

# PUBLIC POLICY SOURCES

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## The Privatization of Liquor Retailing in Alberta

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## Abstract

The purpose of this paper is to take the opportunity offered by the Alberta experience with liquor retailing privatization to examine the sort of market structure and its characteristics that are produced by market forces under privatization and to compare these with the market structure and characteristics of the government-owned and operated liquor distribution system. The impact of government-imposed restrictions on the evolution of an efficient retail distribution system under privatization is also assessed.

The paper begins with a description of Alberta's liquor distribution system when it was under government ownership and control. This is followed by a discussion of the privatization process, including the procedure used by the Alberta Liquor Control Board (ALCB) to dispose of its liquor stores, the reductions in ALCB staff and attempt to unionize private liquor store employees, new regulations affecting private liquor stores, new supplier arrangements with the ALCB, new flat markup on liquor products, and contracting out of the warehouse operation.

The paper's next section analyzes the economic impacts of privatization. It finds that the number of private liquor stores is approximately triple the number of ALCB stores. Most of the ALCB stores in Calgary and Edmonton were converted to private liquor stores, but less than half of the ALCB stores in the rest of the province were converted to private stores. There has been a relatively small number of liquor store closures since privatization, and this might be partly explained by the fact that liquor store chains in Alberta account for less than 10 percent of all private liquor stores. The requirement of a uniform wholesale price is viewed as inhibiting the growth of liquor store chains and the realization of certain efficiencies in distribution that would accompany chain development.

With respect to product selection, a 100-store sample of private liquor stores from across Alberta was found to have an average product selection that exceeds the weighted average product selection of ALCB stores. Product selection carried in the ALCB warehouse has more than doubled under privatization. The increase in product selection consists partly of an increase in the number of brands that are stocked, and partly of an increase in the variety of package sizes for established brands. The weights that the number of brands and number of package sizes have in the increase in product selection vary by product category.

With respect to retail liquor prices, this study finds that nominal retail liquor prices have increased somewhere between 8.5 and 10.0 percent on average between August 1993 and January 1996 (depending on how the price change is calculated). After correcting for inflation, the real price increase is about half of the nominal increase, on average. Because of the increase in the number of liquor stores, consumers will, on average, experience lower transportation costs when purchasing liquor products. Over the period October 1993 to December 1995, wholesale liquor prices have fallen. In addition, a comparison of a sample of Alberta's average liquor product prices (in January 1996) with the prices of the same products in each of B.C., Saskatchewan, and Ontario, revealed that the average percentage price differences are relatively small.

The study also found that Alberta government liquor revenues have been adversely affected neither by privatization nor by the shift from government liquor revenues based on a liquor store *ad valorem* markup to revenues derived from a flat markup imposed at the wholesale level.

With respect to employment and wages, full-time equivalent employment in liquor stores has been estimated to have approximately tripled under privatization, but the average wage (for Alberta as a whole) of non-management liquor store employees is 50 percent of what a full-time union worker at the top of the scale would earn in an ALCB store.

The final section of the paper presents some summary measures of crime in Edmonton and li-

quor-store related offenses in Calgary, and discusses the issue of liquor availability and consumption. It is really too early to begin a rigorous assessment of social impacts that might be caused by privatization. There is little evidence so far to suggest that privatization has been associated with either an increase in crime or an increase in consumption of liquor products.

The paper closes with a summary and a few concluding remarks.

## I. Introduction

On September 2, 1993, Stephen C. West, the Province of Alberta's Municipal Affairs Minister responsible for the Alberta Liquor Control Board (ALCB), announced that the ALCB's role as a liquor retailer would be phased out, and that private sector-owned and operated liquor stores would replace government-owned ALCB stores. All ALCB stores were closed between September 4, 1993 and March 5, 1994. Alberta thus became the first province in Canada with a completely privatized retail liquor distribution system.

Alberta is not the only jurisdiction in recent years to change from a public to a private system of liquor distribution. On July 1, 1985, Iowa gave up its monopoly on the wholesale and retail sale of wine, and in March 1987, it gave up its retail monopoly on the sale of spirits. Prior to that, West Virginia gave up its retail monopoly on the sale of wine, and implemented a system of private retail licensees. Four other states and the province of Quebec have eliminated their monopolies on the sale of wine since 1970.<sup>1</sup> While there have been a number of studies examining how Iowa's privat-

ization of liquor retailing has affected alcohol consumption in Iowa (e.g., Wagenaar and Holder (1991), Holder and Wagenaar (1990), Mulford et al. (1992), Fitzgerald and Mulford (1993b), Fitzgerald and Mulford (1992)), there has been little analysis of the economic impacts of the privatization of liquor retailing.

Several relatively recent economic studies that deal with liquor stores (i.e., Zardkoohi and Sheer (1984, 1986), Swidler (1986a)) examine liquor price and consumption differences between public and private ownership states, one (by Swidler (1986b)) looks at the implications for government revenues of uniform retail pricing by a state-run liquor monopoly, and one (by Smith (1982)) analyzes differences in state regulations governing liquor store licensees. None of the studies undertakes a detailed before- and after-privatization comparison of key economic variables such as location, price, product selection, employment and wages.

Privatization initiatives have become increasingly important over time and it is important to

1 See Wagenaar and Holder (1991) and Mulford et al. (1992).

study these initiatives so that the efficiency implications of their particular characteristics are well understood. This is especially important for those privatization initiatives, such as liquor retailing, that are likely to be replicated in multiple jurisdictions.

This paper takes the opportunity offered by the Alberta experience with liquor retailing privatization to examine the sort of market structure and its characteristics that are produced by market forces under privatization and to compare these with the market structure and characteristics of the government-owned and operated liquor distribution system. The impact of government imposed restrictions on the evolution of an efficient retail distribution system under privatization will also be assessed.

In the next section of this paper, some important characteristics of the government-owned liquor

distribution system in Alberta are described. This is followed in section 3 with a brief description of several models of privatization that were considered by the Alberta government. The efficiency implications of government imposed restrictions on both wholesale and retail liquor distribution are also addressed. Section 4 presents a detailed description of the privatization process, including the sale of ALCB properties, the reduction in ALCB staff, regulations governing new private liquor stores, and the new supplier arrangements.

In section 5, the economic impacts of privatization are analyzed. This analysis looks at the impact of privatization on liquor store locations, product selection, price, government revenues, and employment and wages. In section 6, some of the social impacts of privatization are discussed. Section 7 contains a summary and some concluding remarks.

## **2. The Alberta Liquor Control Board (ALCB) Before Privatization**

The Alberta Liquor Control Board (ALCB) was created in 1924 with the passage of the Liquor Control Act. Wholesale and retail sales of liquor products in Alberta were handled by the private sector between 1905 and 1916, prior to the creation of the ALCB, and were prohibited between 1916 (with the passage of the Liquor Act) and 1924.

For the better part of its history, the ALCB maintained a monopoly on the wholesale and retail sales of liquor products in Alberta, including beer. The ALCB was responsible for choosing retail liquor store locations, the products to be sold in these stores, the prices to be charged, and the hours of operation. The ALCB also prescribed conditions for the sale of liquor and the consump-

tion of liquor sold under a license or permit, and determined the number of any kind of licensed premise in a municipality. The ALCB was empowered to inspect licensed premises and could suspend or cancel a license or permit in the event that the licensee or permittee failed to comply with the Liquor Control Act. The ALCB was to cover its expenses from monies that it received from its operations, and the net profits were to be paid to the Provincial Treasurer.

While the privatization of liquor retailing was announced on September 2, 1993, this largely meant that government-owned liquor stores were to be eliminated. The private sector, in fact, was already involved in selling liquor under various formats prior to September 2, 1993. These formats

**Table 1: ALCB Store Counts and Sales**

	Calgary	Edmonton	Rest of Alberta	Total
Number of ALCB Stores-August 1993	24	23	158	205
-A Stores (600-700 SKUs)	0	0	107	107
-B Stores (1100 SKUs)	12	11	41	64
-C Stores (1500-1600 SKUs) and Expanded Specialty (2600 SKUs)	12	12	10	34
Number of Cities Served by ALCB Stores in August 1993	1	1	151	153
Store Sales—1992*	204,034,981	165,130,430	348,835,024	718,000,435
Average Sales for ALCB Stores	8,501,458	7,179,584	2,166,677	—

\*There were three stores in the rest of Alberta whose sales are included here that were not open in August 1993.

Source: Alberta Liquor Control Board, Alphabetical Stores List, August 1, 1993; Alberta Liquor Control Board, *Seventieth Annual Report for the Fiscal Year Ended January 4, 1994*.

included 1) retail beer stores (first introduced in 1989, there were 30 of them by September 1993), 2) retail wine stores (first introduced in 1985, there were 23 of them by September 1993), 3) hotel off-sales (restricted to the sale of beer until 1990), 4) agency stores (first established in 1992, there were 49 of them by September 1993), which are general merchandise stores licensed to sell liquor from an approved area within the store, and located in rural Alberta, 5) brewery-based retail outlets (only two as of September 2, 1993), 6) winery-based retail outlets (only two as of September 2, 1993), and 7) brew pubs (only two in Alberta).

### **ALCB store locations and sales**

Besides the privately-owned outlets, there were 205 ALCB stores in Alberta in August 1993. Table 1 presents some summary information regarding ALCB store locations and store sales. There were 24 ALCB stores in Calgary in August 1993, 23 stores in Edmonton, and 158 in the rest of Alberta. In terms of product selection, ALCB stores were classified as either an “A store” with 600-700 stock keeping units (SKUs) (separate products

with their own Canada Standard Product Codes or CSPC numbers), “B store” with 1100 SKUs, “C store” with 1500-1600 SKUs, or “expanded specialty” with 2600 SKUs. Twenty-four out of 34 C stores were located in Calgary and Edmonton, while the 107 A stores were confined to the rest of Alberta. That the larger liquor stores were primarily located in Edmonton and Calgary is also reflected in the average 1992 sales per store. Stores in Edmonton had average sales in 1992 that were 3.3 times the average sales of stores in the rest of Alberta, while stores in Calgary had average sales in 1992 that were almost four times the average sales of stores in the rest of Alberta. ALCB stores were located in 153 communities in August 1993.

In terms of the size distribution of ALCB stores, 1992 sales ranged from \$134,874 to \$19,556,927 per store. The store with the smallest 1992 sales in Calgary still had sales of \$2,935,529, while the store with the smallest 1992 sales in Edmonton had sales of \$1,886,564. There were 99 stores in the rest of Alberta in 1992 with lower sales than the store in Edmonton with the lowest sales in 1992.

## ALCB retail prices

With respect to price, all ALCB stores in Alberta charged the same price for a given liquor product. The ALCB, like other government-owned liquor distribution systems in Canada, used an *ad valorem* markup system to arrive at its retail prices.

## ALCB supplier constraints

The ALCB distributed all liquor products (with the exception of Alberta-produced domestic beer) from its warehouse located in St. Albert (a suburb of Edmonton).<sup>2</sup> According to the ALCB (1994), the warehouse inventory in September 1993 consisted of 2,104 ALCB catalogue listings and 1,221 listings as part of the Agent's Listing Program (products that were brought into Alberta on a consignment basis by agents, for sale to licensees, and not available for sale in ALCB stores). The ALCB maintained a warehouse inventory of \$33 million. The ALCB paid suppliers on the basis of a 30-day payment cycle, regardless of whether the product had been sold.

Under pre-privatization rules, a supplier had to apply to the ALCB for a liquor product listing, and apparently the number of rejected applications greatly exceeded the number of approvals (see ALCB, 1994, p. 31). The following criteria were used to review applications:

- projected consumer demand
- projected brand profitability
- potential of the brand within its product category and current trend in the category
- sales performance in markets outside Alberta
- product price
- continuity of supply

- supplier's marketing plan
- product testing
- packaging presentation, and
- availability of suitable existing listings for substitution.

The ALCB (1994) reports that it was difficult for a new company to break into the liquor retailing market. Once a product was listed, the ALCB required that suppliers meet certain quotas (both system-wide and on a store-by-store basis) in order to retain a listing or to receive an additional listing. It would be fair to conclude that there were significant barriers to entry for new products and new suppliers in the ALCB system.

## ALCB employment and wages

Just prior to privatization in September 1993, there were 1,392 people working in the ALCB's retail store operations (see ALCB, 1994). In May 1992, liquor store managers could earn between \$30,296 and \$49,173 per year, depending on their years of service and the size of the store. Warehouse workers earned between \$23,777 and \$30,169 per year. Liquor store clerks earned between \$23,865 per year (or \$12.19/hour) and \$28,174 per year (or \$14.39/hour). Benefits represented about 16 percent of payroll costs. Warehouse workers and liquor store employees were represented by the Alberta Union of Provincial Employees (AUPE).

Other characteristics of the liquor distribution system before privatization, such as quantities of product sold, government revenues from liquor sales, and product selection, will be described below in comparison with the post-privatization liquor distribution system. Models of privatization will be discussed next.

2 A second ALCB warehouse that was located in Calgary was closed in 1991.

### 3. Privatization Models and Government Restrictions

Prior to September 2, 1993, when the privatization of liquor retailing in Alberta was announced, the ALCB is reported to have examined several private retail liquor models used in other jurisdictions to determine which model would most effectively meet the policy objectives of the Alberta government and ensure private sector participation in liquor retailing.<sup>3</sup> The three models were briefly described as follows:

- (1) Require that liquor products be retailed separately from other commodities in privately-operated retail liquor stores. A limited number of liquor-related items (such as beer mugs, corkscrews, etc.) would also be allowed to be sold from these stores.
- (2) Allow liquor products to be integrated with other food and non-liquor beverage products and sold in non-liquor retail stores.
- (3) Sell the ALCB stores to the private sector as franchise operations, with protected territory and a restriction on the number of retail liquor stores that could be established in a given market area.

Model 1 was chosen as most likely to achieve the ALCB's policy objectives. Interestingly, constructing an efficient retail liquor distribution sys-

tem was not mentioned as an explicit policy objective, although several of the policy objectives are consistent with efficiency as a goal.

