Senators Skoe, Pappas, Kierlin and Ruud introduced--

S.F. No. 1280: Referred to the Committee on Commerce.

A bill for an act

relating to liquor; increasing restrictions on the use of alcohol by a person under the age of 21 years; amending Minnesota Statutes 2004, section 340A.503, by adding a subdivision.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2004, section 340A.503, is amended by adding a subdivision to read:

Subd. 5a. [ATTAINMENT OF AGE.] With respect to purchasing, possessing, consuming, selling, furnishing, and serving alcoholic beverages, a person is not 21 years of age until 8:00 a.m. on the day of that person's 21st birthday.

Senate Counsel, Research, and Fiscal Analysis

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Senate

State of Minnesota

S.F. No. 1444 - Alcoholic Beverage Sales to Minors Civil Penalties and Compliance Checks

Author: Senator Ellen R. Anderson

Prepared by: Matthew S. Grosser, Senate Research (651/296-1890) MG

Date: March 14, 2005

Current Minnesota law allows for the imposition of civil penalties up to $2,000, as well as license suspension or revocation for violations of applicable statute. This bill establishes mandatory civil penalties, imposed by the authority issuing the retail license, for the sale of alcoholic beverages to persons under age 21. The penalties range from $500 for a first violation to revocation of the violator's retailer licenses for a fourth violation within a two-year period. The Commissioner of Public Safety may impose the penalties if the Commissioner determines that the licensing authority has failed to do so after a reasonable period of time. No suspension or penalty may take effect until the licensee has been given the opportunity for a hearing as provided by the contested case procedures under the Administrative Procedures Act.

The bill also requires at least two compliance checks per year on each retail license holder, to be conducted by the licensing authority.

MSG:cs

Senators Anderson, Ranum, Pappas and Marty introduced--

S.F. No. 1444: Referred to the Committee on Commerce.

A bill for an act

relating to alcoholic beverages; providing minimum administrative penalties for sales to underage persons; proposing coding for new law in Minnesota Statutes, chapter 340A.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. [340A.5035] [MANDATORY PENALTIES AND COMPLIANCE CHECKS; SALE TO PERSONS UNDER AGE 21.]

(a) The authority issuing a retail license must impose the following civil penalties:

(1) for a first violation of section 340A.503 within a two-year period at the same location, $500;

(2) for a second violation of section 340A.503 within a two-year period at the same location, $750;

(3) for a third violation of section 340A.503 within a two-year period at the same location, $750 plus a three-day suspension of the violator's retail license; and

(4) for a fourth violation of section 340A.503 within a two-year period at the same location, the authority must revoke the violator's retail license.

(b) The commissioner may impose the penalties under paragraph (a) if the commissioner determines that the licensing authority has, after a reasonable period of time, failed to impose the penalties when required to do so under that paragraph.

(c) No suspension or penalty may take effect until the

licensee has been given an opportunity for a hearing as provided in section 340A.415.

(d) After a violation of section 340A.503 is found, the authority must perform a compliance check on the violating retail license holder within 90 days of the violation.

(e) An authority issuing a retail license under this chapter must complete at least two compliance checks per year on each retail license holder to ensure compliance with the provisions of this chapter. The commissioner shall adopt rules setting standards to be used during all compliance checks.

Senators Dibble and Pappas introduced--

S.F. No. 1535: Referred to the Committee on Commerce.

A bill for an act

relating to liquor; authorizing the city of Minneapolis to issue an on-sale license; amending Minnesota Statutes 2004, section 340A.404, subdivision 2.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2004, section 340A.404, subdivision 2, is amended to read:

Subd. 2. [SPECIAL PROVISION; CITY OF MINNEAPOLIS.] (a) The city of Minneapolis may issue an on-sale intoxicating liquor license to the Guthrie Theater, the Cricket Theatre, the Orpheum Theatre, the State Theatre, and the Historic Pantages Theatre, notwithstanding the limitations of law, or local ordinance, or charter provision relating to zoning or school or church distances. The licenses authorize sales on all days of the week to holders of tickets for performances presented by the theaters and to members of the nonprofit corporations holding the licenses and to their guests.

(b) The city of Minneapolis may issue an intoxicating liquor license to 510 Groveland Associates, a Minnesota cooperative, for use by a restaurant on the premises owned by 510 Groveland Associates, notwithstanding limitations of law, or local ordinance, or charter provision.

(c) The city of Minneapolis may issue an on-sale intoxicating liquor license to Zuhrah Shrine Temple for use on

the premises owned by Zuhrah Shrine Temple at 2540 Park Avenue South in Minneapolis, and to the American Swedish Institute for use on the premises owned by the American Swedish Institute at 2600 Park Avenue South, notwithstanding limitations of law, or local ordinances, or charter provision relating to zoning or school or church distances.

(d) The city of Minneapolis may issue an on-sale intoxicating liquor license to the American Association of University Women, Minneapolis branch, for use on the premises owned by the American Association of University Women, Minneapolis branch, at 2115 Stevens Avenue South in Minneapolis, notwithstanding limitations of law, or local ordinances, or charter provisions relating to zoning or school or church distances.

(e) The city of Minneapolis may issue an on-sale wine license and an on-sale 3.2 percent malt liquor license to a restaurant located at 5000 Penn Avenue South, and an on-sale wine license and an on-sale malt liquor license to a restaurant located at 1931 Nicollet Avenue South, notwithstanding any law or local ordinance or charter provision.

(f) The city of Minneapolis may issue an on-sale wine license and an on-sale malt liquor license to the Brave New Workshop Theatre located at 3001 Hennepin Avenue South, the Theatre de la Jeune Lune, the Illusion Theatre located at 528 Hennepin Avenue South, the Hollywood Theatre located at 2815 Johnson Street Northeast, the Loring Playhouse located at 1633 Hennepin Avenue South, the Jungle Theater located at 2951 Lyndale Avenue South, Brave New Institute located at 2605 Hennepin Avenue South, the Guthrie Lab located at 700 North First Street, and the Southern Theatre located at 1420 Washington Avenue South, notwithstanding any law or local ordinance or charter provision. The license authorizes sales on all days of the week.

(g) The city of Minneapolis may issue an on-sale intoxicating liquor license to University Gateway Corporation, a Minnesota nonprofit corporation, for use by a restaurant or

catering operator at the building owned and operated by the University Gateway Corporation on the University of Minnesota campus, notwithstanding limitations of law, or local ordinance or charter provision. The license authorizes sales on all days of the week.

(h) The city of Minneapolis may issue an on-sale intoxicating liquor license to the Walker Art Center's concessionaire or operator, for a restaurant and catering operator on the premises of the Walker Art Center, notwithstanding limitations of law, or local ordinance or charter provisions. The license authorizes sales on all days of the week.

Sec. 2. [EFFECTIVE DATE.]

Section 1 is effective the day following final enactment. Under Minnesota Statutes, section 645.023, subdivision 1, clause (a), section 1 takes effect without local approval.

Senator Hann introduced--

S.F. No. 1072: Referred to the Committee on Commerce.

A bill for an act

relating to liquor; authorizing the city of Eden Prairie to issue an on-sale intoxicating liquor license to a caterer for use in connection with city-owned premises.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. [CITY OF EDEN PRAIRIE; ON-SALE LICENSE.]

Notwithstanding any law, local ordinance, or charter provision, the city of Eden Prairie may issue an on-sale intoxicating liquor license to any entity holding an operating food service contract with the city for the operation of the cafeteria, for use by the entity at the premises owned by the city of Eden Prairie, at 8080 Mitchell Road in Eden Prairie. The license authorizes sales on all days of the week to persons attending special events in the cafeteria. The licensee may not dispense intoxicating liquor to any person attending or participating in an amateur athletic event held on the premises unless such dispensing is authorized by resolution of the city council. The license authorized by this subdivision may be issued for space that is not compact and contiguous, provided that all such space is within the City Center building and is included in the description of the licensed premises on the approved license application.

[EFFECTIVE DATE.] This section is effective the day following final enactment.

S.F. 1680 - POGEMILLER

A bill for an act

relating to liquor; authorizing the city of Minneapolis to issue an on-sale license; amending Minnesota Statutes 2004, section 340A.404, subdivision 2.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2004, section 340A.404, subdivision 2, is amended to read:

Subd. 2. [SPECIAL PROVISION; CITY OF MINNEAPOLIS.] (a) The city of Minneapolis may issue an on-sale intoxicating liquor license to the Guthrie Theater, the Cricket Theatre, the Orpheum Theatre, the State Theatre, and the Historic Pantages Theatre, notwithstanding the limitations of law, or local ordinance, or charter provision relating to zoning or school or church distances. The licenses authorize sales on all days of the week to holders of tickets for performances presented by the theaters and to members of the nonprofit corporations holding the licenses and to their guests.

(b) The city of Minneapolis may issue an intoxicating liquor license to 510 Groveland Associates, a Minnesota cooperative, for use by a restaurant on the premises owned by 510 Groveland Associates, notwithstanding limitations of law, or local ordinance, or charter provision.

(c) The city of Minneapolis may issue an on-sale intoxicating liquor license to Zuhrah Shrine Temple for use on

the premises owned by Zuhrah Shrine Temple at 2540 Park Avenue South in Minneapolis, and to the American Swedish Institute for use on the premises owned by the American Swedish Institute at 2600 Park Avenue South, notwithstanding limitations of law, or local ordinances, or charter provision relating to zoning or school or church distances.

(d) The city of Minneapolis may issue an on-sale intoxicating liquor license to the American Association of University Women, Minneapolis branch, for use on the premises owned by the American Association of University Women, Minneapolis branch, at 2115 Stevens Avenue South in Minneapolis, notwithstanding limitations of law, or local ordinances, or charter provisions relating to zoning or school or church distances.

(e) The city of Minneapolis may issue an on-sale wine license and an on-sale 3.2 percent malt liquor license to a restaurant located at 5000 Penn Avenue South, and an on-sale wine license and an on-sale malt liquor license to a restaurant located at 1931 Nicollet Avenue South, notwithstanding any law or local ordinance or charter provision.

(f) The city of Minneapolis may issue an on-sale wine license and an on-sale malt liquor license to the Brave New Workshop Theatre located at 3001 Hennepin Avenue South, the Theatre de la Jeune Lune, the Illusion Theatre located at 528 Hennepin Avenue South, the Hollywood Theatre located at 2815 Johnson Street Northeast, the Loring Playhouse located at 1633 Hennepin Avenue South, the Jungle Theater located at 2951 Lyndale Avenue South, Brave New Institute located at 2605 Hennepin Avenue South, the Guthrie Lab located at 700 North First Street, and the Southern Theatre located at 1420 Washington Avenue South, notwithstanding any law or local ordinance or charter provision. The license authorizes sales on all days of the week.

(g) The city of Minneapolis may issue an on-sale intoxicating liquor license to University Gateway Corporation, a Minnesota nonprofit corporation, for use by a restaurant or

catering operator at the building owned and operated by the University Gateway Corporation on the University of Minnesota campus, notwithstanding limitations of law, or local ordinance or charter provision. The license authorizes sales on all days of the week.

(h) The city of Minneapolis may issue an on-sale intoxicating liquor license to the Guthrie Theater's concessionaire or operator for a restaurant and catering operator on the premises of the Guthrie Theater, notwithstanding limitations of law, local ordinance, or charter provisions. The license authorizes sales on all days of the week.

[EFFECTIVE DATE.] This section is effective the day following final enactment.

Senator Dibble introduced--

S.F. No. 1322: Referred to the Committee on Commerce.

A bill for an act

relating to alcoholic beverages; eliminating prohibition against dual distribution in the beer market; repealing Minnesota Statutes 2004, section 325B.03.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. [REPEALER.]

Minnesota Statutes 2004, section 325B.03, is repealed.

APPENDIX
Repealed Minnesota Statutes for 05-1528

325B.03 NO DUAL DISTRIBUTION.

No brewer who designates a sales territory for which any wholesaler shall be primarily responsible shall enter into any agreement with any other beer wholesaler for the purpose of establishing an additional agreement for its brand or brands of beer in the same territory served by a beer wholesaler with that particular brand.

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S.F. No. 1585 - Liquor Wholesaler-Retailer Relationships

Author: Senator Mike McGinn

Prepared by: Matthew S. Grosser, Senate Research (651/296-1890)

Date: March 14, 2005

The bill eliminates the prohibition against financial relationships between malt liquor and distilled spirit wholesalers and licensed retailers of alcoholic beverages. The bill also relieves wholesalers of the requirement to report to the Commissioner of Public Safety the names and addresses of each retail licensee who is more than 30 days delinquent on payments for credit extended in the normal course of business.

MSG:cs

Senator McGinn introduced--
S.F. No. 1585: Referred to the Committee on Commerce.

A bill for an act

relating to liquor; modifying law relating to wholesaler-retailer relationships; amending Minnesota Statutes 2004, sections 340A.308; 340A.318.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2004, section 340A.308, is amended to read:

340A.308 [PROHIBITED TRANSACTIONS.]

(a) Except as otherwise provided in section 340A.301, no brewer ~~or malt liquor wholesaler~~ may directly or indirectly, or through an affiliate or subsidiary company, or through an officer, director, stockholder, or partner:

(1) give, or lend money, credit, or other thing of value to a retailer;

(2) give, lend, lease, or sell furnishing or equipment to a retailer;

(3) have an interest in a retail license; or

(4) be bound for the repayment of a loan to a retailer.

(b) No retailer may solicit any equipment, fixture, supplies, money, or other thing of value from a brewer ~~or malt liquor wholesaler~~ if furnishing of these items by the brewer ~~or wholesaler~~ is prohibited by law and the retailer knew or had reason to know that the furnishing is prohibited by law.

(c) This section does not prohibit a manufacturer ~~or wholesaler~~ from:

(1) furnishing, lending, or renting to a retailer outside signs, of a cost of up to $400 excluding installation and repair costs;

(2) furnishing, lending, or renting to a retailer inside signs and other promotional material, of a cost of up to $300 in a year;

(3) furnishing to or maintaining for a retailer equipment for dispensing malt liquor, including tap trailers, cold plates and other dispensing equipment, of a cost of up to $100 per tap in a year;

(4) using or renting property owned continually since November 1, 1933, for the purpose of selling intoxicating or 3.2 percent malt liquor at retail; or

(5) extending customary commercial credit to a retailer in connection with a sale of nonalcoholic beverages only, or engaging in cooperative advertising agreements with a retailer in connection with the sale of nonalcoholic beverages only~~;-or~~

~~(6)-in-the-case-of-a-wholesaler,-with-the-prior-written consent-of-the-commissioner,-selling-beer-on-consignment-to-a holder-of-a-temporary-license-under-section-340A.403, subdivision-2,-or-340A.404,-subdivision-10.~~

Sec. 2. Minnesota Statutes 2004, section 340A.318, is amended to read:

340A.318 [CREDIT EXTENSIONS RESTRICTED.]

Subdivision 1. [RESTRICTION.] Except as provided in this section, no retail licensee may accept or receive credit, other than merchandising credit in the ordinary course of business for a period not to exceed 30 days, from a distiller, manufacturer, ~~or-wholesaler-of-distilled-spirits-or-wine,~~ or agent or employee thereof. No distiller, or manufacturer ~~or wholesaler~~ may extend the prohibited credit to a retail licensee. No retail licensee delinquent beyond the 30-day period shall solicit, accept or receive credit or purchase or acquire distilled spirits or wine directly or indirectly, and no distiller, or manufacturer ~~or-wholesaler~~ shall knowingly grant or extend credit nor sell, furnish, or supply distilled spirits

or wine to a retail licensee who has been posted delinquent under subdivision 3. No right of action shall exist for the collection of any claim based upon credit extended contrary to the provisions of this section.

Subd. 2. [REPORTING.] Every distiller, or manufacturer ~~or wholesaler~~ selling to retailers shall submit to the commissioner in triplicate not later than Thursday of each calendar week a verified list of the names and addresses of each retail licensee purchasing distilled spirits or wine from that distiller, or manufacturer, ~~or wholesaler~~ who, on the first day of that calendar week, was delinquent beyond the 30-day period, or a verified statement that no delinquencies exist which are required to be reported. The name and address of each retail licensee who makes payment with a postdated check, or a check that is dishonored on presentment, must also be submitted to the commissioner at that time. If a retail licensee previously reported as delinquent cures the delinquency by payment, the name and address of that licensee shall be submitted in triplicate to the commissioner not later than the close of the second full business day following the day the delinquency was cured.

Subd. 3. [POSTING; NOTICE.] Verified lists or statements required by subdivision 2 shall be posted by the commissioner in offices of the department in places available for public inspection not later than the Monday following receipt. Documents posted shall constitute notice to every distiller, or manufacturer, ~~or wholesaler~~ of the information posted. Actual notice, however received, also constitutes notice.

Subd. 4. [MISCELLANEOUS PROVISIONS.] The 30-day merchandising period allowed by this section shall commence with the day immediately following the date of invoice and shall include all successive days, including Sundays and holidays, to and including the 30th successive day. In addition to other legal methods, payment by check during the period for which merchandising credit may be extended shall be considered payment. All checks received in payment for distilled spirits

or wine shall be deposited promptly for collection. A postdated check or a check dishonored on presentation for payment does not constitute payment. A retail licensee shall not be deemed delinquent for any alleged sale in any instance where there exists a bona fide dispute between the licensee and the distiller~~,~~ or manufacturer ~~or wholesaler~~ as to the amount owing as a result of the alleged sale. A delinquent retail licensee who engages in the retail liquor business at two or more locations shall be deemed to be delinquent with respect to each location. A retail licensee who engages in the retail liquor business at two or more locations means "a person or group of persons possessing 50 percent or more ownership in two or more locations."

Subd. 5. [LICENSE SUSPENSION OR REVOCATION.] The license of any retail licensee, distiller, or manufacturer ~~or wholesaler~~ violating any provision of this section shall be subject to suspension or revocation in the manner provided by this chapter.

Senate Counsel, Research, and Fiscal Analysis

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S.F. No. 1130 - Wine Regulations

Author: Senator Bob Kierlin

Prepared by: Christopher B. Stang, Senate Counsel (651/296-0539) CBS

Date: March 10, 2005

Section 1 removes wine as a product exempt from the law requiring licensed importers of alcoholic beverages to offer for sale their products on a nondiscriminatory basis.

Section 2 prohibits a licensed wholesaler or manufacturer from being a party to an agreement with an importer for the purchase of a brand of wine to the exclusion of the purchase of that brand by other licensed wholesalers and manufacturers.

CBS:cs

Senator Kierlin introduced--

S.F. No. 1130: Referred to the Committee on Commerce.

A bill for an act

relating to liquor; modifying restrictions on importers of wine; prohibiting certain exclusive agreements in the sale of wine; amending Minnesota Statutes 2004, section 340A.307, subdivision 4, by adding a subdivision.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2004, section 340A.307, subdivision 4, is amended to read:

Subd. 4. [EXCEPTIONS.] Nothing in this section applies to:

(1) ~~wine or~~ malt liquor of any alcohol content;

(2) intoxicating liquor which is:

(i) further distilled, refined, rectified, or blended within the state; and

(ii) bottled within the state and labeled with the importer's own labels after importation into the state; or

(3) any brand of intoxicating liquor which is offered for sale only in this state. No such brand shall vary from an existing or new brand sold in another state in any manner as to brand name, age, or proof of the product.

Sec. 2. Minnesota Statutes 2004, section 340A.307, is amended by adding a subdivision to read:

Subd. 5. [ELIMINATION OF WINE WHOLESALE EXCLUSIVE AGREEMENTS.] Notwithstanding any other law to the contrary, no licensed wholesaler or manufacturer shall be a party to an agreement with a licensed importer for the purchase of a brand

of wine by the licensed wholesaler or manufacturer to the exclusion of the purchase of that brand by other licensed wholesalers or manufacturers in the state after the effective date of this act.

Senator Ourada introduced--

S.F. No. 1131: Referred to the Committee on Commerce.

A bill for an act

relating to liquor; prohibiting the establishment of new municipal liquor stores; amending Minnesota Statutes 2004, section 340A.601, by adding a subdivision.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2004, section 340A.601, is amended by adding a subdivision to read:

Subd. 1a. [NO NEW MUNICIPAL LIQUOR STORES.] Notwithstanding subdivision 1, no new municipal liquor store may be opened or established after June 30, 2005. This subdivision applies to cities currently operating and cities not currently operating a municipal liquor store.

Sec. 2. [EFFECTIVE DATE.]

This act is effective the day following final enactment.

Senator Kleis introduced--

S.F. No. 1435: Referred to the Committee on Commerce.

A bill for an act

relating to liquor; requiring certain cities operating municipal liquor stores to issue off-sale licenses to qualified applicants; amending Minnesota Statutes 2004, section 340A.601, subdivision 5.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

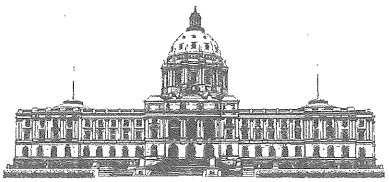
Section 1. Minnesota Statutes 2004, section 340A.601, subdivision 5, is amended to read:

Subd. 5. [ISSUANCE OF LICENSES TO PRIVATE PERSONS.] (a) A city owning and operating a municipal liquor store may issue on-sale liquor licenses to hotels, clubs, and restaurants. A city issuing on-sale licenses under this subdivision may continue to operate the municipal liquor store or may resume operation of a municipal liquor store previously discontinued.

The number of on-sale licenses issued under this section by a city is governed by section 340A.413.

A city may not issue licenses under this ~~section~~ paragraph, other than a license issued to a club under section 340A.404, subdivision 1, clause (4), until authorized by the voters of the city voting on the question at a special election called for that purpose.

(b) Any city that owns and operates a municipal liquor store must issue an off-sale license for an exclusive liquor store to any applicant qualified under this chapter. The license must be approved by the commissioner.



Senate

State of Minnesota

TO: Legislative Audit Commission

FROM: Senate Commerce Subcommittee on Liquor

DATE: March 14, 2005

RE: Evaluation Topic

The members of the Senate Commerce Subcommittee on Liquor urge the Legislative Audit Commission to recommend that the Office of the Legislative Auditor evaluate state regulation of alcoholic beverage sales and distribution under Minnesota Statutes, Chapters 325B and 340A. This evaluation should include impact of the following on consumer choice, competitive prices and public safety:

- statutorily sanctioned exclusive wholesaling relationships
- statutorily sanctioned limitations on retail licenses, particularly off-sale
- other state- or locally-authorized economic regulation.

Review of the Report

Impact of the Highly Regulated Wholesale and Retail Alcoholic Beverage Markets in Minnesota

prepared for the

Minnesota Grocers Association

by

American Economics Group, Inc.
March 2005

Reviewed for the

Minnesota Municipal Beverage Association

by

David P. Brennan, Ph.D.
Professor of Marketing
Co-director of The Institute for Retailing Excellence
University of St. Thomas

March 12, 2005

Review of the Report
Impact of the Highly Regulated Wholesale and
Retail Alcoholic Beverage Markets in Minnesota

This review of the subject report was requested by Paul Kaspszak, Executive Director of the Minnesota Municipal Beverage Association. It provides an overview of the report, a historical brief on the alcohol in Minnesota, and an analysis of the pricing methodology used, geographic scope and industry structure.

Overview

The report is heavy on rhetoric and light on facts that can be substantiated. For instance, the report frequently uses the term monopoly or near monopoly when referring to Minnesota alcoholic wholesalers and retailers. First and most importantly the report indicates higher average costs are the result of a monopoly. There is no evidence in the report to substantiate there are monopoly or near monopoly conditions in Minnesota than there is in Wisconsin. The entire report is based on a pricing survey described in the Appendix on Methodology. It provides very limited information on how, when and where the pricing data on alcoholic beverages was obtained. Verification and replication is essential element of any survey. This report and the research conducted cannot be verified or replicated.

Second, the report's focus on Minnesota, but in reality, it is on Wisconsin and Minnesota. More specifically, Wisconsin is one of 33 states that allow grocers to sell wine and spirits in contrast to Minnesota, which is one of 17 states that do not allow grocers to sell wine and spirits. More specifically, it is on Wisconsin being more price competitive on alcoholic beverages than Minnesota. A more accurate and complete assessment would have included

Minnesota's adjacent states of Iowa, North Dakota and South Dakota. Clearly the author(s) of the report attempts to show that Minnesota is less competitive than Wisconsin. The do not want to show that Minnesota may be more competitive than Iowa, North Dakota and South Dakota.

Third, the size and structure of the alcoholic beverage industry reflects a state's unique culture, politics, taxation, historical development and the spatial distribution of people and urban centers. The alcoholic beverage industry in Minnesota is different from neighboring states and Wisconsin in particular because of the dominance of the Twin Cities; relative few smaller sized metro areas with numerous rural counties.

Alcohol in Minnesota

Minnesota has a long history of wanting to control alcohol distribution. The Midwest was the heartland of the Prohibition movement. The Woman's Christian Temperance union (WCTU) began in Cleveland, Ohio in 1874 and is now headquartered in Evanston, Illinois. Minnesota chapters began in 1878 and grew in number and size paving the way for Prohibition. The Volstead Act which prohibited the manufacture and distribution of alcoholic beverages of greater the 0.5% was authored by Andrew Volstead of Granite Falls, Minnesota. The Act became law on January 16, 1920 and was repealed by the 21st Amendment to the constitution effective December 5, 1933.

Minnesota enacted conservative laws to control the sale and distribution after the repeal of Prohibition. Some measures included higher taxes on alcoholic beverages, restrictions on

days and hours of operation, no serving of wine or spirits on Sunday, only 3.2% beer at non-liquor stores, restricting liquor stores and grocers from selling each other's products, legislation enabling smaller communities to operate municipal liquor stores and bars and local option as to whether or not to sell liquor or not.

Pricing Survey

First, the report uses data from the Minnesota State Auditors report on Municipal Liquor Store Operations for 2003. The report states that Minnesota imposes two types of special taxes on alcoholic beverages:

"**Special excise taxes** are imposed on the manufacturers or wholesalers of these products. Taxes are fixed by a dollar amount per unit (per barrel or liter). Tax rates vary by beverage type.

A **special higher sales tax rate** of 9 percent (2.5 percentage points higher than the regular rate) applies to their retail sales—whether made on-sale (to be consumed in bars or restaurants) or off-sale (in liquor stores or by other sellers). The tax is a percentage of the retail price. It is scheduled to expire on January 1, 2006.

Revenues from both the excise tax and the additional 2.5 percentage point sales tax go into the general fund. Fiscal revenues from the excise taxes were about $67 million and $54 million for the special sales tax."

Clearly, municipal liquor stores are only a small portion of the alcoholic beverage establishments, and not very representative at that. They number 257 (Minnesota State Auditor's Report for 2003) out of almost 960 stores statewide (Census of Retail Trade for 1997). They tend to be located in smaller, more isolate communities that provide greater convenience to the local community and generate revenue for the municipality.

Second, the pricing survey outlined on page 12 of the report indicates:
"For this part of the study, data were collected on popular brands of wine and spirits for various locations in Minnesota and Wisconsin. Locations in Minnesota were assigned a code of 1, 2 or 3 depending on the degree of competitiveness reflected by profit margins. Regressions were than calculated as a function of the location in Minnesota or Wisconsin, competitiveness rating, beverage type, bottle size using dummy variables where appropriate."

