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Wine prices in the Nordic countries: Are they lower than in the region of origin?

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CIES DISCUSSION PAPER 0223

Wine prices in the Nordic countries: Are they lower than in the region of origin?

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ABSTRACT

Wine prices in the Nordic countries: Are they lower than in the region of origin?

Jan Bentzen and Valdemar Smith

The aim of this paper is to analyse the retail prices on wine in different countries. In general, country-specific price differences on identical wines are expected to reflect differences in taxes, import prices, transportation and other costs. Also the competitive conditions on the retail markets in the relevant countries are important. Accordingly, lack of competition at the retail level, high import prices and high duties on wine all contribute to increase wine prices. Next, consumer prices on wine are expected to be relatively lowest in the producer country and even lower on the local markets in the producing region. The Nordic countries are located far away from overseas wine producing countries, i.e. Australia and California and they all tax wine higher than in the producing country. Finland, Norway and Sweden have state monopoly in the retail trade of wine and spirits whereas the sales system for wine in Denmark is liberal and in line with the Australian and Californian system. Based on price information at the retail level, the paper analyses the logic of the relative prices on identical Australian and Californian red wines bought in Australia and California compared to Denmark, Finland, Norway and Sweden.

Keywords: Wine prices, Californian wines, Australian wines, wine taxes, The Nordic Market for wine

JEL Codes: D4, L81, O57.

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1. Introduction

It is a well-known fact that there are cross-country differences in wine prices. The most popular explanation for price differences is variations in duties and other taxes among countries. In general, economists pay attention to real differences in supply and demand conditions. Thus, producers may exploit different demand conditions and charge different prices at different market segments if the necessary conditions for price discrimination are fulfilled. This may explain price variations between e.g. geographical distant markets. Besides taxes, different import prices, transportation and other costs in the distribution chain are important supply factors in explaining price variations. On the local market, competitive conditions on the retail markets certainly are very important. Lack of competition at the retail level would probably cause high prices on wine, even though the import prices and wine duties were low. Finally, transportation costs must be considered an important factor if the foreign markets are located far away from the producing region. In this case, wine prices are expected to be relatively lowest in the producer country and even lower on the local markets in the producing region. Yet, economists who are interested in wine know that *actual retail prices* that can be observed on separate markets may differ quite notably from what should be expected solely from these arguments. Quite often it can be observed that wine prices are lowest in countries where they expectably should be highest.

This paper deals with extreme price comparisons. California is located 6000 miles from the Nordic countries and Australia is located much farer away from Nordic Countries. Next, the total population in Denmark, Finland, Norway and Sweden sums up to less than 23 million people, which are significantly lower than the US population size (285 million people) and the Californian population size (35 million people) but close to the size of the Australian population. Each of the four - in fact totally separate - Nordic markets probably are of limited importance to Californian wine producers even compared to the Californian 'home market' alone. The same is most likely the case for Australian wine producers. Furthermore, taxes are relatively high in all Nordic countries - especially on alcohol, and in the latter 3 countries alcohol policy is very strict, which further reduces the consumption of e.g. wine. Consequently, most people would not hesitate to conclude that Australian and Californian wines are more expensive to buy in any of the four countries than in the home region itself.

This paper analyses prices on Australian and Californian wine. To give an overview of the Nordic wine markets, section 2 briefly reviews trends in Nordic wine consumption with a description of wine taxes and retail sales systems for alcoholic beverages. Section 3 deals with the market position of overseas wines on the Nordic wine markets and ends up with principal reflections on cross-country variations in prices. The following sections include cross-country price comparisons in pairs on Australian and Californian wines. In particular the price of the wine itself seems to explain some part of the price variations.

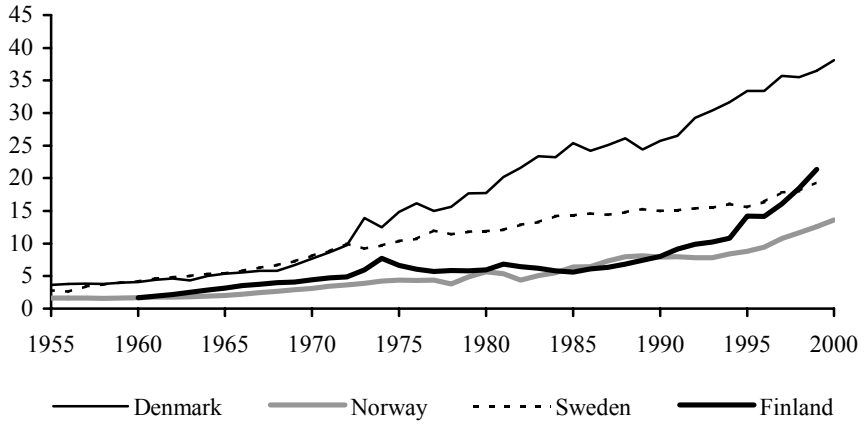
2. Trends in wine consumption in the Nordic[1] countries

[1] Iceland is normally included in the 'Nordic area'. In this paper 'Nordic' means Denmark, Finland, Norway and Sweden.

Probably, most people know that none of the Nordic countries are wine producing countries. Therefore none of them have great traditions for wine drinking. Figure 1 shows that until the early 1970s the wine consumption was at a fairly low level in all countries, i.e. approximately 2-6 litres per capita older than 15 years, highest in Denmark and lowest in Norway.

Due to the Danish membership of the EC in 1972 taxes on alcohol (especially wine) were lowered significantly in the early 1970s. Consequently, Denmark became the first Nordic country where wine became a regular consumer good and at a level comparable to other European countries, as can be seen from Figure 1. As Denmark is a part of the continental Europe, the Danish alcohol policy has been forced to be close to e.g. the German standard (except for the alcohol taxes) and therefore quite different from the policies in the other Nordic countries – each of them having quite restrictive alcohol policies. Still, Denmark is lagging behind the wine consumption levels of Southern Europe; e.g. Italy with approximately 50 litres of wine per capita and France with 60 litres per capita. (These numbers for the Southern European countries are probably underestimated due to unrecorded wine consumption.)

Figure 1. Wine consumption in Denmark, Finland, Norway and Swede, 1955-2000, (litres per capita, 15 years+).



Note: Data for Finland covers 1960-1999.
Sources: Statistical Yearbooks for the relevant countries; Alkoholstatistik 1999 (Alkoholinspektionen 2000,Sweden); Nordic Alcohol Statistics 1994-1998 (2000).

After Sweden and Finland joined the EU in the 1990s the wine consumption of these countries developed as in Denmark in the early 1970s. Thus, both countries appear to have entered trajectories of strongly increasing wine consumption levels – even though both countries still have a rather restrictive alcohol policy, see below. Note that Norway - still being able to pursuit a very restrictive alcohol policy – is lagging notably behind the other countries even today with a yearly wine consumption level around only 13-14 litres per capita, 15years+.[2]

[2] The increases in wine consumption can probably be explained by 1) the rising living standards due to the significant growth rates of real incomes in the Nordic countries, 2) trade liberalisation and especially 3) growth in Nordic charter tourism - travels to the climatically more comfortable Southern Europe where wine also is abundantly and cheaply

2.1 The retail systems for sales of wine in the Nordic countries

The Swedish retail system for sales of alcoholic beverages is organized by the state-owned monopoly 'Systembolaget'. Sales of spirits, wine and strong beer can only take place through Systembolagets shops (approx. 411) or local agents in 575 communities. This amounts to 5 shops per 100.000 inhabitants or alternatively 1 shop per 1100 km^2 ground area. Only light beer is available in other shops, and the Swedish breweries have a right to sell strong beer (above 3.5% alc.) directly to restaurants.

During the period 1954-1994, 'Systembolaget' had an effective monopoly not only concerning retail sales, but also in case of quantities sold to e.g. restaurants. The monopoly concerning sales to restaurants, hotels etc. ceased in 1995, opening up for private import companies who can sell wines directly to 'Systembolaget', restaurants, hotels etc. Approximately 200 companies are licensed.