While Model 1 was chosen as the privatization model by the Alberta government, a qualified version of Model 1 was actually implemented. In particular, certain restrictions were imposed that arguably will prevent the evolution of an efficient, competitive market in liquor products. Two of the main restrictions and their anticipated effects are as follows:

- *Uniform wholesale prices* The ALCB retained the role as wholesaler of record of liquor products (although the operation of the warehouse was contracted out, as described in section 4). The wholesale price to retailers is determined by a formula which includes the supplier's price, the ALCB markup, and federal government taxes (section 4). The same liquor wholesale price list is issued to all licensees 13 times per year. (Uniform wholesale prices are mandated by the Gaming and Liquor Act, sec. 77. This act replaced the Liquor Control Act in 1996.) Wholesale price changes are permitted on a bi-weekly basis.<sup>4</sup> Individual retailers are not allowed to negotiate discounts with liquor suppliers. The prohibition of quantity discounts removes one of the primary incentives for the

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3 The ALCB (1994) reports that policy objectives were established for privatizing liquor retailing to ensure the following: 1) that revenues generated by the ALCB would not be negatively affected as a result of the initiative; 2) that effective control would continue to exist over the sale of liquor products to minors, intoxicated persons, and other persons unable to make responsible decisions when purchasing liquor products; 3) that new jobs would be created within the private sector to at least offset the loss of jobs at the ALCB; 4) that the initiative would make a positive contribution to the economy of Alberta by establishing several hundred new retail liquor stores and various other small businesses; 5) that ALCB properties would be attractive to prospective purchasers planning to enter the retail liquor market or to establish non-liquor store businesses; 6) that services to consumers would continue to be provided at a level at least equivalent to that which existed under the ALCB retail system; 7) that existing private sector retail liquor outlets (retail wine stores, retail beer stores, hotel off-sale outlets, and agency stores) could be readily integrated into the new model of liquor retailing in Alberta; and 8) that liquor pricing and consumer purchasing patterns would remain relatively stable.



formation of retail liquor store chains. Hence, one would expect to see very limited chain formation as a result of privatization under Model 1 with uniform wholesale prices imposed.

As it stands, any supplier discounts to high volume retailers would be in the form of inducements (or benefits). Most forms of inducements, however, would be violations of sections 81 and 82 of the Gaming and Liquor Regulation (Alberta Regulation 143/96) of the Gaming and Liquor Act. Inducements or benefits are defined to include money, free liquor, paid vacations, furniture, equipment, services, items considered essential to the licensee's operation, staff incentives, paid entertainment, paid advertising, or any other thing prohibited under the Gaming and Liquor Act or Alberta Gaming and Liquor Commission policy.<sup>5</sup> While evidence that a store requested and received inducements could be grounds for cancellation of a retail liquor store's license, it is costly to monitor stores and suppliers in order to gather sufficient evidence that inducements are being used. If quantity discounts could be negotiated between retailers and manufacturers, then a good part of the incentive to use inducements would be absent.

A further problem with publishing a uniform wholesale price list is that it can facilitate tacit collusion among suppliers by promoting pricing transparency. Each supplier can monitor (with a lag) every price change implemented by competing suppliers, so that if suppliers are able to reach a tacit agreement on price, cheating on the agreement can easily be detected. While the possibility of tacit collusion might not be a problem in those product classes

where there are many suppliers and many brands (e.g., wine), it remains a real possibility in product classes with a small number of firms or with one or two dominant firms.

- *Uniform warehouse transportation charges* The ALCB adopted a "postage stamp delivery system" so that the delivery charge per case shipped from the ALCB warehouse in St. Albert is the same no matter where the receiving store is located in Alberta. (Prior to May 1, 1997, stores also paid the same per case transportation charges regardless of the quality of their loading dock and regardless of the time it took to unload a truck at the customer's premises.) This is consistent with the pre-privatization policy of having all ALCB stores in Alberta charge the same price. However, under privatization, there is little reason to have uniform delivery charges. Uniform delivery charges could imply that stores located close to the warehouse are paying phantom freight, while stores located far away are having part of their freight costs absorbed by the shipper. (Whether phantom freight is being paid depends on whether freight charges are set high enough to cover total shipping costs.)

It can be shown that a policy of uniform delivered prices with an obligation to supply the entire territory is less profitable for the supplying firm than a policy of charging a single FOB price (combined with distance-based transportation costs), which in turn is less profitable than a policy of nonuniform delivered prices (with implicitly nonuniform FOB prices). The policy of uniform delivered prices with an obligation to supply the entire territory can result in the supplying firm selling to distant places at a net price that is lower than marginal cost. The

4 Deadlines for bi-weekly price quotes are 4 p.m. Monday for implementation on the Monday two weeks later.

5 The list of inducements is contained in a document entitled *Acknowledgment and Undertaking* that is to be signed by the liquor manufacturer or its agent.

supplying firm could raise its profits by restricting its territory and refusing to supply the most distant customers. (See Philips, 1983, pp. 31-37.)

Uniform warehouse transportation charges combined with uniform wholesale prices imply that a substantial basis for different retail li-

quor prices in large cities and small towns is removed.

In Section 5, the impact of the restrictions on competition will be examined along with the implications of adopting privatization Model 1. What follows is a description of the privatization process.

## 4. Privatization Process

### Sale of ALCB properties<sup>6</sup>

All ALCB stores were closed between September 4, 1993, and March 5, 1994. To dispose of its properties, the ALCB, in cooperation with Alberta Public Works, Supply and Services, issued a call for proposals for the sale of ALCB properties and disposal of leased premises. On September 11, 1993, advertisements were placed in newspapers throughout the province explaining how to obtain both the list of ALCB properties and more information, and how proposals were to be submitted. Prospective buyers were able to obtain information on the operating costs of each ALCB store, a copy of the lease agreement (where relevant), and the total retail sales of each store (by dollars and by volume for each brand and package size, for the latest 12 month period).

The ALCB wished to dispose of properties at their appraised market value. According to the Alberta Gaming and Liquor Commission, the appraised values of ALCB properties were determined at the same time as Offers to Purchase were being received. Market values for ALCB-owned properties were determined by independent property appraisers, who were supposed to appraise the

value of the property without assuming that it would remain in the liquor business. As the appraisals were being done concurrently, they were not reviewed until the offers had been received. Clearly, for ALCB-owned properties that would remain in the liquor business, some questions can be raised here regarding the reliability of market value appraisals in the absence of accurate forecasts regarding how many new liquor stores would be established in each community. It is not known whether market value appraisers had information regarding the privatization of wine and liquor stores in Iowa in 1985 and 1987, or whether the Iowa privatization experience was used to help make forecasts of the number of private stores that would likely open in Alberta.

The ALCB received 640 proposals by the closing date of September 30, 1993. Proposals were reviewed in the following way:

- (i) A security deposit of \$5,000 was required with each offer made on a specific property.
- (ii) Where the highest offer was greater than or equal to the appraised value, the offer was accepted.

<sup>6</sup> The following description of the privatization process is largely drawn from ALCB (1994).

(iii) If more than one offer was received on a particular property, negotiations commenced with the party submitting the highest bid. If negotiations were unsuccessful, then negotiations were commenced with the party submitting the second highest bid, etc.

(iv) If the offer was less than the appraised value, negotiations commenced to try and obtain the appraised value.

(v) Properties not sold following initial proposal were listed with real estate agents and re-advertised for sale in newspapers.

(vi) All sale agreements were required to receive ALCB approval first, then Ministerial and Cabinet approval and an Order in Council before the sale was finalized.

(vii) It was not required that a liquor store be operated from the premises.

With respect to leased properties, some leases were terminated, while others were surrendered to the landlord or assigned to a new tenant. Most leases were subleased. Prepaid leases were sold to the highest bidder.

The ALCB reports that as of October 1, 1995, 148 ALCB properties were sold (including the ALCB warehouse in Calgary and six land parcels; the Calgary warehouse was in fact closed in 1991 and sold for \$9 million, which was greater than its \$8 million appraised value). Seventy-six properties were sold at a price greater than or equal to the appraised value. Of these, 43 were stores that were converted from ALCB to private liquor stores. Overall, 65 of the ALCB properties that were sold were converted to private liquor stores. On the ALCB properties that were sold as of October 1, 1995, the appraised value was \$46,977,650 and the properties were sold for \$51,242,403.

## Reduction in ALCB staff

On the employment side, between September 2, 1993 and December 1, 1994, 90 percent of total ALCB staff were released. This amounted to 1,866 permanent, part-time, and casual employees. Of these, 1,392 had worked in ALCB retail store operations (see ALCB, 1994). A voluntary severance program was established for all full-time ALCB employees whose positions were eliminated by privatization. The package consisted of up to a maximum of 43 weeks of severance pay, depending on the length of service, plus a \$3,500 bonus. The ALCB paid out \$17 million in severance benefits. Part-time employees simply received notice in accordance with Alberta's Employment Standards Code.

The Alberta Union of Public Employees claims that it received no prior notice regarding the government's plans to privatize the liquor stores. On June 4, 1993 (three months prior to the privatization announcement), a new two-year collective agreement had been signed between the ALCB and AUPE.

During the period when the ALCB was negotiating the sale of its liquor stores, concerns were raised by some potential buyers about whether AUPE would have successor rights in former ALCB stores. Under the successorship provisions (section 44(1)) of Alberta's Labour Relations Code

44(1) When a business or undertaking or part of it is sold, leased, transferred or merged with another business or undertaking or part of it, or otherwise disposed of so that the control, management or supervision of it passes to the purchaser, lessee, transferee or person acquiring it, that purchaser, lessee, transferee or person is, where there have been proceedings under this Act, bound by those proceedings and the proceedings shall continue as if no change had occurred, and

(a) if a trade union is certified, the certification remains in effect and applies to the purchaser, lessee, transferee or person acquiring the business or undertaking or part of it, and

(b) if a collective agreement is in force, the collective agreement binds the purchaser, lessee, transferee or person acquiring the business or undertaking or part of it as if the collective agreement had been signed by him.

(2) Where a question arises under this section, the Board, on the application of any employer, trade union or person affected, may determine what rights, privileges and duties have been acquired or retained and the Board may, for that purpose, make any inquiries and direct the taking of any votes that it considers necessary and decide any questions arising under this section...

In fact, AUPE filed applications with the Labour Relations Board for successor rights and a common employer declaration<sup>7</sup> with respect to two former ALCB stores, a free standing cold beer store, and a new private liquor store. AUPE was under the understanding that while each successorship application would be decided by the Labour Relations Board individually, those stores in the same category (e.g., former ALCB stores) would be dealt with in substantially a similar manner as the test case in each category.

Prior to the Labour Relations Board hearing on the successorship applications, the new owners of the former ALCB stores reached an agreement

with AUPE whereby successor rights would have been granted subject to a successful vote of the affected employees. The settlement also required that AUPE withdraw its common employer declaration, but the Labour Relations Board denied that request. AUPE also withdrew its successorship applications affecting the cold beer store and the new private liquor store, preferring to proceed with its best case first (former ALCB stores).

As it turned out, AUPE lost the employee votes at the former ALCB stores. AUPE also had its application for a common employer declaration denied by the Labour Relations Board. Neither the ALCB nor the Crown was found to exercise sufficient control or direction over the private stores to warrant a common employer designation.<sup>8</sup>

### **Regulations governing private liquor stores**

The Gaming and Liquor Regulation of the Gaming and Liquor Act spells out the conditions that must be satisfied in order for an individual to receive a Class D license to operate a retail liquor store. Maximum hours of operation for liquor stores are set at 10:00 a.m. to 2:00 a.m., seven days a week (except for Christmas Day and during polling hours of provincial elections). The primary sales of a licensed liquor store (at least 90 percent of sales) must be beverage alcohol. Liquor related items can be sold from a retail liquor store. A retail liquor store must either be a free standing building, or if it is in a building in which there are other businesses (i.e., in the “building envelope” where there are other businesses), the liquor store

7 Under section 45(1) of Alberta’s Labour Relations Code, *Statutes of Alberta*, vol. 8, “On the application of an employer or a trade union affected, when, in the opinion of the Board, associated or related activities or businesses, undertakings or other activities are carried on under common control or direction by or through more than 1 corporation, partnership, person or association of persons, the Board may declare the corporations, partnerships, persons or associations of persons to be 1 employer for the purpose of this Act.”

8 This summary of the successorship proceedings is based on two AUPE inter-office memos, dated September 7, 1994 and April 8, 1994, provided to the author by AUPE.

must have its own entrance and exit separate from those of another business, have a common wall between the liquor store and the other business, and have its own receiving and storage area separate from any other business. In the case of a retail store—a supermarket, for example—that is larger than 929 square metres, the owner of that store can apply for a license to operate a liquor store within the same commercial development as the supermarket, but the premises proposed for the liquor store must be physically separate and detached from the premises occupied by the supermarket.<sup>9</sup> Supermarkets are allowed to use their name on the liquor stores that they own.

A person may own more than one retail liquor store and/or other licensed premise (excluding a Class E manufacturer's license), and operate them under the same name. Hence, the regulations permit the establishment of retail liquor store chains (although government imposed restrictions may inhibit their development). While retail liquor stores must normally store their liquor products on site, the ALCB may approve a separate warehouse to enable a retail liquor store licensee to serve multiple liquor stores operated by the licensee. Warehouses may not be established for the purpose of supplying other licensees.<sup>10</sup>

Retail liquor store records are subject to review by the ALCB, and areas subject to audit include invoices, permit sales, cash register sales records, inventory records, and annual financial statements.

Retail liquor stores are permitted to promote specific brands of liquor within their stores by displaying brand posters or banners, giving away

small value items with brand logos, holding contests, etc. Retail liquor stores may give away merchandise, other than liquor or food, to promote the store, provided the merchandise identifies the store and is not given to the store by manufacturers.

ALCB inspectors must be given full and unrestricted access to licensed premises, and are required to ensure compliance with legislation and operating guidelines, investigate complaints, and respond to requests from store operators to discuss operational concerns. Inspectors are required to report all violations to the ALCB.

Liquor stores are free to set their own retail prices. There are no restrictions on liquor store sales to other retail liquor stores, other types of licensees, or agency stores. Retail liquor stores may adjust prices based on the customer, the amount of sale or any factor deemed relevant, at the discretion of the retail liquor store operator.

The ALCB remains the sole importer of liquor products into Alberta.<sup>11</sup> Retail liquor stores must purchase liquor products at wholesale prices through the ALCB warehouse, or through the ALCB from a manufacturer authorized to warehouse and distribute products, or from other Class D licensees or agency stores. A number of domestic beers are purchased from the ALCB by placing orders with the respective brewery. Breweries may set minimum order quantities for delivery service. Retail stores are required to pay for products ordered before they are released from the warehouse. Payment must be made by Bank Guarantee Letter or certified cheque.

9 See Schedule 2 of the Gaming and Liquor Regulation, Alberta Regulation 143/96, Consolidated July 11, 1996.

10 See the *Retail Liquor Store Operating Guidelines*, section 1.3.10. Other aspects of retail store operations described below are taken from the *Guidelines*.

11 That government is the sole importer of liquor into a province is a requirement of the federal Importation of Intoxicating Liquor Act. All liquor products are shipped to Alberta on a consignment basis. For customs purposes, the ALCB is the purchaser (importer of record) while the agent is the consignee. Shipment is made to the consignee in care of the ALCB.