The report does not provide any detail on when, where or how the pricing data were obtained. **When** is an important consideration? Most Minnesota liquor stores use a high-low pricing promotional strategy. They selectively discount certain beverages to drive traffic and sales. They often have special broader price promotions with deeper and broader discounts by category (beer, wine and spirits) for longer periods during certain times of the year. Wine for instance is heavily discounted and promoted in March, July and October. Clearly, these sales account for a disproportionately large volume of sales. We cannot tell when the survey was taken so the price differences are questionable.

Where the data was collected also affects the result. There is very limited information on the sampling technique used. Normally a sampling frame is established to ensure that the sample is representative. Random, stratified and clustered sampling techniques are used to ensure that the sample is unbiased. The report provides very limited information on which markets and stores were sampled and why. There is no assurance that the sample is is representative and unbiased.

How the data was collected is not described. Was the data collected by observation, phone, mail, etc? We do not know from the report. Were there safeguards used to ensure that the products compared were identical? We don't know from the report. For instance, spirits in liters vs. fifths are similar in size and some stores, especially small ones, only handle one size. Similarly, the report lists 750-ml. bottles of wine. One brand used in the survey was Mondovi. Which Mondovi wine was it? Was it Fume Blanc, Chardonnay, Pinot Nor, Merlot, Cabernet? Prices vary by variety as well as where the wine was produced. The report provides no specific information on what wine was tracked, and leaves in doubt how systematic and accurate the data collected was.

The market basket of items for which the price comparisons are limited and do not reflect a cross section of alcoholic beverages. The report only lists five 1.5 lt. of spirits and four 750- - ml. brands of wine. This is far too small to be considered a representative sample. A minimum of 20 items for each category (beer, wine and spirits) would be needed to ensure representativeness. In addition, the sample should be broadly representative of the entire market: lower, middle and higher priced products within each category not just the popular

brands. The sample is medium to better. It does not include the full range of products and prices.

The Research Department of the Minnesota House of Representatives report of January 2005 sates that:

"Minnesota's wine and beer excise taxes are average or below average compared to most other states. Minnesota's tax on distilled spirits (liquor) is among the highest for states with excise taxes. A number of states (including Iowa) have liquor monopolies and a portion of the price is markup is a *de facto* tax; it is difficult to compare the tax burden with these states. The table compares Minnesota rates with its bordering states. However, only North Dakota imposes an additional sales tax (an additional 2 percentage points). Thus Minnesota alcohol tax burden is higher suggested by simply comparing excise tax burdens."

Excise Tax Rates (per gallon)
Bordering States

	Strong Beer	Table Wine	Liquor
Iowa	$.19	$1.75	N.A.
Minnesota	.15	.30	$5.03
North Dakota	.16	.50	2.50
South Dakota	.27	.93	3.93
Wisconsin	.06	.25	3.25

Source: Federation of Tax Administrators

Clearly, Minnesota uses taxes to increase revenue, especially in light of recent deficits. This is a matter of tax policy and revenue needs rather than price competitiveness at the market and store levels. It also reflects the state's history and culture in taxing vices like alcohol and tobacco more highly than other states.

Geographic Scope

This report focuses on Minnesota, but is actuality it is about Minnesota and Wisconsin. This raises the question about why Wisconsin and not the other adjacent states of Iowa, North Dakota and South Dakota too. Could be it because Wisconsin allows liquor to be sold in grocery stores and the other states do not?

The spatial demographics of Minnesota and its neighboring states are strikingly different. The table below shows that Wisconsin is the most densely populated sate. It also has more residents residing in Metropolitan Statistical Areas (MSA), but a slightly lower percentage than Minnesota. The latter is the result of the high concentration of the state's population residents in the Twin Cities compared to Milwaukee: 58.4% vs. 28%. Iowa, North Dakota and South Dakota are much more rural with less than half of their populations in MSAs.

Population Density and MSA Population Concentration

	Population/Sq. Mile	MSA Population	Percent of State
Wisconsin	98.8	3,611,574	67.3
Minnesota	61.8	3,500,525	71.2
Iowa	52.4	1,457,567	49.8
South Dakota	9.9	299,911	39.7
North Dakota	9.3	278,420	34.9

Source: Office of Management and Budget and the Census of Population for 2000

Another way to look at the urban structure is by counties. The table below shows that Wisconsin has more MSAs counties in MSAs. They are also more evenly dispersed throughout the state. This structure suggests the urban structure might yield greater competition where more stores drive prices lower because of increased competition. By extension, more rural residents would have access to these MSAs with more competitive pricing.

MSA Counties Importance in State

	MSAs	MSA Counties	Counties % of Total
Wisconsin	12	21	30.0%
Minnesota	7	18	20.7
Iowa	9	11	11.1
South Dakota	2	3	4.5
North Dakota	3	4	7.5

Source: Office of Management and Budget and the Census of Population for 2000

Bottom line: urban structure favors higher levels of competition.

Industry Structure

Distribution of alcoholic beverages reflects the historical development of states, liquor laws and regulations, urban structure, etc. Wholesale trade in Wisconsin developed earlier and more widespread than Minnesota. The importance of rivers and Lake Superior resulted in earlier advantages to cities like Winona, Red Wing, Stillwater, Mankato, Duluth and above all Minneapolis and St. Paul in Minnesota. Early advantages as gateways resulted in fewer, but larger wholesalers being more concentrated Minnesota than Wisconsin. Cultural differences resulted in Iowa running liquor as a state owned and operated monopoly. The Dakotas have high concentrations of wholesaling in only four markets: Sioux Falls, Rapid City, Fargo and Grand Forks.

Retail industry structure shows Minnesota with the greatest number of establishments, sales and employees. Wisconsin is a distant second because it permits grocers to sell wine and liquor to selected grocery stores. On the other end of the spectrum is Iowa with the lowest concentration of establishments, sales and employees. This is what happens in a real monopoly; not Minnesota as the author(s) of the report indicates.

Retail Industry Structure

	Establishments	Sales ($000)	Employees
Wisconsin	490	$359,298	2,395
Minnesota	960	810,400	6,642
Iowa	111	57,692	531
South Dakota	139	71,874	651
North Dakota	125	75,444	751

Source: Census of Retail Trade, 1997 (2002 information is only partially released)

MINNESOTA MUNICIPAL BEVERAGE SUMMARY SHEET

- Municipal liquor stores started after Prohibition as a means for cities to control the distribution of alcohol in their communities. Later, cities found their municipal liquor store could be a method of generating needed non-tax revenue. Today, the purpose of municipal liquor stores is to "control the distribution of alcohol – while simultaneously generating income for the community."

- Off-sale municipal liquor operations have geographic exclusivity but not competitive exclusivity. This competition has caused municipal liquor operations to become more business savvy – with the goal of encouraging customers to purchase at the municipal liquor operation, instead of somewhere else.

- There are over 230 cities with off-sale or on-sale / off-sale combination municipal liquor operations, operating approximately 260 facilities. Sales range from approximately $100,000 to over $9 million per year. Total annual sales are approximately $250 million with total annual profits of approximately $20 million. Profits are used by cities for general fund activities or special projects including recreation programs, elderly transportation and public safety equipment.

- Sales have increased over the past decade and the trend is continuing.

- The strong trend in large cities and small towns is to remodel and / or expand existing facilities and build new facilities.

- Municipal liquor operations can advertise, promote, price etc. like independently owned operators. However, because of the "alcohol control" element, municipal liquor operators may choose not to engage in certain, otherwise legal, activities.

Alcohol Related Fatalities

Year	Minnesota	Wisconsin
1982	322	479
1983	314	453
1984	332	482
1985	287	404
1986	284	428
1987	248	450
1988	294	462
1989	289	397
1990	258	370
1991	233	362
1992	240	302
1993	216	330
1994	250	311
1995	269	323
1996	222	325
1997	197	335
1998	285	304
1999	206	310
2000	258	350
2001	225	366
2002	256	360
2003	267	387
TOTAL	**5752**	**8290**

Since 1982, Wisconsin has averaged over 44% MORE Alcohol Related Fatalities than Minnesota

Source: 1982-2002 (Final) FARS Files and 2003 FARS Annual Report File, FHWA's Highway Statistics Annual

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166 STONEBRIDGE ROAD
LILYDALE, MN 55118

651-454-9090
FAX 651-681-0606

March 14, 2005

To: Members of Commerce Liquor subcommittee

From: Jerich and Associates, Consultant to the Wine Institute

Re: Opposition to SF1130 – Kierlin: Wine sales exclusive agreements prohibition

The Wine Institute wishes to express their opposition to SF 1130.

Many wineries produce unique specialty wines in small lots and the ability to establish contractual relationships with wholesalers is vital to their ability to provide a venue to market their products.

Marketing wines takes time to educate wholesalers and retailers on the unique qualities of wines and the smaller wineries do not have the resources or the quantities of product to work with multiple wholesalers. The exclusive agreements provide an incentive to all parties to partner to build and promote brands, providing better service to retailers and thus providing a broader choice of wine products to Minnesota consumers.

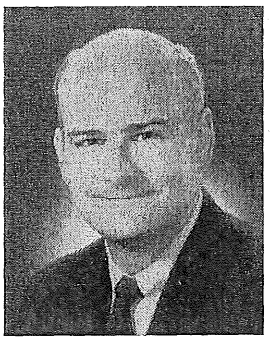
Minnesota contract laws are adequate to govern these agreements.

Senator ..... moves to amend S.F. No. 1535 as follows:

Page 3, delete lines 13 to 16, and insert:

"**[EFFECTIVE DATE.]** This section is effective upon approval by the Minneapolis city council in the manner provided by Minnesota Statutes, section 645.021, notwithstanding Minnesota Statutes, section 645.023, subdivision 1, clause (a)."

Clifford A. Ong
Krieg DeVault LLP
One Indiana Square
Suite 2800
Indianapolis IN 46204



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Web site: www.kriegdevault.com

CLIFFORD A. ONG

Mr. Ong is the former Director of Homeland Security for the Indiana Counter-Terrorism and Security Council. In that position, his responsibilities included advising and regulating security issues for law enforcement, private industry, public health and emergency management. Mr. Ong served the Council as the Governor's designated point-of-contact for Secretary Tom Ridge and the Department of Homeland Security. The Council considers ways of improving security in Indiana by making prevention a priority.

Prior to his appointment to this position by the Governor, Mr. Ong served as Chairman of the Alcohol & Tobacco Commission for the State of Indiana. He has also served as a Deputy Prosecuting Attorney in narcotics and grand jury investigations (Marion County) and was a member of the Federal Environmental Crimes Task Force. Before attending law school, Mr. Ong served as Program Director for the Indiana Department of Commerce, where he was responsible for development fund grants.

Raised in Evansville, Indiana, Mr. Ong attended Miami University in Oxford, Ohio and graduated in 1985 with degrees in English and History. He received his law degree in 1996 from Indiana University - Indianapolis where he wrote his law review note on entrapment and federal terrorism law.

Practice Group Emphasis / Membership:
Corporate & Securities Practice Group
Governmental Affairs Practice Group
Health Care Practice Group

Areas of Practice:
Mr. Ong's main areas of practice include regulatory risk management and alcohol regulation.

Bar Admissions:
Indiana

Education:

Miami University, Oxford, OH	B.A., 1985
Indiana University School of Law, Indianapolis, IN	J.D., 1996

Classes / Seminars Taught:
Alcohol Beverage Law, Annual Review, 2001

Honors and Awards:
"40 Under 40", *Indianapolis Business Journal*, 2002
Sagamore of the Wabash, Awarded by Governor Kernan, 2004

Professional Associations and Memberships:

Member	Indiana Bar Association
Member	Indianapolis Bar Association

Past Employment Positions:

State of Indiana, Director of Homeland Security for the Indiana Counter-Terrorism and Security Council, 2001 - 2004

State of Indiana, Chairman of the Alcohol & Tobacco Commission

Marion County, Deputy Prosecuting Attorney in narcotics and grand jury investigations

Birth Information:

1963, Cleveland, Ohio, United States of America

MEMORANDUM

TO: Interested Parties
FROM: Michael D. Madigan, Minnesota Beer Wholesaler Association
RE: Summary of Beer Industry's Contribution to Minnesota's Economy
DATE February 23, 2005

INTRODUCTION

For over sixty (60) years, the Minnesota Beer Wholesaler Association ("MBWA") has served as the membership organization of the beer wholesaling industry in the state of Minnesota. All beer wholesaling businesses in Minnesota are family owned and operated, in some instances by the third and even fourth generation. There are currently about ninety (90) beer wholesalers operating throughout the state.

ECONOMIC CONTRIBUTION OF THE BEER INDUSTRY TO MINNESOTA

A 2004 study commissioned by the National Beer Wholesaler Association and the Beer Institute summarized the economic contributions of the beer industry to Minnesota's economy. At that time, the industry paid $518 Million in federal, state, and local taxes. The industry employed 37,170 Minnesotans, paid $970,800,000 in wages, and made a total economic contribution to the state of $2,680,000,000. Each ten (10) jobs in the beer industry help create an additional twenty (20) jobs in other industries. The Study further found that Minnesota's Beer Industry, through direct and indirect contributions, helped add 2,960 jobs and over $131.4 Million in wages to the state economy over the last two years alone. A Press Release describing the 2004 study is attached.

CONCLUSION

Beer wholesalers are a vital part of our state economy, particularly in outstate Minnesota. In addition to fueling Minnesota's economic engine through capital purchases, such as warehouses, trucks, vehicles, computers and other items, beer wholesalers also support other community businesses such as insurance, banking, health providers, accounting, legal, transportation, advertising, and the like. Beer wholesalers are good corporate citizens in the communities where they live and work. They are a source of substantial philanthropic support in those communities. Since the 1970's, they have been deeply committed to responsible use of their products through such means as the award winning program called MBWA CARE, the purpose of which is to raise alcohol awareness in communities and take affirmative steps to prevent intemperate consumption of alcohol.

MDM:brc
Enclosure

BEER INSTITUTE

For Immediate Release
February 15, 2005

Contact: Beau Phillips (Beer Institute): 202-777-3513
Michelle Semones (NBWA): 703-683-4300

Beer Industry Has $2.68 Billion Impact on Minnesota Economy

New Economic Study Details Jobs, Wages and Overall Economic Impact

Washington, D.C. — Beer-related businesses, including brewers, wholesalers, and retailers, contribute $2.68 billion to the Minnesota economy, according to a new study released today by the National Beer Wholesalers Association (NBWA) and the Beer Institute. The industry's economic impact in the state includes 37,170 jobs paying $970.8 million in wages as well as more than $518 million in federal, state and local taxes generated and paid, including consumption taxes. These results show significant growth in all categories over a similar study released in 2003, which was based on data collected for 2001. The report released today calculates data from 2004.

"We are extremely proud to be a significant contributor to the Minnesota economy," said NBWA President David Rehr. "More than simply providing a refreshing beverage enjoyed by 90 million adults, we are businesses that have a national economic impact, and at the same time positively touch nearly every community in Minnesota, providing jobs for our fellow citizens and tax revenues for our towns and cities."

According to the report, the direct and indirect economic output of brewers, wholesalers, retailers, and suppliers to Minnesota's economy increased more than $347 million from a 2003 study, from about $2.3 billion to the current $2.6 billion. Through direct and indirect economic contributions, Minnesota's beer industry helped add 2,960 jobs and over $131.4 million in wages to the state economy over this time period.

"This study demonstrates that the beer industry is made up of more than just those who make and distribute our products," said Jeff Becker, President of the Beer Institute. "We are an industry of farmers, can manufacturers, truck drivers, retailers, among many others. While the economic impact of the industry is significant, brewers and wholesalers are also committed to promoting the responsible consumption of their products and to improving local communities."

Nationally, the total economic impact of beer-related businesses is nearly $162 billion annually to the U.S. economy. This includes nearly 1.8 million jobs paying more than $54 billion in wages. Total taxes are more than $30 billion in federal, state and local taxes paid, as well as in consumption taxes.

The study also breaks down the industry's economic impact by congressional district. A chart with the key data points for congressional districts in Minnesota is attached.

To view other states or to view the full Beer Industry Economic Impact Study, please visit www.beerservesamerica.org.

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The Beer Institute, established in 1986, is the national trade association for the brewing industry, representing both large and small brewers, as well as importers and industry suppliers. The Institute is committed to development of sound public policy and to the values of civic duty and personal responsibility.

Founded in 1938, the National Beer Wholesalers Association advocates before government and the public on behalf of nearly 2,200 licensed independent beer wholesalers with operations located in every congressional district and state across the country. Beer wholesalers are committed to ensuring that the products they provide are consumed legally, moderately and responsibly.

INTOXICATING LIQUOR REGULATION

&

EXCLUSIVE TERRITORIES

By: Michael D. Madigan
President & Legal Counsel
Minnesota Beer Wholesalers Association

INTRODUCTION

As outlined in another white paper entitled "Intoxicating Liquor Regulation & The Three-Tier System", Minnesota closely regulates the licensing, importation, distribution and sale of intoxicating liquor within its borders in order to prevent illegal sales to minors, inhibit overly aggressive marketing and consumption, collect taxes, create orderly, transparent and accountable distribution systems, and prevent a recurrence of the problems that led to the enactment of National Prohibition. Following a majority of states, Minnesota adopted the three-tier system of regulation in order to accomplish these goals. The three-tier system is designed to prevent vertical integration in the liquor industry by "tied houses." Direct links between manufacturers and retailers, and disproportionate influence between the two, has historically led to increased sales, abusive sales practices, and excessive consumption. The three-tier system interjects checks and balances by separating producers from consumers through a distinct, mandatory, transparent, and accountable distribution system.

EXCLUSIVE TERRITORIES

A key component of the three-tier system, and Minnesota's Intoxicating Liquor Regulatory Scheme, is exclusive territories for beer and wine. Today, every state in the country has exclusive territories for beer either by statute or agreement.

Exclusive territories serve four (4) basic purposes. First, they are the backbone of any transparent and accountable distribution system. The ability to audit for tax payments is easier as is the enforcement of trade practice violations. Agents from the Alcohol & Gambling Enforcement Division know exactly who is responsible for selling a particular brand to retailers in a given area and can, therefore, determine how much of the

brand is being sold, the prices being paid by the retailers and the terms of sale. In other words, agents can determine if:

- The proper amount of tax is being collected
- Illegal inducements were being made at the time of sale
- The brands are being illegally sold as a "loss leader" (being sold below the purchase price)

Second, exclusive territories ensure that every retailer in a given area will have access to every brand and package variety of products sold in that area on a timely basis. This ensures that consumers have the widest choice of brands thereby enhancing competition.

Third, exclusive territories protect product quality. Beer is a perishable product with a code date. Under Distributor Agreements with brewers, wholesalers are required to replace at their cost any beer on a retailer's shelves which becomes old. No wholesaler will replace old beer at his cost that he did not originally sell to the retailer. Accordingly, the elimination of exclusive territories would not only hamstring effective enforcement, it would also quickly undermine product quality and ultimately public health. Exclusive territories also protect consumers by enabling the enforcing agency to know exactly who to contact to get a brand removed from retail shelves in the event of a product recall or product tampering situation.

Fourth, exclusive territories ensure better service and prevent "free riding." The introduction of a new product or brand involves a significant investment of time and money by a wholesaler. In essence, a new "market" must be created. This investment, ensures, as mentioned earlier, that consumers have a wide choice and that competition is

preserved. If territories are not exclusive, wholesalers have no incentive to make this investment because a competitor may unfairly "free ride" on the wholesaler's investment. It also creates a disincentive for wholesalers from servicing retail accounts.

Contrary to some misconceptions, exclusive territories do not increase costs to consumers. In a study entitled" Geographic Restraints in the Malt Beverage Industry", the authors (Robert D. Tollision, Ph.D., George Mason University and Robert B. Ekelund, Jr., Ph.D., Auburn) made the following statement: "In sum, our study is fairly conclusive on the question of whether exclusive beer distribution territories will harm or enhance consumer welfare. After a detailed analysis of the effects of state-mandated exclusive territories on the prices of beer at retail, we find that if there is any effect at all, state-mandated exclusive territories lead to lower retail beer prices. There is no evidence that exclusive territories lead to higher retail prices . . .". This is due in part because exclusive territories facilitate interbrand competition by requiring wholesalers to promote and merchandise all of the products assigned to their companies and by not allowing licensees from outside the territory to "cherry pick" high volume accounts and "dump" product (i.e. merely lowball the price without providing any merchandising, promoting and sales support).

EFFICIENCY EFFECTS OF EXCLUSIVE TERRITORIES: EVIDENCE FROM THE INDIANA BEER MARKET

TIM R. SASS and DAVID S. SAURMAN*

The welfare effects of vertically imposed exclusive territories and the appropriate antitrust policy toward them have long been debated. This paper sheds light on the exclusive-territory controversy by examing the effects of Indiana's 1979 ban on the grant of exclusive territories to beer wholesalers. Using time-series data for 1948–1990 we find the ban reduced beer consumption in Indiana by 6 percent. Coupled with previous evidence that Indiana's ban reduced price, our results suggest that exclusive territories in the beer industry increase demand and enhance welfare by stimulating the provision of dealer services.

I. INTRODUCTION

Vertically-imposed exclusive territories, whereby a manufacturer allows only a single dealer to market its products within a given geographical area, have been the subject of much debate among economists and the antitrust bar. At the heart of the controversy is the effect of exclusive territories on economic efficiency; do these vertical restraints enhance economic efficiency by promoting the optimal level of dealer effort or do they reduce social welfare by stifling intrabrand competition and promoting dealer cartels?

The debate over the efficiency effects of exclusive territories begs resolution by examining the available data. While exclusive territories have been used in a number of industries, we examine the beer industry in Indiana.[1] We choose the beer industry because much of the requisite information is publicly available, and sufficient variation in the regulatory structure exists to test alternative hypotheses concerning exclusive territories. We focus on Indiana because it is the only state that has legally proscribed the use of exclusive-territory contracts by brewers. Thus, time-series data from Indiana offer a unique opportunity to construct reliable tests of the effects of these vertical restraints.

In addition to data availability, the beer industry is a prime candidate for analysis since the use of vertical restraints by brewers continues to be of policy interest. Brewers and beer wholesalers have sought federal antitrust immunity for brewers that grant exclusive territories to their distributors.[2]

* Associate Professor of Economics, Florida State University and Associate Professor of Economics, San José State University. We thank an anonymous referee, Paul Beaumont, Kenneth Button, Coldwell Daniel III, Roger N. Folsom, John D. Jackson, John Mayo, Stefan Norrbin and Rodney Smith for valuable comments, Mark Nichols for research assistance, and Frank Chaloupka for providing some of the data. Saurman is indebted to Robert D. Tollison for stimulating his interest in the subject. Any errors are solely our responsibility.

1. Industries in which firms have imposed vertical territorial restraints include audio components, hearing aids, sailboats, soft drinks and beer. See Overstreet [1983, 84 101].

2. See Carstensen and Dahlson [1986, 3] and *The Malt Beverage Interbrand Competition Act: Hearings Before the Committee on the Judiciary, United States Senate*, 100th Congress, 1st Sess. (1987) (Henceforth *1987 Senate Hearings*).

Economic Inquiry
(ISSN 0095-2583)
Vol. XXXIV, Ju

II. THE OPPOSING THEORIES OF EXCLUSIVE TERRITORIES

Posner [1981] and others have argued that vertical restraints are selected by manufacturers to enhance the efficiency of their distribution systems and therefore should be legal *per se*. Exclusive territories can enhance economic efficiency if they serve to promote provision of the optimal level of dealer services. Telser [1960] argues that in the absence of exclusive territories, dealers may fail to provide the manufacturer's optimal level of dealer services when consumers can free ride on dealer services that are associated with, but separable from the product. Additionally, Klein and Murphy [1988] suggest that if product quality is not observable by consumers prior to purchase, some dealers can profitably underproduce service levels that affect quality and free ride on performing dealers. Dealers may also fail to provide the level of service desired by the manufacturer even when consumer or producer free-riding problems do not exist. Posner [1977] and Klein and Murphy both reason that if the dealer profit margin in the absence of exclusive territories is insufficient to compensate for the dealer's cost of services like advertising displays or point-of-sale promotions, then dealers will not produce these services even when they are profitable to the manufacturer.

Klein and Murphy argue that exclusive territories serve to assure dealer provision of the manufacturer's optimal service level by restricting intrabrand competition and thus creating a stream of quasi-rents accruing to dealers. The quasi-rents serve as a reward to dealers who provide the desired level of service. Dealers who do not live up to their contractual obligations run the risk of termination and loss of future quasi-rents. The grant of exclusive territories will then have two opposing effects on final market equilibrium. To the extent that additional services are valued by consumers, demand will increase which in turn will lead to higher equilibrium price and output. In contrast, absent resale price maintenance or other vertical controls, the reduction in intrabrand competition among dealers will tend to reduce supply, causing an increase in price and a decrease in output.

Under the dealer-services hypothesis, the possible effects of exclusive territories on price and output are depicted in Figures 1 and 2. Following the actual structure of beer marketing, we consider a three-tier distribution system composed of manufacturers, wholesalers, and retailers. For ease of illustration we depict the extreme case where wholesalers have no market power prior to the grant of exclusive territories and manufacturers cannot impose any constraints on the pricing or output decisions of wholesalers.

Figures 1A and 1B illustrate the impact of exclusive wholesaler territories when additional dealer services are equally valued by all consumers. Initially, the wholesaler is assumed to incur zero marginal cost and operate in a perfectly competitive market. Consequently, the demand facing wholesalers, D_0, is identical to the demand faced by manufacturers. Manufacturers maximize profit by equating their marginal revenue, MR_0, with their marginal cost, MC_m, producing Q_0 output and charging a price of P_0 to wholesalers. Given the assumed zero marginal cost of wholesalers, the price charged to competitive retailers is also P_0. The retail supply curve, S_1, is the sum of the retailer's marginal cost of other inputs, MC_r, plus the wholesale price of the good, P_0. Retail demand, D_0', differs from wholesale demand by the retailer's marginal cost, MC_r. Retail market equilibrium price is P_0'.