In 1995 Sweden joined the European Union, which was expected to cause problems for the sales monopoly in the market-oriented community. The EU Court of Justice ruled in 1997 that 'Systembolaget' was not in contradiction with a EU membership as the system was created from public health considerations and was not found to be discriminatory towards foreign products. But a gradual liberalization of the border trade regulations, i.e. personal imports of (cheaper) alcoholic beverages, has taken place and a direct result of the EU membership was the disappearance of monopolies in import/export, wholesales and production (spirits).

The Norwegian sales system, 'Vinmonopolet', is quite similar to the Swedish system. As in Sweden it was originally established to control a widespread abuse of spirits – 'aqua vitae'. Norway is not a member of the European Union but due to trade-agreements – and the general liberalization of international trade – the state-monopoly was split up in the mid-1990s. Today, 'Vinmonopolet' is only a retail sales monopoly. In total there are 140 shops, but Vinmonopolet plans to expand this number to 163 in 2002. Currently the density of shops is as low as 3 per 100.000 inhabitants or alternatively 1 shop per 2300 km^2 ground area. The number of shops were even lower in 1991, i.e. 101, and hence the low density of alcohol stores combined with the geographical conditions, i.e. mountains, forests, a lot of snow in the wintertime etc., makes it difficult for people to buy alcohol.

After a prohibition period 'Alko' was established Finland along the lines of the Swedish and Norwegian systems. One of the purposes was also to prevent profit-making concerning alcohol. After Finland joined the European Union in the 1990s, it has been forced to liberalize the state-monopoly. Therefore 'Alko' is now only a purely retail sales monopoly. Still there are only 6 shops per 100.000 inhabitants and 1 for each 1100 km^2 ground area.

The sales monopoly and the very low liqueur-store density have undoubtedly had significant effects on the absolute consumption levels in the three countries regarding both wine and other beverages from the monopoly systems.

As noted earlier Denmark has always adhered to liberal, market-oriented systems and the temperance movement has been relatively weak compared to the neighbouring countries. Taxes have been applied mainly for fiscal purposes. There have been no other impediments to alcohol consumption except for a

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available. As no wine production, apart from fruit wines, is taking place in the Nordic countries, consumer preferences or habits for wine have to be adopted from outside.

minimum age of 18 years for sales at restaurants. Recently, an age limit of 15 years was introduced for the sale of alcohol from retail shops. However, except for some specific rules concerning alcohol sales from gas stations late at night, wine can be bought in nearly any shop.

2.2 Prices developments and wine taxes

Focusing on prices, Bentzen and Smith (2001) analyse the experience in the Nordic countries. In the 1990s there was an 18% decline in the real price on wine in Denmark; in Finland the real price on wine fell by 4%. In Norway and Sweden the real wine prices have increased by 6% and 7%, respectively.
The decline in Danish real prices is partly due to a continuation of changes in the Danish excise system on alcoholic beverages, which started with a tax cut of 75% on wine with the Danish entry into the EC in 1972. Tax cuts were resumed in the 1990s in order to complete the harmonization of the Danish tax level to the EU level. Thus, by the middle of the 1990s, nominal taxes on wine in Denmark correspond to the 1970 level.

Finland, Norway and Sweden all decided not to enter the EC in 1972, and accordingly, all three countries have been able to decide the taxation of alcoholic beverages, which partly explains the increase of the real price on wine (in fact since 1970). It is obvious that in general fiscal considerations have been of great importance to the taxation of alcoholic beverages.

The present levels of wine taxation in the Nordic countries are presented in Table 1. In all cases, except Finland, the wine taxes are scaled progressively according to the alcohol content. The last column in the table presents comparable taxes in Euros per litre wine.

Table 1. Wine taxes in the Nordic countries and California, 2001.

	Tax in national currency; per litre	Wine (12%) tax; $ per litre	Import tariff wine entering EU/Norway
Denmark; DKK	10.55 (>15%) 7.05 (6-15%) 4.50 (<6%)	0,85	0,42/0,31 $ per litre (Premium/non-prem. wine)
Norway; NOK	3.65 per % volume per litre (<22%)	4,90	0,42/0,31 $ per litre (Premium/non-prem. wine)
Sweden; SEK	45.17 (>15%) 27.50 (8.5-15%) 18.98 (7-85.%) 13.80 (4.5-7%)	2,69	0,42/0,31 $ per litre (Premium/non-prem. wine)
Finland; FIM	14.00	2,11	0,42/0,31 $ per litre (Premium/non-prem. wine)
California, US$	Federal .tax 1.07/gallon (<14%), 1.57/gallon (14-21%), Cal.tax 0.20/gallon	0,33	
Australia	29% wholesale sales tax (WET) Wine Equalization Tax.		

Notes: The exchange rates as of ultimo 2001. 1 EURO = 0,90 $
Source: Nordic policies on alcohol (2001), Berger N. & K. Anderson (1999). Californian figures were kindly provided by Prof. Heien, University of Cal, Davis,

Norway has some of the highest taxes even globally – five to eight times the Danish level which is higher than in most other European countries. Finland and Sweden have rather similar levels of taxes but still much higher than the Danish wine taxes. Comparing the tax level with California, all the Nordic countries have significantly higher wine taxes. Furthermore, sales taxes are different in different countries. Thus, currently

VAT in Denmark, Finland, Norway and Sweden is 25%, 22%, 24% and 25% respectively. Sales taxes in most counties in California are near 7.5%. Finally, in Australia a 10% goods-and-services tax is applied to nearly all products - including all wine.

Judged solely from the tax rates shown in Table 1, Norway is expected to have the highest prices on wine, followed by Sweden and Finland. Among the Nordic countries, Denmark is predicted to have the lowest prices. But compared to California, higher wine prices are anticipated in all the Nordic countries. Focussing solely on wines produced in California would make this expectancy even stronger because of transportation costs. Contrary to the other countries Australian wine taxes are *ad valorem taxes*, suggesting that the price gap between the Nordic retail prices on Australian wine and the prices in Australia should be lower the more expensive the particular wine is.

Berger & Anderson (1999) compare wine taxes between OECD-countries by calculating 'the consumer tax equivalent' (CTE), which they define as the difference between the retail price inclusive tax and the pre-tax wholesale price plus retail marketing margin, in percent of the latter. In 1996 CTE on a bottle of wine that would cost $ 5.50 per litre amounts to 43% for Denmark, 121% for Finland, 213% for Norway and 129% for Sweden. The similar figures for Australia and USA were 48% and 10% respectively. However, in 2001 CTE in Australia has decreased to 39%.

3. The Nordic wine market

As noted earlier the aim of this paper is to compare the price variation on Australian and Californian wine in the Nordic countries. Moreover, the price structure on these wines sold on the Nordic market is compared with prices on the home markets in Australia and California.

3.1 Market position

The importance of overseas wine on the Nordic markets is illustrated in Table 2. Note that the data covers all wines from the USA, but a visual inspection of the specific US brands sold in Denmark, Norway and Sweden reveals that 95-98% of all US wines come from California. Compared to the major European wine-producing countries, France, Spain and Italy, having a combined market share between 50 and 70% in the respective countries, there is much less demand for Australian and Californian wines. The highest market share for the latter is found in Sweden and Finland, i.e. 4.3% and 3.6%, respectively, whereas Californian wines count for only 1.5% of the total wine sales in Norway. The number of different Californian wines sold in Sweden and Finland add up to 4.6% and 3.8% of the number of all different wines sold in each country. The similar figure for Norway is 4.2%, which together with Californian market share indicates relatively low consumer preferences for the Californian brands supplied in Norway.[3] However Australian wines hold a strong position on the Norwegian market, with a market share of 6.1%. The Australian market share is also quite significant in Sweden, whereas its market position in Denmark and Finland is much weaker.

[3] In May 2002, 'Vinmonopolet' in Norway supplies 25 different US wines to the Norwegian consumers. In Finland and Sweden the similar numbers are 20 and 83, respectively. The numbers vary from month to month. In Denmark wines from 164 different Californian *vineyards* are at the market, meaning that at least 300-400 different wines can be bought in Danish shops. In July 2002 the number of different Australian wines at the Norwegian, Swedish and Finnish markets were 89, 61 and 25. The number of different Australian wines on the Danish market is significantly lower than the number Californian wines.

Looking closer at Denmark the statistics shows that also the market share for US wines has been declining for some years. Still, in 2000 the market share was 2.0% despite of the relatively strong $/DKK relationship.

