

THE COMPETITION TRIBUNAL

*Acc. 1989*

IN THE MATTER OF an Application by the Director of Investigation and Research under sections 92 and 105 of the Competition Act, R.S.C. 1985, c.C-34, as amended;

AND IN THE MATTER OF the acquisition by Imperial Oil Limited of the shares of Texaco Canada Inc.

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|--|-------------------------|
| COMPETITION TRIBUNAL<br>TRIBUNAL DE LA CONCURRENCE |                         |
| F<br>I<br>L<br>E<br>D                              | JULY 21 1989 <i>ACB</i> |
| REGISTRAR - REGISTRAIRE                            |                         |
| OTTAWA, ONT.                                       | #23                     |

BETWEEN

COMPETITION TRIBUNAL  
TRIBUNAL DE LA CONCURRENCE

THE DIRECTOR OF INVESTIGATION  
AND RESEARCH

File No. CT-89/3  
 No. du dossier  
 Director *v* Imperial  
 et  
 Exhibit No. 14-1  
 No. de la pièce  
 Filed on Oct. 24/89; 10h27  
 Déposé le  
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 Greffier

Applicant

- and -

IMPERIAL OIL LIMITED

Respondent

AFFIDAVIT OF GEORGE LERMER

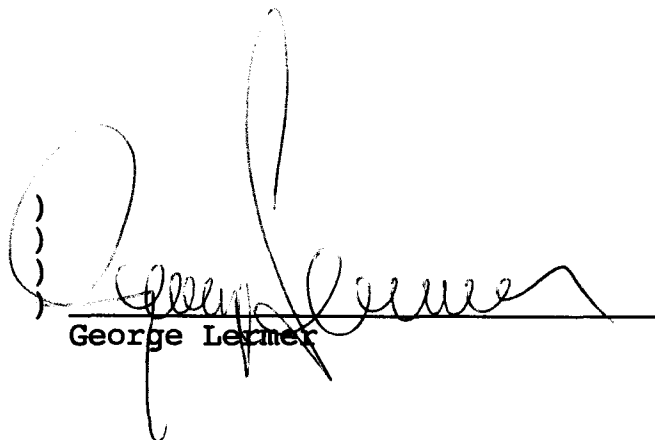
I, George Lerner, of the City of Lethbridge, in the Province of Alberta in Canada MAKE OATH AND SAY AS FOLLOWS:

1. I am the Dean of the Faculty of Management at the University of Lethbridge and have been retained by the Director of Investigation and Research Consumer and Corporate Affairs - Canada, to assist the Director in the preparation of his Application and his Competitive Impact Statement and to provide my opinion on the Draft Consent Order's merits as a remedy for the merger. Now shown to me and attached as Exhibit "A" to this my affidavit is a copy of my Report.

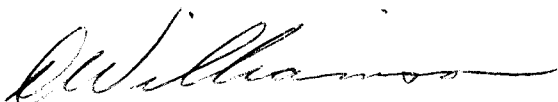
2. The contents of this Report attached as Exhibit "A" to this my affidavit and the opinions expressed therein are true to the best of my knowledge, information and belief.

3. I make this affidavit pursuant to Rule 42(1) of the Competition Tribunal Rules.

SWORN before me at the  
City of Lethbridge, in the  
Province of Alberta  
this 17 day of July, 1989



George Lester



**D. WILLIAMSON**  
Commissioner for Oaths in and / for  
the Province of Alberta  
Term Expires: 1991 - 08 - 06

**EXHIBIT "A"**

COMPETITION IN CANADIAN GASOLINE  
REFINING AND MARKETING

AN ECONOMIC ANALYSIS OF THE DIRECTOR'S  
DRAFT CONSENT ORDER

by

George Lermer, PhD  
Dean, Faculty of Management  
The University of Lethbridge  
Alberta

1. This Report explains why, with approval of the Draft Consent Order (henceforth DCO), the merger of Imperial and Texaco would be unlikely to substantially lessen competition in the three distinct Canadian gasoline wholesale and retail markets identified by the Director in his Application. In addition, I explain why in my opinion it is important to approve the DCO as a remedy for the merger.

2. I was retained to assist the Director in the preparation of his Application and his Competitive Impact Statement. I have not undertaken research on a particular aspect of the merger, i.e., import elasticities or refinery efficiencies. Instead, I prepared a memorandum based on my knowledge of the industry and the summary overview of the industry, as summarized in Appendix 2 of the Director's Application, outlining the extent to which the merger was likely to substantially lessen competition despite the existence of the import option. In this report I outline the model on which my analysis is based. I do not cover systematically all the factual background as presented in Appendix 2 to the Director's Application and the Competitive Impact Statement.

3. The opinions I offer in this report are informed by my reading of the following: detailed analyses prepared by the Director's staff; reports prepared by other consultants engaged by the Director; Imperial Oil's submission to the Director; the Restrictive Trade Practices Commission's study, Competition in the Canadian Petroleum Industry; reports of the Petroleum Monitoring

Agency ; annual reports and Financial Post cards of several of the major oil companies; and Statistics Canada Prices Division's Petroleum Products Monthly Transactions Price Reports.

4. My analysis also reflects my experience as Director, Resources Branch, Bureau of Competition Policy from 1977 - 1981. During that time, I had responsibility for numerous cases and for policy briefings about many facets of the energy sector. In addition, I oversaw the development of the Director's Statement of Evidence, The State of Competition in the Canadian Petroleum Industry. Since leaving the Bureau I have consulted on a regular basis for private and public clients on mergers, competition policy, trade law, and regulations in the resources field, especially in agriculture and energy.

5. In my opinion, the frequency with which governments investigate the petroleum industry throughout the world reflects the peculiar circumstances in which the industry operates. In the downstream segment of the industry, those circumstances conform virtually perfectly with Stigler's theory of oligopolistic interdependent market power (Stigler 1964). In the next section of my report, I describe the applicable economic model in general terms. I identify, in Appendix I, some of the literature that applies the model to the gasoline refining and distribution industry. I conclude, based on my knowledge of the industry and

my review of the literature on oligopoly theory, that the structure of the petroleum industry raises a likelihood that the merger, without the remedies incorporated in the Draft Consent Order, substantially lessens competition.