If the additional services supplied by wholesalers as a result of exclusive territories are equally valued by all final con-

FIGURE 1A

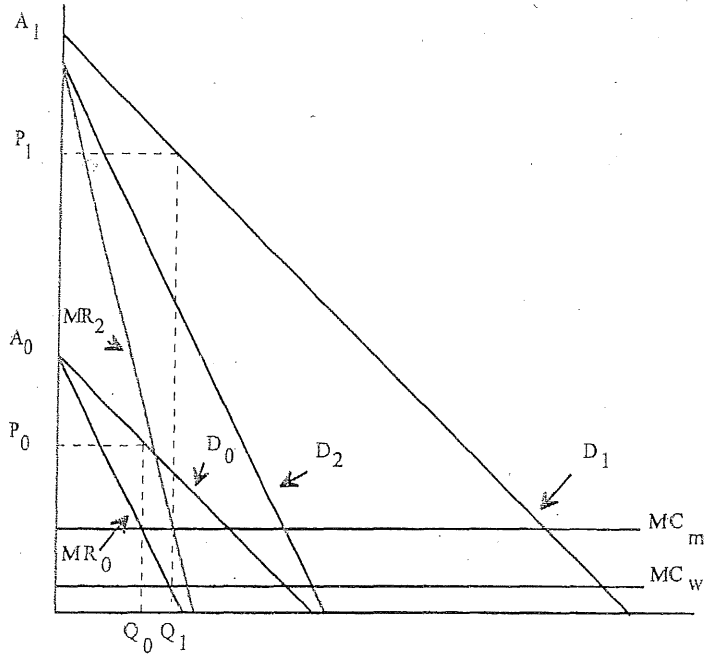
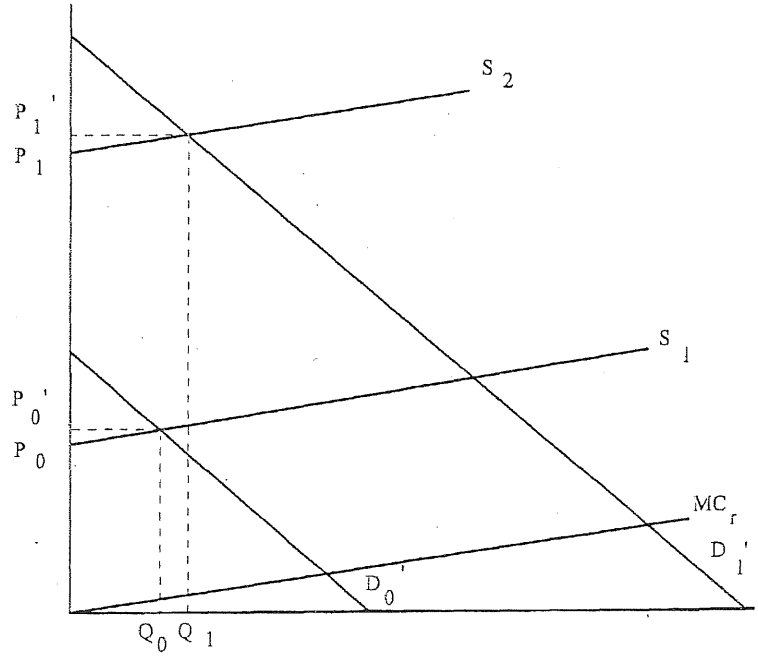


FIGURE 1B



sumers, retail demand increases at all quantities from D_0' to D_1'.[3] Correspondingly, the wholesale demand curve shifts out in a parallel fashion from D_0 to D_1. If wholesalers become price searchers as a result of the grant of exclusive territories, then the manufacturer's demand, depicted as D_2 in Figure 1A, becomes the wholesaler's marginal revenue less the wholesaler's marginal cost of service provision, MC_w. The manufacturer equates the new marginal revenue, MR_2, with marginal cost, MC_m, and produces quantity Q_1. The price charged by wholesalers under exclusive territories becomes P_1. Retail supply decreases from S_1 to S_2, or by an amount equal to the wholesale price increase at all outputs. Retail market equilibrium price and quantity both increase, to Q_1 and P_1'.

Under the assumption of a parallel shift in demand, a sufficient condition for social welfare to increase is that equilibrium quantity increases. This can readily be seen in Figure 1B. For equilibrium output to increase, it must be true that the vertical shift in demand from D_0' to D_1' is greater than the vertical shift in supply from S_1 to S_2. Thus the increase in value to final consumers must exceed the increase in cost to retail suppliers. Since some of the cost increase to retailers are additional rents to manufacturers and wholesalers (and thus not resource costs) total welfare could increase even if output remained constant.

The welfare effects of vertical restraints are less clear if the services that are provided are not valued the same by all consumers. As first noted by Spence [1975], the welfare effects of quality-enhancing services depend on the average change in quality, not the marginal change. Commanor [1985] and Blair and Fesmire [1994] each note that if marginal consumers value dealer services more than inframarginal consumers do, then an increase in service that causes a rise in consumption will not *necessarily* increase welfare.

Consider the extreme case where services yield no value to the first consumer but increasing value to subsequent consumers, thus causing a rotation in final-market demand about the original intercept. This situation is illustrated in Figures 2A and 2B. As in the parallel-shift case, initial equilibrium output is Q_0, the manufacturer's (and wholesaler's) price is P_0, and retail price is P_0'. As wholesale demand rotates outward to D_3 and wholesalers become price searchers, the manufacturer's demand becomes D_4. The manufacturer equates marginal cost (MC_m) with marginal revenue (MR_4) and produces an output of Q_1. The price charged by wholesalers to retailers rises to P_3. Adding wholesale price P_3 to the retailer's marginal cost of other inputs yields a retail supply curve of S_3. Retail market equilibrium is at a price P_3' and quantity Q_1.

In the demand rotation case where services are provided with all units of output, an increase in output is no longer a sufficient condition for total welfare to increase. The net change in welfare if equilibrium output increases from Q_0 to Q_1 is the additional value to consumers (the area between D_0 and D_3 from 0 to Q_1) minus the cost of producing the additional output ($MC_m \times (Q_1 - Q_0)$) minus the cost of the wholesaler's service on all units ($MC_w \times Q_1$). Here the welfare effects of exclusive territories will depend on several factors, including the relative marginal costs of manufacture and wholesal-

3. We assume that added services accompany all output, not merely output above Q_0, and that the marginal cost of providing these services is constant.

sumers, retail demand increases at all quantities from D_0' to D_1'.[3] Correspondingly, the wholesale demand curve shifts out in a parallel fashion from D_0 to D_1. If wholesalers become price searchers as a result of the grant of exclusive territories, then the manufacturer's demand, depicted as D_2 in Figure 1A, becomes the wholesaler's marginal revenue less the wholesaler's marginal cost of service provision, MC_w. The manufacturer equates the new marginal revenue, MR_2, with marginal cost, MC_m, and produces quantity Q_1. The price charged by wholesalers under exclusive territories becomes P_1. Retail supply decreases from S_1 to S_2, or by an amount equal to the wholesale price increase at all outputs. Retail market equilibrium price and quantity both increase, to Q_1 and P_1'.

Under the assumption of a parallel shift in demand, a sufficient condition for social welfare to increase is that equilibrium quantity increases. This can readily be seen in Figure 1B. For equilibrium output to increase, it must be true that the vertical shift in demand from D_0' to D_1' is greater than the vertical shift in supply from S_1 to S_2. Thus the increase in value to final consumers must exceed the increase in cost to retail suppliers. Since some of the cost increase to retailers are additional rents to manufacturers and wholesalers (and thus not resource costs) total welfare could increase even if output remained constant.

The welfare effects of vertical restraints are less clear if the services that are provided are not valued the same by all consumers. As first noted by Spence [1975], the welfare effects of quality-enhancing services depend on the average change in quality, not the marginal change. Commanor [1985] and Blair and Fesmire [1994] each note that if marginal consumers value dealer services more than inframarginal consumers do, then an increase in service that causes a rise in consumption will not *necessarily* increase welfare.

Consider the extreme case where services yield no value to the first consumer but increasing value to subsequent consumers, thus causing a rotation in final-market demand about the original intercept. This situation is illustrated in Figures 2A and 2B. As in the parallel-shift case, initial equilibrium output is Q_0, the manufacturer's (and wholesaler's) price is P_0, and retail price is P_0'. As wholesale demand rotates outward to D_3 and wholesalers become price searchers, the manufacturer's demand becomes D_4. The manufacturer equates marginal cost (MC_m) with marginal revenue (MR_4) and produces an output of Q_1. The price charged by wholesalers to retailers rises to P_3. Adding wholesale price P_3 to the retailer's marginal cost of other inputs yields a retail supply curve of S_3. Retail market equilibrium is at a price P_3' and quantity Q_1.

In the demand rotation case where services are provided with all units of output, an increase in output is no longer a sufficient condition for total welfare to increase. The net change in welfare if equilibrium output increases from Q_0 to Q_1 is the additional value to consumers (the area between D_0 and D_3 from 0 to Q_1) minus the cost of producing the additional output ($MC_m \times (Q_1 - Q_0)$) minus the cost of the wholesaler's service on all units ($MC_w \times Q_1$). Here the welfare effects of exclusive territories will depend on several factors, including the relative marginal costs of manufacture and wholesal-

3. We assume that added services accompany all output, not merely output above Q_0, and that the marginal cost of providing these services is constant.

FIGURE 2A

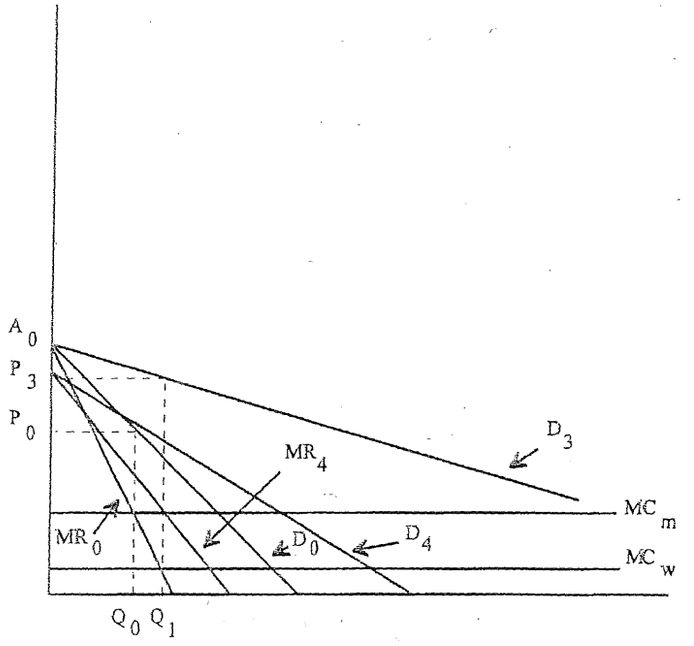
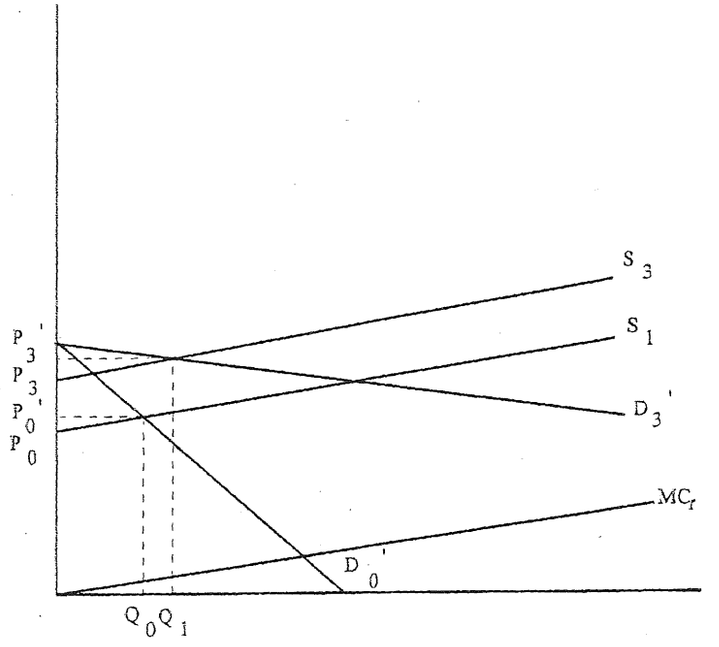


FIGURE 2B



ing services and the position of the original demand curve.[4]

While the demand-rotation case is a theoretical possibility, its empirical relevance is questionable. Services that alter the physical composition of a commodity are likely to produce a shift in demand, not a rotation. In the case of beer, refrigeration of unpasteurized beer and stock rotation by wholesalers would seem to be valued by all consumers, not just those at the margin. Although information-producing services such as in-store displays and other promotional activities may be more highly valued by marginal consumers, it is not necessarily true that inframarginal consumers will lose much from price increases that may accompany such services.[5] Boudreaux and Ekelund [1988] conclude that if price increases when promotional services are provided to marginal consumers, inframarginal consumers who place little or no value on the services could switch to other brands that offer fewer services and a lower price. Further, one must consider the alternative arrangements for providing services that would be used in the absence of exclusive territories. Arguing along this line, White [1985] suggests that if the elimination of exclusive territories leads manufacturers to supply the same services in a more costly manner, then welfare will be reduced.

The opponents of exclusive territories emphasize the contracts' anti-competitive effects and argue for stringent legal standards. In this view, vertically imposed exclusive territories facilitate the maintenance of a dealer cartel by insulating colluding distributors from intrabrand competition with distributors located outside their own area, as well as protecting them from new entrants.[6] The collusive perspective implies that exclusive territories will lead to higher wholesale prices, which in turn reduce retail supply and increase retail price. Retail demand is unaffected since there is no increase in dealer-provided services. As a result, equilibrium output falls and social welfare is unambiguously reduced.

Given no theoretical consensus over quantity responses or welfare effects, empirical analysis is necessary to assess the impact of exclusive territory contracts. Before beginning the empirical analysis, an understanding of the nature of contractual relationships in the beer industry and the legal environment which has shaped those relationships will prove useful.

II. THE LEGAL ENVIRONMENT AND CONTRACTUAL RELATIONSHIPS IN THE BEER INDUSTRY

As a result of state laws prohibiting vertical integration, a three-tier distribution system has developed in the beer industry. Brewers sell their product to wholesalers who in turn sell to retail outlets.

4. Given our assumptions of constant marginal cost and linear demand, a sufficient (though not necessary) condition for total welfare to increase when output expands is that one-half of $(P_3 - P_0)$ is greater than MC_w. In terms of relative costs, this is equivalent to saying that total welfare will necessarily increase when output expands if the vertical intercept of the demand curve, A_0, minus MC_m is more than seven times MC_m.

5. Price would not increase if the imposition of intrabrand exclusive territories conferred no market power on dealers and the cost of dealer services did not vary with the quantity of the product sold. In this case, exclusive territories unambiguously improve welfare even in the demand rotation case. See Marvel [1985].

6. Another rationale, proposed by Carstensen and Dahlson, is the prevention of dealer arbitrage by a price-discriminating manufacturer taking advantage of geographically varying price elasticities. Bork [1978, 295] rejects this explanation on theoretical grounds. More recently, Rey and Stiglitz [1995] have suggested that in an oligopolistic environment exclusive territories may serve to decrease the perceived elasticity of demand facing each producer and therefore potentially increase producer profits at the expense of consumers.

Soon after the repeal of prohibition, the major brewers began to place geographic restrictions on the territories of their wholesalers.[7] By the early 1960s, Annheuser-Busch, Miller Brewing (Miller), Adolph Coors Co. (Coors), and G. Heileman Brewing Co. (Heileman) had established exclusive territories for their distributors.[8] While wholesaler exclusive territories have clearly been favored by brewers, the nature and enforceability of wholesaler distribution contracts have been shaped by both federal and state laws.

The Federal Legal Environment

Prior to the U.S. Supreme Court's 1963 decision in *White Motor*,[9] the legal status of exclusive territories had never been directly established. In *White Motor* the Court took a rule-of-reason approach, declaring that "we do not know enough of the economic and business stuff out of which these arrangements emerge" and remanded the case for a trial on the merits. In June of 1967 the Court reversed itself and declared exclusive territories to be *per se* illegal in *Schwinn*.[10]

The *Schwinn* decision, however, did not eliminate the use of territorial restrictions in the beer industry. Although the brewers could not contractually impose exclusive territories on their wholesalers after *Schwinn*, it is clear that at least Annheuser-Busch and Coors maintained their policies of opposing extra-territorial sales.[11] It appears Miller was somewhat less forceful in maintaining territorial exclusivity, although the Miller distributors also continued to concentrate their efforts in their assigned territories.[12]

In 1974, Annheuser-Busch entered into "Wholesaler Equity Agreements" with all of their distributors.[13] In order to avoid being declared illegal *per se* under *Schwinn*, the contracts did not grant exclusive territories except in states where exclusivity was mandated by state law. Instead, the 1974 agreements assigned each wholesaler a primary marketing area in which the wholesaler was expected to concentrate its effort. Miller contracts written after the *Schwinn* decision contained a similar clause, making territories non-exclusive, except where required by law.[14] At the same time, Coors was forced to eliminate exclusivity provisions in wholesaler contracts as a result of action by the Federal Trade Commission and began to rely on contracts which designated areas of primary responsibility.[15]

Despite brewers' efforts, some inter-territorial sales within states or "transshipping" (sale of beer by wholesalers in one territory to retailers in another) did occur in parts of the country. Transshipping was

7. As early as the 1940s, both Annheuser-Busch and Miller Brewing had strong corporate policies against distributors selling outside their territories. See *The Package Shop, Inc., et al. v. Annheuser-Busch, et al.* CCH 1987-2 Trade Cases 67,763 (henceforth *Package Shop*) at 59,079.

8. See *Package Shop* at 59,079; *Mendelovitz v. Adolph Coors Co.* 693 F. 2d 570 [1982] at 573; and "Cleary Reviews Current Beer Industry Climate," *Modern Brewery Age*, October 18, 1982. Although Miller claims to have imposed exclusive territories nationwide, the specifics of Miller's contracts varied among wholesalers. Some contracts specifically set out exclusive territories while others only referred to assigned areas of primary responsibility. See *Package Shop* at 59,077.

9. *White Motor Co. v. United States*, 372 U.S. 253 [1963].

10. *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365 [1967].

11. *Package Shop* at 59,089 and *Mendelovitz v. Adolph Coors Co.* 693 F. 2d 570 [1982].

12. See *Package Shop* at 59,106-59,107; 59,082; 59,084 and 59,097. See also *Assam Drug Co., Inc. v. Miller Brewing Co.* 798 F. 2d 311 (8th Cir. 1986).

13. The 1974 agreements are quoted in *Package Shop* at 59,077.

14. The Miller contract is quoted in *Package Shop* at 59,107.

15. See *Adolph Coors Co. v. FTC* 497 F. 2d 1178 [1974] Cert. denied 419 U.S. 1105 [1975] and Klein and Murphy [1988, 282].

significant in New York, Indiana, Massachusetts, Pennsylvania, and Minnesota.[16]

In June of 1977 the Court handed down their decision in *Sylvania*,[17] which overruled *Schwinn* and once again established a rule-of-reason approach to non-price vertical restraints. In the aftermath of *Sylvania*, Annheuser-Busch moved to strengthen the territorial provisions of their wholesaler agreements. Effective December 1, 1982, Annheuser-Busch established new contracts that specified exclusive territories for each of its wholesalers (except where prohibited by law). Wholesalers discovered selling outside their assigned territory were subject to immediate termination.[18] In May of 1983 Miller followed the lead of Annheuser-Busch and adopted uniform distributorship agreements that established exclusive territories nationwide.[19]

The marketing practices of other brewers in the post-*Sylvania* period are somewhat less clear. As of November 1982, Heileman planned to adopt wholesaler agreements similar to Annheuser-Busch's.[20] It appears that Stroh and Heileman did indeed adopt exclusive territories at about the same time as Annheuser-Busch and Miller.[21] Coors apparently has maintained *de facto* exclusive territories throughout the post-*Schwinn* period.[22] According to one industry analyst, by the end of 1983 all major brewers had adopted exclusive territory provisions in their wholesaler contracts.[23]

The Legal Environment in Indiana

As in the rest of the United States, brewers established exclusive territories for their Indiana distributors when permitted. The wholesaler territories in Indiana typically consisted of a single county.[24]

Territorial exclusivity began to erode within Indiana at about the same time that brewers adopted contracts which specified "areas of primary responsibility" in lieu of contractually explicit exclusive territories. In 1974 some wholesalers in Northern Indiana began to sell beer to retailers F.O.B from their loading docks. The retailers would then haul the beer to stores located outside the wholesalers' assigned areas of responsibility.[25] These so-called "dock sales" increased over time so that by 1978 approximately nine of the roughly twenty-one large-scale distributors in Indiana were making some sales from their docks to hauling retailers.[26] In

16. See *The Malt Beverage Interbrand Competition Act: Hearings Before the Committee on the Judiciary, United States House of Representatives*, 97th Congress, 2nd Sess. [1982] at 154 155 (statement of Frank J. Sellinger). See also, United States Brewers Association, Inc., "Malt Beverage Marketing in the Regulatory Framework, S. 1215, The Malt Beverage Interbrand Competition Act," June 21, 1982 at 12 13. A national survey of wholesalers also indicated that transshipping was of greatest concern in the Northeast. See Katz [1983].

17. *Continental T.V., Inc., et al. v. GTE Sylvania* 433 U.S. 36 [1977].

18. See Orbison [1983, 145, 150, 164].

19. See *Package Shop* at 59,078 and *Assam Drug Co., Inc. v. Miller Brewing Co. Inc.*, 798 F. 2d 311 (8th Cir. 1986) at 313.

20. See "The 'New NBWA' or ... Hot Air Over Falls Church," *Modern Brewery Age*, November 19, 1982, reprinted in *The Malt Beverage Interbrand Competition Act: Hearings Before the Committee on the Judiciary, United States Senate*, 98th Congress, 1st and 2nd Sess. [1983 and 1984] (Henceforth *1983-84 Senate Hearings*).

21. See *State of New York, et al. v. Annheuser-Busch, et al.*, cited in 1987-2 CCH Trade Cases 67,777 at 59,200 and 59,202.

22. See *Mendelovitz v. Adolph Coors Co.* 693 F. 2d 570 [1982]. Also, the only state where Coors did not market its beer was Indiana, where exclusive territories are prohibited (*1990 Beer Industry Update* [1990]).

23. See *1983-84 Senate Hearings* at 74, note 9 (statement of Steve L. Barsby). See also *1987 Senate Hearings* at 263 (comments of Peter L. Carstensen).

24. *United Beverage Co. v. Indiana Alcoholic Beverage Commission* 566 F. Supp. 650 [1983].

25. *Arth Main Street Drugs v. A-1 Beverage Co.* 404 N.E. 2d [1980] at 66. Jordan and Jaffee [1987, 155] claim that docksales began in 1973.

26. The number of distributors offering dock sales is given by Jordan and Jaffee [1987, 155]. According to the *Modern Brewery Age Bluebook*, there were 183 beer distributors in Indiana in 1979. Of these 183, 21 distributors were reported as having ten or more vehicles. The proportion of dock sales to intraterritorial sales is unknown.

response to these dock sales, twenty-seven beer wholesalers filed suit in May 1977 seeking to force the Indiana Alcoholic Beverage Control Commission to prohibit transportation of beer by retailers. After a lengthy trial a state court ruled in June 1978 that beer retailers were not authorized to transport beer. Although the ruling was appealed and subsequently overturned in May 1980,[27] it put a temporary end to retailer hauling. However, in mid-1978 many of the dock sellers as well as some wholesalers who had previously sold only within their assigned territories began to tranship, selling on a delivered basis to customers in large parts of the state.[28] This partial breakdown in territorial exclusivity was spurred along in March 1979 when the Indiana Alcoholic Beverage Control Commission adopted a rule banning exclusive territories and efforts to enforce exclusivity within "areas of primary responsibility."[29] Subsequent to the ban, additional wholesalers have become transhippers, though some wholesalers still continue to sell only within their home county.[30]

In addition to the changing legal status of territorial restrictions in Indiana, the beer market was also affected by two other major regulatory changes in the past forty years. In March 1946, the Indiana Alcoholic Beverage Control Commission adopted a rule which only allowed advertising by beer retailers if "its sole purpose is to advertise alcoholic beverages and the place where they may be obtained," thus effectively banning all price advertising at the retail level.[31] The price advertising restrictions remained in effect until October 18, 1976 when the Commission repealed its ban on price advertising.[32] Beginning in 1965, the Indiana Alcoholic Beverage Control Commission instituted quotas on the number of wholesalers in each county. The number of beer-wholesaler permits in each county was restricted to one per 35,000 population, though under a grandfather clause, any existing dealers were allowed to retain their permits.

III. EMPIRICAL ANALYSIS OF EXCLUSIVE TERRITORIES

Though the theoretical effects of exclusive territories have received considerable attention, few empirical tests of these competing hypotheses exist. Jordan and Jaffee [1987], Culbertson [1989], and Culbertson and Bradford [1991] each offer support for the idea that exclusive contracts bring about higher prices, but are silent with respect to quantity consequences.[33] More importantly, all three works imply that reduced consumer welfare accompanies the higher price.

27. See *Arth Main Street Drugs v. A-1 Beverage Co.* 404 N.E. 2d [1980].

28. The transshipping activity by distributors in Indiana occurred, to our knowledge, exclusively within Indiana's borders. Well-enforced state laws prohibit, for tax collection purposes, dealers from shipping across state lines. Additionally, no formal or anecdotal evidence can be found suggesting any organized smuggling activity from Indiana to neighboring states or vice versa, either before or after the state banned exclusivity contracts. Informal smuggling due to differences in minimum drinking ages in Indiana and neighboring states will be accounted for in our empirical analysis.

29. The Indiana prohibition on exclusive territories states: "efforts to restrict sales to only the designated area of primary responsibility are deemed to be prohibited" (905 IAC 1-28-1, adopted March 16, 1979).

30. Jordan and Jaffee [1987, 155 56].

31. 10 IR 1882.

32. See *Indiana Alcoholic Beverage Commission Rules and Regulations 1977*, 10 IR 1882 and 905 IAC 1-4-14. Jordan and Jaffee state that the price advertising ban was lifted in the fall of 1975, but give no citations to substantiate their claim. It is true that the Alcoholic Beverage Control Commission resolved to start the process of repealing its restrictions on price advertising on October 7, 1975. However, they were prevented from doing so by a restraining order and subsequent judicial decision. Only when the Commission prevailed on appeal in 1976 did they actually lift the ban on price advertising. See *Indiana Alcoholic Beverage Commission v. McShane* 354 N.E. 2d 259 [1976].

33. In an unpublished manuscript, Ekelund et al. [1987] find price effects that are at odds with these studies, but also do not address the quantity issue.

Jordan and Jaffee examine Indiana's "dual-price" market of exclusive distributors and transhippers that existed prior to the state's ban on exclusivity contracts in 1979, finding that both wholesale and retail beer prices are higher in the presence of exclusive territories. At the wholesale level, their comparison of transhipper prices with those charged by designated exclusive distributors reveal transhipper prices 9 to 14 percent lower than those of Miller and Annheuser-Busch wholesalers. Additionally, small sample data show retail prices to be roughly 11 percent higher in one area of the state where little transshipping or dock sale activity existed.

Both Culbertson and Culbertson and Bradford rely on econometric analyses to gauge the impact of exclusive territories on retail beer price. Culbertson and Bradford estimate that over the 1985-1987 period Indiana's ban of exclusive territories reduced price by thirty-seven cents per six-pack, and that elsewhere state mandates of exclusive territories increased price by eleven cents per six-pack. Culbertson also finds that in states where exclusive territories are legally "mandated" the retail price of a six-pack is about twelve cents higher than in other states.[34]

Sass and Saurman [1993] utilize panel data from thirty-six states, including Indiana, to estimate both structural and reduced-form equations of the retail malt beverage market. These findings reveal that state statutes that mandate exclusivity raise price but have no discernible quantity effect due to a concomitant increase in consumer demand. Though these results lend credence to the dealer-services hypothesis, they do not constitute a direct test of the market effects of exclusive-territory contracts.[35]

While the Culbertson and Bradford estimates possess various technical problems,[36] their primary shortcoming, as well as that of Jordan and Jaffee, is the sole focus on the price effects of exclusive territories. Since the dealer-services and anti-competitive theories both predict the use of exclusive territories increases price, analysis of price alone is insufficient to distinguish competing hypotheses. A quantity test is necessary to accomplish this task.