Comparing the market position of Australian and US wines with other overseas wine exporting countries in all Nordic markets, Chile has gained an outstanding position. However, at the Swedish and Norwegian markets Australia is the second largest overseas supplier, whereas the South African wines hold this position in Denmark and Finland.

Table 2. Market shares on the Nordic market for wine, by country of origin, 2001.

	Denmark	*Norway*[2]	*Sweden*[2]	*Finland*[1]
		- - - - - Market shares, % - - - - -		
France	37.4	24.9	14.2	18.2
Spain	20.4	13.4	27.3	23.4
Italy	11.9	16.1	15.8	13.6
Germany	6.9	8.8	7.8	6.2
Australia	**2.8**	**6.1**	**5.1**	**2.7**
Chile	8.9	16.1	7.0	9.7
Portugal	1.6	2.5	3.7	..
USA	**2.0**	**1.5**	**4.3**	**3.6**
Argentina	1.3	0.5	1.0	0.8
South Africa	3.1	1.7	4.1	5.5
Bulgaria/Hungary/Romania	0.8	1.7	5.0	9.5
Other countries	4.8	6.7	2.6	7.8

1) Portugal included in 'Other countries'
2) 2000 figures for Norway and Sweden
Sources: VSOD (Denmark), Vinmonopolet (Norway), Systembolaget (Sweden) and Alko (Finland).

3.2 Prices

Retail prices on overseas wine on the Nordic markets are generally composed of the following cost elements

- Producers price, ab winery
- Transport and insurance costs
- Payment to wine-merchants
- Import tariffs for overseas wine entering the EU
- Expenses and profits at the wholesale level
- Wine duties
- Distribution costs
- Costs and profits at the retail level
- Sales taxes, VAT.

As a starting point it is assumed that producers price is the same for all Nordic buyers. Then the price variations must reflect differences in one or several of the other cost components. There are good reasons to

assume that at least transport and insurance costs, potential payment to wine-merchants and wine duties plus VAT in sum are notably highest for Nordic consumers. In fact VAT plus duties are significantly higher in all Nordic countries compared to the e.g. Californian taxes, suggesting that wines should be cheaper in California than in the Nordic countries. Though wine taxes are higher in Australia as compared to California the same argument matters for Australian wines at the Nordic markets.

Another potential factor explaining price variations is price discrimination. Demand elasticities vary across countries and producers can exploit this and charge different prices. Moreover, within a country demand elasticities most likely vary from the low price to the high price segment depending inter alia on the income levels and distribution. In California the income distribution is much more skew than in any of the Nordic countries and the income level of a quite large group of the population is quite high compared to the Nordic standard. Consequently, the demand for wine in the high price segment is expected to be relatively large and most likely more inelastic in California than in the Nordic countries where only relatively few consumers demand expensive wines because of the even income distribution. Therefore, the price structure might be affected by the relative demand in each group of countries, i.e. low prices vs. high price segment. Price discrimination is potentially a factor that would cause high prices for expensive wines in the country of origin.

Looking at the relative prices within the Nordic countries, and noting that the transportation costs from Australia and California to each country probably are equal, the wine prices are expected to be lowest in Denmark due to stronger competition at all levels in the national distribution chain. Furthermore, taxes on wine are significantly lower in Denmark. However *ALKO*, *Systembolaget* and *Vinmonopolet* must be considered as large buyers on the wine market[4], because of the state monopoly that until recently has been in each country also at the import/wholesale level.[5] Consequently, their bargaining position against the supplier of wine is stronger than the position of e.g. a small Danish importer. In addition, the demand for Californian wines in Denmark is relative lower than in Sweden and Finland, maybe due to a more niche-oriented market in Denmark with higher prices. Note however, that sales prices in each of the three other Nordic countries are set according to the overall alcohol (and fiscal) policy of the countries, whereas the Danish prices result from competition giving generally lower prices. All in all, wines sold in Denmark are expected to be the cheapest within the Nordic countries.

Finally, focusing on the relative position of Sweden, Norway and Finland, higher prices can more easily be sustained in Norway, because of Norway not being a member of the EU. Moreover, the Norwegian taxes are far the highest in the Nordic countries (see above) and Norway has rather restrictive rules for border trade, see Bentzen and Smith (2001). Finland and Sweden have been forced to start harmonizing their taxes and to deregulate the restrictions on border trade because of their EU memberships. Wine taxes are lowest in Finland, but Sweden being a neighbour to Denmark and with a location much closer to i.e. Germany has relatively more pressure on its prices than Finland.

Concluding on prices, Californian wines are expected to be cheapest in California, followed by Denmark. Sweden presumably has lower prices than Finland. Finally, Norway most probably has far higher prices on all wines than any of the other countries in this analysis. The same is the case for Australian wines, but

[4] In 2000, the sizes of the populations in Finland, Norway and Sweden were 5.2 million, 4.5 million and 8.9 million people.

because of the Australian tax level on wine the price difference between Australian wines sold at home and at the Nordic market is expected to be smaller than in the case of Californian wines, especially for expensive wines.

3.3 Data

The data used in the analysis are retail prices in each country on specific red wines from specific vintages from specific Australian and Californian vineyards. This gives a data set including identical wines, and consequently comparisons can be made as matched pairs between countries at least at the bilateral level.

Data derive from several sources. Wine prices at the retail level for Finland, Norway and Sweden are obtained from ALKOs, Vinmonopolets and Systembolagets price catalogues, see Appendix for web-addresses. Prices on Californian wine in Denmark were collected using a complete list of all importers of Californian wine with links to retailers. In most cases, the importers' catalogues included standard list prices at the retail level. Importers of Australian wines were identified from the general archives of Danish wine importers. In order to make the Danish prices comparable to the prices in the other Nordic countries, where they never have special price offers, the price concept used for Denmark is list prices/normal prices at the retail level. Noting that about 1/3 of all Danish retail sales on wine takes place as special offers (normally 10-15% off if you buy 3 bottles instead of one) Danish prices are measured quite conservatively compared to the other Nordic countries.

Next, having identified specific wines in each Nordic country, the Californian prices of identical wines were collected using wine-searcher.com at the Internet, searching for Californian suppliers. Finally, all prices were harmonized with respect to taxes, i.e. the prices in the final data set include all wine-specific taxes and other sales taxes, e.g. VAT, local sales tax (set to 7.5% in California) etc. All prices were collected in April/May 2002. All prices are measured in US dollars using ultimo 2001 currency rates in order to take account of delivery lags, transportation time etc. from USA to the Nordic countries.

Australian wine prices has been provided using a database including Australian retail prices on Australian wine, which was kindly provided by Guenter Schamel, Humboldt University Berlin. In addition wine-searcher.com at the Internet was also used searching for Australian suppliers of wine.

Concerning calculation of the final price shipment costs from the retailer to the consumer mark a special problem. The Californian prices relate to Internet purchasing, which on average would add $ 2 per bottle shipped to addresses in California, whereas there is some variation in Australia, depending on location, i.e. larger cities versus rural areas. The Swedish, Norwegian and Finnish prices are also measured ab retailers shop, meaning that some part of the population would need to order by post or incur significant transportation costs. In Denmark, the density of retailers is quite high, meaning that transportation costs in relation to buying wine are ignorable. However, noting that the market share for Californian wine is close to 2%, only a few of the most well-known brands can be bought without extra costs for shipment if the consumer lives outside the area of the 2-3 largest agglomerations in Denmark. However, shipment costs on e.g. Internet purchasing from Danish distributors are lower compared to California ($ 0.5 per bottle). Still,

[5] Over the latest 5 years the state monopoly has been removed at the *wholesale* level meaning that a number of private importers can supply their wines to ALKO, Vinmonopolet and Systembolaget. Moreover it is common that the private importers advertise for their products in magazines etc.

no corrections are made for any of the countries' prices in connection with final shipments to the consumers – probably resulting in a minor upward bias in Danish prices.