With respect to liquor store advertising, advertising in any medium is permitted (subject to restrictions imposed by advertising policy guidelines). Liquor stores are allowed to advertise the name of the store, location, hours of operation, products available and product price. Comparative price advertising is permitted provided the ad does not disparage another company, business or product. The common owner/operator of a retail liquor store and another business or company may not conduct cross-market advertising or promotions between the retail liquor store and the other business or company (see section 50 of the Gaming and Liquor Regulation).

While the regulations allow liquor stores to advertise, casual empiricism suggests that they collectively do very little advertising. In addition, the small number and size of retail chains may also be part of the explanation. Larger chains might advertise more in order to promote the store brand, and they would also be able to exploit scale economies.

### **Supplier arrangements and wholesale distribution**

In order to import liquor into Alberta, manufacturers must use a liquor agency registered with the ALCB. There were 120 agents listed in the December 25, 1995 edition of the ALCB's *Liquor Wholesale Price List*.

Effective January 5, 1994, the ALCB adopted a consignment system of inventory management. Under this system, the ordering, consolidation, shipment, and ownership of all inventory are the

responsibility of suppliers and/or agents representing the suppliers. The ALCB remits payments to suppliers and/or their agents within seven days of the product being sold to retailers or other businesses.

Suppliers and/or their agents determine which products will be sold in Alberta. Agents and manufacturers are responsible for promoting and marketing their products to retailers.

Supplier price changes are permitted on a bi-weekly basis, and the ALCB requires that there be one wholesale price quoted for each product.

Under privatization, the ALCB markup has been replaced by a flat markup the rates of which were to be set to raise the same amount of revenue for the government as the ALCB markup.<sup>12</sup> The flat markup is added to the supplier's price quotation and is levied in dollars per litre and varies by product class (i.e., spirits, wine with less than 16 percent alcohol, fortified wine with greater than 16 percent alcohol, coolers, and beer). The ALCB does not impose a separate wholesale markup (but there are warehouse storage, handling, order processing and distribution charges collected by the warehouse operator). The first set of flat markup rates was established in November 1993. They were revised downward in August 1994, although 10 percent surcharges were imposed that were to be removed at the rate of one percentage point per month. Thus, the May 1995 flat markup rates contain no surcharges. Some of the flat markup rates were lowered again in January 1996 in order to try and restore the revenue neutrality of the flat markup. Table 2 contains the various sets of flat markup rates.

12 See ALCB (1994, p. 42). Other motivations for adopting the flat markup included "(1) simplifying the system of calculating the markup, (2) removing the opportunity for 'creative invoicing' to impact the amount of markup collected, the wholesale price of products, or the retail price of products, (3) removing all hidden or discriminatory cost elements to avoid future disputes under trade agreements (as occurred in 1991 with GATT findings on beer), (4) correcting an ever widening price range among product categories caused by the *ad valorem* markup system, and (5) minimizing the ALCB's role influencing wholesale prices to retailers and retail prices to consumers."

<b>Table 2: Flat Markup Rates</b>					
Product	November 1993 \$/Litre	August 1994		May 1995 \$/Litre	January 1996 \$/Litre
		\$/Litre	Surcharge		
Spirits	14.95	12.95	10% of landed cost if landed cost is greater than \$9.60/litre	12.95	12.50
Wine (alcohol content 16% or less)	4.35	3.30	10% of landed cost if landed cost is greater than \$4.60/litre	3.30	3.20
Fortified Wine (alcohol content greater than 16%)	6.20	5.50	10% of landed cost if landed cost is greater than \$7.50/litre	5.50	5.50
Coolers	2.10	1.50	10% of landed cost if landed cost is greater than \$2.75/litre	1.50	1.50
Beer	1.06	.92	10% of landed cost if landed cost is greater than \$1.95/litre	.92	.89

In order to arrive at the wholesale price, the following formula is now used:

wholesale price = c.i.f. invoice price (supplier cost including freight) + federal duty + federal excise tax + ALCB flat markup + environmental levy (if applicable) + federal GST (goods and services tax) at 7% + bottle deposit

According to the ALCB's *Seventieth Annual Report for the Fiscal Year Ended January 4, 1994*, the change to a flat markup resulted in the ALCB's gross profit being reduced by an amount approximately equal to six percent of ALCB total revenue, or about \$60 million over a 12 month period. This reduction in gross profit was offset by a similar reduction in operating costs. (The ALCB as a whole had operating expenses of \$89,477,000 in fiscal 1992, \$83,451,000 in 1993, and \$29,487,000 in the 64 week fiscal year of 1994.) "The underlying objective of this policy decision was to ensure that sufficient incentive was provided to the private sector to participate in this new retailing initia-

tive, while at the same time achieving ALCB income neutrality."<sup>13</sup>

With respect to warehouse operations, the ALCB made a decision to contract out the operation of the warehouse (while still retaining its role as sole wholesaler and importer of liquor in Alberta). On December 3, 1993, the ALCB advertised in Calgary, Edmonton, Vancouver, and Toronto newspapers, requesting that companies interested in managing and operating the ALCB warehouse present their credentials to Alberta Public Works, Supply and Services. The closing date for the companies to make their submissions was December 17, 1993. The ALCB issued a request for proposals to each of 16 pre-qualified companies (out of 20 that made submissions) on January 21, 1994.<sup>14</sup> On the closing date, March 7, the ALCB received seven formal responses to the RFP. Coopers and Lybrand Consulting Group was retained to review the RFP process, provide the ALCB with advice and assistance on the evaluation of proposals, and to review the proposals.

13 See the ALCB's *Seventieth Annual Report for the Fiscal Year Ended January 4, 1994*, p. 3.

The firm Tibbett and Britten Group Canada Inc. was chosen to take over the operation of the ALCB warehouse. This took place on June 20, 1994, under the company's subsidiary, Connect Logistics Services Inc. Connect Logistics was given the option to purchase the warehouse after one year. The option was not exercised, but Connect Logistics did exercise the option to lease for a second year.<sup>15</sup> On June 17, 1994, all ALCB positions in the St. Albert warehouse were abolished. According to the ALCB (1994, p. 23), "Each employee received a severance package equivalent to that received by employees whose positions were abolished as a result of the termination of the ALCB store operations." Connect Logistics made offers of employment to 80 percent of the former ALCB employees. However, the wages offered were lower than the union wages paid by the ALCB. The warehouse operation remains non-unionized at the present time.

According to the ALCB's *Liquor Wholesale Price List, December 25, 1995*, wholesale prices are available to customers based on minimum case orders of 25 cases if shipped from the St. Albert warehouse. Customers are subject to order processing and distribution charges based on delivery schedule (emergency or regular), pickup or delivery, and the number of cases ordered. Manufacturers are charged for warehouse handling and storage.

Wholesale prices are also available on beer purchased directly from a number of Alberta breweries. At present, Alberta brewers manufacture, warehouse, and distribute their own products to licensees. The ALCB collects the wholesale price and in turn remits to the brewer its portion of the wholesale price (called the landed cost of the product). See ALCB (1994, p. 52).

In its report on privatization, the ALCB (1994, p. 52) stated that it was examining how most effectively to achieve the privatization of the wholesale function. Two approaches were being considered. Under a two-tiered liquor wholesaling approach, the manufacturer is the wholesaler, selling directly to the licensee. Manufacturers would receive payment for liquor products on behalf of the ALCB and pay the net amount to the ALCB. (Alberta brewers are in a position to implement two-tiered wholesaling.) Under three-tiered wholesaling, a manufacturer or its agent ships product to a wholesaler's warehouse. Purchasers of the liquor from the wholesaler pay the wholesaler, who pays taxes to both provincial and federal governments, and landed costs to the manufacturer, while retaining its own costs. The ALCB stated that it would initiate controls and audit trails to ensure that the ALCB's flat markup and federal taxes were paid by the wholesaler. The Alberta Gaming and Liquor Commission, which has taken over the administrative func-

14 See ALCB (1994, pp. 47-49). The request for proposals contained information relevant to the ALCB warehouse operation, including 1) description of warehouse operations and capacities, 2) physical description of the warehouse and office facility, 3) summary of collective agreements and other human resources data, 4) historical case volumes, and 5) summary of historical warehouse and distribution costs. According to the ALCB (1994, p. 48), "The RFP also outlined the proposal evaluation process, the criteria to be used in evaluating the proposals, the selection process and a variety of specific technical bid conditions. Among the criteria which needed to be met, the prospective operator had to: meet the detailed requirements set out in the RFP, ensure the ALCB revenue stream was not jeopardized, have a substantial track record in similar warehousing and distribution operations, have technical expertise in operating similar facilities, present a comprehensive transition plan for the transfer of responsibility from the ALCB, have the necessary financial resources and management skills to operate a large and complex warehouse and distribution operation." The ALCB also required that applicants make specific proposals to provide ALCB warehouse personnel with continued employment.

15 The ALCB St. Albert warehouse and office complex consists of a 430,000 square foot automated warehouse, 150,000 square foot five-story office building, and a 31,000 square foot link between the two. The entire complex had an appraised value of \$25 million in 1994.



tions of the ALCB, is still considering adopting the two-tiered and/or three-tiered approach to a privatized wholesale function.

## Current status of the ALCB

The Liquor Control Act was last amended in August 1995. An act to replace the Liquor Control

Act, the Gaming and Liquor Act, was introduced during the 1995 Fall session of the Alberta legislature. The Act was redrafted and reintroduced during the 1996 Spring Session as Bill 6. Under the new Act, the ALCB is continued as the Alberta Gaming and Liquor Commission. The Gaming and Liquor Act received Royal assent on May 24, 1996, and was proclaimed in force July 15, 1996.

## 5. The Economic Impacts of Privatization

The privatization of liquor retailing in Alberta has had quantifiable impacts on liquor store locations, product selection, prices, wages, employment, and government revenues. These impacts will be examined in detail in this section.

### Liquor store locations

Table 3 contains some data summarizing the expansion in the number of liquor stores in Alberta. The first two lines of the table show that there were 205 ALCB stores and 53 beer and wine stores in Alberta in August 1993.<sup>16</sup> By December 1, 1995, there were 115 licensed, private liquor stores in Calgary, 100 in Edmonton, and 390 in the rest of Alberta. The total number of private liquor stores by December 1, 1995—605—is a 134 percent increase over the combined number of ALCB stores, wine stores, and beer stores as of August 1993.

Many of the ALCB stores were purchased and converted to private liquor stores. In Calgary, all 24 of the ALCB stores were converted to private stores, while in Edmonton 20 out of 23 were converted, and in the rest of Alberta 71 of 158 were converted. The high conversion rates in Calgary

and Edmonton are partly explained by the fact that these cities were slow to issue new business licenses in the months just following privatization. In order to set up in the liquor business prior to the 1993 Christmas season, an existing ALCB store had to be purchased and converted to a private liquor store. The relatively small number of ALCB stores converted to private stores in the rest of Alberta can be explained by the fact that in many small communities, the ALCB store was one of the highest priced retail properties in the community. Many ALCB stores were also regarded as too large given the increased competition in liquor retailing. While it might be possible for a private operator to cover the costs of owning and operating a former ALCB store if there is only one liquor store in town, it might be impossible to cover these costs if there are four or five. Many of the ALCB stores in the rest of Alberta apparently were more highly valued in alternative (non-liquor store) uses.

The number of municipalities (or communities) containing private liquor stores is 178, which is an increase over the 155 municipalities or communities that contained ALCB stores. However, there

16 The breakdown of beer and wine stores by area is our best estimate based on phone book entries and licensing date information.

**Table 3: Store and Sales Comparisons: Pre-and Post-Privatization**

	Calgary	Edmonton	Rest of Alberta	Total
1. Number of ALCB Stores—August 1993	24	23	158	205
Number of Wine and Cold Beer Stores (pre-privatization of ALCB stores)	17	18	18	53
2. Number of Licensed Private Stores—December 1, 1995	115	100	390	605
3. Number of ALCB Stores Converted to Private	24	20	71	115
4. Number of Cities Containing ALCB Stores in August 1993	1	1	153	155
5. Number of Cities Containing Private Stores	1	1	176	178
6. Number of Cities that Contained ALCB Stores that Do Not Contain Private Stores	—	—	18	18
7. Number of Cities Containing Private Stores that Did Not Contain ALCB Stores	—	—	41	41
8. Store Sales—1992*	204,034,981	165,130,430	348,835,024	718,000,435
9. Average Sales for ALCB Stores	8,501,458	7,179,584	2,166,677	—
10. Estimated 1995 Sales per Store**	2,868,988	2,670,283	1,446,362	—
11. Store Closures Sept. 1993 to Dec. 1, 1995	6	6	16	28
*There were three stores in the rest of Alberta whose sales were included here that were not open in August 1993. **Retail sales per store are estimated as follows: take the 1992 sales proportion for the area, multiply it by the fiscal 1995 domestic and import warehouse liquor sales, add a 20 percent retail markup, and divide by the number of private retail liquor stores as of December 1, 1995.				

are 18 municipalities or communities that contained ALCB stores that do not contain private liquor stores, and 41 municipalities or communities that contain private liquor stores that did not contain ALCB stores.

Lines 8 and 9 in table 3 contain figures on 1992 retail liquor store sales for Calgary, Edmonton, and the rest of Alberta, and the corresponding average sales for ALCB stores. In the absence of retail sales data for private liquor stores, an attempt has been made to estimate what the sales per private

store might be in 1995. This was done as follows: first, we take the 1992 sales proportion for the area (like Calgary), multiply it by the fiscal 1995 (April 1, 1995 to March 31, 1996) domestic and import warehouse liquor sales, add a 20 percent retail markup, and divide by the number of private liquor stores as of December 1, 1995.<sup>17</sup> Using this procedure, Calgary's 1995 estimated sales per store are \$2,868,988, Edmonton's are \$2,670,283, while the rest of Alberta has an average estimated sales per store of \$1,446,362. The increased liquor store count under privatization implies much

17 The 20 percent retail markup is just a bit higher than the average markup of 18.85 (19.25) percent on all liquor products found by the January 1995 (January 1996) "Retail Liquor Price Survey—Alberta Liquor Stores" conducted by Westridge Marketing Services.

lower sales per store compared to ALCB stores, with the largest reductions occurring in Calgary and Edmonton.

Under privatization, 15 communities have experienced an increase in their liquor store count by more than a factor of four, and 11 have had their store count increase by a factor of four. The most dramatic increase occurred in Grande Prairie, where the number of liquor stores increased from one to ten. In Banff, the number of liquor stores increased from one to seven.

One interpretation of these numbers is that the ALCB, as a retail liquor monopolist, chose the profit-maximizing number of stores to serve each community. Multiple liquor stores in smaller communities would lead to higher average costs for the ALCB as scale economies at the store level would be less fully exploited. With relatively free entry under privatization, new private stores would be established in communities until potential entrants perceived that additional entry would result in losses.