6. What are the conditions in the refining and marketing gasoline industries that invite concerns about coordination of refiner price and output policies? Specifically, those conditions are the inelasticity of the industry demand for gasoline coupled with the homogeneity of gasoline, which causes the demand curve faced by each refiner to be elastic relative to the industry demand curve. The contrasting elasticities of the demand curve at the industry and firm level offer an increased potential return to all the firms in the industry, if they are collectively able to maintain a joint profit maximizing equilibrium. From the point of view of each refiner, the object of a cartel would be to convert each firm's demand from elastic into inelastic, preferably the same inelasticity as for industry demand. One method for achieving the conversion is for each firm to adopt a policy of retaining a fixed market share no matter what the price level. ( Henceforth for convenience I call a group of firms seeking a joint profit maximizing equilibrium a "cartel". I do not mean to suggest by using the term that joint profit maximizing behaviour is being

achieved through a conspiracy. The level of coordination that is required is more likely in today's prevailing legal and moral environment to be achieved through recognition of oligopolistic interdependence.)

7. A cartel is sometimes feasible in the Canadian petroleum industry because refining is necessarily a concentrated industry in any region of Canada. The feasibility of successfully cartelizing an industry depends upon circumstances both external and internal to that industry. The key external factor for the Canadian petroleum industry is the availability of imported gasoline at prices that reflect long run average costs in the world refinery industry. Large parts of Canada are open to imported gasoline. In those regions of Canada that are easily reached by imported gasoline a cartel is possible only if imports are restricted. The key factor internal to the industry is the ability of the industry members to detect and then to deter those of its members who cannot resist the temptation to profit by violating the cartel's rules (Stigler 1964 ) (Osborne 1976). In this section I focus on the internal coordination issue and will return below to the matter of the current availability of imports.

8. When a cartel is coordinated informally, and must be self-enforcing, its stability is uncertain. The cartel's stability will depend first upon the speed with which industry members can



identify the firm that is lowering prices and increasing its market share, and second upon the credibility attached by each potential cheater to the threat of retaliation. A cartel creates a double set of incentives for each of its participants. On the one hand, participating industry firms appreciate that without the cartel prices will tumble and excess profits will disappear. On the other hand, the cartel sponsored profit margins may be large enough to tempt each of the cartel partners to seek to increase their market share. Thus cartels that must be self-enforcing are unavoidably unstable.

9. The larger the firm the more likely it is that it will follow the cartel's implicit rules, because the larger the firm's market share the larger its losses should prices collapse. It follows that a cartel's stability increases with a falling number of firms, and with fewer of those fringe firms that are more likely to disrupt the cartel. Nevertheless, whatever may be the composition of the cartel, its stability will depend upon the ease with which softer market prices can be traced back to the initiating behaviour of a particular cartel member, and potential cheaters can be deterred by credible threats of retaliation. Detection and deterrence are the two legs that support the cartel.

10. My review of the literature (Phelps 1981), (Marvel 1978), (Allen 1981) and (Masson 1976) , presented in Appendix I, indicates

that petroleum companies are able by vertically integrating to sell to small and relatively uninformed consumers and at posted prices known to all their rivals. In addition to each firm's own intelligence gathering about rivals' prices, market surveys regularly provide each refiner-marketer detailed information about their rivals' prices and market shares in urban markets. The integrated system of distribution gives each oil company the necessary confidence that each of its rivals will recognize its shared interest in maintaining a joint profit maximizing price, and in not cheating on any implicit agreement on retail prices and/or market shares.

11. In other words, transaction prices for gasoline are more transparent at the retail than the wholesale level, and price transparency is a facilitator of oligopolistic market power. At wholesale, a refiner with excess capacity may be inclined to offer secret discounts to independent gasoline marketers (those firms that sell at retail but do not operate a refinery), hoping to avoid detection or to postpone any retaliation. At retail, refiners must sell at posted prices that are monitored closely by all the refiner-marketers. Efforts to chisel on transaction prices by coupons, discounts and heavy advertising will also be observed, though it may prove difficult for rivals to find an effective way to retaliate against non-price-competitive initiatives.

12. The above analysis was considered relevant to the Canadian petroleum industry by the Restrictive Trade Practices Commission in its 1986 report, Competition in the Canadian Petroleum Industry. The Commission chose not to condemn vertical integration in the industry because it found there was no horizontal cartel, rather than because it rejected the argument that oligopolistic coordination might be facilitated by vertical integration, and because vertical integration may also be motivated by efficiencies.

13. In light of DCO the merger, having the effect of increasing concentration at the refinery level of the petroleum industry, coupled with broad representation of the refiners at the retail level of the industry, will not result in a likely substantial lessening of competition. I am therefore of the opinion that with the DCO, Imperial's acquisition of Texaco's assets in the Atlantic and Central Canada will not likely reduce competition substantially. In both regions Imperial has acquired a refinery, terminal facilities and an associated service station network.

CONSTRAINTS ON THE POTENTIAL FOR LESSENING COMPETITION IN THE CANADIAN PETROLEUM INDUSTRY

14. The Canadian petroleum industry's ability to cartelize gasoline retailing is significantly constrained, whatever the level

of concentration in refining, by (a) the availability of imported gasoline, (b) the degree of excess refinery capacity , (c) the presence of independent marketers, and (d) the infeasibility of product differentiation through "branding".

15. To the extent that the supply of gasoline imports is highly elastic, domestic refiner-marketers become price takers and are limited in their ability individually or collectively to influence gasoline prices. In Ontario, Quebec and British Columbia, any transportation penalty for gasoline imports is today being offset by competition from some very large and very efficient off-shore refineries. Many of these newer refineries are located on tidewater and are operating with excess capacity. These lower cost refineries are establishing the world market price for gasoline. Thus the cost of imported gasoline is linked to the actual or potential availability of sufficient volumes of well located marine terminal storage facilities. One important entry barrier into the marine terminal business is the terminal operator's uncertainty about winning sufficient business to assure himself of the throughput levels needed to make his investment in terminal facilities profitable. The terminal operator will thus look for some assurances that independent retailers will continue to serve a sufficiently large share of the gasoline market and will choose to rely in whole or in part on imported gasoline. The import option thus depends upon the economics of marine terminal

operations, which in turn depends upon the volume of independent gasoline retail business.

16. The impact of excess refinery capacity on the potential to cartelize is more problematic than is the impact of imports. On the one hand, refiners point out that, given their fixed costs, they are able to lower average costs by increasing refinery utilization thereby increasing gasoline supplies and defeating any effort to cartelize. On the other hand, several theorists argue that both planned and unplanned excess capacity facilitate cartelization in two ways. First, excess capacity creates an entry barrier and second, excess capacity gives credibility to any threat of immediate retaliation and deters cheating.