4. Price analyses

Figures 2 to 5 give bilateral price comparisons, i.e. California and Australia *vs.* each of the Nordic countries on identical wines. The figures clearly suggest that Australian wines are relatively more expensive at the Nordic markets than is the case for Californian wines. Though Californian wines are more expensive to buy in Finland and certainly in Norway than in California the Australian wines are even more expensive. The picture is more blurred for Sweden and Denmark. The scatter plot shows that lower prices on Californian wines exist in Denmark and Sweden at all price levels, i.e. both at the low-price segment and the high-price segment. More precisely, 41% and 43% of the wines included in the analyses are more expensive in California than in the two Scandinavian countries. Furthermore, the figures seem to indicate a tendency towards lower prices in Denmark/Sweden the more expensive the wine is. Looking at the Australian wines, they seem to be relatively expensive – as compared to Californian wines – in Denmark, whereas the relative price level on Australian wines in Sweden is more in line with the prices on Californian wines.

Figure 2. Retail prices on Australian and Californian red wines, Denmark vs. California and Australia, US$ per bottle, 94 and 59 wines.

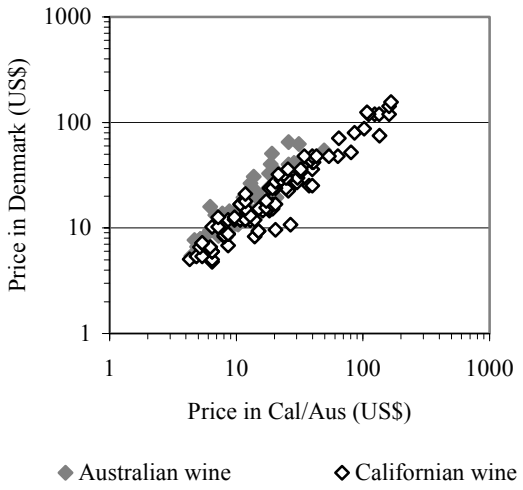


Figure 3. Retail prices on Australian and Californian red wines, Finland vs. California and Australia, US$ per bottle, 14 and 14 wines.

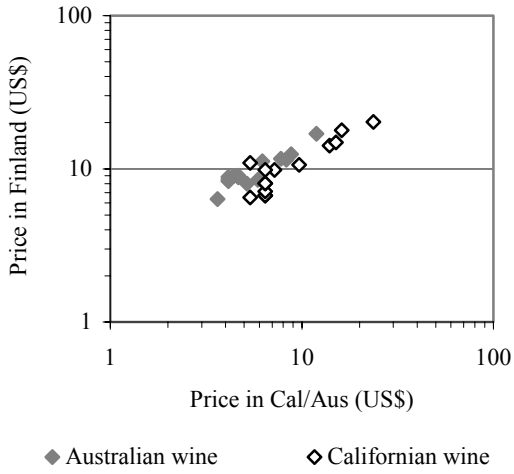
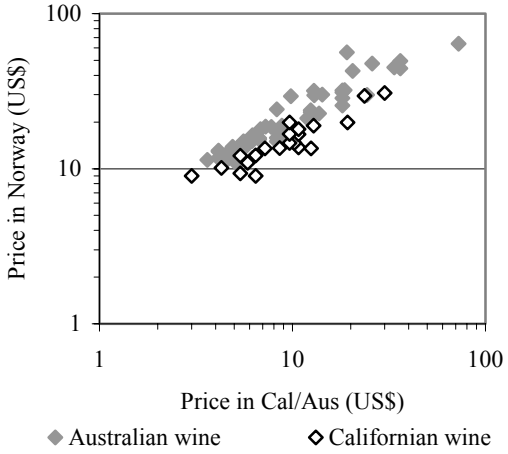
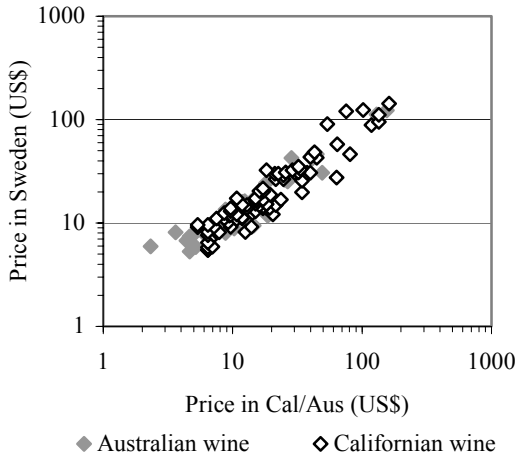


Figure 4. Retail prices on Australian and Californian red wines, Norway vs. California and Australia, US$ per bottle, 94 and 59 wines.

Figure 5. Retail prices on Australian and Californian red wines, Sweden vs. California and Australia, US$ per bottle, 94 and 59 wines.





Focussing on Californian wines, table 3 includes summary statistics for Californian wines at the Nordic markets. The average price difference in absolute terms is positive in Denmark and Sweden, suggesting *higher* prices in California. However, the t-statistics (row 5) shows that absolute price differences are not significant, except for Norway having clearly higher prices than California. In Norway, all wines are more expensive than in California and this is also nearly the case in Finland. Out of 14 wines in the Finnish sample only 2 can be bought cheaper than in California.

Figures 2 and 5 indicate that price variation is dependent on price segment, i.e. low-priced vs. high-priced wines. Therefore, data for Denmark and Sweden are further divided into wines below and above the median price (P-California). The shares of wine that are more expensive in California as compared to Denmark and Sweden are clearly much lower in the low-price segment than in the high-price segment, see rows 9 and 10 in Table 3. Only 29% of the wines included in the analyses in the low-price segment were in fact more expensive to buy in California. But in the high-price segment the opposite is nearly found as 0.53%-60% of the wines are cheapest to buy in Denmark/Sweden. Rows 6 and 7 include test-statistics. One-sided P-values for Denmark are 0.042 in the low-price segment and 0.059 in the high-price segment suggesting that cheap wines are cheapest in California and that more expensive wines are cheapest in Denmark. The corresponding prob-values for Sweden are 0.002 and (>) 0.162 suggesting that wines in the low-price segment are clearly cheapest in California. However, at the high-price segment price differences are in favour of Sweden, but not significant.

TABLE 3. COMPARISON OF PRICES ON IDENTICAL CALIFORNIAN RED WINES, CALIFORNIA VS. NORDIC COUNTRIES.

	Denmark	Finland	Norway	Sweden
Average absolute price difference ($), (Nordic price minus Californian price)	-1.23	1.18	4.74	-0.66
Standard error of absolute price difference	10.24	2.01	2.39	11.54
Average relative price difference (% of Cal. price)	5.43	5.78	63.87	5.97
Standard error of relative price difference	27.44	29.33	46.72	28.72
T-statistics for absolute price difference	-0.1508	0.1571	9.45	-0.52

Average diff. ($) / T-stat. for absolute price difference, *sub-sample: price below median price in sample*	0.77 1.778	-	-	1.11 3.085
Average diff. ($) / T-stat. for absolute price difference, *sub-sample: price above median price in sample*	-3.23 -1.581	-	-	-2.43 -0.978
Share of wines where P-California greater than P-Nordic, all wines in sample	0.41	0.14	0.00	0.43
Share of wines where P-California greater than P-Nordic, *sub-sample: price below median price in sample*	0.29	-	-	0.29
Share of wines where P-California greater than P-Nordic, *sub-sample: price above median price in sample*	0.53	-	-	0.60
Avg. price in California	27.80	9.60	10.60	20.20
Number of wines in each sample	94	14	21	84

The overall analyses in this section suggest that only Norwegian consumers pay significantly higher prices for Californian red wine than Californian consumers. In the low-price segment, all Nordic countries experience higher prices than California itself. But there is a tendency towards smaller price differences with higher price. In fact, high-priced Californian wines are most likely cheaper in Denmark and Sweden.

Table 4 gives summary statistics for the Australian wines. Except for Sweden the Australian wines are significantly higher priced in the Nordic countries than at home, see the T-statistics in the third row. Except for a few no Australian wines are in cheaper to buy in Denmark. This is also the situation in Norway and Finland. However 22% of the selected wines in fact cheaper to buy in the Sweden than in Australia.

Comparing the price differences between the Nordic Countries and Australia with the similar figures for California it is easily seen that the absolute price gap is much higher for Australian wines. Using the relative price differences instead this picture becomes even clearer. On average identical Californian wines are 5% more expensive in Denmark than in California. Australian wines are more than 44% higher in Denmark than in Australia, despite of the fact that wine taxes are fare the lowest in California. In Finland and Norway the Australian wines are 73% and 116% more expensive than in Australia. However the similar differences are only 6% and 64% when comparing with Californian wine prices in California.

