101	13.3	6.9	20.2
1933	197	129	13.0	8.5	21.4
1934	228	135	14.0	8.3	22.3
1935	207	165	12.0	9.5	21.5
1936	248	190	13.1	10.0	23.1
1937	296	206	14.3	10.0	24.3
1938	283	254	12.6	11.4	24.0
1939	244	219	11.1	10.0	21.1
1940	303	247	12.7	10.3	23.0
1941	289	204	11.2	7.9	19.1
1942	266	210	8.9	7.0	15.8
1943	234	141	6.8	4.1	10.9
1944	273	138	7.8	4.0	11.7
1945	274	166	8.0	4.8	12.8
1946	299	215	8.5	6.1	14.5
1947	527	408	14.0	10.9	24.9
1948	792	660	17.6	14.6	32.2
1949	1042	817	20.0	15.7	35.7
1950	1184	1048	19.3	17.1	36.3
1951	1948	1441	23.9	17.7	41.6
1952	1326	2033	15.1	23.1	38.2
1953	1690	1000	17.0	10.0	27.0
1954	1622	1323	14.9	12.2	27.1
1955	1520	1642	13.1	14.2	27.3
1956	1537	1597	12.2	12.7	25.0
1957	1954	1381	14.3	10.1	24.4

Table A16 (cont.) Merchandise exports, imports, and shares of GDP, current prices, 1822 to 2013 (%)

Year	Exports $m	Imports $m	Exports as share of GDP (%)	Imports as share of GDP (%)	Exports + imports as share of GDP (%)
1958	1610	1521	11.5	10.9	22.4
1959	1612	1554	10.7	10.4	21.1
1960	1860	1814	11.2	10.9	22.1
1961	1847	2056	10.5	11.7	22.2
1962	2129	1701	12.0	9.6	21.6
1963	2122	2065	11.1	10.8	21.8
1964	2731	2237	12.9	10.5	23.4
1965	2574	2739	11.1	11.8	22.9
1966	2626	2822	10.8	11.6	22.4
1967	2926	2837	10.8	10.5	21.2
1968	2942	3159	10.1	10.8	20.9
1969	3217	3203	9.8	9.8	19.6
1970	3969	3553	10.8	9.6	20.4
1971	4217	3790	10.5	9.4	19.9
1972	4780	3803	10.7	8.6	19.3
1973	6102	3838	12.3	7.7	20.0
1974	6811	5824	11.3	9.7	21.0
1975	8671	7728	12.2	10.9	23.1
1976	9603	7957	11.5	9.6	21.1
1977	11641	10455	12.1	10.9	23.0
1978	12198	11225	11.6	10.7	22.3
1979	14210	13527	12.0	11.4	23.4
1980	18979	16006	14.1	11.9	26.0
1981	19148	19447	12.6	12.8	25.3
1982	19586	22704	11.1	12.9	24.1
1983	21314	21983	11.3	11.6	22.9
1984	23830	23700	11.1	11.1	22.2
1985	30201	30512	12.8	13.0	25.8
1986	32558	36081	12.5	13.9	26.4
1987	36435	37250	12.8	13.0	25.8
1988	41856	40507	12.9	12.5	25.4
1989	44126	47370	12.0	12.9	24.9
1990	49082	51364	12.1	12.7	24.8
1991	52622	49684	12.7	12.0	24.6
1992	55380	51316	13.1	12.1	25.2
1993	60756	59830	13.7	13.5	27.1
1994	64438	64823	13.8	13.9	27.6
1995	67232	75256	13.5	15.2	28.7
1996	75913	78096	14.3	14.7	29.1
1997	80922	79381	14.5	14.3	28.8
1998	88534	92184	15.0	15.6	30.7
1999	85696	97818	13.8	15.7	29.5
2000	97726	109980	14.8	16.6	31.4
2001	120347	120626	17.0	17.1	34.1
2002	121126	121996	16.0	16.2	32.2

Table A16 (cont.) Merchandise exports, imports, and shares of GDP, current prices, 1822 to 2013 (%)

Year	Exports $m	Imports $m	Exports as share of GDP (%)	Imports as share of GDP (%)	Exports + imports as share of GDP (%)
2003	116079	134097	14.5	16.7	31.2
2004	109096	132461	12.7	15.4	28.1
2005	128125	150821	13.9	16.4	30.3
2006	154088	169583	15.5	17.0	32.5
2007	169790	184117	15.7	17.0	32.7
2008	183121	205445	15.6	17.5	33.0
2009	231572	221287	18.5	17.7	36.2
2010	201916	205669	15.6	15.9	31.5
2011	261697	227359	18.6	16.2	34.8
2012	247759	242109	16.7	16.3	33.0
2013	261988	241068	17.2	15.9	33.1