Two other characteristics of the location data deserve comment: the number of store closures since privatization, and the growth of liquor store chains. Store closures have been relatively few between September 1993 and December 1, 1995. Only six stores in Calgary, six stores in Edmonton, and 16 stores in the rest of Alberta were closed as of December 1, 1995. These 28 closures represent less than five percent of the 632 private liquor stores that had been licensed as of December 1, 1995. (As of April 30, 1996, only eight stores in Calgary, 11 stores in Edmonton, and 25 stores in the rest of Alberta have been closed. These 44 closures represent 6.5 percent of the 672 private liquor stores that had been licensed as of April 30, 1996.)

With respect to retail chains, privatization under Model 1 could theoretically create incentives for

the growth of liquor store chains. However, it was argued in Section 3 that the imposition of uniform wholesale prices removes much of this incentive. As of December 1, 1995, well under 10 percent of the private liquor stores in Alberta were members of chains. The low level of chain development can be interpreted as an inefficient outcome resulting from the adoption of Model 1 and its associated restrictions. A liquor store market populated by independent retailers does little to economize on consumer search costs. A liquor store chain can promote its store brand and establish a reputation for carrying a certain variety and for charging the same prices at all of its stores in a given geographic market. An increase in the proportion of chain stores in a market should reduce the amount of price dispersion, and hence the overall level of search costs.

Table 4 is designed to show how the liquor store size distribution has likely shifted under privatization. The first two columns of table 4 show the number of communities with average ALCB store sales of a given amount. (Only eight communities had more than one ALCB store.) The third column shows the number of communities with average sales per private store of a given amount. The average sales per private store in a community are calculated on the basis of 1992 ALCB store sales to the community, and the number of private stores in the community as of December 1, 1995. There are only 18 of 137 communities that used to contain ALCB stores that now contain private liquor stores that have average estimated sales per private store of more than \$1.5 million. In contrast, there were 66 of 155 communities that used to contain ALCB stores that had average sales per store of more than \$1.5 million.

Another way of seeing how privatization has affected the liquor store distribution is with the aid of a diagram. Figure 1 plots liquor stores on a map of Edmonton. The squiggly line running through the middle of Edmonton represents the North

**Table 4: Liquor Store Size Distributions**

Sales (thousands)	Number of Communities with Average ALCB Store Sales of:	Number of Communities with Average Sales per Private Store of:*
100-200	4	1
201-300	3	7
301-400	10	9
401-500	6	14
501-600	16	13
601-700	7	8
701-800	6	11
801-900	12	12
901-1,000	10	12
1,001-1,100	2	7
1,101-1,200	4	8
1,201-1,300	5	7
1,301-1,400	2	8
1,401-1,500	2	2
1,501-1,600	3	4
1,601-1,700	2	3
1,701-1,800	3	3
1,801-1,900	2	2
1,901-2,000	1	3
2,001-3,000	15	1
3,001-4,000	21	2
4,001-5,000	4	
5,001-6,000	4	
6,001-7,000	7	
7,001-8,000	2	
8,001-9,000	1	
9,001-10,000	0	
10,001-11,000	0	
11,001+	1	

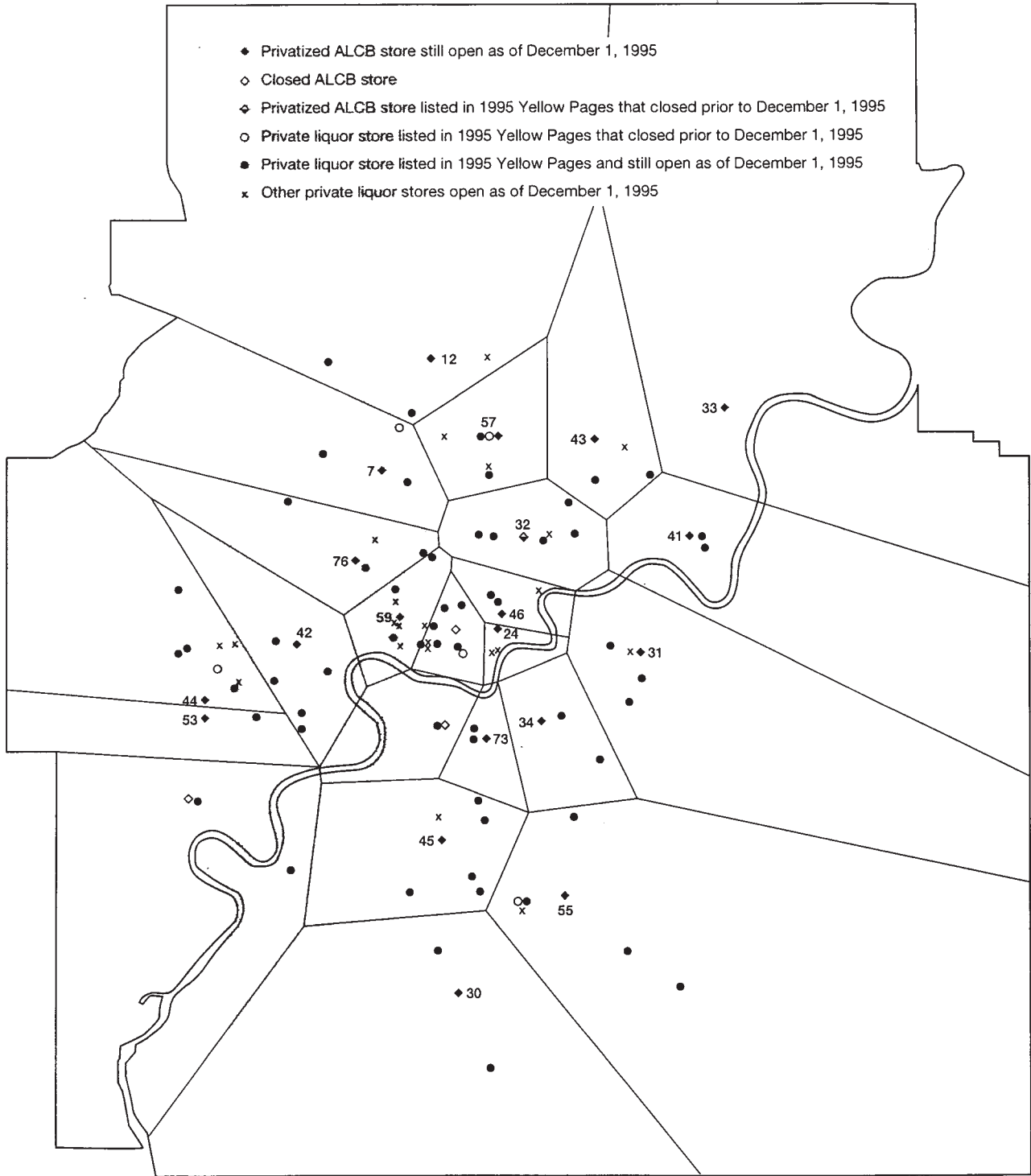
\*The average sales per private store in a community are calculated on the basis of 1992 ALCB store sales to the community, and the number of private stores in the community as of December 1, 1995.

Saskatchewan River that divides Edmonton into north and south pieces. The 19 closed and numbered diamonds on the map are the locations of ALCB stores that are now privately operated. The three open diamonds on the map are the locations of ALCB stores that were not converted to private liquor stores. The half open, half closed diamond on the map (store 32) is the location of the one ALCB store that was converted to a private liquor store, but closed prior to December 1, 1995. The polygon within which each of the former ALCB stores is contained is the nearest point set of the store. On the assumption that all stores are identical and charge the same prices, that transportation costs are an increasing function of Euclidean distance, and that consumers are cost minimizers and minimize distance travelled, these nearest point sets represent the market areas or trade areas of the stores. (Each trade area contains all consumers living closer to it than to any other store. The boundary between two stores is the perpendicular bisector between the stores' locations.) The trade areas help to illustrate how areas once served by one ALCB store are now served by a multiplicity of private liquor stores.

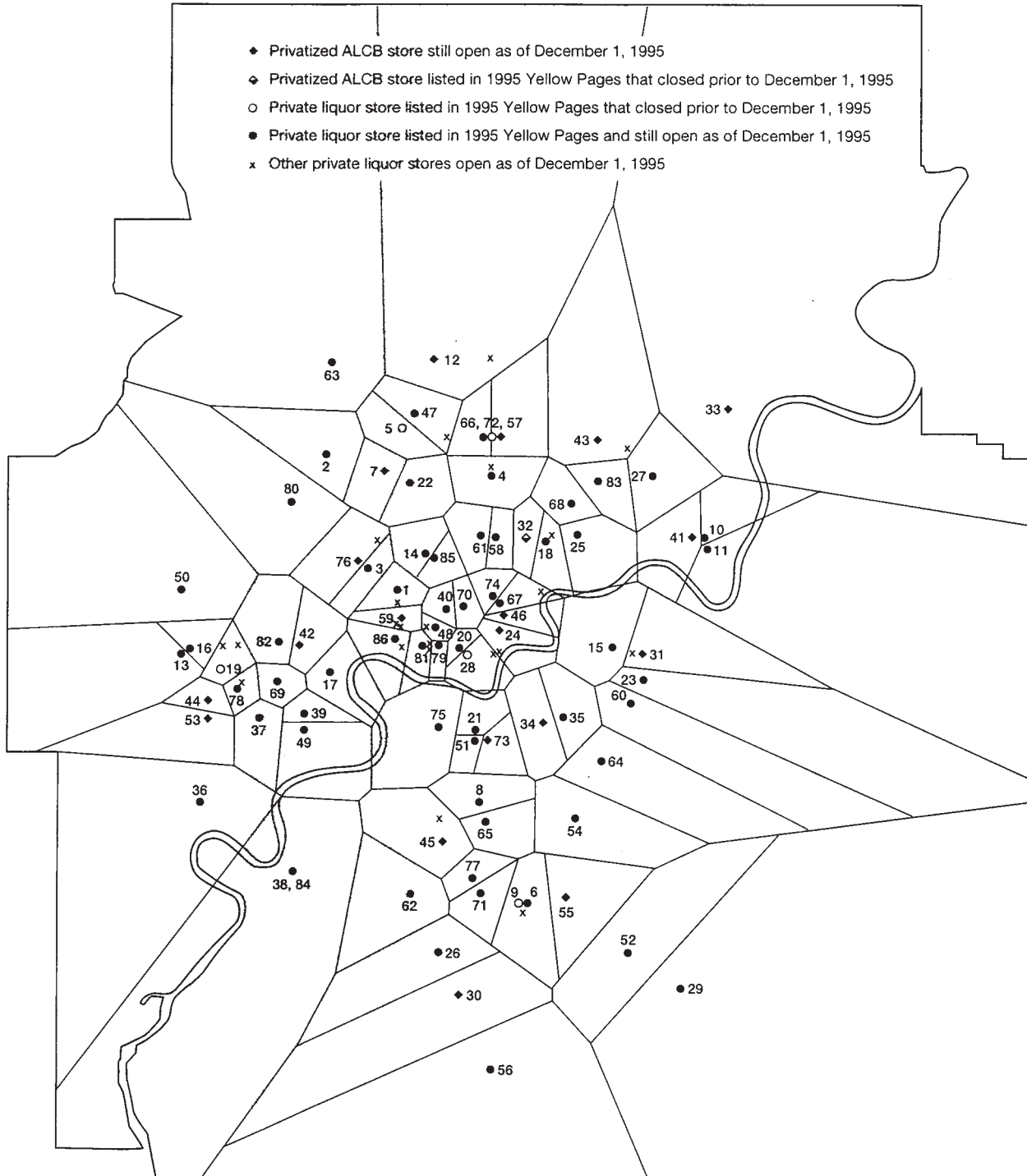
The black dots on the map represent the locations of private liquor stores listed in the 1995 Edmonton Yellow Pages that are still open as of December 1, 1995. (The 1995 Edmonton Yellow Pages is based on location data that would have been effective as of October 1994, about one year after privatization.) The five open dots are the locations of private liquor stores that were listed in the 1995 Yellow Pages, but that closed prior to December 1, 1995. The Xs mark the locations of 22 private liquor stores that were not in the 1995 Yellow Pages, but that were open as of December 1, 1995.

Liquor outlet density has increased the most in the area formerly served by ALCB store 59. There are nine private stores located in that area, where formerly there was one ALCB store. The neigh-

**Figure 1—Private Liquor Store Locations:  
Former ALCB Store Locations and Market Areas in Edmonton**



**Figure 2: Private Liquor Store Locations and Market Areas in Edmonton**



bouring area has an outlet density of eight, where there used to be one ALCB store. Areas with stores 24 and 46 now have three and four stores, respectively. These four ALCB store trade areas contain the “inner city,” the downtown area, and many of the apartment and condominium highrises west of the downtown area. Twenty-four private liquor stores have replaced four ALCB stores in these areas.

A second part of the city where there has been a noticeable proliferation of liquor store outlets is in the areas marked by stores 44 and 42. Thirteen private liquor stores have replaced the two ALCB stores serving these areas.

Figure 2 re-plots all of the same stores as plotted on Figure 1, except for the three closed ALCB stores (marked with open diamonds on Figure 1). The market areas plotted on Figure 2 are for the numbered store locations. These are the private liquor stores that were listed in the 1995 Edmonton Yellow Pages. The figure illustrates how relatively small some of the nearest point set trade areas have become, especially in the downtown area and area just west of downtown. Even some of these plotted trade areas contain additional liquor stores (marked by Xs) that were not listed in the 1995 Edmonton Yellow Pages, but that were open as of December 1, 1995. Even so, there was only one store closure (store 28) in the downtown area between September 1993 and December 1, 1995. Figure 2 also illustrates how dispersed the private liquor store locations have become. The lower density of liquor stores on the periphery of the city reflects the lower population density on the urban periphery.

With respect to chain store locations, two of the chains have adopted dispersed locations and their stores do not share market area boundaries. One of these chains, Liquor Barn, has stores that are numbered 30-34, while the other, Liquor Stop, has stores numbered 41-45. The third chain, Li-

quor Depot, has stores numbered 35-38. Stores 36 and 37 are neighbours, and so are stores 36 and 38 (although the latter stores are separated by the North Saskatchewan River). With the small number of dispersed locations occupied by chain stores, one would have difficulty finding any locational evidence to support a finding of strategic locational behaviour on the part of liquor store chains.

Finally, Calgary store locations need to be discussed. Calgary’s store locations could have been plotted in the same way as Edmonton’s and similar results would have been obtained. In Calgary, there were 24 ALCB stores in August 1993. In the October 1995 Calgary Yellow Pages (which probably contains liquor store locations as of June 1995), there were 102 liquor stores listed. Four of these had closed by December 1, 1995, while an additional 17 stores had opened, for a total of 115 liquor stores by December 1, 1995. Liquor store locations are dispersed, and liquor store chains also have dispersed stores. Only the Royal Liquor Merchants chain has stores that are relatively close to one another, but there are only three of them.