17. The presence of independent marketers is important to competition at the refinery level for a number of reasons. First, there is little evidence that vertical integration from refining to marketing carries substantial efficiencies, so that independents with access to competitively priced supply can place a cap on the refiner-marketers' distribution margins (encompassing wholesale and retail margins). Second, independent marketers create a market for refinery sales at the wholesale level which helps destabilize a cartel. Finally, a large, successful independent marketing network, or buying group of independents, can invest in facilities

for importing gasoline or may even backward integrate into refining.

18. The competitive influence of independent marketers is greater to the extent that many consumers identify gasoline as a homogeneous product and actively search for the lowest priced combination of gasoline and convenience available. When it is possible to distinguish a significant clientele that values "branded" gasoline over unbranded gasoline there is greater scope for larger refiner-marketers to cartelize the branded segment of the market.

(a) The Import Option

19. For about twenty two years before the signing of the Western Accord of June 1, 1985, the import option was rarely available to independent marketers in all parts of Canada. Under the National Oil Policy that ran for a decade from the early sixties into the seventies, imports were barred from Ontario. During the seventies, rules on petroleum and gasoline import compensation virtually eliminated gasoline imports anywhere in Canada. Since June 1985, imports have had open access to the Canadian market. Imports by refiners and non-refiners have increased each year since 1985 (See Appendix 2). Moreover, the option to import gasoline gives the

independent marketer bargaining power with the domestic refiners. The import option is therefore influencing wholesale gasoline prices, and is facilitating the expansion of independent gasoline marketers in many parts of Canada. The effectiveness of the import option as a means of extracting better terms from domestic refiners depends upon the large level of surplus refining capacity prevailing. When the refinery utilization rates rise and domestic refining capacity tightens up, the availability of domestic and imported supply to the independents may be less secure.

20. The long term security of imported supply depends upon two circumstances. One is the extent of the infra-structure in place to import gasoline, and the extent to which that infra-structure may be quickly expanded to handle large volumes at reasonable cost. The second is the potential for political interference with import flows and import prices.

21. Research undertaken for the Director shows that in Quebec and Ontario there are modest entry barriers to terminal facilities for marine movements of imports, and these are described in the Application. Furthermore, Prof. McFetridge's evidence indicates a high elasticity of supply of imports into both Ontario and Quebec. Finally, as reported in Appendix 2 of the Application, several of the existing terminal facilities could handle significantly larger volumes. Despite the latter observation, it

is unlikely that independent (non-refiner) importers could enormously increase the volume of imports into the St. Lawrence - Great Lakes System without adding facilities. The theoretical capacity of a terminal operating with maximum turn around does not measure the practical capacity of a facility. Inventories must be held in order to cope with fluctuating demand and supplies related to seasonal variations, the availability of shipping, access to back loads, etc.

22. In Southern Ontario the availability of marine terminal facilities is less pertinent because much of the small volumes of imported gasoline is being carried by truck and being delivered from U.S. terminals directly to independent marketers' service stations. The latter volume of imports may be small, especially in contrast to Quebec's level of imports, but they have special significance for competition in the large urban areas in Ontario close to Buffalo and Detroit. Truck imports are special, because there is little standing in the way of independents acquiring more product from U.S. points. Trucks are available to move far larger volumes than they are transporting today, and no infrastructure of marine terminals need be put in place as is needed for marine shipments.

23. The import option appears to be sufficiently robust in Central Canada to survive increased refinery utilization rates. Even if



refiners should divert gasoline from their increasingly scarce capacity away from independents for their own needs, the independent marketers could acquire gasoline from off shore at a modest price penalty.

24. In the Prairies, imports have no direct impact. It is true that increased imports into British Columbia will reduce the flow of gasoline through the Trans Mountain product pipeline running from Edmonton to Kamloops, but that line does not handle a sufficient volume to allow imports into British Columbia to discipline the Prairie market by diverting sufficient output from Edmonton. In British Columbia, it is the availability of terminals that is the only constraint on imported gasoline.

25. As long as the import option is assured, refiners are unable to cartelize the industry regardless of the level of concentration of the domestic refinery industry, or the retail stage of the industry.

26. In present circumstances, the refiners are actually motivated to ensure that domestic supplies flow to independent marketers, because the cost of delivering gasoline imports is irreversibly lowered as independents invest in new transportation and storage facilities. Once these are built, the independent marketers are unlikely to idle their facilities in favour of domestic supplies

unless domestic gasoline is sold at a discount to imports. Given these circumstances, the actual volume of imports influences the price less than does the threat of future imports.

27. It is a fact that the import supply option is not guaranteed. This argues in favour of action now to prevent the emergence of a yet more concentrated vertically integrated industry. Such an industry might find itself in a position to cartelize should the import option disappear.

28. The practical limitations on importing gasoline into Canada's regions would not seem to provide refiners more than a short period of protection in the absence of a political interruption or interference with the import option. While the Canada - United States Free Trade Agreement has certain guarantees in it that reduce the likelihood the United States will interfere with exports from and into Canada, history shows that the petroleum industry more than virtually any other has been subject to government intervention. The United States may for instance place a quota or tax on imported crude oil from countries other than Canada. This was exactly the policy adopted by the U.S. for many years beginning in the mid-fifties and running into the seventies. It is far from clear how Canada might respond to such a contingency. As stated above, during the sixties, Canada followed a National Oil Policy that barred imported gasoline from the Ontario market.

29. At the moment, a supply interruption does not appear imminent. The world refinery industry has unused capacity, and Article 903 of the Canada United States Free Trade Agreement prevents export taxes from being imposed on Canadian or U.S. oil exports to one another. The Agreement gives Canada partial exemption from the prohibition on the export from the United States of Alaskan crude oil (In Annex 902.5,3.) and, when imports are restricted from third parties, the two parties will, "consult to avoid undue interference with or distortion of pricing, marketing and distribution arrangements in the other party" (Article 902,paragraph 4). A supply interruption of off shore crude is of course possible at any time, but in a temporary crisis the federal government has emergency powers to impose controls on price and delivery.

30. The Free Trade Agreement is not a customs union. Canada and the United States may impose independent tariffs and quotas on third countries. Were the U.S. to impose a tariff or a quota on imported crude oil, then U.S. gasoline might well become too expensive to import.

