

**Interstate Trade Barriers and Potential Regulatory
Competition: The Case of Virginia=s Direct
Wine Shipping Ban**

Jerry Ellig
Mercatus Center
George Mason University

Alan E. Wiseman
Ohio State University

The current controversy over interstate direct shipment of wine to consumers provides a timely context in which to investigate theories of regulatory competition. Commerce in wine, like other forms of alcohol, is heavily regulated at the state level. States commonly employ a three-tier system that vertically dis-integrates manufacturing, wholesaling, and retailing. Some states require that all wine must pass from winery to wholesaler to retailer before it is purchased by the consumer, while others permit wineries to circumvent wholesalers and sell directly to retailers. Some states even permit out-of-state as well as in-state wineries and retailers to sell directly to consumers. Since the Internet gives consumers access to hundreds of sellers nationwide, online wine sales could potentially increase competition between different states= regulatory systems.¹

¹For a review of litigation and legislative controversies, see FTC (2003).

We assess the potential for regulatory competition by comparing online and offline wine prices and variety available to consumers in McLean, Virginia. Virginia is a state that, at the time we gathered our data, required most wine to pass through all three tiers of the three-tier system before reaching the consumer. The only exception was for in-state wineries, which could sell their wines directly to consumers. In 2003, Virginia enacted legislation permitting out-of-state sellers to ship wine directly to Virginia consumers, as long as the shipper's home state permitted Virginia wineries a similar privilege. Our findings suggest that the new Virginia law could increase competition between state regulatory systems governing wine distribution.

Theories of regulatory competition

Any theory of regulatory competition between states implicitly builds on Tiebout's (1956) seminal model of public finance. If different jurisdictions offer different packages of taxes and public goods, and citizens are mobile, then we would expect citizens to vote with their feet by choosing among the various localities by moving into jurisdictions that offer the most attractive combination of public goods and taxes. Jurisdictions would effectively compete for a tax base by offering policies to attract citizens/voters who are willing (and able) to contribute to the public coffers in exchange for their share of the public goods. In the context of the United States, Thomas Dye (1990) sums up the theoretical expectation succinctly in his seminal work on federalism:

Competitive federalism envisions a marketplace for governments where consumer-taxpayers can voluntarily choose the public goods and service they prefer, at the cost they wish to pay, by locating in the governmental jurisdiction that best fits their policy preferences (1990, 14).

Empirical studies of regulatory competition, or competition between the states broadly speaking, have generated results that are loosely consistent with implications of the Tiebout model. Several scholars (e.g., Gramlich 1982, Peterson and Rom 1990, Volden 2002) have demonstrated connections between electoral demographics and state welfare levels that are consistent with welfare beneficiaries voting with their feet. Park (1997) has demonstrated that local governments appear to compete against each other in determining expenditures for education programs and public safety. Levinson (1999) has demonstrated that truckers of hazardous waste shipments definitely appear to vote with their feet in that they drive less through states where they face high taxes.

We have reason to believe that consumers/citizens, when able, will locate the nexus of their economic activity -- whether it be taking up residence, dumping toxic waste, or generally engaging in transactions -- in locations whose legal regimes provide them with the greatest benefits. This finding complements our expectations about conventional market transactions, wherein we expect that people will conduct their transactions with firms that offer them better prices and product variety. To the extent that these favorable product characteristics flow from a more flexible or efficient regulatory regime, then, we would expect that consumers (when possible) will make purchases in those jurisdictions that have the most flexible regulatory regimes. When consumer mobility increases, firms located in jurisdictions with more flexible regulatory regimes should gain sales. If the change in sales is sufficiently large, jurisdictions with less flexible regulation may even engage in regulatory reform to regain market share.

The market for wine provides an intriguing test case for theories of regulatory competition. While the Internet has drastically reduced the cost of acquiring product information and facilitating transactions, approximately half of the states have prohibited direct-to-consumer wine shipments from out-of-state sellers, effectively

limiting the mobility of wine consumers in the virtual world.² Ongoing litigation and legislation, however, may soon give consumers in many states the opportunity to purchase wine directly from out-of-state wineries and retailers. If direct shipment increases competition between jurisdictions, then wine sellers located in states with more efficient regulatory systems should see their sales increase, and states with more restrictive systems may be prompted to reform their regulations.

We investigate whether two conditions exist that would foster such regulatory competition. First, are there significant differences between prices and variety of wine available offline and online? Second, can those differences be correlated with differences in state regulation?