To sum up our findings with respect to liquor store locations, there has been a 134 percent increase in the number of liquor stores in Alberta (as of December 1, 1995) over the combined number of beer, wine, and ALCB stores in August 1993. Most of the ALCB stores in Calgary and Edmonton were converted to private liquor stores, but less than half of the ALCB stores in the rest of Alberta were converted to private liquor stores. The number of communities served by liquor stores has increased under privatization. There have been relatively few closures of private liquor stores between September 1993 and December 1995, and this might be partly explained by the fact that the growth of retail liquor store chains has been slow. Less than 10 percent of private liquor stores in Alberta are members of chains. Li-

quor store chains have generally chosen to locate in a dispersed fashion within communities, so it would be difficult to find any locational evidence to support a finding of strategic locational behaviour on the part of liquor store chains.

## Product selection

With respect to product selection, one would expect a government owned liquor store monopolist to choose product selection to maximize profits. Under privatization Model 1, product selection becomes a vehicle for non-price competition between stores. Increasing product selection at a given store should increase the demand enjoyed by the store since more selection reduces a consumer's search costs. (It does so by increasing the probability that consumers will find their most desired products when they visit the store.) In addition, stores will have an incentive under privatization to carry a larger selection than under government ownership because a store that does not stock a consumer's most desired product may not be chosen on a subsequent liquor shopping trip—something that a government owned store would not be concerned about. Hence, one might expect product selection to increase on average as a result of privatization.

Section 2 reported that the product selection at ALCB stores varied depending on whether the store was an A store (with 600-700 stock keeping units (or SKUs)), a B store (with 1100 SKUs), a regular C store (with 1500-1600 SKUs), or an expanded specialty C store (with 2600 SKUs). A given brand that comes in, say, five different package sizes would have five different CSPC numbers and be counted as five SKUs. With information on the store type for each ALCB store, one can calculate the weighted average number of SKUs of ALCB stores by area; the results appear at the bottom of table 5. Calgary ALCB stores had an average product selection of 1,369 SKUs, Edmonton ALCB stores had an average of 1,380

SKUs, and the rest of the province's ALCB stores averaged 824 SKUs. The provincial average product selection for ALCB stores is 950.

In order to compare the ALCB store product selection with the private liquor store product selection, survey data on product selection in Alberta liquor stores are required. Westridge Marketing Services carried out a survey of product selection in 100 liquor stores in Alberta in February 1996. Twenty-eight of the surveyed stores were located in Edmonton, 28 were located in Calgary and 44 were located in a variety of smaller communities across Alberta. Product selection data were collected by product type, and the results of the survey are reported in table 5. For the province as a whole, the average number of SKUs per private liquor store was 1,052, which is higher than the weighted average number of SKUs per ALCB store (i.e., 950). Table 5's next three columns look at the average numbers of SKUs in private liquor stores in Calgary, Edmonton, and the rest of Alberta. For Calgary, the average number of SKUs was 1,284, while for Edmonton, the average number of SKUs was 1,142. While these numbers are less than the average product selection available at ALCB stores in Calgary and Edmonton, there were a number of sample stores in Calgary (four) and Edmonton (six) with a product selection that exceeded the 1,600 SKUs of an ALCB "C" store. For the rest of Alberta, the average number of SKUs was 847, and this figure exceeds the weighted average product selection available at ALCB stores in the rest of Alberta. The product selection range in the 100 store sample is from 183 SKUs in a small rural store to 4,191 SKUs in a Calgary store. The latter figure substantially exceeds the 2,600 SKUs available in an expanded specialty ALCB store.

Looking at product selection data by category in table 5, it is evident that, on average, product selection in Calgary and Edmonton stores is greater than that in stores in the rest of Alberta in every



<b>Table 5: Product Selection in Retail Liquor Stores and ALCB Warehouse Pre- and Post-Privatization<sup>a</sup></b>							
	<b>Provincial Average (n=100)</b>	<b>Calgary Average (n=28)</b>	<b>Edmonton Average (n=28)</b>	<b>Rest of Province Average (n=44)</b>	<b>St. Albert Warehouse SKUs (Oct 1993)<sup>b</sup></b>	<b>St. Albert Warehouse SKUs (Dec. 1994)<sup>c</sup></b>	<b>St. Albert Warehouse SKUs (Dec 1995)<sup>c</sup></b>
Beer	132	144	139	119	98	310	429
Wine	431	588	468	307	1,238	2,521	2,713
Canadian Whisky	80	83	85	74	90	117	147
Scotch	38	46	45	28	58	77	115
Vodka	56	63	64	47	79	114	145
Rum	74	83	87	59	84	133	169
Brandy/Cognac	24	30	26	19	47	84	111
Gin, Tequila, Other Spirits	30	36	29	27	62	105	173
Liqueur	90	94	99	82	134	225	319
Coolers, Cider	82	92	90	71	55	110	149
Other	16	25	8	15	12	61	43
All Products	1,052	1,284	1,142	847	1,957	3,857	4,513
Pre-Privatization ALCB Store Product Selection (Weighted Average)	Provincial Average (n=205)	Calgary Average (n=24)	Edmonton Average (n=23)	Rest of Province Average (n=158)			
	950	1,369	1,380	824			
<p><sup>a</sup>Post-privatization figures are derived from the February 1996 liquor store survey carried out by Westridge Marketing Services. The product selection range in the 100 store sample is from 183 in a small rural store to 4,191 in a large urban store.</p> <p><sup>b</sup>These figures are derived from the ALCB stock catalogue and do not include SKUs carried in the warehouse as part of the Agent's Listing Program.</p> <p><sup>c</sup>These figures are derived from the ALCB's Liquor Wholesale Price List and do not include limited supply products available in the ALCB warehouse but not listed on the wholesale price list.</p>							

product category. It is also evident that the difference in product selection between stores in Calgary-Edmonton and in the rest of Alberta is largely due to the greater variety of wine available in Calgary-Edmonton liquor stores.

The ALCB has provided some product selection figures for a few stores in Edmonton and Calgary and for five liquor store chains.<sup>18</sup> One chain was reported to have 3,900 SKUs per store, while the other four chains reportedly ranged from 1,400 SKUs to 2,000 SKUs per store. The chains have

18 The figures were provided in December 1995.

most of their stores in Calgary and Edmonton. Product selection for one independent Edmonton store and five independent Calgary stores reportedly ranged from 2,500 to 3,500 SKUs. It seems clear that at least some private liquor stores provide a product selection that surpasses the 2,600 SKUs of the ALCB's expanded specialty stores (of which there was one in Calgary and one in Edmonton).

The final measure of product selection that can be examined relates to the number of SKUs available at the St. Albert ALCB warehouse. At the time of privatization, there were 1,957 SKUs listed in the general stock, specialty stock, and expanded specialty stock catalogues and carried in the ALCB warehouse (see table 5).<sup>19</sup> There were also reported to be 1,221 SKUs carried in the warehouse as part of the Agent's Listing Program that were not listed in the stock catalogues. By December 1994 the number of SKUs in the ALCB warehouse had increased to 3,857. By December 1995 the number of SKUs in the ALCB warehouse had increased further to 4,513.<sup>20</sup> Some product categories, like wine, scotch, and rum, had double the SKUs in December 1995 compared to October 1993. Other product categories, like beer, gin/tequila/other spirits, liqueur, and coolers/cider, had substantially more than double (quadruple in the case of beer) the SKUs in December 1995 compared to October 1993.

As mentioned previously, all of the products in the warehouse are now on consignment from suppliers. Suppliers make the decisions regarding which products to bring into the warehouse, and bear the handling and storage costs of poor decisions. Suppliers, freed from the entry and listing restrictions imposed on them by the ALCB,

have greatly increased the variety of products available to retailers. Retailers have found it in their interest to engage in non-price competition by increasing the selection of products available to consumers.

Is the increase in selection due to the proliferation of brands in particular product classes, or an increase in the variety of package sizes? Consider Canadian whisky first. In October 1993, there were 35 different Canadian whisky brands and 90 SKUs represented by 10 agents. In December 1995, there were 43 different Canadian whisky brands (a 23 percent increase) and 147 SKUs (a 63 percent increase), represented by 15 agents (a 50 percent increase).

Next, consider Canadian beer. In October 1993, there were 42 brands of Canadian beer and 70 SKUs, produced by six different breweries. In December 1995, there were 114 different brands of Canadian beer (a 171 percent increase), and 257 SKUs (a 267 percent increase), produced by 20 different breweries (a 233 percent increase).

It is clear that in the cases of Canadian whisky and Canadian beer, the number of brands, number of package sizes, and number of producers listing products on the wholesale price list have all increased since privatization. In percentage terms, the variety of package sizes carried in the warehouse has increased more than the number of brands.

In terms of the impact that privatization has had on product selection, then, for a sample from 100 private liquor stores across Alberta, the average number of SKUs per private liquor store is higher than the weighted average number of SKUs per

19 This figure is derived from the October 1993 general stock, specialty stock, and expanded specialty stock catalogues.

20 This figure was obtained from the December 1995 *Liquor Wholesale Price List*. There were also 1,987 limited supply products available in the ALCB warehouse in December 1995 that were not listed in the wholesale price list.

ALCB store. Product selection in Calgary and Edmonton stores is greater than in stores in the rest of Alberta in every product category, but particularly in the wine category. The number of SKUs available at the ALCB warehouse has more than doubled under privatization, and this increase reflects both an increase in the number of brands in particular product classes, and an increase in the variety of package sizes.

## Price

It can be argued that liquor store privatization will not necessarily result in significant changes in retail prices or government revenues if the government's objective with respect to the sale of liquor products both before and after privatization is net revenue maximization. However, some changes in retail price would be expected to the extent that privatization resulted in 1) lower retailer costs (from the expansion of retail chains or lower labour costs for example), 2) higher supplier costs (from the higher warehouse storage and handling costs and delivery costs from the warehouse, the higher marketing costs incurred by trying to sell products to the large number of private liquor stores, or a non-revenue neutral change in the government's markup), 3) more intense spatial competition due to an increasing number of stores serving the market, and 4) moving from a market in which all stores charge the same price to one in which there will be price dispersion due to imperfect information and costly consumer searching. We have already seen that the expansion of retail liquor store chains in Alberta has been quite modest, and so overall efficiencies resulting from chain formation are not expected to be large. The other sources of price change after privatization cannot so easily be discounted.

To assess the impact of privatization on retail prices of liquor products, we use survey price data contained in a *Retail Price Survey* for Alberta Liquor Stores. The survey is carried out each

month by Westridge Marketing Services. In the survey dated January 15, 1996, data on 187 product prices were collected from 100 private liquor stores in Alberta. Twenty-eight stores are sampled in both Calgary and Edmonton (seven in each of four quadrants of each city), and 44 in the rest of the province. The average price in each city quadrant or community is reported for each product, along with the highest and lowest sampled price, provincial average retail price, wholesale price, and average markup on wholesale. Many of the products included in each month's price survey have been chosen at the request of specific suppliers. Still, each product category is represented in the survey, and many well known, high volume products are also included. The *Retail Price Survey* carried out by Westridge is the most comprehensive survey of liquor prices available for Alberta, and the fact that a similar price survey was conducted in January 1995 means that price comparisons over time are possible.

Table 6 reports the results from calculating the price changes of products listed in the January 1996 *Retail Price Survey* and the October 1993 *ALCB General Stock Catalogue*. The private liquor store prices used are the provincial average prices reported in the *Retail Price Survey*. Some product categories, like Canadian whisky, vodka, and beer, are reasonably represented in the price survey, while others, like wine and coolers, are not. (See the last column of table 6 for the number of SKUs in the ALCB warehouse in December 1995, by product category.) Looking at the average percentage change in price column, the overall average increase in price for 143 products from October 1993 to January 1996 is calculated to be 8.46 percent. There is quite a lot of variation in the average percentage change in price across product categories. Red and white wine have the largest percentage price increases (at 15.39 and 14.53 percent, respectively) but there were only 17 of these wine products included in the price survey. Closer to the average percentage price change are Canadian whisky (7.84 percent), vodka (8.36 percent), and beer (9.21 percent).

**Table 6: Liquor Product Price Changes Between October 1993 and January 1996\***

Product Category	Number of Products	Average Percentage Change in Price	Standard Deviation	Number of Positive Price Changes	Number of Negative Price Changes	Number of Unchanged Prices	Minimum Percentage Change in Price	Maximum Percentage Change in Price	Total SKUs in ALCB in St. Albert Warehouse
Canadian Whisky	29	7.84	2.73	29	0	0	1.44	12.79	147
Scotch	8	.19	5.55	4	4	0	-6.17	10.08	115
Vodka	16	8.36	3.72	16	0	0	2.13	14.76	145
Rum	12	11.80	1.52	12	0	0	9.84	14.46	169
Other Spirits/Liqueurs	10	6.25	12.72	6	3	1	-21.90	18.27	559
White Wine	10	14.53	6.73	10	0	0	4.58	24.41	1,265
Red Wine	7	15.39	6.50	7	0	0	1.35	24.38	1,092
Other Wine	5	-2.64	16.26	3	2	0	-29.59	13.42	202
Coolers	3	2.60	.99	3	0	0	1.25	3.61	113
Beer	43	9.21	4.37	43	0	0	.06	25.81	429
All	143	8.46	7.20	133	9	1	-29.59	25.81	4,236
All (Excluding wine and some beer products)	115	8.01	5.89	107	9	1	-29.59	25.81	—

Three of the columns in table 6 count up the direction of price change for the various products. In total, 133 products had price increases from October 1993 to January 1996, nine had price reductions, and one had an unchanged price. The largest percentage price reduction was 29.59 percent for a champagne product while the largest percentage price increase was 25.81 percent for a beer product.

By way of comparison, the Consumer Price Index for Alberta increased about 4.1 percent from October 1993 to January 1996, while the Consumer Price Index for Canada increased about 2.4 percent. In real terms, the average percentage price increase was about half the nominal increase of 8.46 percent.<sup>21</sup> When discussing price changes, one should also take into account the average consumer's lower transportation costs brought about by the increase in the number of liquor stores under privatization. Everything else being equal, lower transportation costs under privatization would have lowered the delivered price of the product, which is the sum of the price at the store and transportation costs. So any increase in the price of a liquor product at the store will be offset to some extent by a reduction in transportation costs for many consumers.