31. The greatest potential threat to competition comes from the following scenario: Through a series of mergers, the petroleum industry becomes ever more highly concentrated at both the retail distribution and refinery stages; the mergers are allowed, and concentration is increased, because the import option is reasonably perceived to provide a restraint on the immediate exercise of market power, no matter what the level of concentration; and in the future, a significant cost penalty becomes attached to imported product making the import option unattractive or closing it completely. In this circumstance, the remaining highly concentrated and vertically integrated refiner/market oligopoly would have an ideal opportunity to jointly maximize profits. At this point in time, the high concentration brought about by the merger could not easily be reversed by competition authorities.

(b) Excess Refinery Capacity

32. The influence of excess refinery capacity on competition is more ambiguous than is the influence of imports. It is often said to be pro-competitive because each profit maximizing refiner strives to expand production so long as average revenues cover average variable costs and make some contribution towards fixed costs. But in a fully competitive situation we should only observe idle capacity in a high fixed cost industry like refining because of sunk costs and uncertainty about when demand might recover.

Otherwise, the less efficient firms would quickly exit as price is driven down by competing refiners seeking to maintain utilization rates. Since the gasoline industry demand curve is inelastic, the price decline would be swift in coming and large in size.

33. Excess capacity's impact on competition is ambiguous because it is potentially an instrument available to incumbent firms to deter entry. Holding excess capacity may be a credible threat by an incumbent to a potential entrant if that excess capacity is durable (Eaton 1980) (Caves 1977) (Spence 1977). Durable excess capacity, especially if the investment made in that capital is largely a sunk cost, is a signal that incumbents are committed to staying in the industry and maintaining the pre-entry output levels after entry. The effectiveness of prior investment in excess capacity depends crucially upon the potential entrants' conjectures about incumbents' post entry reaction functions. If a potential entrant takes the plunge and enters by committing fixed capital that in turn is largely a sunk cost, then the previous incumbents might find it more profitable to reduce their own production, thereby decreasing their utilization rates, in order to permit the entrant a share of the finite market available (Dixit 1980) (Schmalensee 1981). If this is how potential entrants forecast incumbents' reactions, the credibility of the threat of investing pre-entry in excess capacity is lost. Since there are many possible rational conjectures about reaction functions, the

credibility of excess capacity as an entry barrier depends critically on the potential entrants' perceptions of the incumbents' behaviours post entry (Bulow 1985). It is clearly difficult to fit these theoretical models to any particular set of facts, making it difficult to distinguish between those instances when excess capacity constrains market power and those when they are instruments for preventing entry and increasing market power. It is safer in the circumstances to note that excess capacity exists and not to depend too heavily upon that fact to protect competition.

34. In my view, and despite the above theoretical uncertainties, it is safe to conclude that excess capacity is a reasonably effective entry barrier into the refining industry because more than most manufacturing facilities, the investment in a refinery has no other uses and is largely site specific. As stated, the fixed costs in a refinery operation are largely also sunk costs. Also, the theoretical models generally examine excess capacity from the perspective of a monopolist concerned about a single potential entrant. The existence of excess capacity may have quite different effects in an oligopoly. Whatever the effects on entry, rivals in an oligopoly may calculate that it is in their best interest to share the burden of surplus refinery capacity proportionally rather than to destabilize the industry. Cowling (1983) makes this point as follows:

"Excess capacity within the existing oligopoly group which provides a credible threat to potential entrants can also be expected to serve as a credible threat to existing members who may be considering augmenting their own market shares. But it is not necessary that excess capacity be planned in order for it to stabilize or enhance the degree of collusion over price/output policies" (p.342).

Moreover, a potential entrant facing an oligopolistic industry might well conjecture that the mere act of its entering would destabilize the oligopoly, jeopardizing the profitability of its own refinery investment. The oligopolistic industry with excess capacity, more than a monopolistic one, may present a potential entrant with a formidable entry barrier. This conjecture about rivals' conduct is especially rational for firms in the gasoline industry because gasoline consumption is inelastic, and sales can only be made at the expense of a rival or by backing out imports.

35. Cartelization, may be more common during a period of economic decline (Cowling 1983) than during a boom. A recession leaves manufacturers with surplus capacity and threatens each firm in the industry with earning average revenues based on marginal costs that fail to recover average fixed in addition to average variable costs. Under these circumstances, the firms in the industry face little risk of entry (for reasons outlined in the previous paragraph, ie.. because surplus capacity often turns fixed costs into sunk costs and the oligopoly might appear to the entrant as dangerously unstable post entry). Moreover, the returns of

coordination may be highly attractive just at a time when managers are under particular pressure from shareholders to improve the fortunes of the firm. Therefore, excess capacity may be an inducement for firms to cartelize and may help stabilize the cartel once it is established.

36. On balance, it is my view that because of the import option excess capacity is today a protection for supply to independent marketers. Without the import option, it may well contribute to the stability of a cartel and it does not guarantee that a concentrated refinery sector will be unable to exercise market power.

(c) Independent Marketers

37. Independent marketers hold significant market shares in many urban areas throughout Canada. The Director, both in his Application and his Competitive Impact Statement, reports independent marketers' shares of several urban markets based upon Kent marketing surveys. Those surveys report only on the number of stations and the volume of sales through those stations.



Station volumes are reported on a gallonage basis, and fail to distinguish between different grades of gasoline. Kent is the only source of data for urban centres that distinguishes individual marketers. The Kent data is therefore invaluable for the purpose of examining the dynamics of urban markets. As reported in the Competitive Impact Statement, there has since 1984 been considerable variability of market shares for a given urban area, both as between refiner-marketers and between the latter and the independent marketers.

38. Another source of data on gasoline sales is available ( See Appendix 2). They are collected by Statistics Canada Price Division from all Canadian refiners. Each refiner is asked to record each month its revenues and gallonage by various products, classes of trade, and Canadian regions. Gasoline is divided into Premium Unleaded, Regular Unleaded and Regular Leaded. The classes of trade for gasoline sales include Retail Refiner Brands; Private Brand Dealers; Commercial; Industrial, Railroad and Transportation Enterprises (C.I.R.T); Farm and smaller Consumer; all Others. The regions include Atlantic, Quebec, Ontario, Prairie and Pacific.

39. The results from an examination of Statistics Canada data are reported below in Appendix 2. Certain aspects of competition in the retail gasoline market are revealed in the data. The refiner marketers have been losing market share to the independent

marketers based on volume measurements that fail to distinguish between types of gasoline. At the same time, demand has been shifting inexorably in favour of unleaded and unleaded premium gasolines. In the latter two categories, the refiner-marketers maintain a significant advantage over the independents. From these data it seems that the independents continue to be stronger in the lower end of the market, selling much of the leaded gasoline around the country, but more unleaded, and far more unleaded premium gasoline is sold by the refiner-marketers. Measuring market shares by the total of sales revenues from all three types of gasoline, rather than by volumes reveals that independent marketers are not gaining at the expense of the refiner-marketers. The refiner-marketers sell fewer gallons, but they earn higher margins on the higher priced gasolines they do sell, thus with no loss in their share of revenues.