A Reduced-Form Quantity Specification

Annual time-series data for Indiana over the period 1948 to 1990 are employed to estimate a retail market reduced-form per-capita quantity equation with the following specification:[37]

$$(1) \quad Beer = f(Ban, Transship, Schwinn, Tax, Income, Retailers, Agediff, Priceads, Quota, USbeer).$$

34. Culbertson conceptually defines exclusive territory states as those states which mandate and enforce exclusive territories. However, Culbertson's measurement of exclusive-territory states includes both states that require exclusive territories and those states which mandate only that brewers designate territories for their wholesalers, with no explicit mention of exclusivity.

35. Sass and Saurman [1993] account for Indiana's singular ban of exclusive territories in their estimating equations and obtain results qualitatively similar to those of the state mandates. It must, however, be recognized that the estimated coefficient of their Indiana dummy variable may not disentangle the effect of the ban from those of other factors specific to Indiana.

36. The most serious error in the Culbertson and Bradford [1991] piece is a potential simultaneity bias stemming from ordinary-least-squares estimation of a beer price equation that includes per capita beer consumption as an explanatory variable. An additional drawback of the Culbertson [1989] and Culbertson and Bradford [1991] studies is the use of nominal beer prices as the dependent variable, thereby ignoring interstate cost-of-living differences.

37. Data limitations preclude the estimation of the two structural equations and a reduced-form price equation. Nonproprietary price data specific to Indiana is only available for the post-exclusive territory ban period. Our inferences are then drawn from observed quantity effects under the assumption, based upon the previous research mentioned above, that the presence of exclusive dealing causes price to be higher than otherwise. The possibility that these vertical restraints have no structural effects at all is discarded.

Definitions and sample means of the variables comprising this specification are provided in Table I. While data limitations force a relatively spartan specification, the above equation nonetheless captures what are likely to be the major demand and retail supply determinants as well as the relevant regulatory structure.

Our concern centers on the variables capturing federal and state regulatory policies as they apply to vertically imposed exclusive territories. The variable *Schwinn* accounts for the interval from June 1967 through June 1977 during which the U.S. Supreme Court's stance concerning exclusive territories was one of *per se* illegality. Including this variable in the specification with a variable for U.S. beer consumption outside Indiana (*USbeer*) allows for the impact of the Court's posture to differ in Indiana from that in the rest of the country. In specifications without U.S. beer consumption, the coefficient capturing the effect of the Supreme Court's *Schwinn* decision measures the total impact in Indiana of a *per se* rule toward explicit exclusive territorial contracts. The variable *Ban* captures the period from March 1979 forward in which exclusive dealer contracts are forbidden by the Indiana Alcoholic Beverage Commission's rule. The omitted category covers the period during which federal and Indiana law were silent (pre-1967) as well as that in which the Supreme Court's *Sylvania* ruling was effective prior to Indiana's ban (1977 to 1979).

Also accounted for by our model is the apparently spontaneous breakdown in Indiana of private contracts assigning malt beverage dealers primary marketing areas. When exclusive territories were declared *per se* illegal in *Schwinn*, brewers were forced to drop explicit grants of exclusivity from their dealer contracts. When brewers adopted new contracts specifying "areas of primary responsibility" in 1974, inter-territorial sales in the form of dock sales also began to occur. As dock sales were ended by judicial order, wholesalers began to deliver beer outside their assigned territories. The variable *Transhipp* accounts for the post-1973 presence of inter-territorial sales (either dock sales or transshipping) by wholesalers.

If the beginning of transshipping signaled the effective end of de facto exclusive contracts, then the expected sign of the transshipping variable will be the same as that of the ban on exclusive territories for similar reasons. However, prior to 1979 brewers still possessed private mechanisms to enforce exclusivity contracts. Indeed, the majority of wholesalers continued to sell only within their assigned territories. The 1979 ban, and its accompanying state-enforcement mechanisms, are likely to have made private exclusivity enforcement more costly and less efficient by leaving brewers only sub rosa methods of exclusivity enforcement. In the presence of transshipping, the variable representing Indiana's ban on exclusivity contracts should capture the marginal effect of making private efforts to enforce exclusive territories illegal. We expect the coefficients on the transshipping and the ban on exclusive contracts variables to be of like sign, indicating that the breakdown in exclusivity will have a greater impact on quantity when private mechanisms to maintain exclusivity are prohibited by law.

If the anti-competitive view of exclusive contracts holds sway, then both the Indiana ban on exclusivity and transshipping by wholesalers can be expected to unambiguously increase equilibrium quantity. Under the anti-competitive hypothesis, the dismantling of exclusive territories will affect only final (retail) market supply as the wholesale price of beer decreases with a heightened level of intrabrand competition amongst wholesalers. Demand by beer consumers will be unaffected, resulting in a lower retail price and higher quantity.

In contrast, the dealer-services hypothesis predicts that banning exclusive terri-

TABLE I
Variable Names, Sample Means, Descriptions, and Data Sources

Variable Name	Sample Mean	Description and Source
Beer	26.22	Per-adult (age 18 and over) apparent consumption (shipments) of malt beverages in Indiana, in gallons. Sources: *Brewers Almanac* and *Statistical Abstract of the U.S.*
USbeer	28.21	Per-adult apparent consumption of malt beverages in the U.S. excluding Indiana, in gallons. Sources: *Brewers Almanac* and *Statistical Abstract of the U.S.*
Ban	0.28	Fraction of each year that a legal ban on exclusive territories was in effect. (Equals 0.00 from 1949 to 1979, 0.81 in 1979 and 1.00 thereafter.) Source: 905 IAC 1-28-1.
Transship	0.41	Fraction of each year that wholesalers engaged in "dock sales" or delivered sales to retailers outside their territories. (Equals 0.00 from 1949 to 1974 and 1.00 thereafter.) Sources: *Arth Main Street Drugs v. A-1 Beverage Co.* 404 N.E. 2d [1980] and Jordan and Jaffee [1987].
Schwinn	0.24	Fraction of each year that the U.S. Supreme Court's decision in *United States v. Arnold, Schwinn & Co.* declaring exclusive territories *per se* illegal was in effect. (Equals 0.00 from 1949 to 1966, 0.56 in 1967, 1.00 from 1968 through 1977, 0.48 in 1977 and 0.00 thereafter.) Sources: *United States v. Arnold, Schwinn & Co.* 388 U.S. 365 [1967] and *Continental T.V., Inc., et al. v. GTE Sylvania* 433 U.S. 36 [1977].
Tax	0.93	Indiana plus federal beer excise tax in dollars per gallon, deflated by the national consumer price index for all urban consumers (1982–1984 = 1.00). Sources: *Brewers Almanac, CPI Detailed Report,* and *Statistical Abstract of the U.S.*
Income	9566.70	Personal per-adult income in thousands of dollars, deflated by the national consumer price index for all urban consumers (1982–1984 = 1.00). Sources: *CPI Detailed Report, Survey of Current Business,* and *Statistical Abstract of the U.S.*
Retailers	1.76	Number of liquor stores, bars, and grocery stores per thousand adults (estimated by linear interpolation for inter-Census years). Sources: *Census of Business, Census of Retail Trade, County Business Patterns,* and *Statistical Abstract of the U.S.*
Agediff	0.11	Average of the minimum drinking age in Indiana minus the minimum drinking age in bordering states, weighted by the fraction of the population living within twenty miles of the relevant border. Sources: Wagenaar [1981] and unpublished data from Frank Chaloupka.
Priceads	0.34	Fraction of each year that price advertising of malt beverages in print and posted sign/billboard media was legal. (Equal 0.00 from 1949 to 1976, 0.20 in 1976 and 1.00 thereafter.) Sources: *Indiana Alcoholic Beverage Commission Rules and Regulations 1977,* 905 IAC 1-4-14, 10 IR 1882, and Indiana Alcoholic Beverage Commission v. McShane 354 N.E. 2d 259 [1976].
Quota	0.62	Fraction of each year that, subject to a grandfather clause, the number of new beer wholesalers per county was constrained to one in counties with populations of less than thirty-five thousand and no more than one per thirty-five thousand population in larger counties. (Equals 0.00 from 1949 to 1965, 0.81 in 1965, and 1.00 thereafter.) Sources: 1991 Burns ISA, chapter 22, section 7.1-3-22-2, p. 518, 1965 Indiana Acts, chapter 255, section 1, p. 639, 1935 Indiana Acts, chapter 226, sec. 9, p. 1090, and *United Beverage Company v. Indiana Alcoholic Beverage Commission* 566 F.Supp. 650 [1983].

tories decreases retail demand and increases supply. Final market supply increases as a result of increased intrabrand competition among wholesalers and reduced wholesaler costs arising from decreased provision of costly services. But these retail supply effects are accompanied by a decreased consumer demand stemming from the reduced level of consumer-valued services. Thus the net effect on quantity exchanged depends on the magnitudes of both the final market supply and demand responses.[38]

The expected influence of beer excise taxes (*Tax*) and personal income (*Income*) on equilibrium quantity are negative and positive respectively.[39] Repeal of the proscription on price advertising in 1976 can be expected to lower consumer search costs, resulting in an increased demand in the money price-quantity dimension. An increased final market supply can be expected for two reasons. Some retailers will substitute price advertising for less efficient means of information provision, thereby increasing retail supply. Additionally, as noted by Sass and Saurman [1995], the ability to advertise price at retail may foster greater interbrand competition, resulting in lower prices charged to retailers by dealers. Given the simultaneous increase in both demand and supply caused by lifting the ban on price advertising, an increase in price advertising (*Priceads*) is expected to increase equilibrium quantity. Following Nelson [1990], consumer search costs also depend on the density of retail outlets. As the number of retail outlets relative to population increases, search costs can be expected to decline. As such, the number of retailers per thousand adults (*Retailers*) is expected to carry a positive sign in the quantity equation.[40]

During the 1970s, some states bordering Indiana lowered their minimum drinking age, though Indiana's minimum age remained fixed at twenty-one. The variable *Agediff* controls for the possibility that drinking age differences in border states may influence reported consumption in Indiana. Greater differences in the legal drinking age are associated with an increased incentive for youthful Hoosiers to take advantage of lower minimum legal ages in border states when purchasing beer. A negative estimated sign is then anticipated for the drinking age variable in the reduced-form equation.

If the Indiana Alcoholic Beverage Control Commission's 1965 restriction on beer-wholesaler permits enhances the market power of individual distributors, higher-than-otherwise wholesale prices and a corresponding reduction in retail supply can be expected. The variable *Quota*, capturing the presence of limits on the number of wholesale permits issued, will then carry a negative coefficient. U.S.

38. The potential exists for cross-border effects smuggling to mask the effect of Indiana's ban on exclusive contracts. With the elimination of exclusive territories lowering price, some border-state consumers who place a low value on the services provided under exclusive territories will have the incentive to shift purchases to Indiana, expanding output in the state. Distributors have the incentive to smuggle to the higher-priced border states, in the process expanding reported brewer shipments (apparent consumption, see Table II) to Indiana. If such activity is significant, then disentangling this smuggling effect from the pure effect of the exclusive contracts ban within the Indiana market is difficult under the anti-competitive hypothesis. On the other hand, should the Indiana ban lead to a reduction in output, the possibility of significant smuggling implies that the actual change in output is understated, lending even greater credence to the dealer-services perspective. As we can uncover no evidence suggesting any large-scale smuggling activity after 1979, we proceed by setting aside the issue of cross-border effects engendered by Indiana's ban on exclusive contracts or transhipments by distributors.

39. The empirical studies of Lee and Tremblay [1992] and Nelson [1990] each estimate beer to be a normal good. Sass and Saurman [1993] and Culbertson and Bradford [1991] both estimate significant positive effects of aggregate retail expenditure, a variable closely related to income, on malt beverage quantities.

40. As the long-run number of sellers in an unregulated competitive market is co-determined with price and quantity, the inclusion of the number of retailers in equation (1) can potentially bias our estimates. Specification tests addressing this issue are discussed below.

beer consumption (excluding Indiana) is included in the specification to control for factors affecting quantity in the U.S. as a whole, including Indiana, but for which Indiana-specific data are unavailable. Consumer attitudes toward alcohol consumption, brewer production costs, product mixes (e.g., low-calorie and "dry" beers), and so on are likely to have varied over the post-World War II sample period. As these will tend to influence per-adult quantity in Indiana and the rest of the country in a similar fashion, we anticipate this variable to carry a positive estimated coefficient.[41]

Empirical Findings

A potential problem arising from estimating equation (1) with time-series data is that the underlying processes may be nonstationary, producing one or more variables that are time dependent. If the variables in equation (1) follow some stochastic time trend, then estimating the equation in levels will produce spurious results.[42] Two common time series are a "trend stationary process" where $Z_t = \alpha + \beta t + \varepsilon_t$ and a "random walk with drift" where $Z_t = \alpha + Z_{t-1} + \varepsilon_t$ The former process can be detrended and transformed into a stationary process by expressing variables as deviations from a linear time path (i.e. $Z_t - (\alpha + \beta t)$) while the latter can be made stationary by employing a first-difference transformation $(Z_t - Z_{t-1})$.

An augmented Dickey-Fuller (ADF) test for unit roots of the continuous variables is appropriate for identifying whether a series is stationary. The relevant test statistic for each variable (Z) is the t-ratio on the coefficient $(\rho - 1)$ obtained from estimating

$$(2)\quad \Delta Z_t = \alpha + \beta t + (\rho - 1)Z_{t-1} + \lambda \Delta Z_{t-1} + \varepsilon_t,$$

where Δ is the first-difference operator, ε_t is a random error term, and one lag is assumed in the ADF test. Results obtained from applying equation (2) to the variables in question are presented in the left-hand-side of Table II.[43] In none of these estimated equations can the null hypothesis of a unit root $(\rho = 1)$ be rejected, indicating none of the processes are trend stationary.

The right-hand-side of Table II contains results obtained from estimating

$$(3)\quad \Delta^2 Z_t = \alpha + \beta t + (\rho - 1)\Delta Z_{t-1} + \mu_t,$$

where Δ^2 is the second-difference operator and μ_t an error term.[44] In each instance, the unit root null hypothesis $(\rho = 1)$ is re-

41. As quantity exchanged in Indiana and the rest of the U.S. are highly but not perfectly correlated in the sample (0.93 correlation coefficient), our specification runs the risk of explaining quantity exchanged with quantity exchanged. We also present results obtained by estimating equation (1) without U.S. beer consumption as a gauge of robustness of the remaining estimated coefficients.

42. This bias is explained in Granger and Newbold [1974]. Engle and Granger [1987] further show that a linear combination of stationary and nonstationary variables is itself nonstationary, unless the nonstationary variables are cointegrated. As such, the estimated error term is potentially nonstationary giving rise to potentially spurious estimates.

43. Since equation (1) is estimated below using both logs and levels of variables, unit root tests for both the levels and logs of Indiana beer consumption, U.S. beer consumption, beer excise taxes and income are conducted. As the retailers variable is a ratio, we employ only its level in equation (1) and test for a unit root in its level only. Specifications in which the estimated coefficient of the lagged dependent variable (λ) or the time trend (β) are not significant at the 10 percent level are not reported.

44. Again, estimates with trend terms (β) are reported only when these terms are significant at the 10 percent level or better. When not significant, the estimated trends are constrained to zero. Second-differenced estimates (not reported) were also obtained by including the dependent variable lagged once in the specification. No lagged dependent variables were statistically significant at the 10 percent level and thus their coefficients are constrained to zero in the estimates presented in Table II.

TABLE II

Stationarity Tests: Variable Levels (Z) and Logs (lnZ) and First-Differences of Levels and Logs[a]

	$\Delta Z_t = \alpha + \beta t + (\rho - 1)Z_{t-1} + \lambda \Delta Z_{t-1} + \varepsilon_t$				$\Delta^2 Z_t = \alpha + \beta t + (\rho - 1)\Delta Z_{t-1} + \mu_t$		
Variable	α	β	$\rho - 1$	λ	α	β	$\rho - 1$
Beer	2.422*	0.031*	−0.114		0.164		−0.998***
	(1.716)	(1.852)	(1.718)		(1.608)		(6.057)
ln*Beer*	0.392*	0.001*	−0.128		0.006		−1.071***
	(1.807)	(1.904)	(1.803)		(1.653)		(6.550)
USbeer	0.404		−0.011	0.445***	0.120		−0.588***
	(0.775)		(0.570)	(3.189)	(1.593)		(4.070)
ln*USbeer*	0.038		−0.010	0.401***	0.005		−0.640***
	(0.595)		(0.532)	(2.817)	(1.640)		(4.344)
Tax	0.133	−0.003*	−0.088		−0.021***		−0.756***
	(1.522)	(1.918)	(1.761)		(3.518)		(4.811)
ln*Tax*	0.031	−0.003**	−0.042	0.449**	−0.002	−0.001*	−0.510**
	(1.399)	(2.202)	(1.685)	(3.214)	(0.221)	(1.818)	(3.541)
Income	1387.200**	35.487*	−0.217		149.280**		−0.916***
	(2.522)	(1.983)	(2.168)		(2.369)		(5.730)
ln*Income*	1.805**	0.003*	−0.204		0.018**		−1.000***
	(2.266)	(1.806)	(2.224)		(2.647)		(6.442)
Retailers	0.007		−0.019	0.381**	−0.049***	0.001**	−0.581***
	(0.559)		(2.335)	(2.637)	(3.491)	(2.541)	(4.086)

[a]An * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level. Absolute values of t-ratios appear in parentheses. Two-tailed tests are employed for α, β, and λ. One-tail critical values for the t-ratio on $\rho-1$ at the 5% level are approximately −3.53 when an estimated trend is present and −2.95 when the trend is constrained to zero and are obtained from Fuller [1976].

jected at the 5 percent level indicating the first differences of the variables are stationary and therefore the underlying process is a random walk with drift.[45] These results require that equation (1) be estimated in first-difference form to obtain reliable estimates of the coefficients and standard errors.[46]

Table III presents ordinary least squares (OLS) estimates of both additive ($\Delta Beer$) and multiplicative ($\Delta \ln Beer$) first-differenced specifications of equation (1).[47] The significant trend terms in two second-differenced regressions in Table II suggest a quadratic trend in the levels of the data. Thus, a time trend is included in the Table III specifications. We also estimate each dependent variable without the U.S. beer consumption variable ($\Delta USBeer$ or $\Delta \ln USBeer$) to address the issue of including a regressor highly correlated with, and constructed similarly as, the dependent variable.[48]

Our interest centers on the estimated effects of the three exclusivity variables, Indiana's ban on exclusivity contracts, the presence of transshipping by wholesalers, and the Supreme Court's ruling against use of exclusive territories. Across all four specifications, Indiana's ban is seen to reduce per-adult quantity exchanged at the 5 percent significance level. To gauge the magnitude of the effect of Indiana's ban, consider that by 1978, per-adult consumption in the state stood at 29.4 gallons per year. From the third column of Table III we estimate the instantaneous and permanent effect of the 1979 ban to reduce consumption by 5.9 percent per year, a decrease of approximately 1.7 gallons from the previous year's level. These estimates offer strong support for the Klein-Murphy dealer-services hypothesis. Given an increased retail supply arising from reduced dealer costs of service provision and increased intrabrand competition among wholesalers, the observed decrease in equilibrium quantity implies that demand for beer in Indiana fell during the period when exclusive territories were banned. This reduction in demand is consistent with the idea that exclusive territories promote dealer-supplied services that are valued by consumers.

In contrast to the estimated impact of the explicit ban on exclusive territories, the Supreme Court's ruling against exclusive territories and the presence of trans-

45. As the estimated trend terms on the second-differenced ln*Tax* (beer excise taxes) and *Retailers* (number of retailers per thousand adults) differ significantly from zero, these variables are more accurately characterized as trend-stationary in their first-differenced forms. The presence of these significant trends will be accounted for in the estimation specification of equation (1).

46. If the relevant variables are co-integrated, then nonstationarity of these series does not pose the threat of obtaining spurious estimates with the levels of the data. However, Dickey-Fuller test results (not reported) fail to reject the hypothesis that the series are not co-integrated at any reasonable confidence level.

47. These first-differenced specifications assume that Indiana's ban on exclusive contracts had an immediate and permanent effect on the level of beer consumption. The possibility exists, though, that the effect of the ban on quantity may not be abrupt and permanent, but instead gradual and permanent due to lags in enforcing the new regulatory regime. Alternatively, the response of quantity to the ban may be immediate, but decaying (partially or completely) over time as brewers successfully seek out means of evading the regulation. Both the abrupt-impact-with-gradual-decay and the gradual-impact-with-permanent-effect hypotheses were tested (results not presented here) for Indiana's ban as well as for transshipping and the removal of restrictions on price advertising. Calculated *t*-ratios obtained by estimating such intervention models lead to rejection of these alternative adjustment hypotheses at all reasonable confidence levels.

48. Standard errors are estimated with White's [1980] consistent covariance matrix estimator. Goldfeld-Quandt tests reject the null hypotheses of homoscedastic errors at either the 5 percent or 10 percent significance levels and suggest the error variance to be related to the real income variables over time. All four specifications in Table III were also estimated with two stage least squares to test for simultaneity bias arising from including the number of retailers in the estimating equations. Hausman [1978] χ^2 statistics were less than unity for each specification suggesting consistency of the OLS estimates with the number of retailers included in the specification. Additionally, inclusion of a regional consumption trend variable added no explanatory power to any model and yielded estimates nearly identical to those presented in Table III.

TABLE III
OLS Reduced-Form First-Differenced Quantity Estimates[a]

Explanatory Variables	Dependent Variable			
	ΔBeer	*ΔBeer*	*ΔlnBeer*	*ΔlnBeer*
ΔBan	−1.446***	−1.113***	−0.059***	−0.051***
	(4.716)	(2.912)	(6.222)	(4.804)
ΔTranship	−0.420	0.278	−0.018	−0.001
	(1.102)	(0.803)	(1.453)	(0.034)
ΔSchwinn	−0.450	−0.326	−0.001	−0.002
	(1.283)	(0.613)	(0.788)	(0.094)
ΔTax	−5.277**	−8.620***		
	(2.521)	(3.890)		
ΔlnTax			−0.310***	−0.413***
			(3.285)	(4.728)
ΔIncome	0.001	0.001**		
	(1.353)	(2.482)		
ΔlnIncome			0.222***	0.329***
			(2.706)	(3.682)
ΔRetailers	6.910***	8.276***	0.222***	0.245**
	(2.720)	(2.720)	(2.597)	(2.419)
ΔAgediff	−3.046***	−3.379***	−0.094***	−0.092***
	(3.944)	(3.581)	(4.041)	(3.725)
ΔPriceads	0.525	0.711	0.019	0.025*
	(1.409)	(1.594)	(1.503)	(1.767)
ΔQuota	−0.486*	−0.590**	−0.026***	−0.030***
	(1.800)	(2.086)	(2.792)	(3.198)
ΔUSbeer	0.570***			
	(4.057)			
ΔlnUSbeer			0.514***	
			(3.387)	
Time	−0.008	−0.009	−0.001**	−0.001*
	(1.206)	(1.115)	(2.123)	(1.794)
Constant	0.396	0.406	0.011	0.010
	(1.555)	(1.314)	(1.242)	(0.881)
Adjusted R^2	0.491	0.328	0.567	0.444
F	4.588***	3.004***	5.874***	4.280***
Durbin–Watson	2.264	2.221	2.260	2.221

[a]An * indicates significance at the 10%, ** at the 5%, and *** at the 1% level in a two-tailed test. Absolute values of *t*-ratios appear in parentheses.

shipping have no statistically significant effect on equilibrium output and consumption, even when U.S. beer consumption is omitted from the equation. The insignificance of the coefficients on these two variables suggests brewers are relatively adept at monitoring and enforcing exclusivity, even in the absence of explicit exclusive territorial contracts. Only when efforts to enforce exclusivity are made explicitly illegal do non-exclusive contracts have an effect on equilibrium output.

All estimated coefficients on the control variables are consistent with their predicted (where applicable) signs. Increases in income, the number of retail outlets relative to population, and the absence of restrictions on price advertising all tend to increase consumption while higher taxes, higher relative legal drinking ages, and limitations on the number of wholesalers tend to lower beer consumption. The positive coefficients for U.S. beer consumption, excluding Indiana, ($\Delta USBeer$ and $\Delta \ln USBeer$) indicate that unmeasured factors that altered beer drinking nationwide had similar effects in Indiana.

IV. CONCLUDING REMARKS

We have addressed empirically the theoretical debate surrounding the market effects of, and therefore the motivation for, manufacturer-designated exclusive dealer territories. We find that Indiana's statutory proscription of exclusive territories has significantly and permanently reduced the equilibrium quantity of beer sold in Indiana by 6 percent per year. These results are at odds with those who argue that exclusive territories are primarily anti-competitive. Output could not have decreased if exclusive territories only served to limit intrabrand competition and did not promote additional dealer services.

The observed reduction in equilibrium consumption associated with Indiana's ban on exclusive territories, while not strictly definitive, also suggests that exclusive territories promote social welfare in the beer industry. If the services that are provided as a result of exclusive territories are equally valued by all consumers, then our results indicate that exclusive territories unambiguously improve both consumer and social welfare.[49]

If, however, inframarginal consumer valuation of exclusive-territory-induced services is less than that of the marginal consumer, exclusive territories could reduce both consumer and total welfare despite the observed increase in output. For this to happen, however, it would have to be true that a significant proportion of consumers value the additional services at less than the resource cost of providing those services and cannot switch to alternative brands that offer less service and lower prices.

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49. Our analysis ignores any third-party costs associated with alcohol consumption. Clearly, such costs ought be considered in making any conclusive statement concerning welfare effects. It is also the case that Indiana's ban may have conferred locational rents on some retailers which were previously captured by exclusive wholesalers. If so, these would also enter any overall welfare calculus.

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THE ECONOMIC EFFICIENCY OF GEOGRAPHIC RESTRAINTS IN THE MALT BEVERAGE INDUSTRY

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June, 1987

Executive Summary

Modern economic theory recognizes that certain types of vertical restraints, which limit competition between the wholesalers or retailers of a product, can work to the benefit of consumers by enhancing competition with other brands or with closely related products. One such vertical restraint is represented by contractual arrangements between manufacturers and wholesaler-distributors granting the wholesaler-distributor the sole and exclusive right to sell and distribute a product within a given geographic area. Exclusive territories promote competition between brands by eliminating "free-rider" effects and by providing incentives for wholesaler-distributors to assist retailers with quality control and other point-of-sale services. Because, however, vertical restraints can in some circumstances lead to lessened competition, it is necessary to examine each case on its own merits.

This study analyzes the effects of exclusive territories in the malt beverage industry. Most reliable accounts suggest that the beer industry is characterized by intense competition among manufacturers, manufacturers' brands, and their distributors. Between 1962 and 1986, for example, the number of licensed breweries in the U.S. rose by nearly 30 percent. More importantly, retail beer prices have increased more slowly than those of milk, wine, cola, and coffee from 1967 through 1982. Among the vast array of beverages with which beer competes for the consumer's dollar, only the price of distilled liquor rose more slowly over this period. Indeed, computed in constant 1967 dollar

sented "an enviable business achievement by beer manufacturers."

Similarly, a study conducted by economists at Auburn University showed that beer prices fell by 11 cents per six-pack in Alabama after enactment of exclusive territories legislation in 1984. By comparison, during the same time period, average beer prices nationally increased by 11 cents per six-pack. The authors concluded that "although many factors enter into the pricing of beer and wine, no evidence can be found in these data that the territorial bill has been harmful to the Alabama consumer."