Another approach to summarizing the price changes is to calculate price indices for the liquor products contained in the price survey. We can calculate both the Laspeyres price index, which uses base period quantities as weights, and can be written as  $\mathcal{L}_p = \sum p^t x^b / \sum p^b x^b$ , and the Paasche price index, which can be written as  $P_p = \sum p^t x^t / \sum p^b x^t$  and which uses the given period's quantities as weights.<sup>22</sup> With October 1993 as the base period,

and January 1995 as the given period, the Laspeyres price index is 1.0857. With 1993 as the base period, and January 1996 as the given period, the Laspeyres price index is 1.0990. Thus, the Laspeyres price index indicates almost a 10 percent price increase from October 1993 to January 1996, which is slightly higher than the 8.46 percent price increase obtained by simply averaging price changes.

With October 1993 as the base period, and January 1996 as the given period, the Paasche price index is 1.0904, and with January 1995 as the base period and January 1996 as the given period, the Paasche price index is 1.0093. The Paasche price index indicates about a 9 percent increase in price for October 1993 to January 1996. Both the Laspeyres and Paasche price indices indicate that most of the price increase between October 1993 and January 1996 occurred by January 1995.

One possible source of the retail price change from October 1993 to January 1996 could be an increase in wholesale prices, brought about by supplier price increases, increases in storage and handling costs, or the implementation of the flat markup. Table 7 provides calculations of wholesale price changes from November 1993 to December 1995 for products that were contained in both the January 1995 and January 1996 *Retail Price Surveys*. (Wine products have been excluded.) In all product categories, the average percentage change in wholesale price is negative. Beer had the smallest percentage price change (i.e., -.11 percent), while vodka had the largest (-9.27 percent). Over all 115 products for which the calculation was made, the average percentage wholesale price reduction was 3.37 percent. The last line of table 6 shows that the average increase

21 The last ALCB price increase prior to privatization occurred on May 23, 1990. From May 1990 to September 1993, the Consumer Price Index for Alberta and Canada increased about 10.0 percent.

22 Data on the quantities sold of liquor products appearing in the price survey, for monthly periods ending November 9, 1993, January 31, 1995, and January 31, 1996, were provided to the author by the ALCB.

**Table 7: Changes in Wholesale Prices: November 1993 to December 1995**

Category	Number of Products	Average Percentage Change in Price	Standard Deviation	Number of Positive Price Changes	Number of Negative Price Changes	Number of Unchanged Prices	Minimum Percentage Change in Price	Maximum Percentage Change in Price
Canadian Whisky	29	-4.40	2.50	0	29	0	-11.53	-1.18
Scotch	8	-2.46	5.68	3	5	0	-7.86	6.06
Vodka	16	-9.27	4.23	0	16	0	-13.88	-.83
Rum	12	-3.11	2.17	0	12	0	-9.01	-.56
Other Spirits/ Liqueurs	10	-1.70	2.87	3	7	0	-7.33	2.35
Coolers	3	-10.10	1.15	0	3	0	-11.71	-9.15
Beer	37	-.11	4.53	17	19	1	-10.03	11.68
All	115	-3.37	4.90	23	91	1	-13.88	11.68

in the retail price for the same set of products was 8.01 percent from October 1993 to January 1996. One possible explanation for these results is that retailers have increased their profit margins and markups over wholesale prices between October 1993 and January 1996. (Some small increase in markup of retail price over wholesale price is evident from data contained in the January 1995 and January 1996 *Retail Price Surveys*.) The other possible explanation for the result is that retail prices could have increased by more than 8 percent on average at the time of privatization, so that wholesale price reductions from November 1993 to December 1995 could have been met with retail price reductions and still leave average prices higher than they were just before privatization.

Other results reported in table 7 are that there were almost four times as many wholesale price reductions as price increases over the November 1993-December 1995 period, with beer products having almost as many wholesale price increases as price reductions. Over all products, the largest wholesale price reduction is 13.88

percent, while the largest wholesale price increase is 11.68 percent.

Given imperfect information regarding retail liquor store prices, and the fact that consumers have to engage in costly searches to learn about prices, one would expect a significant degree of retail price dispersion within cities and towns (see Carlson and McAfee (1983) and Dahlby and West (1986)). One measure of dispersion is the coefficient of variation, which can be calculated by dividing the standard deviation by the mean. The January 1996 *Retail Price Survey* reports the average price for sample stores in each of eight quadrants that make up Calgary and Edmonton (four quadrants in each city), and the average price for sample stores in 24 other communities in the rest of Alberta. The coefficient of variation can be calculated using these 32 observations on average prices, and for a subset of 67 products, the average coefficient of variation is calculated to be 2.77 percent. The individual coefficients of variation ranged from 1.34 percent to 8.76 percent. Given that these coefficients of variation have been cal-

**Table 8: Schedule of Payments to Governments (in thousands)**

	Fiscal Year End March 31, 1996 (52 weeks)	Fiscal Year End March 31, 1995 (64 weeks)	Fiscal Year End January 4, 1994 (52 weeks)	Fiscal Year End January 5, 1993 (52 weeks)	Fiscal Year End January 7, 1992 (52 weeks)
<i>Federal Government</i>					
Excise and Duty Taxes	\$79,031	\$106,429	\$79,816	\$83,908	\$85,373
Goods and Services Tax	66,790	92,079	71,772	67,710	60,205
Total	145,821	198,508	151,588	151,618	145,578
Remittances to Provincial Government	485,000	483,000	454,500	434,500	439,000
(Profit on Sales) <sup>a</sup>	410,458	525,157	423,599	402,779	405,727
<i>Municipal Governments</i>					
Property Taxes	1,001	1,965	3,179	3,123	3,137
Business Taxes	28	90	617	543	786
Total	1,029	2,055	3,796	3,666	3,923
Payments to Governments by ALCB	631,850	683,563	609,884	589,784	588,501
Alberta Brewers excise taxes paid to federal government	46,768	65,694	51,723	51,377	45,399
<b>Total Payments to Governments</b>	<b>\$678,618</b>	<b>\$749,257</b>	<b>\$661,607</b>	<b>\$641,161</b>	<b>\$633,900</b>
<sup>a</sup> Profit on sales is calculated as Sales – Cost of Goods Sold – Operating Expenses.					
Source: Sixty-ninth, Seventieth, Seventy-first, and Seventy-second <i>Annual Reports of the ALCB</i> .					

culated from observations of average prices in a sample of communities, the actual extent of price dispersion is higher than that reflected in the reported coefficient of variation statistics. Substantial price dispersion would appear to characterize retail liquor prices in Alberta.

Results on changes in retail liquor prices since privatization suggest that in spite of any lower private retailer operating costs that could have been achieved by reducing labour costs, for example, and in spite of more intense spatial competition among liquor retailers and evidence of falling wholesale liquor prices (on average), aver-

age nominal retail liquor prices have increased since privatization. Assuming that the government was already charging monopoly prices for liquor products prior to privatization, one would not expect the move under privatization to a market where there is price dispersion due to imperfect information, and high consumer search costs to lead to an increase in price. However, it is possible that part of the explanation for increasing retail liquor prices could be a non-revenue neutral change in the provincial government's markup accompanying privatization. The next section will examine the Alberta government's liquor revenue figures.

## Government revenues

If the government's policy with respect to the sale of liquor products is net revenue maximization both before and after privatization, then it will wish to choose its liquor price markup after privatization to achieve that objective. The implication here is that the government should seek to implement a revenue neutral markup and that goal was in fact the Alberta government's stated objective at the time that the flat markup was introduced. (Recall that in economic terms, the flat markup is like a specific tax imposed at the wholesale level so that it is one component of the wholesale price.)

Table 8 contains the schedule of payments to governments for the last five fiscal years. The payments to the federal government are relatively flat for the 1991-1993 fiscal years, and would have increased for the 1994 fiscal year if we adjust the reported figure to reflect a 52-week (instead of 64-week) fiscal year. Remittances by the ALCB to the Alberta government increased from 1991 to 1993. The figure for the 1994 fiscal year shows remittances to the provincial government increasing, but when adjusted to a 52-week basis, the figure would show remittances falling. This is partly due to the fact that the ALCB began the fiscal year with \$100 million in remittances in excess of net unappropriated income.

What is perhaps more revealing is the ALCB's profit on sales, reported in table 8. (Profit is calculated as Sales – Cost of Goods Sold – Operating Expenses.) Profits fell marginally between 1991 and 1992, but increased by 5.2 percent in 1993—the year in which privatization occurred. Profits increased marginally again in 1994 when the profit figure is adjusted to a 52-week basis. The Alberta government reduced its flat markup rates in August 1994 and January 1996 in an effort to maintain revenue neutrality. The ALCB's profit on sales reported for the fiscal year ending

March 31, 1996 has, in fact, fallen to a level just two percent above what it earned in the last pre-privatization fiscal year of 1992. There is thus some evidence to support the hypothesis that the change from an *ad valorem* to a flat markup at the time of privatization was not revenue neutral, but rather led to a modest increase in government revenues. This increase could at least partly explain the observed increase in the average retail liquor price under privatization.

In choosing its markup, the Alberta government must take into account the retail liquor prices in neighbouring jurisdictions. If Alberta's retail liquor prices are significantly higher than those in neighbouring jurisdictions, one would expect some Alberta consumers (particularly those living near provincial borders) to shop for liquor in other jurisdictions. One might also observe an increase in illegal imports and sales of liquor products in Alberta. We have no estimate of the magnitude of cross-border shopping for liquor, nor the extent of smuggling activity as it relates to liquor products. We do, however, have data on the quantities of liquor products sold (by category) in Alberta; these figures appear in table 9. Figures for fiscal year 1994 were converted to a 52-week basis by multiplying them by 52/64.

From 1991 to 1992, the quantities of liquor products sold fell in every category except other spirits and draft beer. From 1992 to 1993, the quantities of liquor products sold increased in every category except other spirits and coolers/ciders. Part of this increase might be attributed to the opening of private liquor stores in the last quarter of 1993, and the need to stock their shelves. From 1993 to 1994 (adjusted), the quantities of liquor product sold fell in every category except coolers/ciders. However, the drop in quantities sold, which is not large, is likely overstated by the crude correction used to put fiscal 1994 on a 52-week basis. The quantities of product sold during the last quarter of 1994, which includes the Christmas



**Table 9: Quantities (Hectolitres) of Liquor Products Sold by Category**

	Fiscal Year									
	1995 (52 weeks)	Per- centage Change 1994-95	1994 (64 weeks)	1994* (52-week basis)	Per- centage Change 1993-1994	1993 (52 weeks)	Per- centage Change** 1992-1993	1992 (52 weeks)	Per- centage Change 1991-1992	1991 (52 weeks)
<i>Spirits</i>										
Whisky	62,916	-9.12	85,208	69,231	-4.52	72,508	4.22	69,569	-7.16	74,937
Gin	3,387	-6.72	4,469	3,631	-7.06	3,907	3.22	3,785	-11.15	4,260
Liqueurs	18,899	2.22	22,756	18,489	-1.98	18,863	5.17	17,935	-4.92	18,863
Rum	30,828	-0.89	38,282	31,104	-5.59	32,946	7.38	30,682	-2.96	31,617
Vodka	38,272	-0.81	47,490	38,586	-2.13	39,424	4.90	37,582	-5.99	39,976
Others	8,946	113.10	5,167	4,198	-3.03	4,329	-0.41	4,347	3.87	4,185
<i>Wine</i>										
Dessert	8,031	-13.14	11,380	9,246	-7.56	10,002	—	7,868	-5.52	8,328
Table/Sparkling	144,885	-1.41	180,871	146,958	-3.49	152,269	—	144,959	-5.29	153,062
Other	—	—	—	—	—	—	—	3,150	-2.26	3,223
Coolers/Ciders	45,805	32.11	42,673	34,672	0.22	34,597	-1.33	35,062	-6.20	37,379
<i>Beer</i>										
Packaged	1,524,675	2.88	1,824,077	1,482,063	-0.32	1,486,837	2.74	1,447,249	-4.33	1,512,777
Draft	312,618	0.57	386,954	314,400	-6.85	337,527	3.36	326,568	6.25	307,358

\*The 52-week basis is obtained by multiplying fiscal 1994 quantities of products sold by 52/64.

\*\*Percentage changes are not calculated for wine because of a redefinition of the categories.

Source: Sixty-eighth, Sixty-ninth, Seventieth, Seventy-first, and Seventy-second Annual Reports of the ALCB.

**Table 10: Retail Liquor Price Comparisons for B.C., Saskatchewan, and Ontario with Alberta—January 1996**

Product Category	Alberta-B.C.		Alberta-Saskatchewan		Alberta-Ontario	
	Number of Products in BC-Alberta Comparison	$\frac{P_{BC}-P_{AB}}{P_{AB}}$	Number of Products in Saskatchewan-Alberta Comparison	$\frac{P_{SK}-P_{AB}}{P_{AB}}$	Number of Products in Ontario-Alberta Comparison	$\frac{P_{ON}-P_{AB}}{P_{AB}}$
Canadian Whisky	26	-10.19	26	-3.78	25	-7.77
Scotch	8	7.05	8	8.98	8	0.16
Vodka	15	-8.92	15	-3.52	12	-3.91
Rum	12	-8.77	12	-4.88	10	-6.50
Other Spirits/Liqueurs	9	3.87	10	1.70	10	1.59
White Wine	10	3.92	8	-1.43	4	-5.55
Red Wine	11	6.22	7	-1.03	4	-6.51
Other Wine	4	0.78	5	7.43	5	-2.39
Coolers	2	-1.00	5	27.26	4	3.53
Beer	42	-1.45	2	10.98	40	2.90
All	139	-2.63	98	0.57	122	-1.80

season, likely exceed those sold in the first quarter of 1995. Comparing quantities sold in 1995, which is reported on a 52-week basis, with quantities sold in 1993 and 1992, one finds that quantities of spirits sold dropped by 5 percent and less than 1 percent respectively. Quantities of wine sold were off 6 percent in 1995 compared to 1993, and down 2 percent in 1995 compared to 1992. Cooler sales were up close to a third in 1995 compared to 1993 and 1992, reflecting their increased popularity. Packaged beer sales were up 2.5 percent in

1995 compared to 1993, and up 5.3 percent in 1995 compared to 1992.