40. For competition policy, this finding seems to underscore that the value of the brand may not be as little as many analysts had been led to believe in recent years. The apparent value of the "brand" for premium leaded gasoline users may be a supply side phenomenon reflecting the extra time that independents need to invest in additional pumps and storage facilities to provide three grades of gasoline. Or it may reflect shortages of unleaded premium high octane gasolines, despite the spare capacity at the refineries, which raises some doubt about the full efficacy of the

import option for higher grade gasolines. To the extent, however, that these changes reflect a re-emergence of a means of separating price conscious gasoline buyers from price insensitive buyers, the competition analysis of gasoline retailing should again consider competition within the branded "segment" in addition to competition between the branded and unbranded segments.

(d) Product Differentiation Through Branding.

41. The "brand" is not the valuable asset it once was (Marvel 1976). Independent marketers offer credit facilities through all purpose credit cards and they also offer a variety of cross-merchandising options. Today, there seems to be little to choose between the offerings of one "brand" and the other, or between "branded" stations and independent service stations. Gas station operators cannot distinguish between price conscious and price sensitive buyers, and they seem unable to find a formula for sufficiently differentiating their offerings so that price sensitive and insensitive buyers would separate themselves between offerings. Were it possible for the "branded" outlets to attract a sufficient clientele at a premium price, without incurring additional costs that absorb the extra revenue, then there might be an added competition policy concern when a merger increases concentration in the "branded" segment of the industry, even though entry barriers are not generally thought to prevent independent

market entry. It is more difficult to enter the "branded" than the "unbranded" segment of the market because of the additional burdens of higher advertising costs and the need to build a significant density of stations.

42. Despite these limitations on distinguishing between branded and unbranded stations, for the moment the disparity between the independents' and the refiners' market shares of the leaded and unleaded/unleaded premium markets, suggests that at least temporarily there is scope for a viable distinct market. From casual observation I observe that some refiners are actively advertising the value of their high octane unleaded gasoline, that is still unavailable from many independent service stations. The independents will likely in time adjust to the rapid trend towards unleaded premium gasoline. Since there is nothing to prevent the independents from eliminating their leaded gasoline pumps when leaded gasoline is required to be taken off the market in 1990, in the long run a distinct market is unlikely to be viable. The tendency for the boundary between the branded and unbranded offering to disappear is based on the low search costs for gasoline consumers together with each marketer's incentive to reduce those search costs further by maintaining prices at his station at a stable position in the price range in the mind of the consumer. That is why prices move up and down together across many stations quickly within even large urban areas. During the period of

conversion to unleaded gasolines the DCO's provision for Imperial to divest several hundred branded service stations throughout Canada protects consumers in the branded segment of the market.

(e) Conclusion

43. I have considered the impact on competition in gasoline wholesaling and retailing of imported gasoline, excess refinery capacity, independent-marketers' market shares and the potential for the existence of a "branded" market that is distinct from the independent marketers in the sense that the cross elasticity of demand between the one market and the other will be low. A substantial lessening of competition is unlikely as long as the import option is open. The threat to competition lies in the risk of interference with the import option.

DOWNSTREAM PERFORMANCE

44. The eighties have not provided a propitious environment for cartelizing gasoline refining and distribution, but these circumstances may change. For one thing, Petro Canada's entry through acquisition has certainly been a disruptive influence, but as Petro Canada remains a fixture in the industry, whether or not it is privatized, its presence in the structure of the industry may lend itself to greater cooperation with the other major players in

the industry. Second, deregulation of petroleum markets has by removing barriers to importing gasoline changed the opportunities available to refiners, and this condition may not endure. Third, most of the major refiner-marketer's, including Imperial, Shell and Sunoco, have abandoned certain marketing practices that the RTPC condemned in its 1986 report.

45. The petroleum industry has responded well to the challenges of the eighties. Though its downstream profit margins have badly trailed returns in other sectors of the economy, in the past two years they have recovered sharply. There is no sign that excess profits are being earned. Just the opposite is true. Some indicators of profitability are reported in Appendix 3. The downstream part of the industry is going through a decade long adjustment to stiffer international competition, at first declining and now slowly growing gasoline markets, and displacement by electricity and natural gas of heating oil. Refinery closures, and gasoline service station rationalizations, are the vehicles for cutting costs and regaining reasonable rates of profitability. These conditions may not last, and the merger has altered the structure of the industry in a fundamental way by bringing together two established giants, and certainly eliminated in Texaco a firm that over the past decade has been a strong and effective competitor.

ASSESSMENT OF THE DCO

46. The Draft Consent Order addresses the nub of the competition issues through three key remedies:

47. (a) Imperial will make available terminal facilities many of which are well located marine terminals along the St. Lawrence and on the Great Lakes. In one move, the DCO makes a significant volume of marine terminal facilities available to non-majors. The facilities controlled by the major national refiners will decline equivalently. The import option will be significantly strengthened by this transfer.

48. (b) The DCO ensures that the largest refinery complex in Ontario and Quebec must, for at least seven years and at the option of the purchaser as long as ten years, continue to supply independent marketers. The maximum supply to be available under this guarantee of supply includes present volumes, a share of additional output associated with synergistic efficiencies from combining Nanticoke and Sarnia, plus, an accommodation for market growth. Thus, from a short term perspective, independent marketers are no worse off from a refinery supply point of view than before the merger, and they may be said to be far better off under the DCO. They are better off because prior to the merger there was no assurance

that supply contracts with independents would have been renewed in the event tighter markets should materialize. Furthermore, the DCO provides that the independent marketers call on the refinery industry shall extend to a proportion of the increased gasoline production capacity resulting from the merging of the Nanticoke and Sarnia refineries under common ownership. As explained in the Director's Application and Competitive Impact Statement the optimising level of production of the refineries combined is larger than the sum of the optimal throughput at each refinery in isolation. Part of this additional volume will be channelled to the independent marketers. Finally, a formula will govern the rate at which the absolute size of the call increases as the market grows.