Table A17: Foreign exchange rates and CPIs, 1850 to 2013

Year	UK Pound per AUD	US$ per AUD	Yen per AUD	Euro per AUD	Real exchange rate	CPI 2011/12=100
1850	0.50	2.43				1.7
1851	0.50	2.43				1.8
1852	0.55	2.43				1.8
1853	0.49	2.43				2.2
1854	0.48	2.43				2.8
1855	0.49	2.43				3.3
1856	0.50	2.43				2.5
1857	0.49	2.43				2.6
1858	0.50	2.43				2.7
1859	0.49	2.43				2.3
1860	0.50	2.43				2.3
1861	0.50	2.43				2.3
1862	0.50	2.43				2.1
1863	0.49	2.43				1.8
1864	0.50	2.43				1.9
1865	0.49	2.43				2.0
1866	0.50	2.43				1.9
1867	0.50	2.43				1.6
1868	0.50	2.43				1.7
1869	0.50	2.43				1.5
1870	0.49	2.43				1.5
1871	0.50	2.43				1.5
1872	0.50	2.43				1.4
1873	0.50	2.43				1.5
1874	0.50	2.43				1.6
1875	0.50	2.43				1.7
1876	0.50	2.43				1.6
1877	0.49	2.43				1.7
1878	0.50	2.43				1.6
1879	0.50	2.43				1.4
1880	0.50	2.43				1.4
1881	0.50	2.43				1.4
1882	0.50	2.43				1.8
1883	0.50	2.43				1.7
1884	0.50	2.43				1.6
1885	0.50	2.43				1.7
1886	0.50	2.43				1.8
1887	0.50	2.43				1.6
1888	0.50	2.43				1.6
1889	0.50	2.43				1.6
1890	0.50	2.43				1.6
1891	0.50	2.42				1.6
1892	0.50	2.42				1.6
1893	0.50	2.42				1.5
1894	0.50	2.43				1.3
1895	0.50	2.43				1.3

Table A17 (cont.) Foreign exchange rates and CPIs, 1850 to 2013

Year	UK Pound per AUD	US$ per AUD	Yen per AUD	Euro per AUD	Real exchange rate	CPI 2011/12=100
1896	0.50	2.43				1.3
1897	0.50	2.42				1.3
1898	0.50	2.42				1.3
1899	0.49	2.41				1.4
1900	0.49	2.41				1.4
1901	0.49	2.41				1.5
1902	0.49	2.41				1.6
1903	0.49	2.41				1.6
1904	0.49	2.41				1.5
1905	0.50	2.41				1.5
1906	0.50	2.41				1.5
1907	0.50	2.41				1.5
1908	0.50	2.43				1.6
1909	0.50	2.41				1.6
1910	0.50	2.41				1.7
1911	0.50	2.41				1.7
1912	0.50	2.41				1.9
1913	0.50	2.41				1.9
1914	0.50	2.44				1.9
1915	0.49	2.35				2.2
1916	0.49	2.34	4.63			2.3
1917	0.49	2.34	4.57			2.4
1918	0.49	2.35	4.44			2.5
1919	0.49	2.18	4.27			2.9
1920	0.49	1.81	3.59			3.3
1921	0.49	1.87	3.89			2.9
1922	0.49	2.17	4.54			2.8
1923	0.49	2.28	4.69			2.8
1924	0.49	2.21	5.38			2.8
1925	0.49	2.47	6.02			2.8
1926	0.49	2.42	5.15			2.9
1927	0.49	2.42	5.11			2.8
1928	0.49	2.41	5.21			2.9
1929	0.49	2.40	5.22			2.9
1930	0.47	2.29	4.64			2.7
1931	0.39	1.75	3.60			2.5
1932	0.40	1.39	4.98			2.4
1933	0.39	1.68	6.57			2.3
1934	0.39	2.00	6.75			2.3
1935	0.39	1.94	6.77			2.4
1936	0.39	1.97	6.82			2.4
1937	0.39	1.96	6.84			2.5
1938	0.39	1.94	6.85			2.6
1939	0.39	1.76	6.81			2.6
1940	0.39	1.52	6.51			2.7
1941	0.39	1.60	6.85			2.8