The figures in table 9 suggest that there has not been either a large shift upward or downward in liquor products sold since privatization was announced in September 1993. Hence, cross-border shopping and smuggling are unlikely to be significantly greater problems after privatization than they were before privatization.<sup>23</sup> The figures in table 9 also suggest that retail price differences

23 In a study of the cross-border shopping effects of Iowa's liquor sales privatization in 1987, Fitzgerald and Mulford (1993a) found, on the basis of survey data collected in 1989, that "Despite a privatization induced 6.1 percent increase in retail liquor prices, there was little, if any, change in the self-reported amount of liquor purchased outside the state of Iowa." In addition, Holder and Wagenaar (1990) carried out a time series analysis of liquor sales in six states bordering Iowa, and they could not find a change in any of the border states' liquor sales after Iowa's liquor store privatization.

between Alberta and neighbouring jurisdictions are not so large as to induce cross-border shopping and smuggling behaviour. This prediction is confirmed in a comparison of a sample of retail liquor prices in B.C., Saskatchewan, and Ontario with the average prices of the same products in Alberta. The results of the comparison are reported in table 10. The Alberta prices used in the comparison are the provincial average prices taken from the January 1996 100-store retail price survey carried out by Westridge Marketing Services. (Recall that 28 of the surveyed stores are in Calgary, 28 are in Edmonton, and the other 44 are in smaller communities across Alberta.) Prices for B.C. are taken from the B.C. Liquor Distribution Branch General Products Price List for the period December 31, 1995 to January 27, 1996. Saskatchewan's liquor prices are reported in the February 5, 1996 issue of the Saskatchewan Liquor and Gaming Authority Official Price List. Ontario's liquor prices are contained in the Liquor Control Board of Ontario's Master Brand List, January 29, 1996. All prices used in the comparison include provincial taxes and GST.

Looking first at the Alberta-B.C. comparison, one finds that in five of the product categories, on average, prices in B.C. exceed the average prices in Alberta, while in five of the product categories the reverse is true. The overall average percentage by which Alberta prices exceed B.C. prices is 2.63 percent. It is important to keep in mind, however, that while some average Alberta prices are higher than those in B.C., there is substantial retail price dispersion in Alberta. It will frequently be possible for a consumer to find a lower product price in Alberta than in B.C. provided the consumer shops around.

Looking next at the Alberta-Saskatchewan comparison, one finds that in five product categories, on average, prices in Saskatchewan exceed the average prices in Alberta, while in five of the product categories the reverse is true. Note that

only two beer products are contained in the Alberta-Saskatchewan price comparison because the Saskatchewan price list does not contain the price of Canadian beer products. With that limitation in mind, the overall average percentage by which Saskatchewan prices exceed Alberta prices is 0.57 percent.

Finally, consider the Alberta-Ontario comparison. On average, prices in Ontario exceed the average prices in Alberta in four product categories, while the reverse is true in six product categories. The overall average percentage by which Alberta prices exceed Ontario prices is 1.80 percent.

Given the small size of the average percentage differences between Alberta's and B.C.'s and Saskatchewan's liquor prices, and given that most consumers do not live close to the B.C. or Saskatchewan borders, most consumers will not find it convenient or rewarding to compare B.C.'s and Saskatchewan's retail liquor prices with those of stores in their community in order to save a dollar on a bottle of whisky or a case of beer. Hence, cross-border shopping for liquor products is unlikely to be quantitatively significant or to have a significant adverse impact on government revenues given current price differentials between Alberta and its neighbours. The only exceptions to this conclusion would be those few liquor products whose price differentials are high enough to make incurring the transactions costs of moving liquor products across provincial borders worthwhile. In the price comparison survey data, the largest provincial percentage price differences were observed for a liqueur product and a cognac product (with prices lower in Alberta). These price differences likely result from Alberta's change to a flat markup from an *ad valorem* markup after privatization.

To summarize, Alberta government liquor revenues have not been adversely affected by privatization and the shift from government liquor

**Table 11a: Employment in ALCB Stores**

ALCB Store Type	1992 Sales	Managers	Full-time Employees	Part-time Employees	Casual Employees	Number of Stores in Edmonton	Number of Stores in Calgary	Number of Stores in Rest of Province
A	\$500,000	1			2	A stores = 0	A stores = 0	A stores = 107
A	800,000	1		1	2			
A	1,500,000	1		1	1			
B	3,500,000	1	2	1	1	B stores = 11	B stores = 12	B stores = 41
B	7,500,000	1	4	3	6			
C	11,000,000	2	5	6	2	C stores = 12	C stores = 12	C stores = 10

**Table 11b: Employment in Private Liquor Stores**

Feb 1996 Liquor Store Survey	Average Full-time Employees Per Store	Average Part-time Employees Per Store	Number of Licensed Stores (12/95)
Province (100 store sample)	2.92	4.59	605
Calgary (28 stores)	3.54	5.43	115
Edmonton (28 stores)	3.25	5.46	100
Rest of Province (44 stores)	2.32	3.50	390
Range in Feb 1996 Liquor Store Survey: 1 full-time employee and 2 part-time employees in a small rural store; 16 full-time employees and 20 part-time employees in a large urban store.			

and Ontario, reveals that the average percentage price differences are relatively small.

### Employment and wages

The final two economic impacts of privatization that need to be examined are the impacts on employment and wages. Table 11 provides a comparison of employment in ALCB and private liquor stores. The top half of the table was constructed in the following way: six stores were selected

at different points in the ALCB store size distribution and the ALCB was asked to supply employment information for these stores for a date just prior to privatization.<sup>24</sup> The table shows that all six ALCB stores had managers, but the smaller type A stores (those with a smaller number of SKUs and lower sales) operated with part-time and casual employees. All A stores are located outside Calgary and Edmonton. Type B

revenues based on a liquor store markup to revenues derived from a flat markup imposed at the wholesale level. The data also indicate that there has not been either a large shift upward or downward in the quantity of liquor products sold since privatization was announced in September 1993. In addition, a comparison of a sample of Alberta's average liquor product prices with the prices of the same products in each of B.C., Saskatchewan,

24 A more comprehensive employment survey was regarded as impractical given that each store's employment records would have to be checked separately in order to obtain the desired information.

**Table 12a: Wages in ALCB Stores**

Range	
Liquor Store Managers	\$30,296 to \$49,173
Warehouse Workers	\$23,777 to \$30,169
Liquor Store Clerks (Full-time)	\$23,865 to \$28,174 or \$12.19/hour to \$14.39/hour
Liquor Store Clerks (Casual)	\$8.50/hour

**Table 12b: Wages in Private Liquor Stores**

Feb 1996 Liquor Store Survey	Average Wage: Non-management employees
Province (100 stores)	\$7.19
Calgary (28 stores)	\$7.32
Edmonton (28 stores)	\$7.15
Rest of Province (44 stores)	\$7.13

and C stores employ full-time as well as part-time and casual employees and are found in both Calgary and Edmonton and the rest of Alberta. At the time of privatization, there were 1,394 people employed in ALCB stores in Alberta (and this represented about 950 full-time equivalents (FTEs) according to Westridge Marketing Services).

In order to get a snapshot of current employment and wages in the retail liquor store industry in Alberta, Westridge Marketing Services included questions regarding part-time and full-time employment and the average non-management wage on the same survey of 100 liquor stores in which product selection data were collected. The results of the survey appear in the lower half of table 11. For the province as a whole, the average number of full-time employees per store is 2.92, which is a number similar to that of a smaller type B ALCB store. The average number of part-time employees is 4.59, which would probably be similar to a medium-sized type B ALCB store. Looking at the employment figures for Calgary

and Edmonton, they are larger than the provincial average, reflecting the larger average store size in those cities.

Extrapolating from the survey data, there were an estimated 1,637 full-time employees and 2,535 part-time employees in private liquor stores as of February 1996, for a total employee count of 4,172. (Westridge Marketing Services estimated that there were 1,600 full-time and 2,600 part-time employees in private liquor stores as of February 1996, for a total employee count of 4,200.) Assuming two part-time employees equal one full-time equivalent employee, there were an estimated 2,904 FTEs (or 3,000 FTEs based on Westridge Marketing's estimate) employed in private liquor stores. Liquor store employment has approximately tripled since privatization, as has the number of liquor stores.

Along with the increase in liquor store employment has come a reduction in liquor store non-management employee wages. Table 12 shows the salary range for liquor store managers, warehouse workers, and liquor store clerks (both full-time and casual) under the ALCB and the average wage for non-management liquor store employees based on results for the February 1996 liquor store survey. For the province as a whole, the average wage paid by private liquor stores is half that paid by the ALCB to a full-time liquor store clerk at the top of the scale. The range of private liquor store wages reported was from \$5.00 to \$10.00 per hour.

One might conclude from these figures that the expanded network of liquor stores in Alberta has been facilitated by sharp reductions in liquor store wages. Under the ALCB, the government was the residual claimant of liquor store net revenues. The government apparently was prepared to share its liquor store revenues by paying union workers higher wages than the private sector is prepared to pay its non-union workers.

To summarize, full-time equivalent employment in liquor stores is estimated to have approximately tripled under privatization, but the wages of non-management liquor store employees are

almost one-half of what a full-time union worker at the top of the scale could earn in an ALCB store.

## 6. Social Impacts of Privatization

Concerns have been raised that the privatization of liquor retailing in Alberta might give rise to a variety of negative social impacts including increased crime generally, increased sales of liquor to minors, increased impaired driving, and increased liquor store related crime, particularly robberies. There is also a widely-held view that enhanced liquor product availability (through the opening of more liquor stores, for example) leads to greater liquor product consumption and all of the ill effects that flow from increased consumption of alcohol. It is difficult to make a statistical case that privatization of liquor retailing in Alberta is responsible for increased crime or other social harms on the basis of the three or four years of data available since privatization. The best one can do is to look at some descriptive crime statistics and see if any trends have abruptly changed at around the time of privatization.

### Crime statistics

Table 13 provides some summary crime statistics for Edmonton as reported in the Edmonton Police Service's *Statistical Report* for the years 1991 to 1995. Recorded crime has generally been decreasing in Edmonton over the period 1991 to 1995. Only traffic offenses have shown a significant in-

crease. Of particular interest is the fact that person-related offenses, including robbery, have decreased in every year since 1991. (Robberies declined from 1,665 in 1991 to 1,024 in 1995.) The Edmonton Police Service does not compile statistics on robbery by type of store. One should exercise caution in interpreting the crime statistics, however, because recorded crime can reflect both the actual crime level as well as reports of crime to the police and the level of enforcement activity.

Table 14 provides the detailed breakdown of liquor and traffic offenses that are alcohol-related. With respect to liquor offenses, there was an overall decrease from 1991 to 1992, and then increases to 1995. Two of the largest percentage increases from 1991 to 1995 have occurred in the "minor in a licensed premise" and "minor obtaining liquor" categories. However, it is not known to what extent these offenses are associated with liquor stores as opposed to bars and taverns.

With respect to liquor-related traffic offenses, there has been a sharp drop in such offenses from 1991 (when 8,115 were recorded) to 1995 (when 4,643 were recorded). Much of the decrease occurs in the impaired driving and blood/alcohol in excess of .08 categories.<sup>25</sup> Again, it is not known to

25 Alberta's Department of Justice reports the number of persons charged in Alberta for all offenses related to the operation of a motor vehicle while impaired with a blood alcohol reading of over .08, plus refusing a breath sample offenses as follows: 1989: 18,329, 1990: 17,528, 1991: 18,194, 1992: 15,270, 1993: 13,667, 1994: 8,937. With respect to the figure for 1994, Edmonton, Calgary, and Lethbridge are reported to have made major changes to their computer systems in 1994, which may have had significant effects on the data reported to the Uniform Crime Reports for that year. In addition, two months of 1994 data were unavailable for Calgary.

**Table 13: Crime in Edmonton**

	1995	Percentage Change 1994-1995	1994	Percentage Change 1993-1994	1993	Percentage Change 1992-1993	1992	Percentage Change 1991-1992	1991
1. Person-Related Offenses (Homicide, Attempted Murder, Robbery, Sex Related, Assault, Misc.)	8253	-6.2	8801	-18.5	10,805	-10.7	12099	-6.8	12,890
2. Property Related Offenses (Break & Enter, Theft, Vehicle Theft, Fraud Related, Fire Related, Other Property)	49,286	-9.0	54,151	-16.6	64,920	-17.4	78,587	-10.6	87,904
3. Morality Related Offenses (Vice, Gaming, Liquor, Drugs)	3823	1.6	3762	-14.0	4374	5.4	4149	4.1	3987
4. Other Offenses (Weapons/explosives, misc., Federal Statutes, Provincial Statutes, Municipal By-laws)	7916	-13.6	9157	-30.4	13,161	-9.4	14,520	10.6	13,132
5. Traffic Offenses (Criminal Code, Hazardous, Non-hazardous)	200,851	-1.5	203,848	17.0	174,251	0.4	173,568	1.6	170,764
6. Collision Analysis (Fatal, Injury, Property Damage, Non-investigated)	24,193	-7.4	26,130	-4.4	27,343	-4.7	28,677	-5.5	30,359
Source: Edmonton Police Service Statistical Reports, 1991-1995.									

**Table 14: Crime in Edmonton: Liquor and Traffic Offenses**

<b>Liquor Offenses</b>	<b>1995</b>	<b>1994</b>	<b>1993</b>	<b>1992</b>	<b>1991</b>
Liquor Act Generally	134	124	147	121	111
Consume in Public Place	346	341	246	283	330
Conveying Motor Vehicle	716	559	474	498	644
Illegal Possession	2	5	29	14	52
Intoxication	552	521	728	590	555
Minor—Licensed Premise	94	80	34	37	30
Minor—Obtain Liquor	78	70	37	43	53
Supply to Minors	11	5	6	7	6
Sale and Keep for Sale	63	11	13	12	76
Total	1,996	1,716	1,714	1,605	1,857
<b>Traffic Offenses</b>					
Impaired Driving Death	3	2	1	1	1
Impaired Driving Bodily Harm	29	45	39	42	37
Drive While Impaired	2302	2913	3554	3939	4004
Blood/Alcohol Exceed .08	1859	2346	2862	3118	3197
Refuse Breathalyzer	374	495	573	734	702
Refuse Roadside Screening	65	90	145	159	156
Refuse Blood Sample	11	12	23	14	18
Source: Edmonton Police Service Statistical Reports, 1991-1995.					

what extent the reduction in reported liquor related traffic offenses is related to enforcement activity. There has clearly been no increase in liquor related traffic offenses that could be tied to the privatization of liquor stores.

Unlike the Edmonton Police Service, the Calgary Police Service does compile figures on liquor store related offenses. These appear for the years 1993, 1994, and 1995 in table 15. Certain of the offenses, like street robbery, were committed in proximity to a liquor store. The liquor store related offenses that have attracted the most atten-

tion are breaking and entering—which increased from 24 instances in 1993 to 79 in 1994 and dropped back to 35 in 1995—and liquor store robbery, which went from 2 cases in 1993 to 9 in 1994 and to 16 in 1995.