49. The DCO properly makes no attempt to regulate the price at which Imperial is required to supply gasoline to independents. By promoting a particular formula the DCO would have risked creating a focal point around which all refiners might have stabilized price. In addition, it is not clear what formula would be appropriate in both Quebec and Ontario. If the formula were set at a given premium above the Buffalo wholesale price, then a change in US policy might undermine the purposes of the supply call. If the formula is tied to some net-back from Imperial's sales through its own service



stations, the incentive for Imperial to raise prices would be increased. How would the formula have fixed price differentials between leaded, unleaded and unleaded premium gasolines? There is no reason to believe that today's price differentials are not going to change as unleaded gasoline's market share declines further, and as refiners invest in equipment to increase the proportion of high octane unleaded gasoline output. Moreover, the formula could only be verified after the fact and would have at best an indirect influence on current competitive conditions.

50. Under the order Imperial is under an obligation to make sales to independent marketers. Other refiners will be aware of that commitment and will realize that any shared effort on their part to limit supplies to independent marketers will have at best a marginal impact. Moreover, the remaining refiners efforts to cartelize would be for the benefit of Imperial, and at their expense. They would lose revenues because of lower refinery utilization rates, while Imperial would benefit from the price enhancement effect of a supply restriction without a revenue loss because it would continue to maintain output and sell to independent marketers. As long as the refiners have surplus capacity they should also be seeking to sell products to independent marketers. Moreover, if Imperial is setting unreasonable sales terms in order to

avoid conforming with the terms of the DCO, the Director may raise the matter with the Tribunal.

51. The DCO requires Imperial to sell to the class of independent marketers at least as much gasoline as was being supplied by both Nanticoke and Sarnia prior to the merger. There is no particular reason for increasing that maximum amount beyond the growth of the market, and there are some reasons not to increase the amount guaranteed under the supply requirement. In a market characterized by inelastic demand, a larger supply requirement would have forced Imperial to find new sales at the expense of imported gasoline or other refiners' sales. In the short term this might have been difficult if the independent marketers were tied to long term contracts. In any event, the effect of such an expanded supply requirement would have been to give independent marketers an opportunity to force Imperial's prices to levels below market prices and possibly below marginal costs. Imperial would have found itself in the awkward position of searching for customers who might all have been contractually tied to other sources of supply. Imperial might have had to reduce sales at its own stations and dealers in order to allow independent marketers a sufficient volume at retail to warrant acquiring more gasoline from Imperial, which is not necessarily a pro-competitive outcome. It is an anti-competitive outcome if

some marginal and inefficient independent marketers are maintained solely through access to supplies of gasoline at below market prices. Imperial can under the DCO avoid some of the pressure to lower its prices on sales to independent marketers by refusing to supply persons not willing to meet usual trade terms. The outcome however would likely leave Imperial selling considerably less than its maximum. The remedy here is that Imperial would wish to avoid the bad publicity associated with an independent marketer, or the Director on his own initiative, bringing the matter to the Competition Tribunal. A larger maximum supply commitment would be impractical without a price setting formula, which as was explained in the previous paragraph is not desirable from a competition perspective.

52. To go further and allocate product in any particular way among independent marketers is tantamount to the detailed regulation of the gasoline supply which is not appropriate for an action designed to enhance competition. The latter policy would have been anti-competitive by having created windfall gains for some and entry barriers for others.
53. The term of the order extends beyond the time at which it is expected that additional investment in refinery

capacity will be needed. It allows sufficient time for independent marketers to make other long term arrangements if they think it necessary. Independent marketers ought not in the long run to depend upon the state to source their gasoline for them. In the long run, it is a more competitive strategy for independent marketers to provide a market for independent wholesale importers or new refiners, or to build their own marine terminal facilities to give them the option to either buy from the domestic or foreign refiner. The supply order is properly an interim measure, ensuring that the independent marketers are protected during the immediate aftermath of the merger and before expanded terminalling facilities can be put in place. It also ensures the survival of the independent marketers during any temporary break in imports. Finally it undermines any possible effort by a concentrated refinery sector to reduce domestic gasoline supplies to independent marketers.

54. (c) Five hundred and forty three service station sites will be made available in those most concentrated markets where independent marketers are under represented. The DCO strengthens the non-major refiner/marketer group considerably and weakens equivalently the vertically

integrated refiner/marketer oligopoly. The DCO achieves this pro-competitive effect, despite the ease of entry into gasoline retailing and Imperial's self-interest in disposing of a certain number of redundant stations, by imposing on Imperial certain conditions on the choice of station sites to be divested. Under the terms of the Order, Imperial must include in its divestment package a number of company owned stations and the average volumes of the stations divested are tied to the average volumes of independent marketers in that market region. To the extent that there is a shortage of prime service station locations, that new others have less access to such sites, and that site location dominates price in generating higher gasoline sales volumes, the divestiture strengthens those marketers (regional refiner-marketers and independent marketers) on the fringe of the oligopoly.

55. The DCO recognizes that the structural change brought about by the merger would likely substantially limit competition should the import option be interfered with. Protectionist policies, the future disappearance of surplus refinery capacity and the potential inadequacy of the infra-structure for importing large volumes of gasoline, all threaten the independent marketers' sources

of competitively priced gasoline supplies. The DCO's remedies address these concerns.

56. In the present environment for the gasoline distribution industry prevailing outside Atlantic Canada, it would be inappropriate and wasteful to consider imposing substantial private costs on the parties to a merger and social costs on the community by preventing the merger's efficiency gains to be realized. There are real and significant efficiency gains to be realized from the merger, especially through Imperial's joint operation of the Nanticoke and Sarnia refineries. Only low cost remedies having the effect of constraining any future potential for the industry to cartelize should be applied.

57. The DCO provides an appropriate set of remedies. In whatever future contingency, the DCO assures through the independent marketers' call on Imperial to supply a mechanism for assuring that the merger will increase rather than reduce the pre-merger level of supply to independent marketers. By agreeing to divest marine terminals, Imperial will be potentially making available facilities to independent marketers for importing and distributing gasoline. The latter remedy seems to meet

Imperial's needs because it has sufficient storage facilities for its own requirements. However, the DCO ensures that Imperial does not hoard the facilities and that the facilities must be made available without petroleum use covenants. Finally, divestiture of gasoline stations has been structured in such a way that a significant number of viable well located stations will likely become available to independent marketers and regional refiner-marketers. In the event that the import option may be interrupted, the presence of a stronger non-major refiner-marketer network reduces the likelihood that the refiners could successfully cartelize the industry.