Data and analysis

We employ the same data used in our previous study of online vs. offline wine prices and variety available in McLean, Virginia.³ In an effort to select an unbiased sample of wines popular among wine drinkers who are likely to frequent wine stores, the sample was drawn from the 13th Annual Restaurant Poll conducted by *Wine and Spirits* magazine. The *Wine and Spirits* article identifies 83 individual bottles that make up the "Top 50" wines.⁴

² Wiseman (2000) provides a more detailed discussion of the manner in which the Internet has altered the economics of conventional consumer transactions.

³ A more extensive explanation of the methodology, along with important caveats, can be found in Wiseman and Ellig (2003).

⁴ The difference follows from the fact that *Wine and Spirits* recognizes all relevant bottles that fall under a given winery's varietal when it identifies the most popular Chardonnays, Merlots, etc. For example, Cakebread's chardonnay was the third most popular wine overall, but *Wine and Spirits* recognized two bottles, the Napa Valley and the Napa Valley Reserve, as Cakebread Chardonnay, and hence both were included in our sample.

Online prices were obtained from each winery and also by engaging the online shopbot Winesearcher.com to find the lowest online price in a database of more than 700 online wine retailers. Offline prices were obtained from a sample of 13 stores within 10 miles of McLean, Virginia that were identified as Awine retailers@ in the Yahoo Yellow Pages. All price data were gathered between the end of June and the end of July 2002.

For each bottle, data were collected from the United Parcel Service website (www.ups.com) on the costs associated with shipping boxes of the appropriate size and weight to represent a single bottle and a case of wine from the zip code where the online vendor was located (using a daily pickup service) into McLean, Virginia, under a variety of shipping options. For bricks-and-mortar stores, transportation costs were calculated using the standard government reimbursement for automobile travel (\$0.365 per mile), multiplied by the round-trip distance of the store from McLean, Virginia, as indicated by Yahoo! Maps.

Table 1, based on results reported in Wiseman and Ellig (2003), summarizes average online vs. offline cost differences for single bottle and whole case orders under various shipping cost scenarios. Average figures for the entire sample suggest that modest savings occur only if

a consumer orders a whole case and ships it by the least expensive method, ground. The average for the entire sample, however, obscures some potentially important differences. For wines under \$20 (31 bottles, slightly less than half the sample), online purchase involves some significant cost penalties on average. For the more expensive wines, online purchase leads to noticeable savings on average.

To see how widespread the cost savings might be, we tallied the number of bottles that are less expensive online under each shipping option. As Table 2 shows, a large majority of the bottles (84 percent) are available at lower retail prices online, but transportation costs eat into these savings significantly. A McLean consumer can save money on an appreciable number of wines by choosing the least expensive transportation method (ground) or ordering an entire case.

For those bottles that are available at lower cost online, Table 3 shows the states in which the sellers are located. California is clearly the dominant source of online wine bargains. A similar pattern emerges when examining variety. Of the 83 wines in the sample, 15 were unavailable offline, and four were unavailable online. Of the 12 wines that were available online but not offline, the lowest prices on 11 were offered by California sellers. If interstate direct shipment could facilitate regulatory competition, the most likely source of such competition for Virginia consumers is California.

California vs. Virginia regulation

Both Virginia and California employ the AThree Tier@ system for wine distribution. Both states= laws recognize wineries, wholesalers, and retailers as separate entities. In addition, California licenses several other players B winegrowers= agents, who market wine to wholesalers on behalf of wineries, and wine brokers, who obtain wine on behalf of

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Table 1: Online vs. offline cost differences
(Positive indicates online price savings; negative indicates online cost penalty.)

	Retail Price w/out transp	1 bottle ground	1 bottle 3d day air	1 bottle 2d day air	1 case ground	1 case 3d day air	1 case 2d day air
Entire sample	\$5.84 15.8%	\$1.51 -8.5%	-\$2.44 -27.2%	-\$7.26 -48.1%	\$3.54 3.6%	\$1.35 -7%	\$0.11 -13.4%
Under \$20	\$1.66 9.7%	-\$3.14 -2.7%	-\$7.05 -54.3%	-\$11.39 -82.8%	-\$0.70 -7.8%	-\$2.89 -23.2%	-\$4.22 -32.6%
>=\$20	\$9.44 21.1%	\$5.51 7.6%	\$1.54 -3.9%	-\$3.69 -18.2%	\$7.19 13.4%	\$5.01 7.0%	\$3.65 3.1%
>=\$40	\$20.61 25.3%	\$17.88 19.6%	\$13.57 12.9%	\$6.97 3.0%	\$18.45 20.7%	\$16.26 17.3%	\$14.99 15.2%

Boldfaced numbers are statistically significant at the 95 % level. Boldfaced and italicized numbers are statistically significant at the 90 percent level.