Thus, the evidence from two independent studies of the effects of exclusive territories on beer prices suggests that such legislation works to the benefit of beer consumers. To investigate the effects that state-granted exclusive territories legislation has in the beer industry nationwide, we developed and estimated an econometric model to explain cross-state variations in the retail price of beer. The model incorporates the fundamental economic factors which interact to determine the prices of beer in each of the fifty states. These factors include consumer income; the prices of related goods such as wine, soft drinks, and distilled spirits; labor costs; congestion-service capacity; state laws restricting beer advertising at retail; and the presence or absence of state-mandated exclusive territories.

In contrast to the flawed study conducted by Dr. Mark Cooper for the Consumer Federation of America, our findings indicate that retail beer prices are no higher or lower in states that mandate exclusive territories than in other states, once the effects of other relevant factors affecting retail beer prices are accounted for. (Indeed, the results suggest that retail beer

prices tend to be lower in states mandating exclusive territories, but this finding does not reach standard levels of statistical significance.) Clearly, if exclusive distributorships were a method of monopolizing markets and charging retailers higher prices, these effects would show up in the prices paid by beer consumers. The data reject this interpretation.

The findings concerning the effects of the other factors considered on the retail prices of beer are consistent with the predictions of economic theory. Specifically, retail beer prices are higher in those states where consumer incomes, a close substitute's (wine) price, and labor costs are higher. Similarly, retail beer prices tend to be lower in states where per capita consumption is higher and where there are higher levels of service congestion (fewer retail food, eating and drinking establishments per capita).

The study does uncover one source of artificially high retail beer prices not considered in the Cooper study. The results show that retail beer prices are substantially higher, given other factors, the greater the number of ways in which state law restricts or prohibits retail beer advertising. In particular, restrictions and prohibitions on exterior signs and interior window signs which can be seen from the exterior each raise retail beer prices by about 15 cents per gallon (1967 dollars). Newspaper and magazine advertising restrictions raise retail beer prices by approximately 18 cents per gallon (1967 dollars). Thus, it appears to be state-imposed advertising restrictions, and not exclusive territories, that are the culprits which artificially raise retail beer prices through

their competition-reducing effects.

In sum, our study is fairly conclusive on the question of whether exclusive beer distribution territories will harm or enhance consumer welfare. After a detailed analysis of the effects of state-mandated exclusive territories on the prices of beer at retail, we find that if there is any effect at all, state-mandated exclusive territories lead to lower retail beer prices. There is no evidence that exclusive territories lead to higher retail prices. The only conclusion that can be drawn from the evidence is that the clarification of the antitrust treatment of the territorial distribution system proposed by the Malt Beverage Interbrand Competition Act would be pro-competitive and efficient from the perspective of beer consumers.

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I. VERTICAL RESTRAINTS IN THE MALT BEVERAGE INDUSTRY

Regulation of industry structure has undergone significant changes over the past 10 years. Industries such as airlines and trucking have been deregulated in many dimensions. Many unnecessary regulations have been eliminated from the work place. The impact of environmental and other regulations has been scrutinized in order to determine their effects upon economic efficiency and general consumer welfare.

Behind many of these regulatory changes is a "new" theory of industrial organization. This new theory is based, among other features, on a broadened concept of competition and ultimate market performance rather than upon the simple number of firms in the industry. For example, the new industrial organization identifies interindustry competition as a major ingredient in determining economic welfare. A four-firm concentration ratio of fifty or sixty percent in some narrowly-defined industry, e.g., leather, is no longer prima facie evidence of reduced competitiveness. Leather, after all, must compete with plastics, wool, cotton and fibers of all kinds in most relevant markets. Domestic firms face increasing competition from foreign producers in many industries. The courts, antitrust enforcement agencies, and the regulatory arm of the Office of Management and the Budget have all used wider standards of conduct and performance in gauging the impact of market structures on consumer welfare. While the number of firms in an industry, interrelationships with other industries, entry conditions, and other aspects of market structure still count from a regulatory perspective, performance

characteristics with respect to price, quality, and consumer service have begun to make a significant impact on legal and legislative decision-making. The trend in antitrust law and enforcement has been clearly established in the direction of greater degrees of open competition.

The Issue of Vertical Restraints.

Within the overall tone of competitiveness, one issue remains unclear from both a theoretical and a policy perspective. In the seemingly infinite number of variations on total market structure within narrowly-defined "industries," vertical restraints present an interesting and perplexing issue. Vertical restraints comprise any terms, contracts, or agreements between the manufacturer and the distributor-wholesalers of a product which relate to the exact conditions under which the product can be sold at wholesale and retail. Some of these conditions or terms may include minimum price or quality standards, conditions of sale to wholesalers or retailers, and, importantly, defined limits on geographical distribution of the product.

Some form of vertical restraints is common in many industries. The tightest form of vertical restraint is, of course, downstream ownership and control by manufacturers of a good or service. Exxon Oil Company or Holiday Inns are examples of such restraints. In such integrations of manufacturing and distribution, quality characteristics are kept under tight control, and geographic competition (within brand) is narrowly conscribed. Franchising, so common in recent fast-food economic history, is yet another form of vertical restraint. The major aspect of such restraints is, like vertical integration, the

insurance of quality and the limitation of geographic intrabrand competition. In the case of franchising, however, provision of services by the franchisor (such as advertising, the availability of quality-controlled inputs, etc.) are given in return for a franchise fee and for contractual assurances of quality.

Other market structures are characterized by somewhat less formal kinds of vertical restrictions. These intrabrand restraints, which evolved slowly over time, are similar in motivation to those of downstream integration and formal franchising. The soft drink and malt beverage industries are characterized by these kinds of quality and geographic restraints. The essential question respecting all kinds of vertical restraints is whether, for purposes of economic policy, (a) such restraints contribute to inefficiency and welfare loss in markets, or (b) whether efficiency and consumer welfare are unharmed or even enhanced by such a policy. These questions regarding the effects of vertical restraints (both price and non-price) have been scrutinized carefully over the past few decades by economists and policymakers. The issues have undergone considerable analytical refinement as well.

The Logic of Vertical Restraints.

On the negative side, restraints such as resale price maintenence and geographical restrictions could create or facilitate collusion, permitting or creating restrictions on horizontal firm competition. Modern economic theory suggests opposite effects. Since market structure usually evolves in an efficient manner, it seems reasonable that a manufacturer's

choice of a distribution system reflects a clear judgment concerning the efficiency and effectiveness of selling its product. The choice of a particular marketing system, in other words, will be premised upon the most efficient (in the eyes of the particular manufacturer) means of competing with other brands or with closely related products. Consumers as well as manufacturers and all firms in the chain of distribution benefit from enhanced competition.

The logic of vertical restraints is further enforced by the following considerations:

(1) The Elimination of Free Rider Effects. In many cases products (automobiles, for example) require maintenance or after-purchase service. Without vertical restraints such as exclusive territories, transshippers and other sellers would "free ride" on distributors who did provide these services. The marketing arm of the competitive system breaks down in such cases since competitors not providing services are able to charge lower prices by attempting to shift burdens to distributors providing services. The latter, however, meet this competition (lower prices) by reducing service, and the process continues until quality is eroded at the retail and consumer levels. These free rider effects are avoided with exclusive territories.

(2) Quality Control and Point-of-Sale Assistance. Exclusive distributors are, for reasons similar to the case of the "free rider," necessary to control the quality of some final products. For example, full-service dealers who provide technical data about product performance, warranty terms, and so on would be injured if customers were able to make their purchase decision at

one location and then buy from a nearby dealer who, because he did not supply such ancillary services, could sell the same product at a discount. Similarly, a distributor dealing with retail stores buying from multiple suppliers of the same item will lose incentive to rotate stocks, to carry sufficient inventory in order to meet normal customer demands, to participate in promoting and developing brands, and to provide informational services to retailers. The 1982 FTC decision in the Beltone case, for example, held that exclusive territories "may increase local merchandising, promotion and service activities of wholesalers, and might increase output."[1] These arrangements also permit sales and service to small retailers and increase brand selection to the consumer.

For these general reasons, evidence in most markets points to the fact that exclusive territorial arrangements increase competition and enhance consumer welfare, and provide no entry barriers for new and potential entrants. Indeed, when vertical restraints improve and encourage overall competitiveness, new entry may actually be facilitated.

The Legality of Vertical Restraints.

Over the past decade the courts have found this kind of economic logic persuasive. A 1967 decision (U.S. v. Arnold, Schwinn and Co., 388 U.S. 365 (1967)) had found exclusive territories to be illegal per se. This rule held that the use of non-price restraints, such as exclusive territories, in any market was unlawful. Under present law, developed in the Sylvania decision (Continental T.V. v. GTE Sylvania, 433 U.S. 36

(1977)), the legality or illegality of exclusive territories will be judged by the "rule of reason." The Sylvania court argued that exclusive distributorships could be pro-competitive in some industries, citing the "free rider" problem discussed above and some of the quality benefits that can be induced by the assignment of exclusive territorial agreements.[2] The Reagan administration has vigorously supported such agreements. The Department of Justice's Antitrust Division maintains that such agreements are lawful except under exceptional circumstances. Specifically, if competition is vigorous -- in particular as measured by low concentration at the manufacturing or wholesale level or by ease of entry -- exclusive territories are not likely to be anticompetitive.[3]

The Malt Beverage Industry: Characteristics

Within this economic and legal framework the malt beverage industry is seeking legislative clarification of the "circumstances under which territorial provisions in licenses to distribute and sell trademarked malt beverage products are lawful under the antitrust laws."[4] Specifically, the Malt Beverage Interbrand Competition Act would permit, state laws also permitting, the inclusion and enforcement of contractual arrangements between malt beverage manufacturers and wholesaler-distributors granting the wholesale distributor the sole and exclusive right to sell and distribute a product within a given geographic area. The Act also contains provisions which require that the product be in "substantial and effective competition with other malt beverage products within that defined geographic area" and that no (Sherman-Clayton) antitrust provisions

respecting illegal price-fixing, horizontal restraints, or boycotts are violated.

We believe that the structure and performance characteristics of the malt beverage industry (hereafter the beer industry) clearly make the proposed legalization of the territorial distribution system pro-competitive and efficient from the perspective of consumer welfare. Before considering formal evidence of the efficiency of that system in Sections II and III of this report, first consider an informal description of the beer industry and of its characteristics and, secondly, an analogy to the efficiency of the soft drink market and distribution system.

The Three-Tier System and Exclusive Territories. In common with many other distribution systems, beer marketing is characterized by a three-tier system. The cornerstones of this system are:

a. beer manufacturers sell to wholesalers which, according to laws and regulations in many states, distribute beer within exclusive territories designated by the manufacturers;

b. distributors, in active competition within the beer market and in the market for beverages in general, sell to retail stores, small and large, restaurants, bars, and all other retail outlets for beer; and

c. retailers, which stock a large number of beer brands as well as a variety of alcoholic and non-alcoholic beverages for final sale to consumers.

This system has stood the test of time in the beer industry with well over half of the states mandating exclusive territories for distributors and all the rest (except Indiana) either silent or neutral regarding distribution through exclusive territories. (Figure 1 presents a summary map of state positions on exclusive territories for beer distribution in 1985.)

Competitiveness at the Manufacturing and Distribution Stages. Most reliable accounts of general competitiveness in the beer industry at both the manufacturing and distributional levels point to intense competition between manufacturers, manufacturers' brands, and the distributors of beer. Figure 2, from the Brewers' Almanac, gives an a indication of the number of breweries from 1968 to 1986. In 1986 the total number of licensed U.S. breweries stood at 113, an increase of 26 breweries between 1982 and 1986. At the manufacturing level, concentration ratios within the beer industry alone (i.e., without the consideration of other beverage competition) give little indication of competitiveness within the beverage market. In a study of the industry for the period 1952-1971, for example, economists K.J. Hatten and D. E. Schendel conclude that

> the brewing industry underwent a major transition. In this period the number of breweries declined from 357 to 148 and the market share of the four largest brewers increased from 24.2% to 48.5%. During this same period, however, the fortunes of many companies, both large and small, shifted dramatically. Schlitz lost its position as market leader to Anheuser-Busch whose market share increased from 7.1% to 19.2%. Once prominent large

STATE - MANDATED EXCLUSIVITY
(EXCLUSIVE STATES SHADED)

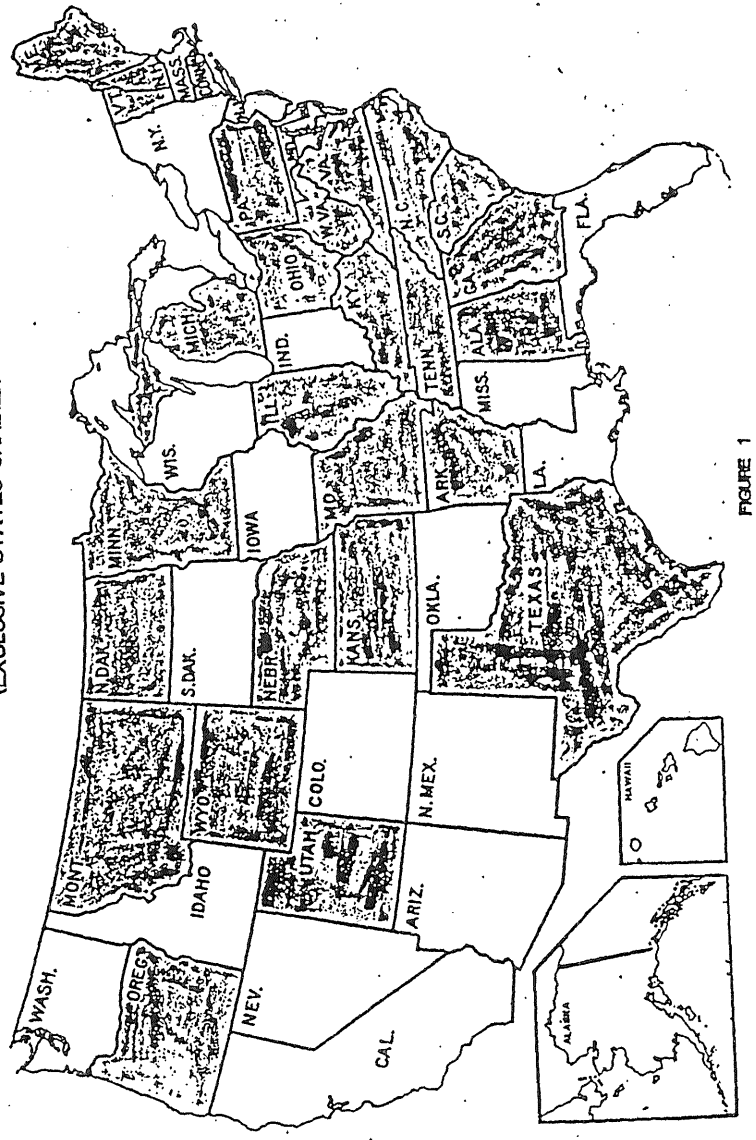
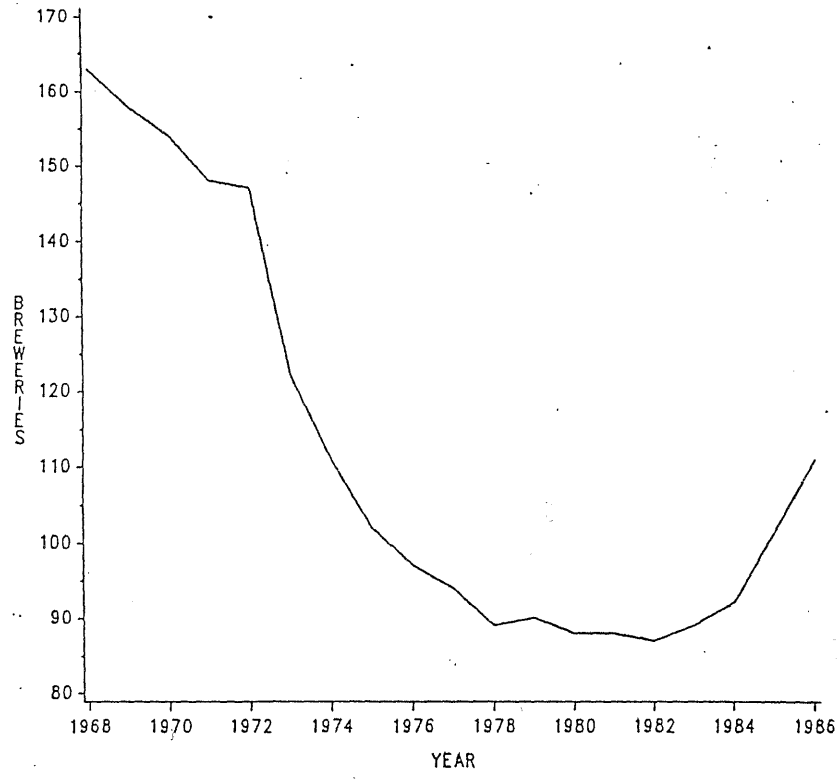


FIGURE 1

NUMBER OF U. S. BREWERIES : 1968-1986



SOURCE : BREWERS ALMANAC

FIGURE 2

firms like Ballentine and Blatz disappeared while firms like Carling, Hamm, Falstaff and Associated Breweries enjoyed a short period of vigorous prosperity and then began to wane. Companies like Coors, and more recently Miller, began to grow.[5]

Evidence of intense competitive rivalry between manufacturers and the entry and exit of firms into the industry continues over more recent time periods.

Significant and intense rivalry at the level of beer distribution also exists. In 1984, according to testimony presented before the Senate Committee on the Judiciary, "beer distributors are by and large independently owned small businesses; 93 percent . . . employ less than 50 people and make a profit before Federal and State income taxes of 4.6 percent on sales."[6] The distribution industry employs more than 80,000 workers and each firm typically invests $1 million in capital -- warehouses, trucks, and other equipment. The number of beer distributors per state for 1986 is shown in Table 1.

Large numbers of distributors in the beer industry are an important indication of the increasing number of brands available in the market. The proliferation of brands of beer has developed not only from domestic production but also dramatically rising imports of beer as well (see Figure 5 of this paper). In any given geographic area, an increasing number of brands signals a larger number of distributors which mirrors intense rivalry within the entire industry. Prices in such competitive markets, as in the well-known conclusion of economic theory, will

TABLE 1: Beer Distributors Per State : 1986

STATE	NUMBER	STATE	NUMBER
ALABAMA	56	MONTANA	45
ALASKA	9	NEBRASKA	50
ARIZONA	54	NEVADA	23
ARKANSAS	51	NEW HAMPSHIRE	17
CALIFORNIA	254	NEW JERSEY	47
COLORADO	60	NEW MEXICO	30
CONNECTICUT	22	NEW YORK	162
DELEWARE	5	NORTH CAROLINA	94
FLORIDA	97	NORTH DAKOTA	29
GEORGIA	74	OHIO	146
HAWAII	18	OKLAHOMA	57
IDAHO	36	OREGON	89
ILLINOIS	196	PENNSYLVANIA	404
INDIANA	122	RHODE ISLAND	10
IOWA	80	SOUTH CAROLINA	59
KANSAS	60	SOUTH DAKOTA	29
KENTUCKY	66	TENNESSEE	46
LOUISIANNA	77	TEXAS	286
MAINE	16	UTAH	19
MARYLAND	55	VERMONT	12
MASSACHUSETTS	42	VIRGINIA	78
MICHIGAN	165	WASHINGTON	100
MINNESOTA	117	WEST VIRGINIA	62
MISSISSIPPI	57	WISCONSIN	173
MISSOURI	92	WYOMING	33

Source: Brewers Almanac, 1986

approximate the costs of production and distribution.[7]

Service Characteristics and "Free Riding" in Beer Distribution. In spite of the allegations of some critics, beer distibution has numerous service dimensions. Product quality must be assured, retail sellers, both large and small, must be serviced, and beer promotions and point-of-sale activities are all part of the role of the franchised distributor. These activities are all part and parcel of the competitive process by which beer is distributed and marketed. The statement of William Young, president of Wholesale Beer Company of Atlanta, Georgia, outlines the typical competitive activity of the wholesale distributors:

> In my State of Georgia draft beer is about 12 percent of all the beer sold. It has a much shorter, natural, shelf life because it is not pasteurized. We have to, therefore, make a substantial investment in large coolers and warehouses to keep a watchful eye on the cleanliness of everything that we do relative to draft beer.
>
> Bottle and canned beer has a longer normal shelf life. The standard is set by the brewery. The standards vary by the breweries. If we do not maintain the quality of the product, we are subject to being terminated by our brewers. We are required by suppliers to watch the shelf life of these products in these warehouses and in the retail customers establishments.
>
> We make sure that the product is rotated according to age at our warehouse, . . . on our trucks, and

> the retailers' coolers, floors, shelves, and storage rooms. When the normal shelf life date is exceeded, we pick up the beer from the retailer's place of business. We replace it with fresh beer and destroy the old beer at our cost.[8]

It is clear, moreover, that the "free rider" problem -- overlapping competition from other distributors or "trans-shipping" exists and is significant in the beer industry as it is in many others.[9] As Mr. Young notes:

> If I was not the only Pabst distributor in the Atlanta market, the entire quality control program of the Pabst Brewing Co. would fall apart. I could not identify which Pabst I sold to the retailer and which Pabst some other distributor would have sold to the same retailer.
>
> And I would certainly not spend money to control the quality of a product I did not sell. Yet, if my brand of beer goes off taste, even if I did not sell it, the brand suffers and so do I. This is because the consumer will switch, and he does, brand preference.[10]

Not only does quality control of the product itself suffer from intrabrand competition at regional levels, but other dimensions of competition such as display advertising, special promotions, retailer education and assistance, and steady supply availability suffer as well with "trans-shipping." Indeed, our empirical results strongly support the fact that beer advertising restrictions across states (reported in Section III of our research)

have a positive and significant impact upon beer prices.

Overall Competitive Performance. The relevant market for beer is, of course, vastly understated when beer alone is considered. Beer is in competition with many other kinds of beverages, including wine, distilled spirits, and the massive array of non-alcoholic beverages. If concentration or monopoly elements were at all significant in the overall beverage market, we would expect to observe retail prices or profit margins of manufacturers or distributors to be rising over time. Figure 3 provides an indication of price increases of selected beverages compared to the rise in the Consumer Price Index from 1967 through 1986. Next to the price of whiskey and milk, nominal beer prices at retail have risen less than those of cola and coffee and approximately the same as wine over the period. The increase in the average price of colas over the period is in large measure due to shifts in tastes of the population. Since 1967, consumers have tended to shift consumption away from alcoholic beverages toward soft drinks. This, in large part, led to the explosion in the diet and sugar-free cola demand producing a relatively large price increase for colas. Further, according to data from the Bureau of Labor Statistics, real beer prices computed in constant 1967 dollars fell at a compound rate of 1.7 percent per year from 1964 to 1985. Between 1968 and 1985, average hourly earnings for production workers in the malt beverage industry rose four-fold (391%) in contrast to earnings in all manufacturing (315%) and in all food (299%).

Such informal evidence relating to all three stages of the malt beverage industry leads to a clear indication of the general

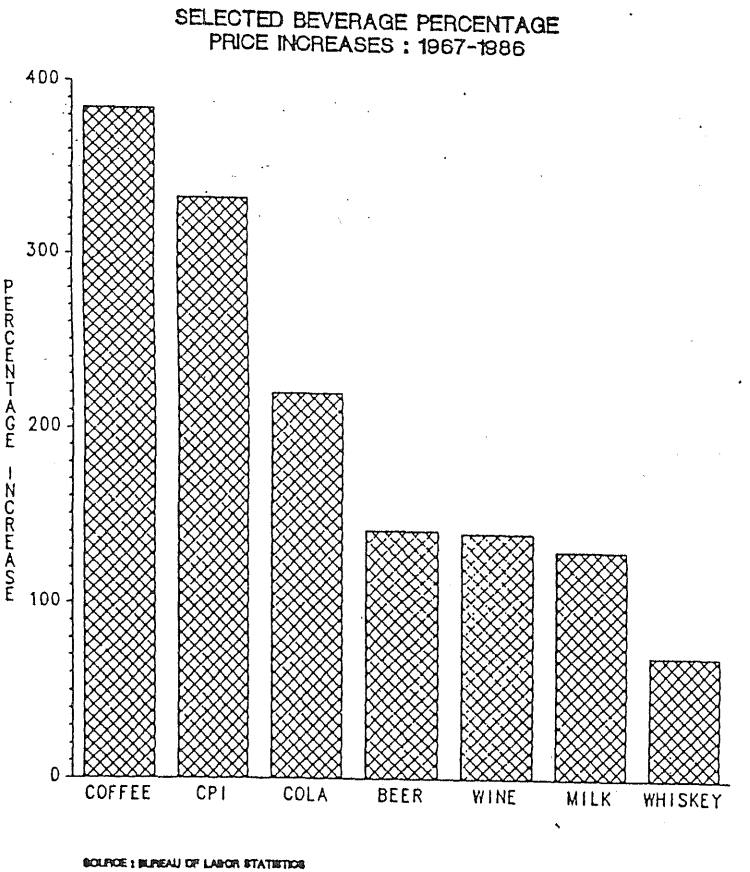


FIGURE 3

competitiveness of the industry over the past 35 years. The purpose of our study, however, is to demonstrate formally the efficiency of vertical restraints in a number of dimensions, including prices, output and, more importantly, full price (nominal price plus quality dimensions). Before turning to our formal evidence relating to these matters, it is instructive to consider an analogy of industry performance in an area with almost identical market characteristics -- soft drinks. The soft-drink industry is composed of a three-tier marketing system but, more importantly, it received legislative approbation of exclusive territories in 1980. It is important to investigate the relative performance of that industry before and after "trans-shipping" and intrabrand competition was disallowed for distributors within defined geographic markets.

The Soft Drink Industry: Performance with Exclusive Territories

Soft drinks, since the rise of national markets, have been characterized by a similar distributional-evolutionary marketing process as beer. While the analogy between beer and soft drinks is not perfect (e.g., in the soft drink case syrup, rather than manufactured soda, is sold to bottler-distributors, and soft drinks are not burdened by the plethora of taxes and regulations imposed on beer), the industry's performance is clearly relevant to the issue of legislative approbation of exclusive territories. The soft drink industry, prior to 1980 when Congress granted assurance of exclusive territories to soft drinks, was characterized by the same distribution system as beer, including the presence of efficiency-inhibiting "free-rider" effects.

Carbonated soft drinks, like beer, face intense competition from a broad rage of alternative beverage products. Bottled water, powdered soft drinks, tea, juices, coffee, and milk compete through price and marketing techniques with soft drinks. Some evidence suggests that products such as wine coolers and low-alcohol beer compete similarly with soft drinks. New entry into the beverage market -- a sure sign of competitive rivalry and efficient competitive market performance -- has been phenomenal. Over the period 1984-85, according to New Product News, almost 1200 new beverage products were introduced into the American market. (A breakdown of these products by characteristic is found in Table 2). More than one hundred new low-alcohol (wine and beer) products were introduced that year, which is not atypical of the kind of entry consistently observed in the beverage field for both alcoholic and non-alcoholic products.

Most important is the relative performance of the industry in terms of price and consumption since the institution of exclusive territories in 1980. Figure 4 shows the per capita consumption trends between 1975 and 1985 in soft drink sales (carbonated and non-carbonated) as compared to the trends in other beverage consumption. While sales of coffee and milk have declined in absolute terms, soft drink sales have sky-rocketed compared to beer and all other types of beverages. (Annual per capita consumption of soft drinks is anticipated to grow to over 55 gallons per capita in 1995 compared to about 45 gallons per capita in 1985).