TABLE 4. COMPARISON OF PRICES ON IDENTICAL AUSTRALIAN RED WINES, AUSTRALIA VS. NORDIC COUNTRIES.

	Denmark	Finland	Norway	Sweden
Average absolute price difference ($), (Nordic price minus Australian price)	6.32	3.94	10.34	-0.20
Standard error of absolute price difference	8.09	0.83	5.74	7.95
T-statistics for absolute price difference	6.00	17.75	13.70	-0.15
Average relative price difference (% of Australian price)	44.32	73.67	116.58	8.72
Standard error of relative price difference	40.45	27.75	54.25	27.61
Share of wines where P-Australia greater than P-Nordic,	0.05	0	0.017	0.22

all wines in sample				
Avg. price in Australia	14.80	5.99	12.37	23.50
Number of wines in each sample	59	14	58	36

5. Prices and price differences

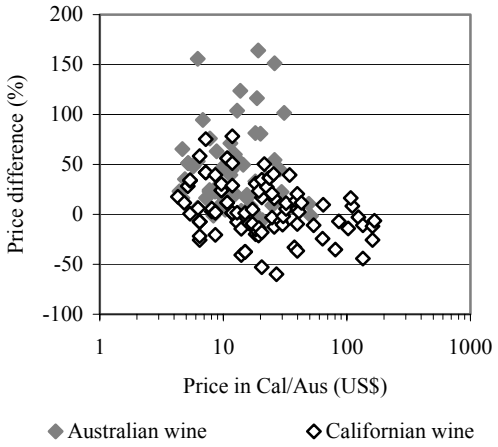
In this section the relationship between price of the wine and the price difference is further investigated. Figures 6-9 present scatter plots of the relative price difference against the price in California for each Nordic country. It is easily seen that especially for the low-priced wines the Nordic prices are above the Californian level, i.e. in most cases the price difference is negative. However, as the wines get more expensive, the price gap vanishes and in the case of Sweden and Denmark the price difference seems to favour their consumers.

Focusing on Australian wines a similar picture is seen for Finland, Norway and Sweden, whereas the price difference in Denmark looks to be independent of the expensiveness of the wine. The latter result is completely different from the price structure of Californian wines on the Danish market.

As noted earlier systematic price differences can potentially exist between separate market segments due to producers' price discrimination in order to exploit variations in demand elasticities across countries. Furthermore differences in tax systems, i.e. ad valorem *vs* specific taxes on wine together with transportation costs might cause systematic price variations between the producing country and each one of the Nordic countries. Pooling the Australian and Californian wines into one data set for each Nordic country table 5 give the results of regression analyses where the price difference– measured as the retail price at the home market minus the retail price at each Nordic market in percent of the former is a function of the expensiveness of the wine.

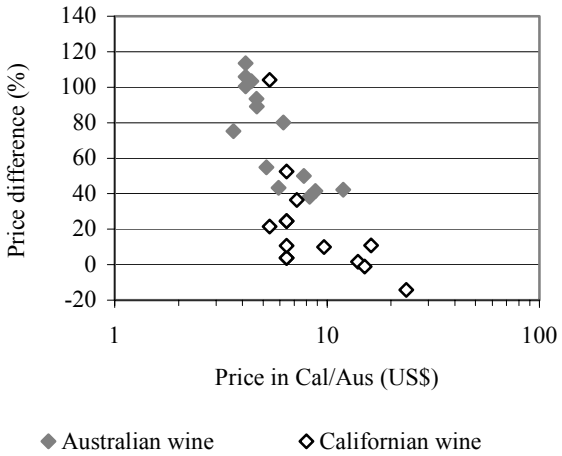
Figure 6. Relative price difference (%) as a function of the retail price in the producing country (log), Denmark.

Figure 7. Relative price difference (%) as a function of the retail price in the producing country (log), Finland.



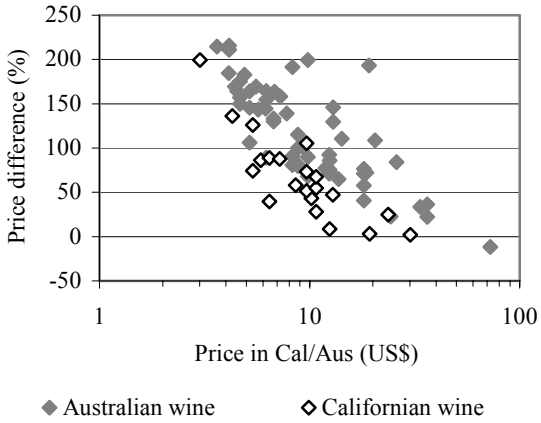
Note: Price difference measured as P-Denmark minus P-Cal/P-Aus. Price on 1st axis in $ per bottle.

Figure 8. Relative price difference (%) as a function of the retail price in the producing country (log), Norway.

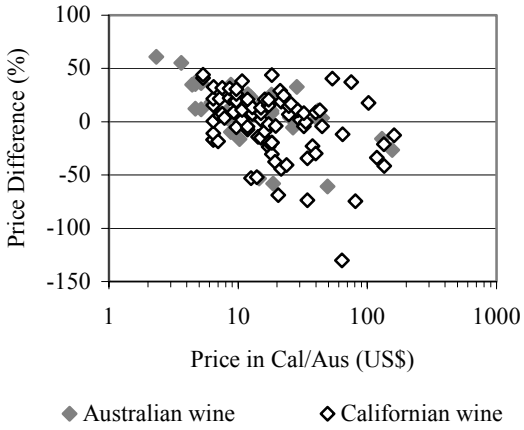


Note: Price difference measured as P-Finland minus P-Cal/P-Aus. Price on 1st axis in $ per bottle.

Figure 9. Relative price difference (%) as a function of the retail price in the producing country (log), Sweden.



Note: Price difference measured as P-Norway minus P-Cal/P-Aus. Price on 1st axis in $ per bottle.



Note: Price difference measured as P-Sweden minus P-Cal/P-Aus. Price on 1st axis in $ per bottle.

Table 5 clearly suggest that the price gap depends negatively on the home market price of the wine (in California and in Australia). The effect seems to be strongest in Finland and Norway, maybe because wines in general are quite expensive in these two countries. In order to check the visual impression from figure 6-9 that Australian wines are relatively more expensive at the Nordic markets than in Australia when comparing with Californian wines and prices in California a dummy variable was included for Australia. For all Nordic countries the dummy turned out to be positive and highly significant. The size of the parameter should be compared with the size of the intercept in order to evaluate its importance. Thus for Denmark the parameter for Australian wines is even larger than the intercept suggesting a notably extra price as compared to Californian wines. However, at the Norwegian and Finnish markets the intercepts are much larger than the parameter for Australian wines, indicating that prices in general are quite high there.

TABLE 5. REGRESSION ANALYSIS OF THE PRICE DIFFERENCE (%) BETWEEN CALIFORNIAN/AUSTRALIAN WINES, SOLD AT THE HOME MARKET AND SOLD AT THE NORDIC COUNTRIES AS A FUNCTION OF THE HOME MARKET PRICE.

	Nordic countries (pooled)	Denmark	Finland	Norway	Sweden
Intercept	81.77	28.44	118	206,8	56.79
	(7.418)	(10.17)	(22.41)	(13.72)	(9.681)
Retail-price at the home market,	-24.62*	-7.766**	-45.40*	-63.32*	-17.60*
California or Australia (US$)	(2.466)	(3.240)	(10.09)	(5.456)	(3.157)
Dummy for Australia (equal to 1, else 0)	40.31*	35.38*	33.90*	38.31*	18.57*
	(4,168)	(5.598)	(9.213)	(7.760)	(5.988)
R^2	0.40	0.27	0.71	0.67	0.28
Number of observations / (Aus/Cal)	380	153	28	79	120
	(167/213)	(59/94)	(14/14)	(58/21)	(84/36)

The wine price data for Australia and California has been pooled into one data set for each of the Nordic Countries and all countries together (column 1). Numbers in brackets under the estimated parameters are standard errors. * indicates significance at the 1% level of significance, ** at 5 %.