Table 2: Number of bottles less expensive online vs. offline

	Retail Price w/out transp	1 bottle ground	1 bottle 3d day air	1 bottle 2d day air	1 case ground	1 case 3d day air	1 case 2d day air
Online price lower	56	31	16	5	46	35	24
Offline price lower	7	36	51	62	21	32	43
Prices identical	4	0	0	0	0	0	0

Table 3: Sources of less expensive online bottles

	Retail Price w/out trans p	1 bottle ground	1 bottle 3d day air	1 bottle 2d day air	1 case ground	1 case 3d day air	1 case 2d day air
NJ	4	3	3	0	4	4	3
NY	2	1	0	0	2	1	1
DC	3	1	1	0	1	1	1
IL	4	1	0	0	4	3	3
MO	2	1	0	0	2	2	0
TX	3	3	1	0	3	3	1
CA	38	21	11	5	20	21	15

wholesalers. Both states' laws contain strong statements indicating that vertical dis-integration is in the public interest, and both extensively regulate the types of services and promotional items that wineries and wholesalers can furnish to retailers. Virginia and California allow wineries to sell their own wines direct to consumers, but both states prohibit wineries (with some exceptions) from selling wine for off-premises consumption that they did not themselves produce.

There are, however, three differences in regulation of wine sales that may explain some of the price differences reported above. Virginia prevents wineries from dealing directly with retailers, charges higher license fees, and maintains a wholesale franchise law that significantly constrains contracting between wineries and wholesalers.

Direct sales to retailers

Virginia law requires that any bottle of wine sold in a retail store must be handled by a wholesaler before it reaches the retailer. If the wine comes from outside the state, it must pass through an importer. A Virginia wholesaler can hold an importer's license, but no out-of-state firm can be an importer. (VA Code Sec. 4.1-207) Thus, a California winery seeking to sell its wine in Virginia cannot sell directly to Virginia consumers or retailers; the winery must sell to an importer, who would likely also be a wholesaler.

California law, on the other hand, permits all wineries to sell their wine to any holder of an alcoholic beverage license. A California winery can sell to wholesalers if it chooses, but it can also sell directly to any person holding a license authorizing the sale of wine or brandy (CA Code 23358). The winery can also sell direct to consumers. Direct shipment, therefore, allows Virginia consumers to bypass at least one stage of the distribution system by purchasing

direct from a California winery or from a California retailer that purchased direct from a winery.

A California winery selling direct to Virginia consumers could underprice Virginia bricks-and-mortar stores if it could perform the wholesaling, retailing, and transportation functions at lower cost than the Virginia wholesalers and retailers. Alternatively, a California retailer selling direct to Virginia consumers could underprice Virginia bricks-and-mortar retailers if California's wine distribution system as a whole performs these functions at lower cost than Virginia's. With one exception, the lowest online prices in our sample were offered by retailers, not wineries. This finding suggests that the second explanation is potentially more relevant.

License fees

License fees are another possible source of cost differences between different states' distribution systems. Table 4 lists license fees. With the exception of retailers, most Virginia licensees pay substantially higher state fees than their counterparts in California. Fees for wineries and Virginia wholesalers depend on volume. Virginia's winery fee also depends on whether the winery is a farm winery, a special classification of winery that qualifies for special tax and regulatory benefits by growing a majority of the grapes it uses to produce its wine.

In the absence of specific information on the volumes of wine produced and/or handled by various parties, it is not possible to determine whether the difference in license fees is responsible for much of the difference in online vs. offline retail prices. A few informal calculations suggest that the effect may not be large. Virginia's \$715 wholesaler license fee, for example, applies to a

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wholesaler selling 150,000 gallons or less per year (VA Code Sec. 4.1-231.A.2.b). If a

Table 4: Virginia vs. California license fees

Virginia		California	
Winery	\$145-2860	Winegrower	\$49-205
License for winery off-premises sales of own wine	\$110	License for winery off-premises sales of own wine (Included in winery license fee.)	
Wholesaler	\$715-1430	Wholesaler	\$207
Retailer (off premises)	\$175	Retailer (off premises)	\$162
Wine importer	\$285	Wine importer	\$47-207
		Winegrower=s agent	\$371
		Wine broker	\$80

wholesaler sells 150,000 gallons, the license fee works out to less than half a cent per gallon.