In contrast to the comparison of cola price changes to price

TABLE 2: Product Introductions in the Beverage Market, 1984-85

	NUMBER	PERCENT
Carbonated	374	31.4
Non-Carbonated	816	68.6
Total	1190	100.0
Non-Alcohol	1085	91.2
Alcohol (low alcohol)	105	8.8
Total	1190	100.0

Source: "New Beverage Products 1984-1985" New Product News.

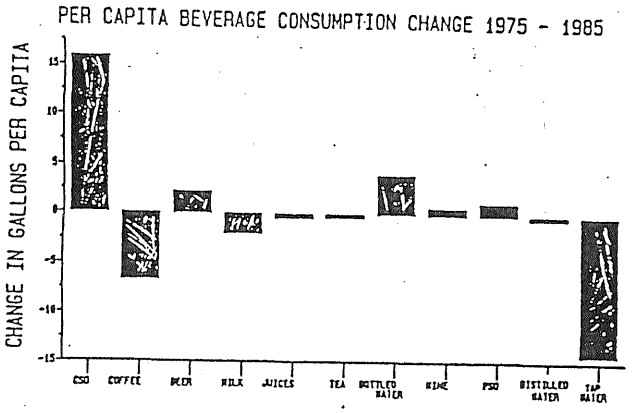


FIGURE 4

changes of some other beverages over the 1968-1986 period (see Figure 3), the prices of carbonated soft drinks have risen at a much lower rate than many other beverage products in the post-1980 period. Betwen 1981 and 1985, the prices of soft drinks rose 4.1 percent based on data published by Nielsen.[11] The prices of competing products grew at a much faster rate, including powdered soft drinks (13.4 percent), fruit drinks (15.2 percent), fruit juice (21.8 percent), coffee (13.3 percent), and tea (17.6 percent). Relative to soft drink sales, beer sales have been declining during the 1980s, a fact that has led some beer manufacturers to move into other markets (such as soft drinks) with similar distribution channels.[12]

By any measure the relative performance of the soft drink industry since the legislative institution of exclusive territories in 1980 has been efficient and very positive in terms of consumer welfare. The overall strengthening of competitiveness through elimination of intrabrand competition and "free-riding" has created a brisk competitive environment characterized by easy entry of new products and brands. Evidence of lower price and higher consumption means that actual product entry and potential rivalry have created an economically efficient and welfare-enhancing product market in the soft drink industry.[13]

Relevance for the Malt Beverage Industry

Soft drink experiences teaches us that efficient performance is expected in similar cases such as malt beverages. In the case of soft drinks we have observed prices declining along with huge increases in the volume of soft drinks sold. Exclusive

territories did not rout competition. If anything, they have created greater competition. Likewise, we expect to observe falling real prices in an efficient competitive beer marketing environment. These markets, we have argued, are created by conditions such as exclusive geographic territories (without "trans-shipping"). Such conditions are expected to promote interbrand competition, ease of entry, and enhanced consumer welfare in states where exclusive territories are mandated on beer distributors.

Competitiveness and Contestability in the Beverage Market. While some critics argue that concentration levels in both the beer and soft drink industries raise potential problems of monopolistic collusion, modern economic theory shows that both actual entry and potential entry will discipline the pricing behavior of industries with a few or even with one firm. Recently, economists William Baumol, John Panzar and Robert Willig have offered a contestability theory of market structure which stresses ease of entry and exit rather than the number of firms as the critical determinants of competitive outcomes in a market.[14] As we have seen, the number of breweries in the U.S. has been rising fairly rapidly in recent years, but there are a number of other important features of the beer industry and the beverage market that point to keen competitivenes and full contestability.

There are simply too many competitors in the beverage market, actual and potential, to suggest a lack of competition. If any beer manufacturer attempted to raise its prices to supracompetitive levels, it would lose a significant amount of

sales to other beer and beverage companies. Higher than competitive returns would also signal strategic groups of beer producers to enter the market. Other recent developments in the beverage market are also relevant. For example, in the face of declining beer sales, distributors are searching for other beverage products to initiate within their distribution systems. Carbonated and non-carbonated beverages are natural products for entry in this regard. In 1986, Gary Truitt, Vice-President of International Marketing and Development at Adolph Coors Company, stated that with per capita sales of beer declining, "beer and liquor companies recognize their need to compete with non-alcoholic beverages such as bottled water and soft drinks." As a consequence, Coors "is looking for ways to grow and has considered entering the market with alternative beverage products" since "for a company in the beverage industry which is seeking to expand, like Coors, it is natural to consider alternative beverage products." Beer and soft drink distribution systems -- as evidenced by the growing number of distributors that handle both products -- are able to handle a myriad of competing products competitively and effectively. There seem to be no technological barriers to entry into the beverage market, including beer.

Even more dramatic is the actual and potential contestability represented by beer imports. Figure 5, which shows the net imports of beer into the U.S. between 1957 and 1985, is evidence of the foreign entry faced by U.S. beer manufacturers. In 1957, approximately 220 thousand 31-gallon

barrels of beer on net were imported in the U.S. By 1985 net imports of beer to the U.S. market reached 7 million, 200 thousand 31-gallon barrels. The last decade has witnessed the most dramatic increase in net beer imports, a fact which reinforces the existence of entry contestability in the beer industry and in the overall beverage market.

The Michigan and Alabama Studies. Before turning to a formal econometric model of the price impact of exclusive territories in the beer industry across the U.S. in Section II, consider the experience of two states with regard to the impact of exclusive distribution on beer prices over the past two decades. (Excerpts of these studies may be found in Appendix III). In a study prepared by the Michigan Department of Public Health's Office of Substance Abuse Services, beer price and excise tax revenues were juxtaposed with inflation trends over the period 1967 through 1983 (see Table 3). The agency concluded that

> From 1967 to 1983, the overall price of consumer goods in Michigan increased nearly 300%. Disposable income rose from $2,913 to $9,725, a 230% increase. However, retail beer prices increased by only 220%, meaning that beer prices have declined relative to other products and to the amount of money people have to spend. Over time, beer prices have become comparable to or lower than prices for soft drinks and fruit juices.[15]

In constant dollar terms, a six-pack that cost $1.23 in 1967 cost only 91 cents in 1983. While lamenting a loss of over 65 million dollars in state beer tax revenues, the agency called the price decline "an enviable business achievement by beer

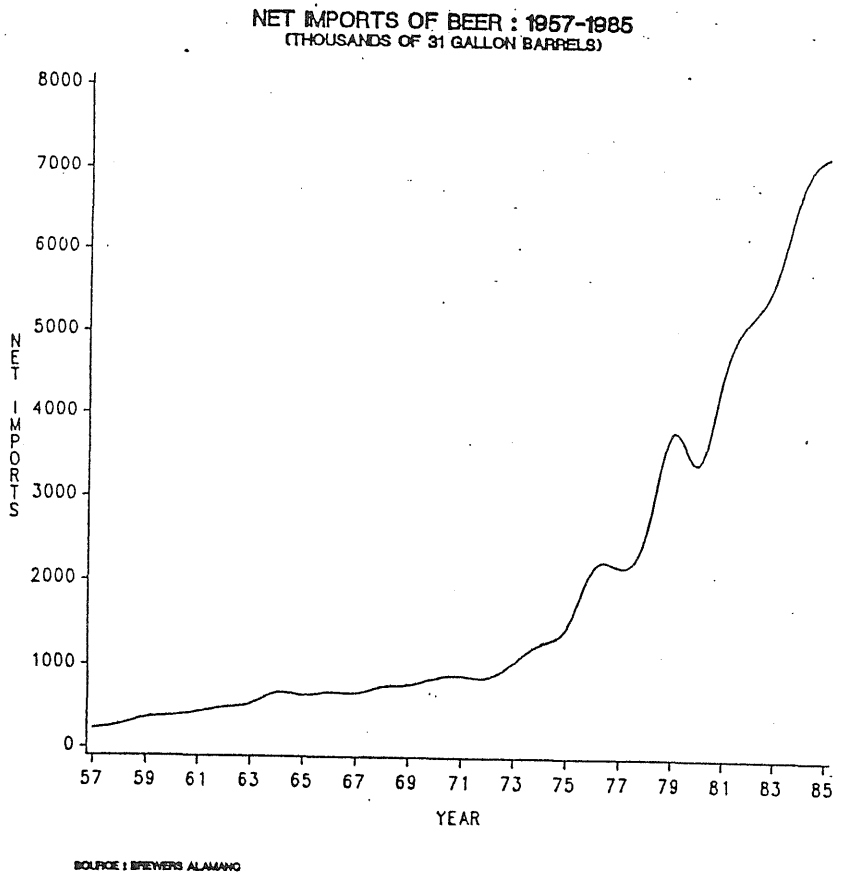


FIGURE 5

TABLE 3: Beer Six-Pack Prices in Michigan : 1967-1983

YEAR	NOMINAL PRICE	1967 DOLLAR (REAL) PRICE	
1967	$ 1.23	$ 1.23	
1968	1.26	1.21	
1968	1.30	1.18	
1970	1.34	1.14	
1971	1.39	1.14	
1972	1.40	1.11	
1973	1.42	1.06	
1974	1.56	1.05	
1975	1.73	1.08	
1976	1.76	1.04	
1977	1.81	1.00	(exclusive territories law 1/1/77)
1978	1.97	1.01	
1979	2.36	1.08	
1980	2.59	1.02	
1981	2.73	.99	
1982	2.65	.92	
1983	2.71	.91	

manufacturers." This enviable achievement would not have been possible in an economically inefficient environment characterized by socially inefficient intrabrand rivalry. Such rivalry would have yielded higher real prices of beer in terms of quality diminution and service conjestion.

Another recent study confirms the fact that exclusive territories granted in the in the state of Alabama in 1984 have been associated with falling beer prices.[16] Data on both beer and wine were examined for the second quarter of 1984 (when the bill was passed) and again in the third quarter of 1986. The study concluded that overall beer prices fell by 11 cents per six pack over the period and that the results tend to support the view that primary competition exists between distributors of different brands of beer within territories, rather than between same-brand distributors competing between different territories.

The evidence from Michigan and Alabama, though suggestive, is fragmentary and could be the result of isolated experiences. More conclusive evidence of the economic efficiency of exclusive distributorships (those excluding trans-shipping) can only be offered within the context of a nationwide study of beer marketing.

II. SOME AGGREGATE ASPECTS OF THE BEER INDUSTRY OVER TIME

Before turning to an empirical analysis of the effect of state-mandated exclusive distributor territories on retail beer prices, a view of the nationwide beer industry and beer consumers over the last three decades is in order. Both a descriptive view and a formal statistical analysis are presented.

Descriptive Analysis

As discussed earlier, and as Figure 3 indicated, retail beer prices rose by approximately 140 percent during the 1967-1986 period. However, this period was one of variable, yet persistent, general inflation in the U. S. economy. Beer prices, like any other prices, would be reasonably expected to increase during inflationary periods. Of importance, though, is not the nominal price of beer, but its price relative to the prices of all other goods and services available in the economy.

Figure 6 depicts the movement, from 1957 to 1985, of the price of beer in comparison to the average price of all goods and services. This measure of the relative price of beer is constructed by forming the ratio of the Consumer Price Index for beer to the Consumer Price Index for all goods. It therefore shows what has happened to the retail price of beer in comparison to the retail prices (on average) of all goods and services. As Figure 6 clearly indicates, retail beer prices have steadily declined since 1957. In 1957, average beer prices were about 1.08 times the average of all goods' and services' prices. By 1985 they were less than 75 percent of the average of all prices. This implies that, after adjusting for general price inflation, retail beer prices have declined by more than 30 percent since 1957.

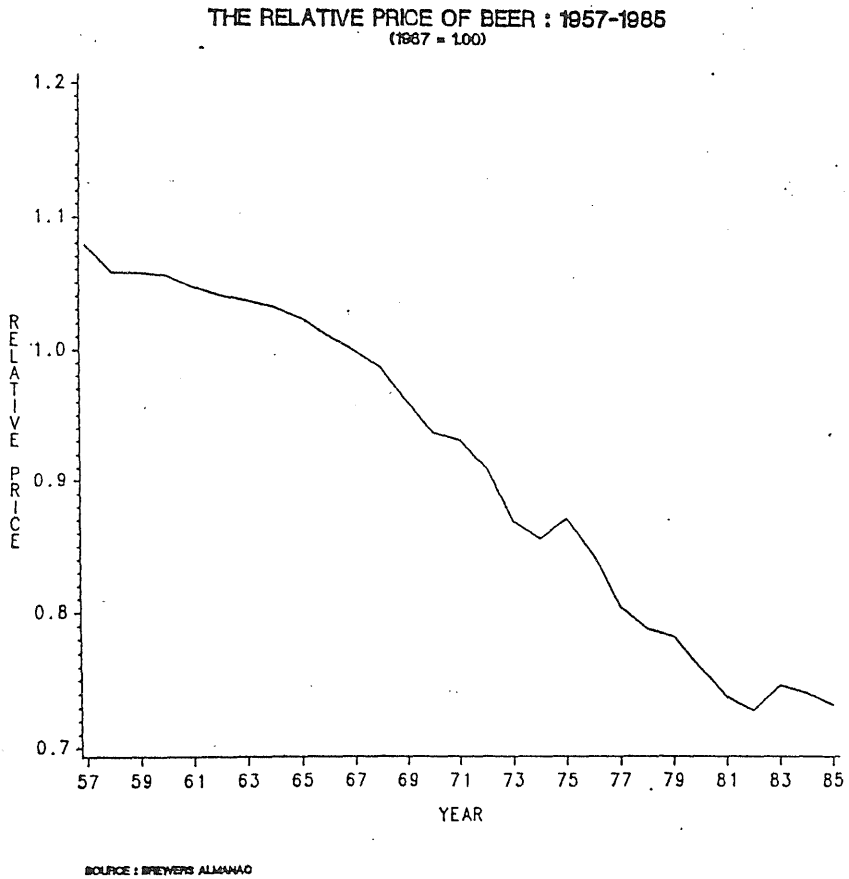


FIGURE 6

This real price decline is even more startling in light of the data presented in Figure 7 and Figure 8. Figure 7 compares the trend over time of hourly wages in the beer industry with hourly wages rates paid in all food industries and in the manufacturing sector. Wage rates paid by firms in the beer industry have been consistently higher than in the other two sectors and, since the mid-1960s, have been growing more rapidly. In spite of the high and rapidly growing wage rate in this industry, relative retail beer prices nonetheless experienced the decline mentioned earlier.

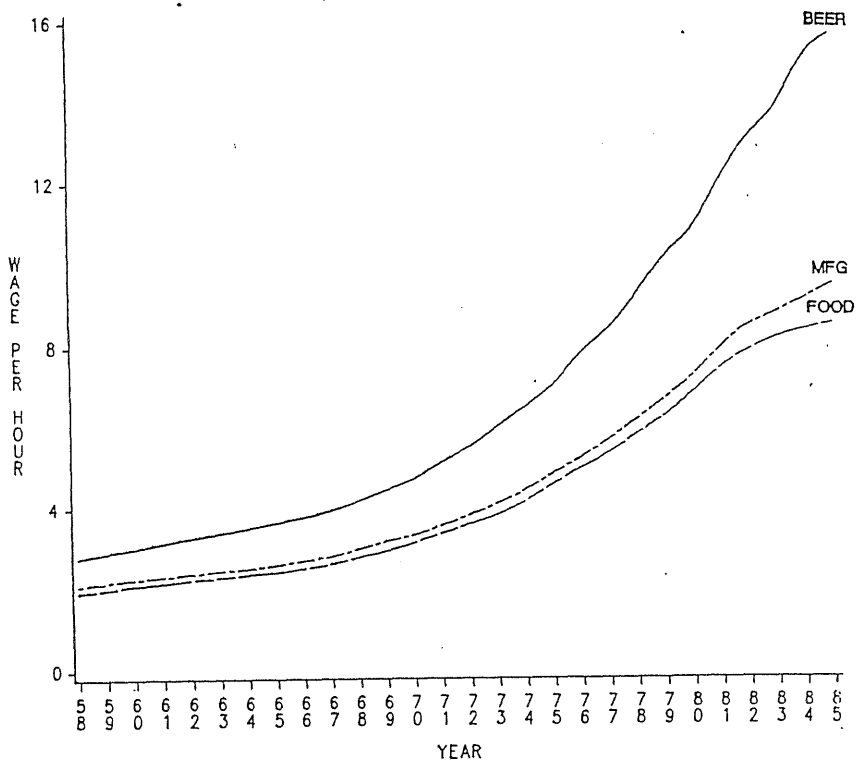
Figure 8 sketches how the tax burden on the beer industry has changed over the last 29 years. In 1957 total state plus federal direct taxes on beer amounted to just over $1 billion. By 1985 these taxes had risen to nearly $3 billion. Additionally, the state tax revenues are exclusive of any general sales or gross receipts taxes collected from the sale of beer at retail. Again, even though the tax burden on the industry rose dramatically over the period, the price of beer at retail steadily declined.

Statistical Analysis

The previous descriptive analysis paints a picture of retail beer prices steadily declining in inflation-adjusted terms over the last 30 years. However, a more formal and sophisticated method of analysis is needed in order to discern the extent to which various factors have influenced retail beer prices. The generally accepted, standard statistical technique of regression analysis is employed in this study in order to gauge the direction and size of these influences

A regression model or equation, such as those presented in

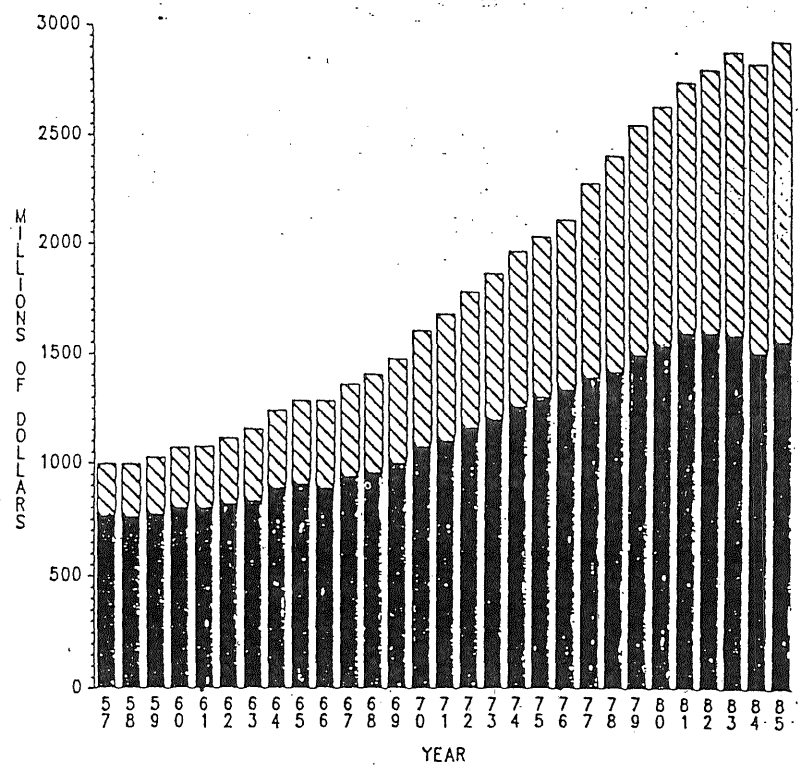
INDUSTRY WAGE RATES
BEER, ALL FOOD, AND MANUFACTURING : 1958-1985



SOURCE : BREWERS ALMANAC

FIGURE 7

FEDERAL AND STATE BEER TAX REVENUES : 1957-1985
(MILLIONS OF DOLLARS)



NOTE : FEDERAL REVENUES IN SOLID AREAS
STATE REVENUES IN ANGLED LINE AREAS

SOURCE : BREWERS ALMANAC

FIGURE 8

Table 4, shows how changes or differences in factors called explanatory variables affect some other variable, called a dependent variable. The regression equation assumes a specific cause-effect relationship between variables. That is, changes in explanatory variables cause changes, or responses, in the dependent variable. The direction and extent of this relationship is reflected in the estimated coefficient of the explanatory variable. Given the units in which the two variables are measured, the size of the estimated coefficient measures the number of units by which the dependent variable changes in response to a one unit change in the explanatory variable. The sign of the coefficient indicates the direction of the cause-effect relationship. Negative signs indicate an inverse relationship exists between the dependent and explanatory variable, positive signs a direct relationship.

We are also interested in knowing whether the estimated coefficient reflects the true relationship that exists between variables or if the estimate is merely the result of chance or random occurrence. Statistical theory allows us to make probabilistic statements about which of these two possibilities is the case. The "t-statistic" is used to make statements about how confident we are that the estimated regression coefficient reflects the true relationship between the variables, that the true coefficient is not zero (a zero coefficient indicates that there is no cause-effect relation between the explanatory and dependent variable). Large t-statistics (2.0 or greater) suggest that it is quite unlikely that the true coefficient is zero, that it is very likely that the estimated coefficient actually reflects the true

relationship.

How likely or unlikely we are that the estimate mirrors the actual relationship revolves around the "level of significance." The level of significance is the probability, or chance, of estimating a non-zero coefficient when in fact the true coefficient is zero. Because we want to minimize the probability of incorrectly stating that a relationship exists when in fact it does not, traditional levels of significance are quite low (10% or lower). Thus, for example, the statement that the estimated coefficient is "statistically significant" or just "significant" at the 5% level means that we stand at most a 5% chance of being wrong in stating that the estimated coefficient reflects the true relationship between the two variables. To say that an estimate is "insignificant" means that, in all likelihood, the estimate is a result of random occurrence and that the true coefficient is zero, that there is no cause-effect relationship between the explanatory and dependent variable.

If it is assumed that prices have declined at a constant rate over this period, a simple time trend regression model can provide insight into the statistical significance of the decline. The estimated time trend regression model, employing annual data from 1957 to 1985, is given by equation 1 in Table 4. This equation clearly shows the statistically significant downward trend in real beer prices. The estimated coefficient indicates that real beer prices have fallen at a rate of about 1.6 percent per year, and that this rate of decline cannot be attributed to chance.

While equation 1 suggests a significant downward trend in the

TABLE 4

t - statistics in parentheses

	Equation 1	Equation 2	Equation 3	Equation 4
Dependent Variable	Relative Price	Relative Price	Relative Price	Per Capita Consumption
Estimation Method	OLS	OLS	TSLS	OLS
Explanatory Variables				
Constant	0.1368*** (12.75)	4.3100*** (5.52)	4.4581*** (5.52)	-0.8476 (1.38)
Time Trend	-0.0159*** (25.51)	-0.0092*** (3.85)	-0.0088*** (3.57)	-0.0011*** (3.15)
Aggregate Consumption		-0.5641*** (7.88)	-0.5794*** (7.77)	
Aggregate Real Income		0.3690*** (8.17)	0.3716*** (8.20)	
Per Capita Real Income				0.5020*** (6.47)
Relative Price of Beer				-1.2127*** (7.26)
R^2	0.96	0.99	0.99	0.98
F-Statistic	650.90***	1052.72***	1050.78***	514.57***
D-W Statistic		1.70	1.71	1.52

*** Denotes significance at the 1% level.

Note : Relative price is the ratio of the beer component of the Consumer Price Index to the All Items Consumer Price Index. Aggregate real income is disposable income deflated by the All Items Consumer Price Index. Per capita real income is aggregate real income divided by the population age 16 and over. Consumption figures reflect net imports. All variables (except the time trend) have been converted to their natural logarithms.

real price of beer in the United States, it would be informative to separate out the effects of factors which do not influence the trend per se. For example, filtering out the effects of rising real incomes on beer demand, and therefore price, would provide a better picture of the price trend.

Equation 2 presents the statistical results obtained by adding aggregate consumption and real disposable income to equation 1. Clearly, higher aggregate real income, through its effect on beer demand, tends to raise relative price. A one percent rise in real disposable income causes a 0.37 percent increase in the relative price of beer. The time trend shows that, after adjusting for consumption and real income, real beer prices have exhibited a statistically significance downward trend of about 0.9 percent per year. In all likelihood, this downward trend is due to improved efficiency in the industry. The aggregate consumption coefficient indicates that a 10 percent (supply induced) increase in output decreases real beer prices by 5.6 percent. All estimated coefficients are statistically significant at the 1 percent level and all of the summary statistics support the validity and relevance of the model estimates.

The possibility exists that the Ordinary Least Squares (OLS) estimation method employed to estimate equation 2 may be inappropriate and yield systematically misleading and unreliable estimates. To examine this possibility, the Reset Test F-Statistic for equation 2 was computed.[17] This test statistic ($F_{3,32} = 2.19$) indicates OLS to be an appropriate estimation technique for equation 2. As a further check, a Two Stage Least Squares (TSLS)

method was used to re-estimate equation 2, with results given by equation 3 in Table 4. The close similarity of the estimates in the two equations buttresses the Reset test results.

Before leaving the aggregate analysis of the national beer industry, it would be instructive to consider the the factors that determine beer consumption, or the demand for beer. Equation 4 in Table 4 estimates the relationship between per capita consumption and the factors which determine per capita consumption. This regression equation can be viewed as an estimate of the national demand for beer, but on a per capita basis.

Equation 4 indicates that per capita beer consumption increases as per capita real disposable income rises, but by less in percentage terms. The estimated coefficient indicates that a one percent increase in real income increases beer consumption by one-half of one percent. Increases in price, as theory predicts, lead to diminished beer consumption. However, the popular notion that beer consumers are not very responsive to price changes with respect to the amount they consume is not supported by the data. Equation 4 indicates that a one percent rise in price induces a <u>greater</u> than one percent decline in consumption (a 1.2 percent decline). The result clearly shows that beer consumers are not a captive audience. This relatively large price sensitivity is due to the large (and increasing) number of substitutes in the beverage market, of which beer is only one. This notion is supported by the negative time trend coefficient on per capita consumption. Adjusting for relative price and real income, per capita beer consumption is seen to be declining at about a one percent per year

rate. This is also indicative of a growing number of competing substitutes for beer in the beverage market.

An aggregate historical examination of beer prices and related features of the industry, including consumer demand, reveals important trends. These features, while important, cannot detail the empirical impact of differences in industry characteristics across states. We therefore turn to cross-state analysis in section III.

III. EXCLUSIVE TERRITORIES AND BEER PRICES : ECONOMETRIC ANALYSIS

This section presents the findings of a nationwide econometric model developed to gauge the effects that state-granted exclusive territory legislation have in the national beer industry. As discussed above, some have argued that exclusive territorial franchises of beer distributors are a form of vertical restraint designed to raise price by creating monopoly power, while we have argued that exclusive franchises are a method by which distributors can monitor product quality at a relatively low cost as well as provide consumers with a higher quality of both product and service. These two hypotheses are at odds, each predicting different effects of exclusive franchises on the market price and consumption of beer. The monopoly power arguments suggest that prices will be higher in states granting exclusive franchises than prices in states where exclusivity is not mandated. The improved quality and service arguments predict that prices will not be higher and may actually be lower in exclusive franchise states.

In order to resolve the issue of exactly how territorial exclusivity in distribution affects market variables such as price, it is necessary to specify the major economic factors which interact to determine price. The first part of this section presents the methodology employed in selecting relevant economic variables and constructing an empirical model of the market price of beer. Next, the data employed to measure these relevant economic variables are described and discussed. A presentation and interpretation of statistical results follow.