Table A17 (cont.) Foreign exchange rates and CPIs, 1850 to 2013

Year	UK Pound per AUD	US$ per AUD	Yen per AUD	Euro per AUD	Real exchange rate	CPI 2011/12=100
1942	0.39	1.60				3.1
1943	0.39	1.61				3.2
1944	0.39	1.61				3.2
1945	0.39	1.61				3.2
1946	0.39	1.60				3.2
1947	0.39	1.60				3.4
1948	0.39	1.60				3.7
1949	0.39	1.46	462.0			4.0
1950	0.39	1.12	402.9			4.4
1951	0.39	1.12	402.8			5.2
1952	0.39	1.11	40198.0			6.1
1953	0.39	1.12	404.3			6.4
1954	0.39	1.12	40374.0			6.5
1955	0.39	1.11	401.3			6.6
1956	0.39	1.11	400.8			7.0
1957	0.39	1.12	400.5			7.2
1958	0.39	1.12	402.8			7.2
1959	0.39	1.12	402.8			7.4
1960	0.39	1.12	403.2			7.7
1961	0.39	1.12	403.2			7.8
1962	0.39	1.12	403.2			7.8
1963	0.39	1.12	403.2			7.9
1964	0.39	1.12	403.2			8.1
1965	0.39	1.12	403.2			8.4
1966	0.39	1.12	403.2			8.6
1967	0.41	1.12	403.2			8.9
1968	0.47	1.12	403.2			9.2
1969	0.47	1.12	403.2			9.5
1970	0.47	1.12	403.2		146	9.8
1971	0.47	1.14	397.3		147	10.4
1972	0.48	1.20	361.5		145	11.0
1973	0.58	1.43	386.2		157	12.0
1974	0.61	1.43	419.3		163	13.9
1975	0.59	1.31	388.5		162	16.0
1976	0.68	1.21	362.4		162	18.1
1977	0.64	1.11	297.7		145	20.3
1978	0.60	1.15	240.9		136	21.9
1979	0.53	1.12	244.9		132	23.9
1980	0.49	1.14	258.2		134	26.4
1981	0.57	1.15	253.4		141	28.9
1982	0.58	1.01	252.6		137	32.1
1983	0.59	0.90	214.0		130	35.4
1984	0.66	0.88	208.4		134	36.8
1985	0.54	0.70	166.6		113	39.2
1986	0.46	0.67	112.6		99	42.8
1987	0.43	0.70	101.3		100	46.4

Table A17 (cont.) Foreign exchange rates and CPIs, 1850 to 2013

Year	UK Pound per AUD	US$ per AUD	Yen per AUD	Euro per AUD	Real exchange rate	CPI 2011/12=100
1988	0.44	0.79	100.1		110	49.8
1989	0.48	0.79	109.1		117	53.5
1990	0.44	0.78	113.0		117	57.5
1991	0.44	0.78	104.9		116	59.3
1992	0.42	0.73	93.0		107	59.9
1993	0.45	0.68	75.6		97	60.9
1994	0.48	0.73	74.7		102	62.1
1995	0.47	0.74	69.7		98	65.0
1996	0.50	0.78	85.1		107	66.7
1997	0.45	0.74	89.8		109	66.9
1998	0.38	0.63	82.2		105	67.4
1999	0.40	0.64	73.5	0.61	104	68.4
2000	0.38	0.58	62.5	0.63	97	71.5
2001	0.36	0.51	62.9	0.58	93	74.6
2002	0.36	0.55	68.1	0.58	99	76.9
2003	0.40	0.66	75.2	0.58	112	79.0
2004	0.40	0.74	79.6	0.59	122	80.8
2005	0.42	0.76	84.2	0.61	126	83.0
2006	0.41	0.76	87.6	0.60	126	85.9
2007	0.42	0.84	98.5	0.61	136	87.9
2008	0.46	0.85	86.7	0.57	135	91.8
2009	0.50	0.80	73.0	0.57	132	93.4
2010	0.59	0.92	80.5	0.70	149	96.1
2011	0.64	1.04	82.3	0.74	159	99.3
2012	0.66	1.04	82.6	0.80	162	101.0
2013	0.62	0.96	94.2	0.72	156	103.5