Franchise law

A more plausible reason for the price differences between states involves differences in franchise laws. In addition to requiring all out-of-state wineries to utilize a Virginia wholesaler, Virginia imposes a number of requirements that limit wineries' freedom to contract or to switch wholesalers. Such regulations can ultimately raise retail prices in Virginia bricks-and-mortar stores by increasing transaction costs or conferring market power on wholesalers. California has no analogous wine franchise law.

Virginia law specifies that a winery cannot terminate its agreement with a wholesaler in the absence of a good cause, such as state revocation of the wholesaler's license, bankruptcy of the wholesaler, failure to maintain a certain sales volume, or other factors. The wholesaler must be given 60 days to cure any deficiency, and the state's Department of Alcoholic Beverage Control ultimately determines good cause after a hearing (VA Code Sec. 4.1-406). To the extent that such restrictions increase risk, increase transaction costs, and reduce distribution flexibility for a winery, the winery may demand a higher price from Virginia wholesalers than from wholesalers or retailers in California. As a result, the same California wine could cost more in Virginia.

Some aspects of Virginia's three-tier system might also confer market power on wholesalers, and so wine sold through this system could carry a higher price than wine sold via the Internet. Most of the available empirical studies find that laws permitting or requiring territorial exclusivity for wholesalers of alcoholic beverages do indeed raise prices (See, e.g., Jordan and Jaffee 1987, Culbertson

and Bradford 1991, Sass and Saurman 1996). While Virginia law bans exclusive territories, it requires the winery to designate a primary area of responsibility for each wholesaler, and the winery can have only one distributor in each territory for a single brand (VA Code Sec. 4.1-404). Primary areas of responsibility may have the same effect as exclusive territories if wholesalers refrain from selling to retailers outside of their primary area of responsibility.

Ordinarily, a producer utilizing exclusive territories has strong incentives and ability to prevent wholesalers from exploiting their market power. If the wholesaler charges an excessive markup, the producer can replace the wholesaler. The A good cause requirement for contract termination effectively precludes this remedy if the wholesaler is in compliance with all contract terms (FTC 1999). A winery selling to Virginia wholesalers could find itself powerless to terminate wholesalers who exploit market power created by the A primary area of responsibility requirement.

Conclusion

Interstate direct shipping of wine could facilitate competition between Virginia's and California's regulatory systems governing wine distribution and sales. The two systems exhibit significant differences, particularly regarding the role of wholesalers. With the exception of wine sold directly to consumers by Virginia wineries, all wine sold in Virginia must pass through a wholesaler before it reaches a retailer. Virginia's wine franchise law also protects wholesalers from termination and may confer market power by requiring wineries to designate each territory as one wholesaler's primary area of responsibility. California, in contrast, has no wine franchise law, and wineries are permitted to sell direct to retailers if they choose.

Online and offline price and variety data for 50 popular wines are consistent with the hypothesis that legalized interstate direct shipping could promote such competition. Variety available online is greater than variety available in the Virginia bricks-and-mortar stores we searched. In addition, a number of premium wines are less expensive online, even after accounting for transportation costs. More than half of our sample is available at a lower price online if purchased by the case and shipped via ground or third-day air.

If interstate direct shipment were allowed, customers could seek out products in those states with the lowest prices; California wineries and retailers could see increased sales. To the extent that the better prices and variety result from a less burdensome regulatory regime, the demand for more flexible regulations in Virginia could increase if Virginia merchants feared a substantial erosion of their market share. More broadly, to the extent that price and variety differences are influenced by differences in regulatory regimes, legalizing direct wine shipment nationwide could facilitate a regulatory race to the top across the states. States would compete to adopt the most flexible or efficient regulations, which should reduce prices and increase variety available to consumers.

Although our data are consistent with the regulatory competition hypothesis, we do not claim that differences in regulatory systems explain all of the price and variety advantages that online sellers offer. Many factors other than regulation affect a distribution system's costs, and we have not accounted for those factors in this paper. Nevertheless, our findings suggest that interstate direct wine shipment has the potential to promote regulatory competition, and so the results of litigation and legislation that would legalize interstate direct shipping are well worth watching.

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