5.1 Further analyses: When are the prices of Australian and Californian wine highest at home?

Looking at figure 6-9 some of the price differences are quite substantial and potential measurement errors cannot be totally excluded. In order to eliminate uncertainty about the exact magnitude of the price differences, which potentially might cause extreme values to affect the conclusions, a more conservative test is needed. Consequently, a binary variable is constructed having the value 1 if the wines are cheapest in the producing country and 0 if not. Next, a probability model is formulated where the independent variable is the retail price of the wine at the home market.

Because the Australian wines in nearly all cases are most expensive to buy within the Nordic countries – except for Sweden where 22% of the observed Australian wines are cheapest in Sweden - the probability model will concentrate on Californian wines.

Assuming a probit-specification the estimation results for Californian wines are shown in Table 6, partly for Sweden and Denmark and partly on a pooled data set including all 4 countries.[6]

The results of the model estimated on pooled data suggest that the probability that a particular Californian wine is cheapest to buy in California depends negatively on the price of the wine itself. This effect is highly

[6] No separate models were estimated for Norway because the response variable contains only zeros. The same is the case for Finland because the Finnish data set includes only 2 observations with value 1 out of (only) 14 observations.

significant. None of the control dummies for country (other than Denmark) are significant, which is a little surprising. Note however, that there are only a few observations for Norway and Finland, which weakens the conclusions for both countries. Finally, the predictions of the model are correct for 74% of the observations.

Looking at Denmark, the influence from price is a little stronger as compared to the pooled sample and still highly significant. But in the Swedish case (column 3), the estimated coefficient is smaller and insignificant, suggesting that the relationship for Californian wines only holds for Denmark and for all Nordic countries pooled together. However column 5 shows that the model is significant Australian wines at the Swedish market. The predicted probabilities in the latter three cases are shown in Figures 10,11 and 12.[7]

Table 6. Probit model of the probability that a Californian wine is cheaper in California than in the Nordic countries as a function of the wine price in California.

	All Nordic countries (pooled)	Denmark	Sweden	Sweden (Australian wines)
Intercept	0.5772*	0.6267*	0.4153*	2.7422
	(0.1637)	(0.1826)	(0.1876)	(0.8794)
Wine price in Cal. ($)	-0.0119*	-0.0136*	-0.0088	-0.6984**
(Col 4: Australia, in logs)	(0.0033)	(0.0045)	(0.0049)	(0.2867
Dummy for Sweden	-0.0828			
	(0.1950)			
Dummy for Norway	4.9198			
	(190.3)			
Dummy for Finland	0.6234			
	(0.4431)			
Concordants (%)	74.0	68.3	65.5	76.3
Number of observations,	213	94	84	36
Response profile (1,0)	(136,77)	(55,39)	(48,36)	(28/8)

Dependent variable eq. 1 if P_{cal} lt. P_{Nordic} , else eq. 0.
Numbers in brackets below the estimated parameters are standard errors. An * indicates that the parameter is significant at the 1% level of significance, ** at the 5% level.

The simulated probabilities put emphasis on some of the arguments in section 3.2, different income distribution, different taste and a degressive tax system on wine and the burden of transportation costs. Thus, if a Californian wine costs more than approximately $45 in California then most likely the wine is cheapest to buy in Denmark (probability under 0.5), but probably not in the other Nordic countries. Furthermore, looking at the low-price segment the probability that Californian wines are cheapest to buy in California is *not* always 1. Thus, the probability that a Californian wine sold for $4.99 + sales tax in California is cheaper to buy there than e.g. in Denmark is around 0.75.

[7] Predicted probabilities on the pooled data set are based on a re-estimated model without country dummies (because of their insignificance), meaning that the curve reflects a rather abstract region 'average Nordic countries'.

Figure 10. Simulated probabilities that Californian wines are cheaper in California than in Denmark.

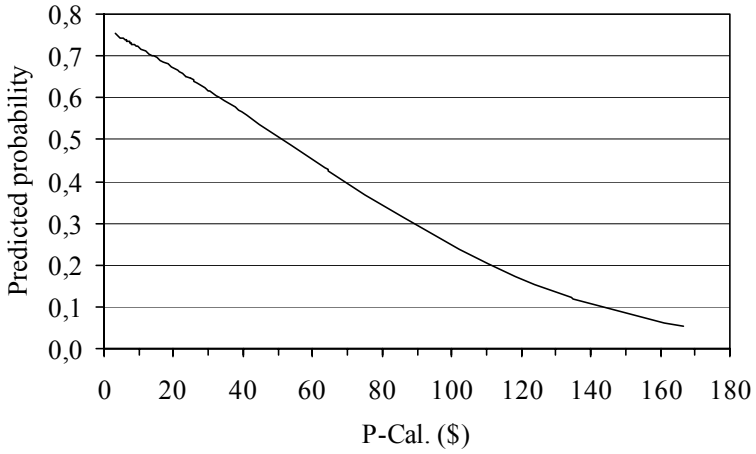
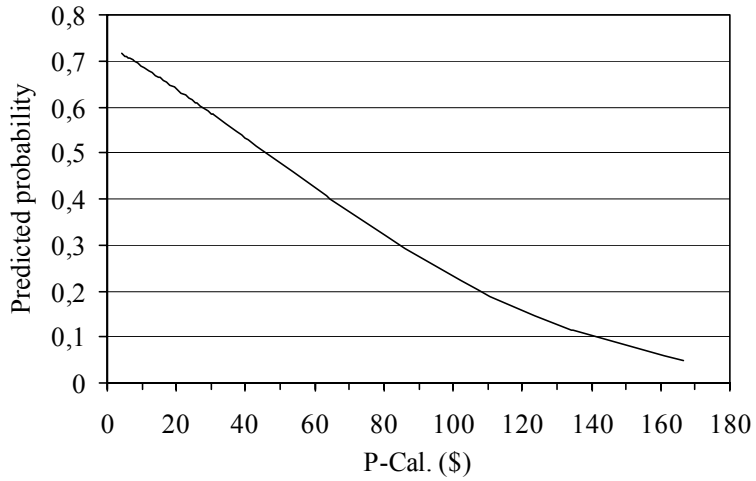
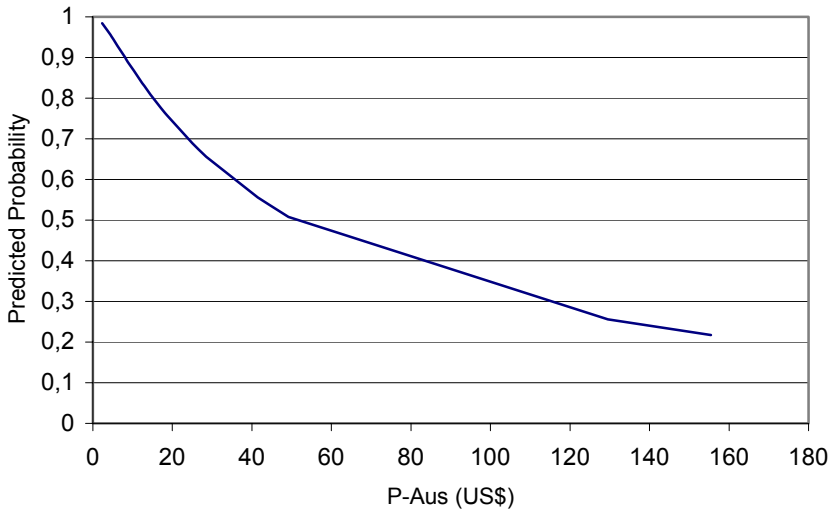


Figure 11. Simulated probabilities that Californian wines are cheaper in California than in Nordic countries in general.



Looking at the Australian wines simulations can be made only for Sweden. If an Australian wine costs around 50 US$ in Australia it can most likely be bought at the same price in Sweden. Moreover as the price of the wine increases to more than e.g. US$ 100 the wine is most likely cheapest in Sweden. A major reason for this probably is the differences in the tax systems of the two countries, see table 1.

Figure 12. Simulated probabilities that Australian wines are cheaper in Australia than in Sweden.