Methodology

The national beer industry is qualitatively similar to any other industry. That is, the basic tools of economics can be applied to the beer industry to discover the fundamental economic factors which interact to determine the price of beer in each of the fifty states.[18] Because of the basic structure of the industry (geographically dispersed competitive breweries, competitive input markets, and so on), differences in beer prices across states will reflect state-specific differences in supplier and demander characteristics, as well as differences in the economic and legal environment in which the industry operates.

Economic theory suggests that the market price of beer in each state is determined by the interaction of demanders and suppliers given the economic environment under which the market functions. In order to properly test a hypothesis concerning the effect of exclusive franchises on the market price of beer, the effects of major supply and demand determinants as well as the consequences of the presence or absence of exclusive territories must be accounted for.

Demand Factors. While a large number of factors could possibly be cited as influencing the demand for beer by residents of the fifty states, economic theory, as well as data limitations, dictate that only the major demand determinants be analyzed. These factors generally differ across the states, and are sources of price differences between the states. Included among these variables are consumers'total real disposable income in each state and the real price of a closely related good, wine. In this study,

real variables are variables which have been adjusted for general cost-of-living differences across states.

Economic theory does not specifically predict either the direction or the degree of influence on the demand for and the market price of beer that the prices of related goods have. Whether the price of wine, soft drinks, or distilled spirits significantly influences the price of beer positively or negatively is an empirical issue. Though one may reasonably expect greater demand for beer and higher beer prices to be associated with higher real consumer income, economic theory allows for the opposite to be the case. Again, the relationship between consumer real income and the market price of beer is a statistical issue.

Supply Factors. In explaining price differences across the states, factors which affect supply and which differ across the states must be employed. This study focuses on the presence or absence of state mandated exclusive distributor franchises and the degree of state-imposed advertising restrictions on the marketing of beer. Clearly, it is possible that the presence or absence of state mandated exclusive distributor territories affects the supply of beer. The effect on the market price of beer of exclusive franchises is an empirical issue.

Much recent literature in economics indicates that state-imposed restrictions on retail advertising are likely to affect supply, and therefore to influence market price and consumption. Such restrictions influence supply in that they act to curb one means of competition among retailers.[19] Since these restrictions vary across the states, they are candidates for explaining

differences in prices between states. To the extent that advertising restrictions diminish competition among retailers, it is expected that retail prices will be higher in states with more severe restrictions.

Other factors (transportation costs, land prices, and so on) will influence supply and retail price. However, one of the primary factors which affects supply is the wage rate paid to labor. As wage rates directly affect production costs, it is expected that states characterized by high average real wage rates will also experience a higher real market price of beer.

Market Characteristics. The concept of full price, as explained earlier, is not only appealing to economists but to anybody who has ever driven to a store and stood in a checkout line. Its implication for this study is that after having adjusted for differences in consumption, consumer income, the prices of closely related goods, exclusive distributor territories, advertising restrictions, general cost-of-living differences, and other supply factors, the money price of beer among the states could still reasonably be expected to differ. In order to isolate the effect of territorial exclusivity on price, factors which influence consumers' transaction costs associated with purchases must be expressly accounted for.

One such element involves the physical ability of retail outlets to service customers. The smaller the capacity of retailers to service customers, the greater will be congestion in stores at any given time, and the greater the transaction cost component of full price. Adjusting for other factors and given a

full price equilibrium across states, greater service congestion will result in a lower money price compensating for greater transactions costs.[20]

Measurement of Relevant Variables

Retail Market Price and Quantity of Beer. The average market retail price per gallon and the quantity (millions of gallons) of beer sold in each state in 1984 were obtained from figures published in Beverage World. In order to avoid bias due to general cost-of-living differences across states, the retail price of beer in each state was deflated by the Bureau of Labor Statistics' regional Consumer Price Index-All Items. Beer prices are thus measured in real terms.

Consumer Income. Consumer income in each state (billions of dollars) is measured as the product of per capita disposable income and population in 1984, found in Survey of Current Business and State and Metropolitan Area Data Book: 1986, respectively. Real state income was calculated by deflating by the regional Consumer Price Index-All Items. The use of real state disposable income controls for the effects of general cost-of-living differences among states.

Price of a Related Good. The average retail price of wine in each of the fifty states during 1984 was obtained from Beverage World and converted to real prices by deflating by the regional Consumer Price Index-All Items.

Exclusivity. The presence or absence of state-mandated exclusive distributor territories is accounted for by a dummy variable. In regression results presented in Tables 5, 6,and 7

those states which forbid exclusive territories and those states whose laws either allow or are silent with respect to territorial exclusivity are treated as non-exclusive. Those which mandate exclusive territories are categorized as exclusive in these tables.

In regression results contained in Table 8, exclusivity is accounted for in a slightly different, but more realistic fashion. Indiana was the only state which expressly forbade exclusive distributor territories in 1984. With all other states' laws either expressly permitting or silent about, and thereby permitting by default, exclusive territories, it is reasonable to conclude that all states save Indiana were, to some degree, exclusive in 1984. The statistical results presented in Table 8 assume all state were exclusive except Indiana.

Advertising Restrictions. State advertising restrictions at the retail level apply to four categories of advertising; newspapers and magazines, radio and television, exterior signs, and interior window signs viewable from the exterior of the establishment. The presence of these restrictions is accounted for with dummy variables. States were coded as not having a restriction if state law either permitted without restriction or had no provisions concerning an advertising method.

Additionally, a Schmandt-Stevens[21] index of advertising restrictions was constructed to capture the overall effect of the extent of types of restrictions on price. The Schmandt-Stevens index is constructed by summing relevant dummy variables. Data on restrictions were found in the United States Brewers Association's Special Information Book.

Labor Costs. The average manufacturing wage rate, obtained from State and Metropolitan Area Data Book: 1986, deflated by the regional Consumer Price Index-All Items, is employed to measure the average unit labor cost facing firms.

Congestion-Service Capacity and Time Costs. The study measures the average level of congestion in the market through use of the ratio of population to the total number of retail food, eating, and drinking establishments in a state. Retail establishment data by state were obtained from State and Metropolitan Area Data Book: 1986. Higher ratios of population to the number of retail establishments (more potential customers per retail outlet per unit of time) indicate lessened capacity to service customers which yields greater congestion, and vice versa. Thus, a negative relation between money price and the ratio of potential customers per retail outlet is expected.

Empirical Results

Tables 5, and 6 present the results of estimating the effects of the above variables on the real price of beer in 49 states under the assumption that only states which explicitly mandate exclusivity are considered exclusive. The state of Washington was excluded from the sample due to the unavailability of data on the average hourly manufacturing wage rate in 1984. In Table 7, regressions that exclude the real wage and thus include data for Washington are presented. As can be seen by comparing equations 1 and 3 in Table 5 to their counterparts in Table 7, the estimated signs of all remaining variables do not change and their significance levels vary only marginally. As such, the

significance and explanatory power of regression models deleting the observation for the state of Washington should be considered quite valid.

Table 5 presents empirical results obtained from estimating the effects on the real retail price of beer of the variables discussed earlier. Equations 1 and 3 were estimated using a single equation, Ordinary Least Squares (OLS) regression technique. Equation 1 differs from equation 3 solely in the manner in which the advertising restrictions index was formed. Index 1 incorporates the effects of restrictions on newspaper and magazine advertising, exterior sign advertising, and interior sign advertising. Index 2 accounts for these three types of restrictions plus restrictions on radio and television advertising.

Equations 1 and 3 show all estimates of the theoretical model variables to be of the predicted sign (where relevant) and to be statistically significant (one-tail tests were employed where appropriate) at the 5% level or better except for the measure of territorial exclusivity. In both equations, the measure of exclusivity is negative but not statistically different from zero. A strict interpretation of the data indicates that retail beer prices are no higher in states which mandate exclusive territories than in other states once the effects of other relevant factors on price are accounted for. In a weaker sense, the results suggest lower prices in states which mandate exclusive territories.[22] Clearly, if exclusive distributorships were a method of monopolizing industries and charging retailers higher prices, competitive retailers would pass along (to some degree) these

TABLE 5

Dependent Variable: Real retail money price of beer (per gallon)
t - statistics in parentheses.

Estimation Method	OLS	TSLS	OLS	TSLS
Explanatory Variable	Equation 1	Equation 2	Equation 3	Equation 4
Constant	2.5700*** (5.6404)	2.5618*** (5.6083)	2.5367*** (5.5548)	2.5266*** (5.4152)
Exclusivity	-0.0293 (0.4190)	-0.0337 (0.4755)	-0.0404 (0.5546)	-0.0456 (0.6194)
Advertising Restriction Index 1	0.0772*** (2.8036)	0.0772*** (2.7991)		
Advertising Restriction Index 2			0.0561*** (2.4900)	0.0558*** (2.4698)
Consumption	-0.0028*** (2.3675)	-0.0024* (1.5556)	-0.0029*** (2.3979)	-0.0024* (1.5001)
Real Income	0.0088** (2.1817)	0.0074 (1.4330)	0.0092** (2.2266)	0.0073 (1.3907)
Real Price of Wine	0.0853** (2.4534)	0.0857** (2.4582)	0.0900** (2.5181)	0.0904** (2.5205)
Service Congestion	-1.1634** (2.2464)	-1.1621** (2.2403)	-1.1443** (2.1714)	-1.1416** (2.1608)
Real Wage	0.1003** (2.1524)	0.1010** (2.1630)	0.1000** (2.1096)	0.1010** (2.1224)
R^2	0.39		0.37	
F-Statistic	3.77***	3.74***	3.44***	3.39***
Reset Test F-Statistic	0.96		0.93	

*** Denotes significance at the 1% level.
** Denotes significance at the 5% level.
* Denotes significance at the 10% level.

TABLE 6

Dependent Variable: Real retail money price of beer (per gallon)
t - statistics in parentheses.

Estimation Method	OLS	OLS
Explanatory Variable		
Constant	3.1701*** (8.6342)	3.1318*** (8.3594)
Exclusivity	-0.0197 (0.2684)	-0.0324 (0.4246)
Advertising Restriction Index 1	0.0801*** (2.7534)	
Advertising Restriction Index 2		0.0591** (2.4944)
Consumption	-0.0028** (2.2585)	-0.0029** (2.3001)
Real Income	0.0093** (2.1938)	0.0097** (2.2469)
Real Price of Wine	0.0808** (2.2041)	0.0860** (2.2889)
Service Congestion	-1.2731** (2.3414)	-1.2563** (2.2791)
R^2	0.31	0.29
F-Statistic	3.21**	2.93**

*** Denotes significance at the 1% level.
** Denotes significance at the 5% level.
* Denotes significance at the 10% level.

higher input prices to consumers. The data reject this interpretation.

The possibility exists that OLS is an inappropriate estimation method. Due to the fact that price and consumption are simultaneously determined in markets, including consumption as an explanatory variable in the price equation may lead to biased estimates. The Reset Test F-Statistic tests for the presence of this bias, as well as other forms of specification error. In both equations 1 and 3 the Reset Test F-Statistics indicate the absence of any specification error, and the appropriateness of the OLS estimation technique. As a further check, equations 2 and 4 were estimated with a Two Stage Least Squares (TSLS) method. The TSLS estimation method corrects for this type of specification error, if present. Comparing equation 1 (OLS) with 2 (TSLS) and 3 (OLS) with 4 (TSLS) reinforces the conclusion of the absence of specification error in equations 1 and 3. In each pair of equations, the estimated coefficients are equal in sign and similar in magnitude. In all subsequent tables, regression models are estimated with an OLS technique.

The idea of a full price equilibrium across states is reinforced by the signs of the estimated coefficient on service congestion. The negative coefficient of the service congestion variable suggests that higher levels of congestion, which raise consumer transactions costs, are associated with lower real money prices.

Equations 1 and 3 in Table 5 uncover an important source of artificially high retail beer prices. In each equation, the

TABLE 7

Dependent Variable: Real retail money price of beer (per gallon)
t - statistics in parentheses.

Estimation Method	OLS	OLS	OLS	OLS
Explanatory Variable				
Constant	2.7018*** (5.8324)	2.5538*** (5.4484)	2.5463*** (5.3723)	2.5824*** (5.1788)
Exclusivity	-0.0471 (0.6381)	0.0063 (0.0905)	-0.0136 (0.1895)	-0.0144 (0.1772)
Consumption	-0.0023* (1.8176)	-0.0028** (2.3248)	-0.0033** (2.6132)	-0.0029** (2.2634)
Real Income	0.0068 (1.6133)	0.0090** (2.1533)	0.0105** (2.4743)	0.0094** (3.1302)
Real Price of Wine	0.0859** (2.4191)	0.0761** (2.1461)	0.0842** (2.3322)	0.0835** (2.1349)
Service Congestion	-1.2392** (2.3103)	-0.9531* (1.8123)	-1.1411** (2.1208)	-1.0013* (1.7976)
Real Wage	0.0863* (2.4812)	0.1028** (2.1499)	0.1119** (2.3182)	0.1021** (2.0240)
Print Media Restrictions	0.1869* (2.4812)			
Exterior Sign Restrictions		0.1573** (2.3188)		
Window Sign Restrictions			0.1537** (3.1308)	
Radio & TV Restrictions				0.0714 (0.8739)
R2	0.37	0.36	0.35	0.29
F-Statistic	3.44***	3.28***	3.12***	2.37***

*** Denotes significance at the 1% level.
** Denotes significance at the 5% level.
* Denotes significance at the 10% level.

advertising restriction index indicates that beer prices are higher, given other factors, the greater the number of ways in which state law prohibits and restricts retail competition through advertising. This is so regardless of which index is employed. The estimated coefficients indicate that the imposition of one additional kind of advertising restriction raises beer prices by between 5 and 8 cents per gallon in terms of 1984 prices (5.5 to 8.5 cents per gallon in 1987 dollars).

Table 7 reports regression results obtained by decomposing advertising restriction index 2 into its four components. As can be seen, restrictions and prohibitions on exterior signs and interior window signs which can be seen from the exterior each significantly raise retail beer prices by about 15 cents per gallon in 1984 dollars, 16.2 cents per gallon in 1987 dollars. Newspaper and magazine advertising restrictions raise price approximately 18 cents per gallon. Restrictions on radio and television advertising appear to have no statistically significant influence on retail price. This is not surprising in that states cannot prevent national broadcasters from transmitting nationally-aired beer commercials into the state. Thus, even in states with broadcast restrictions, a significant amount of beer advertising still penetrates the market.

Equations in Table 8 represent results obtained from estimating equations 1 and 3 from Table 5 under the assumption that all states except Indiana are states characterized by some degree of exclusivity with respect to distributor territories. Recall that in 1984 Indiana was the only state in the country that

TABLE 8

Dependent Variable: Real retail money price of beer (per gallon)
t - statistics in parentheses.

Explanatory Variable		
Constant	2.9696***	3.0079***
	(5.5988)	(5.6194)
Exclusivity	-0.3136[a]	-0.3667[a]
	(1.3452)	(1.5680)
Advertising Restriction Index 1	0.0695***	
	(2.6167)	
Advertising Restriction Index 2		0.0504**
		(2.4025)
Consumption	-0.0029**	-0.0030**
	(2.5378)	(2.5991)
Real Income	0.0093**	0.0097**
	(2.3778)	(2.4564)
Real Price of Wine	0.0849**	0.0889**
	(2.5128)	(2.5841)
Service Congestion	-1.2467**	-1.2522**
	(2.4572)	(2.4335)
Real Wage	0.0901*	0.0881*
	(1.9410)	(1.8776)
R^2	0.42	0.40
F-Statistic	4.15**	3.93**

***Denotes significance at the 1% level.
** Denotes significance at the 5% level.
* Denotes significance at the 10% level.
a Denotes significance at the 20% level.

prohibited the exclusive distributor relationship. Note that under this alternate empirical definition of exclusivity, the estimated coefficients of all remaining price determinants are statistically significant and of theoretically predicted sign (where appropriate). They are also very similar in magnitude to the estimated coefficients obtained in regression models which employed the first, broader empirical measurement of exclusivity. The fact that the signs, magnitudes, and significance of the estimates do not vary much as the measurement of state exclusivity changes points to their importance as variables explaining the retail price of beer. Clearly, the exclusion of such relevant variables from any statistical model purporting to explain retail beer prices would be a grave specification error.

More importantly, note the estimates of the effects of both exclusivity and advertising restrictions on retail price contained in Table 8. In these specifications advertising restrictions again act to raise retail beer prices, as evidenced by their positive estimated coefficients. In these two equations the exclusivity variable captures the effect on the retail price of beer of allowing exclusive arrangements, either directly through explicit legislation or indirectly through no prohibitions. It effectively permits the comparison of retail price in Indiana with the remaining states in the sample. The estimated coefficient indicates that retail beer prices were, in terms of 1984 dollars, from 31 to 37 cents per gallon lower (33.5 to 40 cents per gallon in 1987 dollars) in states allowing exclusive territories than in the one state which prohibited such arrangements, Indiana. Note also that the estimate is statistically significant at the 20 percent level. Again, the evidence points to a price lowering effect of exclusivity in distributor territories.

IV. CONCLUSION

The empirical results presented in this study lead to strong, unambiguous conclusions. After correcting for various market effects, the real price of beer has fallen significantly over the past three decades. Moreover, the effects concerning the impact of exclusive distributorships in the Alabama study are affirmed for the nation as a whole.

We conclude from our study that competition is vibrant in the beer industry--both interbrand competition and competition within the broader beverage market. Higher prices are the result artificial constraintsa upon the competitive process,, and are not the result of exclusive arrangements between manufacturers and their distributors. State-mandated exclusive distributor territories lead to lower retail beer prices. There is certainly no evidence suggesting that exclusive territories lead to higher retail prices. Market forces such as higher real incomes and higer prices of close substitutes (wine), result in higher beer prices as they likely would in any other market. State-imposed advertising restrictions, on the other hand, artificially raise retail price through their effects in reducing competition.

FOOTNOTES

[1] Steve L. Barsby & Associates, Inc., "The Regulatory and Economic Basis of Franchised Wholesaling in the Alcohol Beverage Industry," (1983), p. iii. Also see the Statement of Steve L. Barsby on the economics of exclusive territories, "The Malt Beverage Interbrand Competition Act," Hearings before the Committee on the Judiciary, U. S. Senate (1984) (Washington, D.C.: U.S. Government Printing Office, 1984), pp. 54-74.

[2] For legal analyses of restricted distribution, see two essays by Richard A. Posner, "The Next Step in the Antitrust Treatment of Restricted Distribution: Per Se Legality," University of Chicago Law Review 48 (Winter, 1981), pp. 6-26, and "The Rule of Reason and the Economic Approach: Reflections on the Sylvania Decision," University of Chicago Law Review 45 (Fall, 1977), pp. 1-20. For an interesting economic defense of exclusive dealing (in addition to restricted distribution) see Howard P. Marvel, "Exclusive Dealing," Journal of Law and Economics 25 (April 1982), pp. 1-25.

[3] This position is, in essense, that of the Department of Justice: Statement of William F. Baxter, Assistant Attorney General, Antitrust Division, before the Subcommittee on Antitrust and Restraints of Trade Activities Affecting Small Business (Committee on Small Busines), H.R., September 9, 1982.

[4] "Malt Beverage Interbrand Competition Act," Hearings before the Subcommittee on Monopolies and Commercial Law on H.R. 3269

(1982) (Washington, D.C.: U.S. Government Printing Office, 1982), pp. 2-3.

[5] Kenneth J. Hatten and Dan E. Schendel, "Heterogeneity Within an Industry: Firm Conduct in the U.S. Brewing Industry," Journal of Industrial Economics (December 1977), pp. 97-113.

[6] Statement of William Young, "The Malt Beverage Interbrand Competition Act," Hearings before the Committee on the Judiciary, U. S. Senate (1984) (Washington, D.C.: U.S. Government Printing Office, 1984), p. 84.

[7] Evidence of intense rivalry is provided in an exhaustive report to the Federal Trade Commission on the brewing industry by Charles F. Keithahn, The Brewing Industry (Washington, D.C.: Staff Report of the Bureau of Economics, Federal Trade Commission, December, 1978). Keithahn supported the case with evidence of strong interbrand rivalry, a lack of brand loyalty, and the strength and market position of regional competitors (see Keithahn, pp. 130-135). More recently, William J. Lynk subjected two competing explanations for interpreting rising concentration in the beer industry. (See "Interpreting Rising Concentration: The Case of Beer," Journal of Business 57 (1984), pp. 43-55). Lynk demonstrates, in formal tests of the empirical evidence, that competition, not anticompetitive exclusion of smaller brewers, is the better hypothesis for explaining changes in industry structure.

[8] Statement of William Young, "The Malt Beverage Interbrand Competition Act," p. 85.

[9] [Another example of the free rider: New York bottle law]

[10] Statement of William Young, "The Malt Beverage Interbrand Competition Act," p. 85.

[11] Nielsen Food Store Sales (1986).

[12] The blurring of traditional distinctions between alcoholic and non-alcoholic products, such as wine coolers has also led an increasing number of beer distributors to move into new beverage products.

[13] Our conclusions relating to profit and other performance in the soft drink industry and the beverage market overturn those drawn from largely anecdotal evidence by Mark N. Cooper (The Costs to Consumers of Exclusive Franchising: The Case of Malt Beverages, Washington, D.C.: Consumer Federation of America, September, 1986). We contrast our results with Cooper's in Appendix I of this paper.

[14] See William Baumol, John C. Panzar and Robert D. Willig, Contestable Markets and The Theory of Industry Structure (New York: Harcourt Brace Jovanovich, 1982) and E. F. Fama and A. B. Laffer, "The Number of Firms and Competition," American Economic Review, 62 (September 1972), pp. 670-674.

[15] "An Analysis of Michigan Beer Prices and Beer Revenues, 1967-1983," (Michigan Department of Public Health, Office of Substance Abuse Services, 1985), p. 5.

[16] Philip Gregorowicz, Charles Ileggi, and Wayne Lacy, "The Economic Impact of the Beer and Wine Industries on the Alabama Economy," (Montgomery, Alabama: Auburn University at Montgomery, January, 1987).

[17] For a detailed description of the Reset test see J.B. Ramsey, "Tests for Specification Error in Classical Linear Least Squares Analysis," Journal of the Royal Statistical Society, series B, no. 3, (1969), pp. 35-72, and J.B. Ramsey and P. Schmidt, "Some Further Results on the Use of OLS and BLUS Residuals in Specification Error Tests," Journal of the American Statistical Association (June, 1976), pp. 389-390.

[18] We do not intend to imply that a state is necessarily the proper or relevant geographic measure of a market area for beer. However, because of such factors as state-mandated exclusive distributional territories and state-imposed advertising restrictions, average beer prices could be reasonable expected to differ among states. For this reason, as well as the manner in which data are reported, our statistical analysis divides the country into "statewide" market areas.

[19] The classic research in this area is Lee Benham's "The Effect of Advertising on the Price of Eyeglasses," Journal of Law and Economics 15 (October, 1972), pp. 337-352. Benham showed conclusively that optometrists' retail advertising restrictions raised the prices of eyeglasses and eyecare above what they would have been in the absence of the restrictions. John F. Cady's

Restricted Advertising and Competition: The Case of Retail Drugs (Washington, D.C.: American Enterprise Institute, 1976) also finds retail advertising restrictions increased prices of over-the-counter and prescription drugs without any concomitant increase in the quality of service of retail suppliers. Thom Kelly and Alex Maurizi demonstrate in Prices and Consumer Information: The Benefits from Posting Retail Gasoline Prices (Washington, D.C.: American Enterprise Institute, 1978) that gasoline prices are significantly higher, after adjusting for other factors, in areas which prohibit price posting which is a form of advertising.

20 The full price of any good is the sum of its money price, p, and the value of time consumers spend in purchasing the product, wt, where transaction time, t, is valued at the average consumer's unit time cost, w. For example, suppose that the money price of a six-pack of beer is $2 and that the average consumer, who earns, say, $6 per hour spends thirty minutes in traveling to the nearest retailer, making his purchase, and returning home. The full price of the six-pack is thus $2 plus $6 times one-half hour, or a total of $5. Equilibrium requires that, given other factors, the full price of beer be the same across states. But this equilibrium can be maintained by any of a number of combinations of money price and transaction cost value. If transaction costs in a state were higher than $3, for instance, either because transaction time were longer or alternative time costs were higher, equilibrium would be maintained by lower money prices of beer. By the same token,

lower transaction costs would be associated with higher money prices. These considerations provide the basis for our expectation that money prices and service congestion will be inversely related.

21 For a detailed explanation of the construction and use of this type of index, see H.J. Schmandt and G.R. Stephens, "Measuring Municipal Output," National Tax Journal 13 (December, 1960), pp. 369-376.

22 The strict interpretation of the results requires that we use standard significance levels. Since the t-statistics on exclusivity are so small, a conclusion that exclusivity lowers price would stand a relatively large chance (above 30 percent) of being incorrect. However, if we were willing to take this higher risk, we could legitimately draw this conclusion. It is this higher risk of being wrong that makes this conclusion "weaker" in a statistical sense. Interestingly, a statement that exclusivity raises price would stand at minimum a 70 percent chance of being incorrect on the basis of our results.

23 Mark N. Cooper, The Costs to Consumers of Exclusive Franchising: The Case of Malt Beverages, (Washington, D.C.: Consumer Federation of America, September, 1986).

24 Ibid., p. 36

APPENDIX I. COMPARATIVE EMPIRICAL RESULTS

In a position paper written for the Consumer Federation of America,[23] Dr. Mark N. Cooper produced a nationwide econometric study of the malt beverage industry for the years 1981 to 1984. On the basis of this statistical study, Dr. Cooper concludes:

> The data strongly supports the argument that exclusive territory laws are not imposed in the interest of efficiency. In every specification, the existence of exclusive territories is associated with higher prices and lower consumption (emphasis ours).[24]

We take issue with his findings on the grounds that Dr. Cooper's statistical methodology, variable selection and measurement technique, and interpretation of results are so seriously flawed as to render all empirical findings presented, and the economic implications stemming from them, unreliable, meaningless, and without substantive merit.

The statistical results upon which most of Cooper's conclusions are based are found in Table 10 (p. 37) of his study. All statements regarding the alleged overall costs to consumers of exclusive franchises are based on regression results derived by employing data from 1984 only. However, none of the regressions employing 1984 data provide evidence that the absence of state exclusivity arrangements produces lower malt beverage prices. Even though the estimated coefficients of the exclusivity variables appear to show price raising effects of exclusivity arrangements, none can be said to be significantly different from zero with any generally accepted degree of statistical confidence. These

negative coefficients, which in Cooper's specification appear to suggest lower prices in non-exclusive states, are most likely the result of spurious statistical correlation or of not accounting for other relevant factors which affect price. Contrary to Cooper's conclusion, the absence of statistical significance of the estimated coefficients demands the interpretation that exclusivity arrangements have no effect on prices.

The Cooper study, as Tables 5, 6, 7, and 8 in this study clearly show, also suffers from severe model misspecification. A number of relevant variables that significantly explain retail beer prices were excluded from Cooper's regression equations. Not the least significant of which were state beer consumption, state-imposed advertising restrictions, the price of wine, and the average wage rate in each state. The omission of quantity consumed from a regression model purporting to explain price is such a serious violation of basic principles of economics that it renders his results devoid of content. Furthermore, Cooper argues for the exclusion of the advertising restriction variables from his estimating equations on the grounds that their impact is neutral on beer prices across states. Tables 3 and 4 of our study show this to be clearly not the case. In fact, it is quite possible that Cooper's empirical result which purports to show that exclusivity arrangements raise retail beer prices (even though his estimates are statistically insignificant) does not measure the effect of exclusivity at all due to the substantial number of excluded variables.