The Calgary Police Service uses the “population at risk” method when interpreting the figures in table 15. This method calculates increases or decreases in crime by taking into account both the number of offenses reported and the number of stores at risk. Thus,



Using the shop break and enter and commercial robbery data ... one finds that in spite of the 229 percent increase in the number of shop break and enters in 1994, the risk per store was actually smaller in 1994 (0.8/store) than in 1993 (1.0/store). As for commercial robberies, the 9 offenses reported in 1994, compared to 2 in 1993, equates to 0.1 offence per store (or 1 per 10 stores) for both years. This would suggest that while there were more commercial robberies and shop break and enters reported in 1994, the risk of attack per store, given the increased number of private liquor outlets operating, was either the same or lower than ALCB stores in 1993.<sup>26</sup>

For 1995, the shop break and enter risk per store fell to 0.3, while the commercial robbery risk per store increased to 0.13. For all liquor-related offenses (including some not reported in table 15), "The risk of an offence taking place in a private liquor store in 1995 was 1.8 compared to 2.2 in 1994. Therefore, the risk of offenses slightly declined in spite of a 28 percent increase in the number of privatized liquor outlets."<sup>27</sup> The Calgary Police Service concludes its 1995 report on liquor store offenses as follows:

This analysis has important policy implications, because it dispels the myth that privatization of liquor businesses has increased the rate of crime. It reveals that privatization has not altered the amount of crime at the locations over the past 2 years.<sup>28</sup>

There are those who would still criticize the "population at risk" interpretation of liquor store robberies. They would simply argue that under government ownership there were fewer liquor

**Table 15: Liquor Store Related Offenses in Calgary: 1993-1994**

Offence	1993	1994	1995
Shoplifting Under \$5000	54	93	96
Shop Break and Enter	24	79	35
Commercial Robbery	2	9	16
Theft Over \$5000	1	2	4
Theft Under \$5000	0	5	11
Street Robbery	1	6	1
Assaults	3	2	0
Dangerous Use of Weapon	0	1	0
Sale of Alcohol to Minor	0	1	0

Source: Calgary Police Service, *Fourth Quarter Liquor Store Report: Summary of Reported Offenses, 1994*; Calgary Police Service, *Private Liquor Store Offenses: Year End Report, 1995*.

stores and fewer liquor store robberies. However, this view ignores the fact that besides liquor stores, there are many other targets for commercial robberies. Hence, if there are fewer liquor stores to rob, perhaps convenience stores and gas stations would become the targets of choice. Few people would suggest that the number of convenience stores or gas stations be reduced in order to reduce the chances of a convenience store or gas station being robbed. And surely fewer people would suggest that the government should own and operate convenience stores and gas stations in order to reduce the number of convenience store and gas station holdups.

26 See the Calgary Police Service, *Fourth Quarter Liquor Store Report: Summary of Reported Offenses, 1994*, p. 3.

27 Calgary Police Service, *Private Liquor Store Offenses: Year End Report, 1995*, p. 1.

28 *Ibid.*, p. 10.

**Table 16: Licensee Infractions Reported to the ALCB**

Infraction	1995	1994	1993	1992	1991
After Hours	80	106	98	72	21
Drugs/Illegal Activities	10	13	15	16	8
Food Service	6	8	10	15	3
Illegal Liquor	27	117	20	7	0
Intoxication	71	78	63	65	42
Minors	114	109	71	66	31
Obstruction of Inspector	2	7	2	0	1
Overcrowding	7	50	38	18	74
Promotions/Advertising	27	30	13	3	7
Other	61	71	48	40	43
Total Infractions Reported	415	589	378	302	230

For Edmonton, the *Edmonton Journal* newspaper was electronically searched for articles dealing with liquor store robberies for the years 1994 and 1995. Eight robberies were reported in the paper for 1995, while only one turned up in the search for 1994. The figure for 1994 is suspect given the commercial robbery figure for Calgary.

Finally, there are certain violations of the Liquor Control Act and Liquor Administration Regulation by liquor licensees that have been recorded by the ALCB. These appear for the years 1991 to 1995 in table 16. The total number of reported infractions has increased from 230 in 1991 to 415 in 1995. The increase could be partly due to the increased number of private liquor stores in Alberta. However, the table does not break out infractions by liquor stores as opposed to bars and taverns. Furthermore, in part, the higher number of reported infractions could be the result of more intensive monitoring by ALCB inspectors of private liquor stores than of government owned ALCB stores.

## Alcohol consumption and availability

The Alberta Alcohol and Drug Abuse Commission (AADAC) reports that the number of current drinkers has decreased from 83 percent in 1985 to 74 percent in 1993. From 1985 to 1994, per capita consumption of absolute (pure) alcohol in Alberta is reported to have decreased by 22 percent, from 11.1 litres to 8.7 litres per person.<sup>29</sup>

A variety of negative social effects have been linked to excessive drinking, including spousal abuse, impaired driving, fatal collisions and injury accidents, worker absenteeism, and, of course, alcohol related health problems. A recent review of alcohol consumption and related problems has been prepared by AADAC; the subject will not be dealt with further here since it is tangential to the issue of privatization's social impacts.<sup>30</sup> However, the relationship between alcohol availability and consumption is relevant to the question of privatization's social impacts, and a few comments on that relationship are in order.

James (1994b), on behalf of AADAC, has carried out an extensive review of the literature on alcohol availability and control. In her summary, she recognizes that the link between increased access to alcohol and increased consumption has been challenged, in part because recent experience in Alberta and other jurisdictions indicates a decline in per capita alcohol consumption despite increased availability. Furthermore, she states that “research and experience suggest the link between availability and consumption is far from simple, and the relationship between availability, consumption, and alcohol-related problems is not straightforward.” In addition,

While not conclusive, a sizeable body of evidence demonstrates a positive relationship between physical availability, alcohol consumption, and alcohol-related problems. This is particularly true in terms of licensing restrictions (i.e., legal drinking age, hours of operation) which can impact alcohol-related traffic accidents and fatalities. At the same time, findings from studies measuring the impact of outlet density, or the extension of alcohol sales to grocery and convenience stores have been mixed, and studies examining the impact of the privatization of alcohol sales have produced widely disparate results.<sup>31</sup>

The last statement could be a reference to the studies that have been done on the privatization of liquor sales in Iowa. In a time series analysis of monthly sales trends before and after privatization in Iowa, Mulford et al. (1992) found that while privatization increased the sales of both wine and spirits, its increase was only temporary. The short-run increase is attributed to new private liquor stores stocking their shelves. Long-term sales trends of wine and spirits were not affected. In a related study, Fitzgerald and Mulford (1992) analyzed additional survey data from Iowa and they found that “Iowa’s availability increase when sales were privatized did not cause an increase in either heavy drinker or problem drinker rates.”<sup>32</sup>

Different results on the availability-consumption relationship for Iowa were obtained by Holder and Wagenaar (1990) and Wagenaar and Holder (1991). In the first paper, Holder and Wagenaar find a statistically significant 9.5 percent increase in spirits sales following privatization in Iowa. They also find a net increase in alcohol consumption in spite of a corresponding decline in wine sales of 13.7 percent. In the second paper, Holder and Wagenaar analyze privatization effects in West Virginia as well as Iowa, and they find statistically significant increases in wine sales in both states, after controlling for an initial stocking

29 Alberta Alcohol and Drug Abuse Commission, *Meeting Challenges and Making Changes: AADAC Annual Performance Report, 1994-95*, August 1995, pp. 16-17. AADAC’s figures for alcohol consumption are similar to those obtained in Health Canada’s 1989 *National Alcohol and Other Drugs Survey* and its 1994 *Canada’s Alcohol and Other Drugs Survey*. The 1989 survey found that 81.9 percent of men and women aged 15 years and older report drinking in the past 12 months, whereas 76.4 percent report drinking in the past 12 months in 1994. See Health Canada, *Canada’s Alcohol and Other Drugs Survey: Preview 1995*, Ottawa: Minister of Supply and Services, 1995.

30 See James (1994a). Two interesting observations made in this review are that “Studies have shown that public drinking establishments are the single largest source of alcohol impaired drivers,” and that “As such, Forster et al. (1994) concluded that the sale of alcohol to minors could be reduced by business practices that include server training and staff monitoring, and by community initiatives which determine the location of retail outlets and the degree of surveillance and enforcement used to curtail access by youth.”

31 See James (1994b, p. iv).

32 Other studies of the Iowa liquor sales privatization experience with similar results are those by Mulford and Fitzgerald (1988) and Fitzgerald and Mulford (1993b).

effect and nationwide trends in alcohol sales in the 1980s. Wine consumption was found to increase by 93 percent in Iowa and by 48 percent in West Virginia. They also found that privatization was associated with a net increase in absolute alcohol consumed in both states.

Mulford et al. (1992) were critical of Wagenaar and Holder's (1991) study on three grounds: 1) the shortness of their post-privatization study period; 2) a possible mis-specification in their time series intervention model; and 3) the inclusion of wine coolers in their sales data analysis, even though Iowa's privatization legislation did not change the wine cooler distribution system or wine cooler availability.

In an early study of Alberta's privatization of liquor retailing commissioned by the Canadian Centre for Policy Alternatives on behalf of the National Union of Public and General Employees, Laxer et al. (September 1994) also consider the relationship between alcohol regulation and consumption. They state that "the bulk of empirical studies generally support our hypothesis that unrestricted free markets increase alcohol consumption while public monopolies restrict consumption." They go on to discuss Holder and Wagenaar's (1990) and Wagenaar and Holder's (1991) findings with respect to Iowa's privatization experience, and briefly refer to other studies supporting their hypothesis. However, Laxer et

al. do not cite or discuss any of the studies published by Mulford and Fitzgerald even though Mulford et al. (1991) are critical of the methodology used by Wagenaar and Holder (1991).

An economist would normally expect a positive relationship between alcohol availability and consumption if increased availability was associated with lower delivered prices for liquor products. The latter would be the case if the increased availability came about as a result of an expansion in the network of retail liquor stores, and the expansion in the network lowered the transportation and shopping costs that consumers incur when purchasing liquor by more than any liquor product price increases at the store itself. The evidence indicates that there were retail price increases in Iowa following privatization, but these could have been offset for many consumers by reductions in transportation and shopping costs. Hence, the delivered prices of liquor products may not have changed very much on average, and little change in consumption would therefore be expected. While it is too early to conduct the kind of availability-consumption analysis for Alberta that has been carried out for Iowa, the available data on prices, quantities of liquor products sold in Alberta, and government revenues suggest that one is likely to find results from such an analysis to be more consistent with the results obtained by Mulford and his colleagues rather than those obtained by Holder and Wagenaar.

## 7. Conclusion

The main purpose of this paper has been to examine the economic impacts of the privatization of liquor retailing in Alberta. The paper began with a description of Alberta's liquor distribution system when it was under government ownership and control. The three models of privatization considered by the Alberta government were then discussed, along with certain restrictions imposed by the government (uniform wholesale prices and uniform transportation charges) that will likely prevent the evolution of an efficient retail distribution system.

The privatization process was discussed next. The procedure used by the Alberta Liquor Control Board (ALCB) to dispose of its liquor stores was described, and the reductions in ALCB staff were summarized. Certain regulations affecting liquor stores were then reviewed. The new supplier arrangements with the ALCB were discussed next, along with the new flat markup on liquor products that replaced the ALCB markup and the contracting out of the warehouse operation.

The next section of the paper analyzed the economic impacts of privatization. It explained that the number of private liquor stores is approximately triple the number of ALCB stores. While most ALCB stores in Calgary and Edmonton were converted to private liquor stores, less than half of the ALCB stores in the rest of the province were converted to private liquor stores. With the increase in the number of liquor stores comes a lower average sales per store, and one might expect a high rate of liquor store turnover as a result. There has, in fact, been a relatively small number of liquor store closures since privatization, but the precise reasons for the low turnover rate are not clear. At the present time, the requirement of a uniform wholesale price is viewed as in-

hibiting the growth of liquor store chains and the realization of certain efficiencies in distribution that would accompany chain development. Liquor store chains in Alberta account for less than 10 percent of all private liquor stores. It is perhaps the stunted growth of liquor store chains that is at least partly responsible for the low turnover rate among private liquor stores.

With respect to product selection, a sample of private liquor stores from across Alberta has an average product selection that exceeds the weighted average product selection of ALCB stores. Product selection carried in the ALCB warehouse has more than doubled under privatization. The increase in product selection can be partly attributed to an increase in the number of brands that are stocked, and partly to a proliferation of package sizes for established brands.

With respect to retail liquor prices, nominal retail liquor prices have increased somewhere between 8.5 and 10.0 percent, on average, between August 1993 and January 1996 (depending on how the price change is calculated). After correcting for inflation, the real price increase is about half of the nominal increase on average. Because of the increase in the number of liquor stores, consumers will, on average, experience lower transportation costs when purchasing liquor products. This implies that the transportation component of the delivered price will have fallen on average under privatization. Over the period October 1993 to December 1995, wholesale liquor prices fell.

Alberta government revenues from the flat markup have not been adversely affected by privatization nor by the shift from government liquor revenues based on a liquor store markup to revenues derived from a flat markup imposed at the wholesale level. Indeed, the Al-

berta government has had to adjust the flat markup rates downward in order to achieve one of the government's privatization objectives: revenue neutrality.

With respect to employment and wages, full-time equivalent employment in liquor stores has approximately tripled under privatization, but the wages of non-management liquor store employees are almost one-half of what a full-time union worker at the top of the scale could earn in an ALCB store.

The sixth section of the paper presented some summary measures of crime in Edmonton and liquor-store related offenses in Calgary, and discussed the controversial issue of liquor availability and consumption. It is too early to begin a rigorous assessment of the social impacts that might be caused by privatization. There is little evidence so far to suggest that privatization has been associated with either an increase in crime or an increase in consumption of liquor products.

In assessing the overall effects of Alberta's privatization of liquor retailing, one can examine the impacts on the various parties affected by privatization. First, consumers have experienced price increases (on average) for beer, wine, and liquor, but the larger number of liquor store locations under privatization has implied lower transportation and transactions costs for many consumers. Retail price dispersion and retail price competition now exist so that it is possible for consumers to shop around for lower prices. Overall product

selection has increased, although consumers might have to shop around for their preferred product (particularly for wine products because a given liquor store will only sell a fraction of the large number of wines now stocked in the warehouse). Second, beer, wine and liquor suppliers are better off as a result of their improved access to the market in Alberta, but their costs of serving the market have likely increased. Suppliers must now sell their products to individual liquor stores or liquor store chains as opposed to a single buyer, the ALCB. Third, the Alberta government appears to be no worse off as a result of privatization given that its liquor-related revenues have not declined.

Fourth, former ALCB employees have lost their union jobs, and have either taken nonunion jobs in private liquor stores at much reduced wages, or have sought employment elsewhere. Fifth, employment in private liquor stores is about triple the employment in ALCB stores, so there is no question that privatization has created jobs (even if at wages below the former ALCB wages). Sixth, hundreds of new small businesses have been created as a result of privatization, and these businesses are generating income for their owners and employees and tax revenues for the various levels of government. Finally, there is no evidence that the residents of Alberta have been exposed to increases in crime or liquor-related offenses as a direct result of privatization. Indeed, some survey evidence is available that suggests that Albertans are generally satisfied with Alberta's privatization of liquor retailing.

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