6. Conclusion

In this paper prices on Australian and Californian wine have been examined. The Nordic countries are located more than 6000 miles away from California and even longer away from Australia. Consequently, the wines of both regions are expected to be quite more expensive to buy in any of the Nordic countries than on location in Australia or California.

Finland, Norway and Sweden have state monopoly retail systems for sales of wine, and there is no competition on the wine market in any of these countries. In Denmark, the competition at the retail level within sales of wine is rather significant. Because of this it is argued that Californian wine should be rather expensive in Finland, Norway and Sweden as compared to Denmark and California.

Based on a sample of 213 pairwise identical wines, it is found that - except for Norway - the Californian wines are not necessarily cheapest to buy in California. This applies for all price segments. Furthermore, for all Nordic countries the analyses indicate that the more expensive the wine gets the less price disadvantage against California in general. Focusing at the *Danish* market, the expensive Californian wines are significantly cheaper than in California, which is verified in the estimated probability model.

In general, Australian wines are relative more expensive than Californian wines at the Nordic markets. Except for Sweden only a few Australian wines can be bought as cheap in the Nordic countries as in Australia. Looking at Sweden expensive Australian wines are most likely cheapest there. Still the price need to be above 50 US$ per bottle.

Because of the Australian ad valorem taxes on wine (as compared to specific taxes in all of the Nordic countries) the more expensive the wine gets the smaller price difference should be expected. Transportation costs affect this conclusion in the same direction. Still Californian wines are relatively cheaper over the entire market segment than Australian wines and at the high quality market segment several Californian wines are in fact cheapest to buy in Sweden and Denmark. Potential explanations could be: Preferences for

American produced wine causes high domestic demand for Californian wine and pull up domestic prices on Californian wines. Furthermore, the market for expensive wines is quite large in the US. So if wealthy people in e.g. California prefer expensive wines they probably choose a Californian brand, meaning that the domestic demand curve is relatively inelastic especially in the high price segment of the market. This might explain why Californian wines are relatively cheap in the Nordic countries - as compared to California itself.

Literature

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Appendix

1. Data sources

Denmark: Information on all Danish importers of Californian wine, VSOD, The Wine and Spirits Organisation in Denmark, www.VSOD.dk

Finland: Alko, www.alko.fi

Norway: Vinmonopolet, www.vinmonopolet.no

Sweden: Systembolaget, www.systembolaget.se

California: Wine-searcher, (links to dealers of Californian wine), www.wine-searcher.com

Australia: Wine-searcher, (links to dealers of Australian wine), www.wine-searcher.com; Database kindly provided by Guenter Schamel, Berlin.

2. ALPHABETIC LIST OF CALIFORNIAN WINES USED IN THE ANALYSES

Note that the number of wines in the list is lower than the total number of observations in the data set used in the analyses, because the same wine in different vintages in some cases has been included in the data set in order to obtain as many observation as possible for all Nordic countries.

Californian Wines

Acacia Pinot Noir
Alluvium (Beringer, Knights Valley)
B.V. Georges de Latour Private Reserve Cabernet
Backus Vineyard, Cabernet Sauvignon, Joseph Phelps
Barefoot Merlot
Barefoot Zinfandel
Barrelli Creek Vineyard Zinfandel
Benziger Family Winery Cabernet sauvignon
Beringer Knight Valley Cabernet Sauvignon
Beringer Merlot
Beringer North Coast Pinot Noir
Beringer North Coast Zinfandel
Beringer Stone Cellars Cabernet Sauvignon
Beringer zinfandel
Bonterra Cabernet Sauvignon
Bonterra Cabernet Sauvignon Organic North Coast USA
Bonterra Zinfandel
Burlwood Cabernet Sauvignon
Calera Pinot Noir
Callaway Coastal Cabernet Sauvignon
Callaway Coastal Cabernet Sauvignon
Canyon Road Cabernet Sauvignon
Canyon Road Coastal cabernet sauvignon
Canyon Road Coastal merlot
Canyon Road Merlot california
Cartlidge & Browne zinfandel california
Caymus Cabernet Sauvignon
Caymus Cabernet Sauvignon
Cline Syrah
Cline Zinfandel
Clos du Bois Cabernet Suvignon
Cuvaison Cabernet Sauvignon
Cuvaison Merlot
Deer Valley Cabernet Sauvignon
Deer Valley Merlot
Deloach Estate Bottled merlot
Deloach Estate Bottled pinot noir
Deloach estate bottled zinfandel
Deloach Los Amigos Ranch, Sangiovese
Deloach o.f.s. Merlot
Deloach OFS Cabernet sauvignon

Deloach peletti zinfandel
Deloach Pinot Noir, O.F.S.,
Deloach zinfandel alifornia
Deloach Zinfandel Barbieri
Deloach Zinfandel Papera,
Deloach Zinfandel Saitone
Deloach, Los Amigos Ranch, cabernet sauvignon
Dominus Estate
Duck Pond Pinot Noir
Fetzer Barrel Select Pinot Noir
Fetzer Barrel Select Zinfandel
Fetzer eagle peak merlot
Fetzer Valley Oaks Cabernet Sauvignon
Fetzer Valley Oaks Zinfandel
Gallo Barbera
Gallo Cabernet Sauvignon
Gallo Merlot
Gallo ruby cabernet
Gallo Sonoma Cabernet Sauvignon
Gallo Sonoma County Pinot noir
Gallo Sonoma Estate Bottled, Northern Sonoma Cab. Sauvignon
Gallo Sonoma Frei Ranch , Zinfandel
Gallo Sonoma Frei Ranch, Cabernet Sauvignon
Gallo Sonoma Pinot Noir
Gallo Sonoma Winery Zinfandel Frei Ranch
Gallo Sonoma Zinfandel
Gallo Zinfandel
Georges de Latour Private Reserve
Geyser Peak Cabernet Sauvignon Sonoma
Geyser Peak Cabernet Sauvignon Sonoma
Geyser Peak Merlot Sonoma
Geyser Peak Reserve Alexandre Meritage
Geyser Peak Shiraz Sonoma
Geyser Peak Zinfandel Sonoma
Glen Ellen Cabernet Sauvignon Proprietor's Reserve
Glen Ellen Merlot Proprietor's Reserve
Hawk Crest Cabernet Sauvignon
Hawk Crest Merlot
Heitz Cabernet Sauvignon
Heitz Martha's Vineyard Cabernet Sauvignon, Napa Valley
Heritage cabernet sauvignon
Hess Collection Cabernet
Inglenook Zinfandel
Insignia, Joseph Phelps Vineyards Napa Valley
J Lohr Cabernet sauvignon
J Lohr Hilltop Cabernet sauvignon
J Lohr Merlot
J Lohr Shiraz
J Lohr zinfandel
Joseph Phelps Vineyards Napa Valley Merlot
Kautz Ironstone Vineyards, Cabernet Sauvignon
Kautz Ironstone Vineyards, Merlot
Kautz Ironstone Vineyards, Zinfandel
Kendall-Jackson collage Cab/Sauvignon-Shiras
Kendall-Jackson collage Zinfandel-Shiraz
Kendall-Jackson Vintner's Grand reserve Cab/Sauvignon
Kendall-Jackson Vintner's Reserve Cab/Sauvignon
Kendall-Jackson Vintner's Reserve Pinot Noir
Kendall-Jackson Vintner's Reserve Zinfandel
Le Cigare Volant
Le Mistral, Joseph Phelps Vineyards
Marimar Torres Pinot Noir
Mayacamas Cabernet Sauvignon
Mayacamas Vineyards Library Cabernet Sauvignon
McDowell Vineyards Syrah Mendocino county
McDowell Vineyards Syrah Mendocino county Reserve
Montevina Zinfandel
Mystic Cliffs shiraz
Napanook
Nathanson Creek Red
Newton Merlot Unfiltered
Opus One, Mondavi & Rothschild, 1997 H, bottle
Opus One, Mondavi & Rothschild, 1998
Pahlmeyer Napa Cabernet
Pahlmeyer Red Table Wine
Parducci cabernet sauvignon
Parducci merlot
Parducci Syrah
Parducci zinfandel
Parducci, Vintage Red
Paso Robles Cabernet Sauvignon
Pastiche, Napa Valley, Joseph Phelps Vineyards
Paul Mason California Red wine
Quintana Cabernet Sauvignon
R H PHILLIPS Merlot
Rancho Zabaco Zinfandel
Rancho Zabaco Zinfandel "Sonoma Heritage Vines"
Ravenswood Vintner's Blend Zinfandel
Ravenswood Zinfandel
Renaissance Syrah
Ridge Geyserville Zinfandel
Ridge Lytton Springs Zinfandel
Ridge Monte Bello
Ridge Santa Cruz Mountains Merlot
Ridge Vineyards Zinfandel Geryserville
Ridge York Creek Petite Sirah
Riverside Cabernet sauvignon
Robert Mondavi Cabernet Sauvignon