The Cooper study also attempts to draw a parallel between the beer industry and the soft drink industry by examining some soft

drink industry data since passage of the Soft Drink Interbrand Competition Act of 1980 (SDICA). SDICA provided soft drink manufacturers the ability to assign exclusive territories in much the same fashion through which brewers assign exclusive territories in states which permit such assignments. Cooper notes that the return to equity ratio for soft drink manufacturers was greater than the all-industry average in the U.S. over the 1980-1985 period and infers that these higher than average rates of return were due, in part, to exclusive territory assignment allowed under SDICA. He then suggests that the legislation, and the exclusive territories, have somehow hurt soft drink consumers.

Cooper's data and analysis, however, do not provide any evidence whatsoever that passage of SDICA caused increased rates of return to equity in the soft drink industry. Nor does economic analysis suggest that high rates of return are at all necessarily indicative of market power (monopolistic practices), much less artificially high prices which reduce consumer welfare. In short, his data and analysis purporting to show SDICA as a source of monopoly power do not indicate any such thing.

Cooper's soft drink and all industry return to equity data are all post-1979. In order to argue that SDICA caused an increase in the soft drink industry return to equity a comparison of returns in the pre- and post-1980 period is necessary at minimum. One would also have to account for, in a formal statistical manner which Cooper has not developed, a number of other economic factors which contribute to profitability. Merely noting that the soft drink industry return to equity is higher than average says nothing about the impact, if any, of SDICA on rates of return in the industry.

Additionally, even if SDICA did increase the return to equity in this industry, one would be on extremely weak footing in suggesting that the increased returns to the industry necessarily came at the expense of consumer welfare.

Quite the contrary, higher than average rates of return on equity can in fact be a signal of both vibrant interindustry competition and improved efficiency within an industry. It is no secret that the early 1980s saw a shift in consumers' tastes away from alcoholic beverages in general toward soft drinks. With soft drink manufacturers responding to this change with a greater number of products as well as increased output of existing products, economic theory would predict a higher than average return to equity in the industry. In competitive markets, increases in demand can be expected to lead to higher returns for a period of time. Improved efficiency of firms in the industry would also lead to returns to equity higher than average. Merely noting that soft drink equity returns were higher than the U.S. industry average over some period without comparing other periods and without a theory or a formal statistical analysis isolating causes cannot be considered evidence of any kind that the SDICA was the cause of the above average returns.

Furthermore, even if SDICA did result in higher returns to equity in the industry (an hypothesis for which there is no support), Cooper's suggestion that these increased returns come at the expense of consumers and that consumer welfare is reduced is unfounded in both data and the theory. For the Act to have reduced consumer welfare, it must have resulted in higher prices and/or reduced output given other factors. Cooper offers no statistical

evidence at all concerning the causes of overall soft drink price trends in the 1980s but does state that soft drink prices rose by approximately 21 percent. His suggestion that this constitutes a significant price increase is without merit in light of the fact that prices in general (inflation) rose by about 31 percent during the same period. This implies that soft drink prices adjusted for general price inflation actually declined by 10 percent over the period.

In summary, returns to equity in an industry relative to the average return over all industries can offer no insight or evidence with respect to market power or anti-competitive behavior on the part of firms in the industry. Cooper's argument that they can and do is empty. Additionally, his eroneous logic flies in the face of the fact that since passage of SDICA in 1980, real soft drink price declined by 10 percent through 1985. His suggestion that exclusive distribution territories created monopoly power in the soft drink industry and are likely to do so in the beer industry is without foundation from both statistical and theoretical perspectives.

APPENDIX II. DATA EMPLOYED IN CROSS-STATE ECONOMETRIC STUDY

SOURCES

Beverage World, May, 1985.

Bureau of the Census, U.S. Department of Commerce, Statistical Abstract of the United States: 1986, (Washington, D.C.: U.S. Government Printing Office, 1985).

Bureau of the Census, U.S. Department of Commerce, State and Metropolitan Area Data Book: 1986, (Washington, D.C.: U.S. Government Printing Office, 1986).

Bureau of the Census, U.S. Department of Commerce, Survey of Current Business, August, 1986.

Council of Economic Advisers, Economic Report of the President, (Washington, D.C.: U.S. Government Printing Office, 1987).

United States Brewers Association, Special Information Book, (Washington, D.C.: U.S. Brewers Association, 1985).

VARIABLE CODES

EX = Exclusivity dummy variable; 1 if state law mandates exclusivity of territories, 0 otherwise.

RN = Newspaper and magazine advertising restriction dummy variable; 1 if state law restricts newspaper and magazine advertising, 0 if such advertising is permitted without restriction or if no provisions exist.

RT = Radio and television advertising restriction dummy variable; 1 if state law restricts radio and television advertising, 0 if such advertising is permitted without restriction or if no provisions exist.

RXS = Exterior sign advertising restriction dummy variable; 1 if state law restricts exterior sign advertising, 0 if such advertising is permitted without restriction or if no provisions exist.

RWS = Window sign advertising restriction dummy variable; 1 if state law restricts window sign advertising, 0 if such advertising

is permitted without restriction or if no provisions exist.

PCY = Nominal per capita income in thousands of dollars, 1984.

POP = Population in thousands, 1984.

CPI = Regional Consumer Price Index-All Items, 1984, based in 1977.

BC = Total beer consumption in thousands of gallons in 1984.

TFS = Total retail food (grocery and other food stores) establishments in 1982 (latest year data available).

EDS = Total eating and drinking establishments in 1982.

PBR = Nominal retail price of beer per gallon in 1984.

PWR = Nominal retail price of wine per gallon in 1984.

PSR = Nominal retail price of distilled spirits per gallon in 1984.

PSDR = Nominal retail price of soft drinks per gallon in 1984.

MWG = Nominal hourly manufacturing wage in 1984

STATE	EX	RN	RT	RXS	RWS	PCY	POP	CPI	BC
ALABAMA	1	1	1	1	1	8706	3989	1.680	71875
ALASKA	0	0	0	0	0	15320	505	1.674	14187
ARIZONA	0	0	0	1	0	10523	3072	1.674	91109
ARKANSAS	1	0	0	0	0	8622	2346	1.680	42064
CALIFORNIA	0	0	0	0	0	13032	25795	1.674	639580
COLORADO	0	1	1	0	0	12204	3190	1.674	81620
CONNECTICUT	0	1	0	1	1	14437	3155	1.640	63962
DELEWARE	0	1	1	0	0	11188	614	1.680	16298
FLORIDA	0	0	0	1	1	11264	11050	1.680	318761
GEORGIA	1	1	1	1	1	9932	5842	1.680	124214
HAWAII	0	0	0	1	1	11508	1037	1.674	29803
IDAHO	0	0	0	1	1	9323	999	1.674	23202
ILLINOIS	1	1	0	0	0	12053	11522	1.685	283548
INDIANA	0	1	0	1	1	10279	5492	1.685	121164
IOWA	0	0	0	1	0	10483	2903	1.685	69438
KANSAS	1	1	1	1	1	11164	2440	1.685	50587
KENTUCKY	1	1	1	0	0	9026	3720	1.680	68895
LOUISIANNA	0	0	0	0	0	9642	4461	1.680	106300
MAINE	1	0	0	1	1	9820	1156	1.640	25602
MARYLAND	1	1	1	0	0	12456	4349	1.680	104622
MASSACHUSETTS	0	0	0	0	0	12828	5798	1.640	141351
MICHIGAN	1	1	1	1	1	11112	9058	1.685	210473
MINNESOTA	1	1	1	0	0	11297	4163	1.685	98007
MISSISSIPPI	0	1	1	1	1	7644	2598	1.680	52251
MISSOURI	1	1	1	0	1	10741	5001	1.685	118935
MONTANA	1	1	1	1	0	9378	823	1.674	24222
NEBRASKA	1	0	0	0	0	10839	1605	1.685	40777
NEVADA	0	0	0	0	0	11676	917	1.674	31958
NEW HAMPSHIRE	1	1	1	1	1	12319	978	1.640	34822
NEW JERSEY	0	1	0	1	0	13730	7517	1.640	161942
NEW MEXICO	0	0	0	0	0	8881	1426	1.674	40286
NEW YORK	0	1	0	1	0	12542	17746	1.640	368111
NORTH CAROLINA	1	1	1	1	1	9520	6166	1.680	121873
NORTH DAKOTA	1	0	0	0	0	10426	687	1.685	16463
OHIO	1	1	1	1	1	10790	10740	1.685	267528
OKLAHOMA	0	1	1	1	1	10058	3310	1.680	58657
OREGON	1	1	1	1	1	10378	2676	1.674	60361
PENNSYLVANIA	1	1	1	1	1	10966	11887	1.640	296774
RHODE ISLAND	0	1	1	1	1	11592	962	1.640	24155
SOUTH CAROLINA	1	0	0	0	0	8766	3302	1.680	72591
SOUTH DAKOTA	0	0	0	0	0	9700	705	1.685	15343
TENNESSEE	1	0	0	0	0	9321	3720	1.680	92719
TEXAS	1	1	1	1	1	11052	16083	1.680	476023
UTAH	1	1	0	1	1	8669	1623	1.674	22149
VERMONT	1	1	1	1	1	9747	530	1.640	13943
VIRGINIA	1	1	1	1	1	11587	5636	1.680	126379
WASHINGTON	0	1	0	0	0	11784	4349	1.674	94794
WEST VIRGINIA	1	0	0	1	1	8465	1951	1.680	38367
WISCONSIN	0	0	0	0	0	10804	4762	1.685	156991
WYOMING	1	0	0	0	0	10554	513	1.674	13443

STATE	TFS	EDS	PBR	PWR	PSR	PSDR	MWG
ALABAMA	2997	3439	5.7510	14.6983	49.9948	2.6082	7.97
ALASKA	297	749	5.9848	15.0351	54.7963	2.3579	12.25
ARIZONA	1959	4191	5.3865	14.8975	52.0025	2.7815	9.09
ARKANSAS	1960	2512	5.3200	15.1370	49.9928	2.6040	7.31
CALIFORNIA	16749	36734	5.0250	14.6478	52.9996	3.4374	9.77
COLORADO	1869	5057	5.3865	14.8130	54.7970	2.9946	9.24
CONNECTICUT	2259	4612	5.8725	14.4920	52.9973	2.6875	9.22
DELEWARE	508	788	5.3867	14.3870	52.9871	2.7408	9.30
FLORIDA	9420	13933	5.0008	14.7731	47.9996	2.8508	7.62
GEORGIA	4720	6118	5.3600	14.8724	53.0019	3.0176	7.58
HAWAII	797	1741	6.0751	15.1013	54.8083	2.9203	8.35
IDAHO	753	1536	5.3200	14.7379	50.0150	2.7368	9.34
ILLINOIS	6334	16215	6.1215	15.3328	54.8000	4.0245	10.08
INDIANA	3116	7720	6.3495	14.0308	52.9973	2.9028	10.45
IOWA	2164	5298	5.8108	14.9072	49.9958	2.3387	10.25
KANSAS	1767	3613	5.3600	14.6876	52.9952	2.5830	9.40
KENTUCKY	2987	3817	5.3200	14.5682	49.9980	2.6767	9.28
LOUISIANNA	3755	4755	5.4270	15.3805	52.9994	2.6288	10.06
MAINE	1327	1629	6.2401	14.6377	50.0087	2.2649	8.05
MARYLAND	2970	5181	5.3460	14.3531	54.8010	2.8750	9.45
MASSACHUSETTS	4308	8755	6.0750	14.5957	50.0007	3.2082	8.50
MICHIGAN	6469	12260	6.2486	14.3193	44.9998	2.6192	12.18
MINNESOTA	2911	5687	6.3080	15.2606	52.9971	1.9509	9.75
MISSISSIPPI	2489	2218	5.4000	14.7611	48.0013	2.7456	6.95
MISSOURI	3334	6827	5.3200	13.9031	53.0008	2.2664	9.32
MONTANA	709	1925	5.9401	14.6388	52.0102	2.6352	10.74
NEBRASKA	1229	2870	5.4270	14.6231	50.0020	2.6855	8.93
NEVADA	623	1495	5.4675	14.5262	54.7989	3.0567	9.12
NEW HAMPSHIRE	924	1378	6.5156	14.4989	51.9943	2.5625	7.85
NEW JERSEY	5821	10482	6.1690	14.0410	50.0009	3.1461	9.50
NEW MEXICO	1001	1929	5.3200	14.3491	51.9845	2.7624	7.97
NEW YORK	14850	26168	6.2000	14.6598	54.7997	3.3274	9.22
NORTH CAROLINA	5372	6670	5.4000	15.1294	50.0010	3.1255	7.01
NORTH DAKOTA	533	1261	5.3459	14.3665	50.9857	2.4788	7.86
OHIO	7716	15787	6.0800	13.8308	49.9993	2.9760	10.96
OKLAHOMA	2674	4256	5.3600	4.7588	49.9990	2.7497	9.64
OREGON	2370	4581	5.2934	13.4282	49.9966	2.8305	10.44
PENNSYLVANIA	8594	16228	5.9675	14.0207	52.0003	3.4202	9.28
RHODE ISLAND	780	1571	5.7999	14.4348	51.9952	2.5895	7.23
SOUTH CAROLINA	2616	3372	5.4675	14.3804	49.9977	3.0888	7.28
SOUTH DAKOTA	583	1286	5.4270	14.0465	50.9919	2.5601	7.15
TENNESSEE	3857	4913	4.9665	12.8681	48.0014	2.3353	7.93
TEXAS	13103	19755	4.9875	14.8621	54.7991	2.8305	9.04
UTAH	867	1693	6.0301	19.2649	50.0105	2.9601	8.95
VERMONT	662	908	6.1688	14.5210	53.0167	2.8033	8.03
VIRGINIA	4465	6024	5.3332	14.9709	52.9995	2.9082	8.12
WASHINGTON	3299	6543	5.0820	14.0351	52.0006	2.8116	NA
WEST VIRGINIA	1553	1955	5.1205	14.3396	51.0026	2.8160	9.93
WISCONSIN	3107	9493	6.0800	14.2163	49.9981	1.2720	10.03
WYOMING	315	897	5.3466	14.5300	52.0195	2.9276	8.86

APPENDIX III. THE MICHIGAN AND ALABAMA STUDIES

Draft #3 6/11/85
(Beertext/202)

AN ANALYSIS OF MICHIGAN BEER PRICES AND BEER REVENUES, 1967-1983

Prepared by the

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
OFFICE OF SUBSTANCE ABUSE SERVICES

During this same time period, it is clear that increases in beer retail prices lagged behind overall inflation increases. While the price of a six-pack rose 220% over the 16 years, prices in general rose by 296.5%. Retail beer prices, then, dropped in effect over time. In 1967 dollars, a six-pack that cost $1.23 in 1967 cost only 91 cents in 1983. Put another way, the price of a six-pack would have risen to $3.65 by 1983 ($1.23 x 2.965), nearly one dollar over the $2.71 price shown in figure 1. That beer prices have not been subject to general inflationary increases may be an enviable business achievement by beer manufacturers. But this achievement has been costly to the citizens of Michigan, in terms of lost State revenues and in terms of greater risks to public health and public safety.

Spirits taxes include the State mark-up of 51% on the State's purchase price (Sec. 436.16(1)), which was last revised in 1980 with an increase from 48%. Three specific taxes are applied to the purchase price plus mark-up. One is a 4% tax imposed in 1957, with revenues deposited in the School Aid Fund (Sec. 436.101). A second 4% tax took effect in 1960, applied to the General Fund (Sec. 436.121). A 1% tax applying only to off-premise sales was added in 1973, and increased to 1.85% in 1978, with proceeds deposited in the Liquor Purchase Revolving Fund (Sec.436.131).

Retail licensees receive a 17% discount on their purchases from the State (Sec. 436.16(3)). For off-premises licensees, this discount constitutes the gross profit margin, since take-out prices are set by the State (the MLCC) and may not be raised or lowered. On-premises licensees receive the same discount, but may charge whatever they wish for drinks, so long as the price is not less than what they paid for the alcohol.

5. Data on barrels sold and beer excise tax revenues are from the Liquor Control Commission's 1983 "Statistical look." Michigan CPI and disposable income data are from the Michigan Department of Management and Budget. Data in column 3 (1967 dollars) were computed by dividing each year's revenues by that year's CPI. Beer CPI data are from R. Sjolander and P. Kakela, "Effects of Michigan's Mandatory Beverage Container Deposit Law," Department of Resource Development, Michigan State University, East Lansing, Michigan. Annual six-pack prices are estimated based on the beer CPI, and do not include sales tax and bottle deposit. The price estimates assume that a six-pack of premium domestic beer (e.g., Stroh's, Budweiser) cost $2.71 in 1983. Prices for other years were then computed from the beer CPI.

   It should be noted that figures in columns 1 and 2 are inconsistent for some years, in that barrels sold multiplied by the $6.30 tax does not equal the tax revenue figure. For example,the 1983 sales of 6,964,711 barrels would equal $43,764,279 when multiplied by $6.30, not the $43,666,960 shown. Nevertheless, these are the figures published by the MLCC. Discrepancies may be due to calculations being made on a calendar year vs. fiscal year basis, to rebates for lost or broken products, or to accounting variations.

THE ECONOMIC IMPACT OF THE BEER AND WINE INDUSTRIES ON THE ALABAMA ECONOMY

A STUDY BY:

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Charles E. Hegji, Ph.D.
A. Wayne Lacy, Ph.D.

January, 1987

This study constitutes the research efforts and judgement solely of the authors, and should not be taken to represent the views of AUBURN UNIVERSITY at MONTGOMERY.

DRAFT COPY Pages 21 - 27 omitted because data for this section is incomplete.

APPENDIX C

THE IMPACT OF THE DISTRIBUTORS' TERRITORIAL BILL

In May, 1984 the Alabama legislature passed a territorial bill that limited the distributional areas serviced by beer and wine distributors. One of the concerns that emanated from this bill was that such action would limit competition and raise prices to Alabamians, despite the presence of competition between brands. To test this contention, the data on prices of beer and wine were examined for the quarter in which the bill was passed (1984, Q2) and compared to data for the latest quarter available (1986, Q3), which was 21 months later.

The results are shown in Tables C-1 and C-2. Prices are shown for six Alabama cities and the mean price for Alabama is compared with the mean price for over 200 U.S. cities. The figures would tend to support the view that the primary competition in the beer and wine industry is between distributors of different brands rather than between distributors of the same brands operating out of different territories. Since the territorial law was passed, the price of beer in Alabama rose in four cities, fell in three and fell overall in the state by 11¢ per six pack. This compares to an 11¢ increase in the U.S. overall. For wine, prices rose in four cities, fell in three and fell overall in the state by 17¢ per liter. At the same time, prices fell by only 3¢ nationally.

Although many factors enter into the pricing of beer and wine, no evidence can be found in these data that the territorial bill has been harmful to the Alabama consumer.

TABLE C-1

Beer Prices Per Six Pack

CITY AREA	1985 Q2	1986 Q1	CHANGE
Anniston	3.72	3.47	-.25
Birmingham	3.11	3.37	+.27
Dothan	3.25	3.30	+.03
Gadsden	3.36	2.90	-.46
Huntsville	3.56	3.29	-.27
Mobile	3.28	3.31	+.03
Montgomery	3.18	3.26	+.08
Tuscaloosa	N/A	3.03	N/A
Alabama (Mean)	3.35	3.24	-.11
U.S. (Mean)	2.91	3.02	+.11

TABLE C-2

Wine Prices per 750 ML.

CITY/AREA	1984 Q2	1986 Q1	CHANGE
Anniston	4.40		-.02
Birmingham	5.54	5.09	-.45
Dothan	5.48	5.50	+.02
Gadsden	6.04	5.09	-.93
Huntsville	4.96	5.41	+.45
Mobile	5.80	5.84	+.04
Montgomery	5.41	5.76	+.35
Tuscaloosa	N/A	5.19	N/A
Alabama (Mean)	5.38	5.21	-.17
U.S. (Mean)	4.77	4.74	-.03

SOURCE: American Chamber of Commerce Researchers Association
Inter-City Cost of Living Index

INTOXICATING LIQUOR REGULATION

&

EXCLUSIVE TERRITORIES

By: Michael D. Madigan
President & Legal Counsel
Minnesota Beer Wholesalers Association

INTRODUCTION

As outlined in another white paper entitled "Intoxicating Liquor Regulation & The Three-Tier System", Minnesota closely regulates the licensing, importation, distribution and sale of intoxicating liquor within its borders in order to prevent illegal sales to minors, inhibit overly aggressive marketing and consumption, collect taxes, create orderly, transparent and accountable distribution systems, and prevent a recurrence of the problems that led to the enactment of National Prohibition. Following a majority of states, Minnesota adopted the three-tier system of regulation in order to accomplish these goals. The three-tier system is designed to prevent vertical integration in the liquor industry by "tied houses." Direct links between manufacturers and retailers, and disproportionate influence between the two, has historically led to increased sales, abusive sales practices, and excessive consumption. The three-tier system interjects checks and balances by separating producers from consumers through a distinct, mandatory, transparent, and accountable distribution system.

EXCLUSIVE TERRITORIES

A key component of the three-tier system, and Minnesota's Intoxicating Liquor Regulatory Scheme, is exclusive territories for beer and wine. Today, every state in the country has exclusive territories for beer either by statute or agreement.

Exclusive territories serve four (4) basic purposes. First, they are the backbone of any transparent and accountable distribution system. The ability to audit for tax payments is easier as is the enforcement of trade practice violations. Agents from the Alcohol & Gambling Enforcement Division know exactly who is responsible for selling a particular brand to retailers in a given area and can, therefore, determine how much of the

brand is being sold, the prices being paid by the retailers and the terms of sale. In other words, agents can determine if:

- The proper amount of tax is being collected
- Illegal inducements were being made at the time of sale
- The brands are being illegally sold as a "loss leader" (being sold below the purchase price)

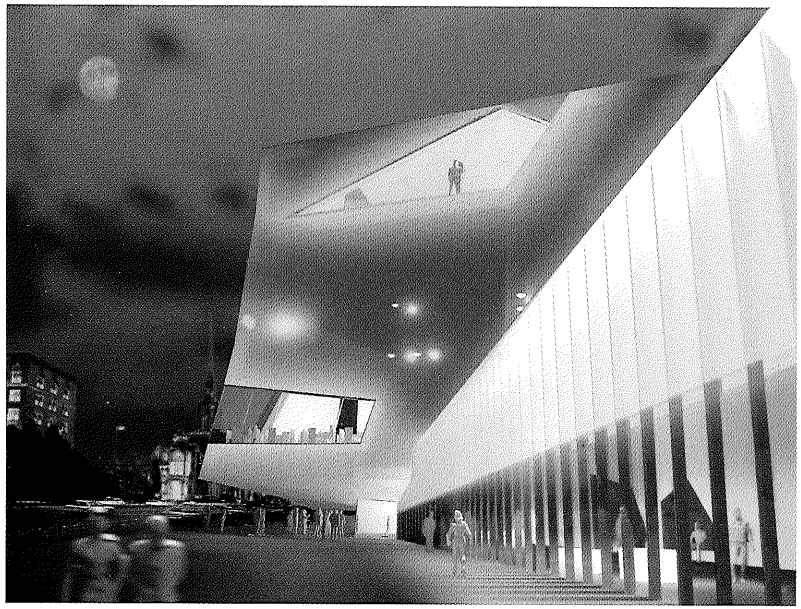
Second, exclusive territories ensure that every retailer in a given area will have access to every brand and package variety of products sold in that area on a timely basis. This ensures that consumers have the widest choice of brands thereby enhancing competition.

Third, exclusive territories protect product quality. Beer is a perishable product with a code date. Under Distributor Agreements with brewers, wholesalers are required to replace at their cost any beer on a retailer's shelves which becomes old. No wholesaler will replace old beer at his cost that he did not originally sell to the retailer. Accordingly, the elimination of exclusive territories would not only hamstring effective enforcement, it would also quickly undermine product quality and ultimately public health. Exclusive territories also protect consumers by enabling the enforcing agency to know exactly who to contact to get a brand removed from retail shelves in the event of a product recall or product tampering situation.

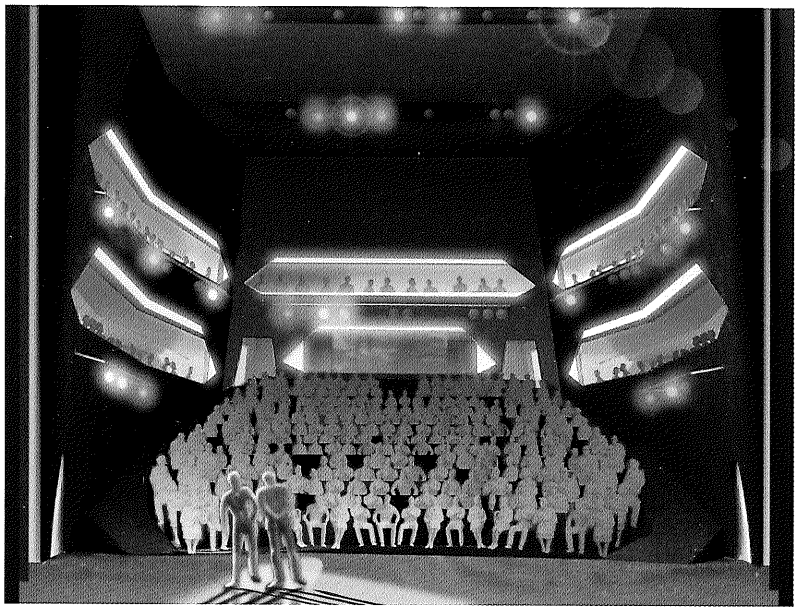
Fourth, exclusive territories ensure better service and prevent "free riding." The introduction of a new product or brand involves a significant investment of time and money by a wholesaler. In essence, a new "market" must be created. This investment, ensures, as mentioned earlier, that consumers have a wide choice and that competition is

preserved. If territories are not exclusive, wholesalers have no incentive to make this investment because a competitor may unfairly "free ride" on the wholesaler's investment. It also creates a disincentive for wholesalers from servicing retail accounts.

Contrary to some misconceptions, exclusive territories do not increase costs to consumers. In a study entitled" Geographic Restraints in the Malt Beverage Industry", the authors (Robert D. Tollision, Ph.D., George Mason University and Robert B. Ekelund, Jr., Ph.D., Auburn) made the following statement: "In sum, our study is fairly conclusive on the question of whether exclusive beer distribution territories will harm or enhance consumer welfare. After a detailed analysis of the effects of state-mandated exclusive territories on the prices of beer at retail, we find that if there is any effect at all, state-mandated exclusive territories lead to lower retail beer prices. There is no evidence that exclusive territories lead to higher retail prices . . .". This is due in part because exclusive territories facilitate interbrand competition by requiring wholesalers to promote and merchandise all of the products assigned to their companies and by not allowing licensees from outside the territory to "cherry pick" high volume accounts and "dump" product (i.e. merely lowball the price without providing any merchandising, promoting and sales support).



Hennepin Entrance with View of Restaurant and Special Events Space



350-Seat Performing Arts Studio with New-Media Galleries

View from New Restaurant

View from Special Events Space