Table A18: International terms of trade, 1871 to 2013

Year	Terms of trade	Year	Terms of trade	Year	Terms of trade
1871	109	1919	85	1967	100
1872	112	1920	83	1968	97
1873	106	1921	71	1969	98
1874	109	1922	68	1970	99
1875	112	1923	97	1971	93
1876	113	1924	132	1972	93
1877	108	1925	154	1973	112
1878	106	1926	112	1974	118
1879	111	1927	112	1975	105
1880	114	1928	125	1976	100
1881	112	1929	117	1977	97
1882	115	1930	94	1978	88
1883	116	1931	71	1979	89
1884	115	1932	71	1980	92
1885	112	1933	75	1981	91
1886	109	1934	97	1982	90
1887	109	1935	82	1983	88
1888	108	1936	101	1984	91
1889	105	1937	118	1985	89
1890	103	1938	99	1986	81
1891	99	1939	82	1987	76
1892	96	1940	85	1988	83
1893	93	1941	76	1989	95
1894	88	1942	66	1990	95
1895	87	1943	62	1991	90
1896	89	1944	60	1992	87
1897	87	1945	65	1993	84
1898	88	1946	71	1994	81
1899	101	1947	87	1995	84
1900	105	1948	103	1996	87
1901	94	1949	115	1997	89
1902	101	1950	117	1998	88
1903	111	1951	171	1999	84
1904	112	1952	107	2000	87
1905	118	1953	116	2001	89
1906	116	1954	121	2002	90
1907	115	1955	110	2003	92
1908	111	1956	99	2004	99
1909	111	1957	107	2005	108
1910	111	1958	100	2006	120
1911	107	1959	89	2007	129
1912	107	1960	100	2008	137
1913	109	1961	94	2009	147
1914	107	1962	95	2010	139
1915	109	1963	97	2011	168
1916	107	1964	106	2012	169
1917	106	1965	101	2013	153
1918	98	1966	101		

Table A19: Lending interest rates and GDP deflator, 1851 to 2014

Year	Lending interest rates, %	GDP price deflator index	Year	Lending interest rates	GDP price deflator index
1851	10.0	705	1896	7.0	827
1852	10.0	901	1897	6.0	856
1853	10.0	1229	1898	6.0	866
1854	10.0	1463	1899	6.0	876
1855	10.0	1546	1900	6.5	877
1856	10.0	1319	1901	6.5	911
1857	10.0	1203	1902	6.5	877
1858	10.0	1346	1903	6.5	904
1859	10.0	1290	1904	6.8	849
1860	12.0	1165	1905	6.8	856
1861	12.0	1182	1906	7.0	884
1862	12.0	1187	1907	7.0	870
1863	12.0	1163	1908	6.8	938
1864	12.0	1094	1909	6.8	966
1865	12.0	1059	1910	6.8	993
1866	12.0	1076	1911	6.8	1000
1867	12.0	1034	1912	6.8	1089
1868	12.0	988	1913	6.8	1082
1869	12.0	989	1914	6.8	1158
1870	12.0	982	1915	6.8	1274
1871	12.0	980	1916	6.8	1322
1872	8.0	1016	1917	6.8	1438
1873	8.0	1081	1918	6.8	1521
1874	10.0	1096	1919	6.8	1603
1875	10.0	1071	1920	6.8	1856
1876	9.0	1055	1921	6.8	1801
1877	9.0	1043	1922	6.8	1706
1878	10.0	1011	1923	6.8	1808
1879	10.0	990	1924	6.8	1808
1880	9.0	986	1925	6.8	1863
1881	8.0	977	1926	6.8	1849
1882	8.0	1023	1927	7.3	1849
1883	8.0	1057	1928	7.3	1877
1884	9.0	1028	1929	7.3	1884
1885	9.0	1018	1930	7.3	1699
1886	9.0	1005	1931	7.8	1541
1887	8.5	974	1932	6.0	1425
1888	8.5	983	1933	5.5	1404
1889	8.5	1016	1934	4.9	1452
1890	9.0	1026	1935	4.9	1500
1891	8.5	982	1936	5.0	1569
1892	8.5	920	1937	5.0	1658
1893	8.5	879	1938	5.0	1685
1894	8.0	828	1939	5.0	1719
1895	8.0	802	1940	5.0	1774