Robert Mondavi Cabernet Sauvignon Reserve,1998
Robert Mondavi Coastal Pinot Noir
Robert Mondavi Pinot Noir
Robert Mondavi Zinfandel
Round Hill Cabernet Sauvignon
Rutherford Ranch Cabernet Sauvignon
Rutherford Ranch Merlot
Saint Francis Cabernet Sauvignon Reserve
Saint Francis Old vines zinfandel
Saint Francis Pagani vineyard zinfandel
Saint Francis Sonoma Merlot
Schug Pinot Noir
Seghesio Home Ranch Zinfandel
Seghesio Zinfandel
Shafer Cabernet Sauvignon
Simi Cabernet Sauvignon Reserve
St Francis Merlot
Stag's Leap Fay Cabernet Sauvignon
Stefani Vineyard Cabernet Sauvignon
Stonehedge Cabernet Sauvignon
Stonehedge Cabernet Sauvignon Napa Valley
Stonehedge Old Vine Zinfandel
Sutter Home cabernet sauvignon
Sutter Home Winery Cabernet Sauvignon, Signature
Sutter Home Zinfandel
Talus cabernet sauvignon
Talus merlot
Talus zinfandel
Trinchero Familie Estates Winery Zinfandel
Trinchero Familie Estates Winery, Cabernet Sauvignon
Turley Old Vines Zinfandel
Turning Leaf Cabernet Sauvignon
Turning Leaf merlot
Turning Leaf Reserve Cabernet Sauvignon
Turning Leaf zinfandel
Vendange Zinfandel
Wente Cabernet Sauvignon
Wente Zinfandel
Woodbridge Cabernet Sauvignon (Mondavi)
Woodbridge zinfandel (Mondavi)

Australian Wines

Andrew Garrett Bold Shiraz
Angove Cabernet Suvignon
Angove's Classic Reserve Shiraz
Angove's Sarnia Farm Cabernet Sauvignon
Baileys 1920's Block Shiraz
Banrock Station Merlot
Banrock Station Shiraz
Barossa Valley Estate E & E Black Pepper Shiraz
Barossa Valley Estate Ebenezer Shiraz
Barossa Valley Shiraz Cabernet
Barwang merlot
Bleasdale Frank Potts
Bleasdale Vineyards Mulberry Tree Cabernet Sauvignon
Blewitt Springs Shiraz
Botobolar Shiraz
Brown Brothers Cabernet Sauvignon
Brown Brothers Shiraz
Butterfly Ridge Shiraz/cabernet
Cape Mentelle Cabernet Sauvignon
Cape Mentelle Shiraz
Capel Vale CV Shiraz
Capel Vale Howecroft Merlot
Chateau Tahbilk 1860 Vines Shiraz
Chateau Tahbilk Cabernet Sauvignon
Chateau Tahbilk Shiraz
Clarendon Hills Hickinbotham Pinot Noir
Clarendon Hills Liandra Shiraz
Coldstream Hills Briarston Cabernet/merlot
Coldstream Pinot Noir
Cranswick Estate Cab.merlot1998
Cranswick estate Carbernet/merlot
De Bortoli Shiraz
Deakin Estate Cabernet Sauvignon
Deakin Estate Shiraz
Eaglehawk Cabernet shiraz merlot
Eden Springs Cabernet Sauvignon
Eden Springs Shiraz
Evans & Tate Margaret River Shiraz
Fox Creek JSM Shiraz Cabernets
Grant Burge Barossa Vines Shiraz
Grant Burge Cameron Vale Cabernet Sauvignon
Grant Burge Hillcott Merlot
Grant Burge Shadrach Cabernet Sauvignon
Grant Burge The Holy Trinity
Hardys Eileen Hardy Shiraz
Hardys Nottage Hill Cabernet shiraz
Hardys Nottage Hill Cabernet/Sauvignon
Hazzelgrove Sovereign Shiraz
Heggies Merlot
Hollick Ravenswood Cabernet Sauvignon
Jacobs Creek Grenache Shiraz
Jacob's Creek Reserve Shiraz
Jacob's Creek Shiraz Cabernet
Jamiesons Run Red
Jenke Shiraz

Jim Barry The Armagh
Lake Breeze Winemakers Selection Cabernet Sauvignon
Lakewood Shiraz
Leasingham Bin 61 Shiraz
Leasingham Classic Clare Cabernet Sauvignon
Leasingham Classic Clare Shiraz
Leeuwin Estate Art Series Cabernet Sauvignon
Lindemans Bin 45 Cabernet Sauvignon
Lindemans Bin 50 Shiraz
Lindemans Limestone Ridge
Lindemans Pyrus
Lindemans St George
McGuigan Brothers Shareholders Shiraz
Mildara Church Hill Cab, Shiraz, merlot
Moss Brothers Shiraz
Mount Edelstone Shiraz
Mount Ida Shiraz
Normans Chais Clarendon Shiraz
Normans Langhorne Creek Cabernet Sauvignon Cabernet Franc
Normans Old Vine Grenache
Orlando Jacob's Creek Merlot
Orlando Jacob's Creek Shiraz Cabernet
Orlando Jacob's Creek Shiraz Cabernet reserve
Oxford Landing Cabernet Shiraz
Penfolds Bin 707 Cabernet Sauvignon
Penfolds Grange
Penfolds Kalimna Bin 28 Shiraz
Penfolds Koonunga Hill Shiraz Cabernet
Penfolds Rawson's Retreat Cabernet Shiraz
Peter Lehmann Clancy's
Peter Lehmann Eight Songs Shiraz
Peter Lehmann Mentor
Peter Lehmann Shiraz
Peter Lehmann Stonewell Shiraz
Redbank Fighting Flat Shiraz
Redbank Percydale Cabernet Merlot
Redbank Sally's Paddock
Robertsons Well Cabernet Sauvignon
Rosemount Estate Balmoral Syrah
Rosemount Estate cabernet Suvignon
Rosemount Estate Diamond Label Shiraz
Rosemount Estate GSM
Rosemount Estate Shiras
Rosemount Estate Shiras Cabernet
Rosemount Estate Shiraz
Rosemount Estate show reserve cabernet sauvignon'
Rosemount Estate Traditional
Rosemount Grenache Shiras
Rosemount mountain blue shiraz/carbernet
Rothbury Estate Brokenback Shiraz
Rouge Homme Cabernet Sauvignon
Salitage Cabernet Merlot
Salitage Pinot Noir
Thomas Hardy Cabernet Sauvignon
Vasse Felix Cabernet Merlot

Vasse Felix Cabernet Sauvignon
Vasse Felix Heytesbury
Vasse Felix Shiraz
W.Blass Yellow label Cab/sauv
Wandin Valley Estate Bridie's Shiraz
Wolf Blass Black Label Cabernet Shiraz
Wolf Blass Yellow Label Cabernet Sauvignon
Wyndham Estate 1828 Cabernet Sauvignon Shiraz Ruby Cabernet
Wyndham Estate Bin 444 Cabernet Sauvignon
Wyndham Estate Bun 444 Cabernet Sauvignon
Wynns Coonawarra Estate Cabernet Shiraz Merlot
Wynns Coonawarra Estate John Riddoch Cabernet Sauvignon
Wynns Coonawarra Estate Michael Shiraz
Yalumba bush wine Grenache
Yalumba Clare valley Reserve Shiraz
Yalumba Octavius Shiraz
Yalumba Signature Cabernet Shiraz
Yalumba The Menzies Cabernet Sauvignon
Yarra Ridge Pinot Noir
Yering Station Pinot Noir

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