58. In Atlantic Canada, the marketers without refineries are rivals of Imperial and the other Atlantic refiners, with the exception of Newfoundland Processing, in other parts of Canada where they do have refineries. They may if circumstances permit engage in cartelization both within and outside Atlantic Canada. None of the marketers with refineries in the Atlantic or outside qualify as fringe firms that help constrain the power to cartelize. Irving and Petro Canada will be in the same size category as Imperial post merger, absent the DCO, and Shell and Ultramar are large players in other regions of Canada.

Atlantic Canada differs from other parts of Canada because of the absence of a significant number of independent marketers at retail. Accordingly, the fact that the merger raises concentration, at both the refining and marketing stages of the industry, likely lessens competition substantially by raising the likelihood that the smaller group of major firms in the industry could successfully cartelize. By requiring Imperial to make an effort to sell the package of the Eastern Passage refinery, Texaco's former terminals and its former marketing network, the DCO is at the very least reestablishing the structural conditions that prevailed prior to the merger. The outcome may be more pro-competitive if the eventual purchaser is not also a refiner elsewhere in Canada. It might also be more pro-competitive if the purchaser's expertise is primarily in retailing and cross-merchandising gasoline with other retail services, and whose business strategy is aimed at bringing more effective competition to the Atlantic's retail service station network which continues to sell gasoline at the highest prices (net of taxes) in Canada. The neutral or pro-competitive outcome relative to the pre-merger state is a more likely outcome if the sale is made as a package. Selling the assets off piecemeal risks many of the assets being converted to non-petroleum



uses. Given the present surplus refinery capacity and the low average throughput at the region's service stations the closures of facilities might enhance efficiency, but at the same time it would certainly increase the likelihood of cartelization. The DCO steers a proper course through this dilemma by directing Imperial to make its best efforts to sell the combined assets, and by not permitting Imperial to impose non-petroleum use covenants on any of the assets.

CONCLUSIONS

59. In my view, the DCO is a prudent document. It imposes few costs on Imperial, preserves the merger's efficiency gains for Imperial and for society, and safeguards competition. Three considerations recommend being prudent. Foremost of these are the characteristics of the industry that tempt it to move towards cartelization. Second is the record of governmental interference that places the import option at risk. Third is the forecast that excess capacity will disappear during the early nineties. The DCO provides a measured response to one of the largest mergers ever to have occurred in Canada.

60. The competitive impact of the DCO reverses any anti-competitive impact the merger would have had. Indeed a strong

argument may be advanced that potentially competition is safer after the merger with the DCO than before.

61. Moreover, these pro-competitive effects are being achieved without significant private or social cost. The Competition Act recognizes that in some instances a trade-off may exist between the efficiencies to be gained through scale and those allocative efficiencies to be lost through increased market power. As noted by the RTPC, this is the most significant consideration that argues against, in the circumstances of today's petroleum industry, outside Atlantic Canada, seeking a structural remedy as for instance an order for Imperial to divest either the Sarnia or Nanticoke refinery. Were the border closed to imported gasoline, one would have to face directly the trade off between on the one hand a far more concentrated refinery sector in Quebec/Ontario, and, on the other hand, the substantial efficiencies associated with the merger of the two refineries. In today's circumstances, in my judgment the DCO safeguards competition and maintains the merger's efficiencies.

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APPENDIX I: VERTICAL INTEGRATION AND OLIGOPOLY

62. There is bound to be some uncertainty about the relationship between theory on oligopoly and the applicable theory to this or any merger because the literature on oligopoly theory presents several different, yet overlapping, approaches. One author (Shubik 1975) divides the literature into four broad approaches. "The approaches are:

- (1) mathematical models of oligopolistic competition,
- (2) institutional studies and industrial organization,
- (3) "neoclassical" oligopoly theory, and
- (4) behavioral models of oligopoly, the "new industrial organization" and gaming experimentation"(p. 280).

Given the competing models, Shubik offers a list of desiderata for a reasonable model, which include that they:

- "(a) depend explicitly on the number of participants;
- (b) contain an explicit description of the functioning of the market mechanism;
- (c) be able to handle nonsymmetric information conditions;...
- (f) have assets and capital structure play an important role" (p. 282-3).

63. Stigler's (1964) model falls into Shubik's class (2), and it continues to hold up well in relation to class (3) models. It incorporates all four of the desiderata listed above. In connection with non-symmetric information, Stigler emphasised detection over deterrence, because:

"Once detected, the deviations will tend to disappear because they are no longer secret and will be matched by fellow conspirators if they are not withdrawn (p.

46).....In general the policing of a price agreement involves an audit of the transactions prices" (p. 47).

He then concluded that:

"It follows that oligopolistic collusion will often be effective against small buyers even when it is ineffective against large buyers" (p. 47).

64. About the role of factors that affect detection and deterrence in oligopolies, Cowling (Cowling, 1983) writes that:

"Collusive pricing would tend to be stable if each member of the oligopoly group felt certain that its own price cutting behaviour would be rapidly detected and would lead to an immediate and substantial response. The shorter the retaliatory lag, the more likely it is that the collusive price would be maintained since the transient gains from price cutting will be limited compared with the long-term losses associated with industry equilibrium at a lower price level. (p341-342).... Thus rivalry and collusion coexist and result from a high degree of concentration within a specific market. The closer the rivalry, the more immediate is the response to any attempt to secure an advantage, but the very immediacy of the expected response serves to maintain the degree of collusion - competitive price cutting remains potential rather than real" (p.342).

65. Osborne (Osborne 1976) emphasized that retaliation does not automatically follow detection, because after the cheater is identified the remaining cartel members may fear destabilizing the cartel still further. Smaller members of the cartel can therefore often chip away at the cartel one small step at a time. Therefore, the presence of a fringe of smaller firms threatens the stability of a cartel.

66. Several authors [(Phelps 1981), (Marvel 1978), (Allen 1981) and (Masson 1976)], stress that in the petroleum industry a cartel promises high returns. Therefore, petroleum firms have a strong incentive to integrate vertically into gasoline retailing in order to facilitate a horizontal cartel among refiners. Vertical restraints and vertical integration are almost always pro-competitive, but may be anti-competitive when integration is an instrument of a horizontal joint profit-maximizing cartel, or oligopoly, which makes it easier for the manufacturers to monitor the behaviour of their rivals (Mathewson 1985). If gasoline is sold to independently owned retail chains at wholesale prices it is fairly simple for a refiner to make separate and secret price arrangements with certain customers. This potential exists because there are few buyers and contracts may be for large amounts and for long time periods. Moreover, the buyers will share with the seller the desire to maintain the confidentiality of the terms of the sale. Such deals might go undetected by the companies' rivals for quite some time, or they may be so large and significant that the cheater accepts the risk of retaliation and counts on the ex post rationality of the remaining cartel members to avoid retaliation.