Table A19 (cont.) Lending interest rates and GDP deflator, 1851 to 2014

Year	Lending interest rates	GDP price deflator index	Year	Lending interest rates	GDP price deflator index
1941	5.0	1788	1986	18.1	
1942	4.6	1815	1987	16.6	
1943	4.6	1911	1988	15.1	
1944	4.5	1966	1989	19.6	
1945	4.5	2041	1990	18.2	
1946	4.8	2199	1991	14.3	
1947	4.5	2411	1992	11.1	
1948	4.5	2678	1993	9.7	
1949	4.5	2945	1994	9.6	
1950	4.5	3212	1995	11.1	
1951	4.5	4034	1996	11.0	
1952	4.5	4206	1997	9.3	
1953	5.0	4808	1998	8.5	
1954	5.0	4945	1999	8.2	
1955	5.0	4973	2000	9.5	
1956	6.0	5130	2001	8.8	
1957	6.0	5480	2002	8.4	
1958	6.0	5486	2003	8.7	
1959	5.0	5486	2004	9.1	
1960	5.0	5740	2005	9.3	
1961	5.5	5911	2006	9.7	
1962	5.5	5986	2007	10.3	
1963	5.1	6048	2008	11.4	
1964	5.1	6274	2009	9.4	
1965	5.3	6438	2010	10.5	
1966	5.4	6630	2011	11.0	
1967	5.4	6849	2012	10.3	
1968	5.6	7041	2013	9.5	
1969	5.9	7275	2014	9.3	
1970	6.9	7603			
1971	7.3	7956			
1972	7.0	8454			
1973	7.3	9244			
1974	9.4	10636			
1975	10.3	12567			
1976	10.4	14478			
1977	10.4	16078			
1978	10.4	17324			
1979	10.0	18695			
1980	10.5	20772			
1981	12.7	22933			
1982	14.3	25259			
1983	13.6	27960			
1984	13.6	30078			
1985	15.2	31927			

Table A20: Index of real ocean freight rates, 1840 to 2004
(deflated by commodity prices, 1884 = 100)

	Index
1840-44	147
1845-49	160
1850-54	144
1855-59	145
1860-64	147
1865-69	121
1870-74	122
1875-79	129
1880-84	118
1885-89	108
1890-94	83
1895-99	92
1900-04	70
1905-09	66
1910-14	75
1915-19	223
1920-24	67
1925-29	64
1930-34	58
1935-39	75
1940-44	98
1945-49	56
1950-54	35
1955-59	54
1960-64	42
1965-69	42
1970-74	45
1975-79	35
1980-84	37
1985-89	45
1990-94	41
1995-99	39
2000-04	35

Source: From Harley (1988) to 1869, then from Mohammed and Williamson (2004) to 1994, then Hummels (2007) to 2004

Section V — Tables:

Regional varietal area, production and price data, 1999 to 2013

(online in Excel, as are the above series of tables, at

www.adelaide.edu.au.wine-econ/databases)

About the Wine Economics Research Centre

The Wine Economics Research Centre was established in 2010 by the School of Economics and the Wine2030 Research Network of the University of Adelaide, South Australia, having been previously a research program in the University's Centre for International Economic Studies. Its purpose is to promote and foster its growing research strength in the area of wine economics, and to complement the university's wine marketing and business programs, and long-established strength in viticulture and oenology research.

The University of Adelaide is the southern hemisphere's premier wine research and teaching university and is part of the adjacent Wine Innovation Cluster which includes the University's School of Agriculture, Food and Wine and the Australian Wine Research Institute (established in 1955).

Adelaide is the capital of the state of South Australia, where nearly half of Australia's winegrapes are grown and from where more than half of Australia's wine exports are shipped. Adelaide has four major wine regions and more than 200 cellar doors within an hour's drive (Adelaide Hills, Barossa Valley, McLaren Vale and Southern Fleurieu/Langhorne Creek), in addition to South Australia's three other key wine regions (Clare Valley, Coonawarra/Limestone Coast and Riverland). The University of Adelaide is also home to the National Wine Centre of Australia.

The Wine Economics Research Centre is unique in Australia and one of few similar centres around the world. It has close links with the Center for Wine Economics at the Robert Mondavi Institute for Wine and Food Science at the University of California, Davis, with the University of Bordeaux IV's Wine Economics Group, and with the American Association of Wine Economists' *Journal of Wine Economics*.

The key objectives of the Wine Economics Research Centre are to:

- publish wine economics research outputs and disseminate them to industry and government as well as academia
- contribute to economics journals, wine industry journals and related publications
- promote collaboration and sharing of information, data and analyzes between industry and government agencies as well as research institutions
- sponsor wine economics seminars, workshops and conferences and contribute to other grape and wine meetings

The founding Executive Director of the Wine Economics Research Centre is Professor Kym Anderson. Contact details are as follows:

Wine Economics Research Centre
School of Economics
University of Adelaide
Adelaide SA 5005
Australia
Email: kym.anderson@adelaide.edu.au
Website: www.adelaide.edu.au/wine-econ