67. Writing about detection and deterrence specifically for the petroleum industry Phelps(1981) notes that:

"Expected response will be higher where rivals can easily detect changes in a firm's price-quantity decision. This aspect has been addressed in some detail by Stigler (1964). Detection of a firm's price cuts will tend to be more difficult when rivals face high fluctuations in sales and in buyers. This is because rivals cannot easily distinguish exogenously induced changes in sales or buyer movement from those caused by a competitor's price reduction. More specifically, Stigler points out that large buyers, high buyer turnover and unstable demand all make detection of price cuts difficult and therefore, make the size of the expected response lower. Vertical integration to the consumer clearly alters the size of the buyer (p. 9)... refinery sale conditions seem to fit Stigler's criteria for difficult detection. These conditions clearly fit the petroleum industry. Thus the conjectural variation for refinery sales is low and unless it can be sufficiently altered, significant levels of market power will not be attained(p. 10 )... a major effect of vertical integration, to the retail level, is to alter the conditions of sale so that it is easier to detect cheating" (p.12).

68. Like Phelps, Marvel (1978) argues that:

"The informational theory of oligopoly stresses the inherent instability of collusive agreements (p. 252). . . Yet no firm will cheat if it is convinced that its action will be discovered immediately and that once discovered, the competitive response of its rivals will result in a loss of not only the gains it obtained through cheating but also the monopoly gains from collusion (p.252)... the difficulty of enforcing a cartel agreement depends on the ability of a cartel member to observe either the true transaction prices charged or the quantities sold by other cartel members (p.253)... In the gasoline market, however, policing is facilitated by the availability of gasoline pump prices (p. 252)... A related characteristic of the gasoline market that facilitates collusion is the small size of individual gasoline stations relative to supplier operations in most areas" (p253).

69. Allen(1981) writes similarly that:

"Oligopolists who seek to maximize joint profits without formal collusion will aim for stable market shares and for prices that are visible enough to deter cheating. (p.74) ... Accordingly, collusion should be less full and market shares more unstable precisely where the secondary market (independent-marketers market share is large;G.L.) is more



well developed, or where major oil companies are less dominant" (p.75).

70. Mathewson and Winter, in a recent review titled " Competition Policy and Vertical Exchange" (1985), note that ,

" A manufacturer cartel might use RPM ( a vertical restraint, G.L.) as a cartel- facilitating device, an instrument to stabilize the cartel by allowing price-fixing at the retail rather than the wholesale level, which is difficult to monitor ( underlining not in original, G.L.). If this is the case, the prohibition of RPM, or of any facilitating device, will enhance efficiency"(p.101).

In general, Mathewson and Winter point out that in the case of all cartel measures the cartel facilitating device operates only in the presence of the following necessary conditions:

" a small number of producers, nearly identical products with a stable product set, and barriers to entry (including significant tariffs)" (p. 104).

APPENDIX 2 : INDEPENDENT MARKETERS MARKET SHARES BY REGION

71. The following collection of tables documents the position of the private brand dealers in regional markets. These data are collected by Statistics Canada's Prices Division using a monthly survey of almost all the refiners in Canada. I am informed that only Parkland is excluded. In the Atlantic, Ontario and Quebec these data give a reasonably accurate picture of the independent - marketers market share. In the Prairies, the data fails to differentiate between a major refiner like Petro Canada and those regional refiners like Turbo, Husky and the Co-op that have been actively entering the refining industry from a base in marketing. Moreover, in all parts of the country, the data distort the true share of the private brand dealers in retail gasoline sales to motorists because some gasoline sales to Private Brand Dealers move into the farm class of trade rather than the retail gasoline market class, and because imports of gasoline by independent marketers are not included. The latter source of distortion can be remedied for volume measures, and without distinguishing between types of gasoline, because the National Energy Board collects imports of gasoline (undifferentiated by type) by refiners and non-refiners for Quebec, Ontario and British Columbia. Except in Quebec, the imports do not significantly alter the volumetric market shares. In Quebec, imports by independents added about 2 percentage points, or about 10% of market share excluding imports, to the independents

market share measured by total volume in 1988. Imports had no influence on market shares in 1985. Outside Quebec the volumes imported by independents has virtually no impact, so that market shares for Canada remain unchanged due to rounding. The effect of some farm sales being included in the data is probably small; the farm sales do not necessarily affect the trend in market shares since the percentage going to the farm trade may be stable over time. Finally, since Kent surveys cover 70% of a region's gasoline sales, the similarity between a Kent market share for the combined sales in a region with Statistics Canada's provincial share gives us greater confidence in the latter data.

72. The tables show that refiners sales through their own networks have remained reasonably stable over the past few years following the declines observed for the earlier part of the decade. Sales in 1988 reached 21.3 billion kilolitres. Gross revenues on sales of course fell more steeply as gasoline prices dropped from about 35 cents per litre in 1985 to about 25 cents per litre in 1988. Gasoline usage is shifting rapidly away from leaded toward unleaded and unleaded premium gasolines, but regional differences in usage ratios are pronounced. Quebec is a proportionally heavy user of premium unleaded and the Prairies use a high proportion of leaded gasoline. Atlantic Canada's prices run between 10 and 20 percent above Ontario prices. Quebec prices are also higher, running between 10 and 13 percent above Ontario's gasoline prices. In 1985

and 1986 the Prairies and British Columbia shared the same high prices with Quebec. In 1987 and 1988 Western gasoline prices have fallen towards Ontario's levels, remaining just 5% higher. Higher prices outside Ontario may be in part explained by the far larger number of gasoline stations needed to serve a more dispersed population. Consequently the refiner distributor will encounter higher costs in order to transport gasoline over greater distances and to supply lesser volumes at each stop. In addition the marketing operation of the refiner will be more expensive when there are more stations over a larger territory to serve. Yet the variance across provinces reported in these data are net of retailers margins, and it is the retail margin that ought to reflect the largest portion of the higher cost due to the lower volumes sold per station in Quebec and the Atlantic. Retail margins for urban areas in Canada are reported by Kent. These margins vary over time, but they have tended in recent years to run about 3 cents per litre in Ontario and the West and about 4 cents per litre in Quebec and the Atlantic. The implied wholesale margin earned by refiners in Quebec are very much higher than those refiners earn elsewhere in Canada and Ontario. Why this should be so is unclear. It is not true that the fact of larger independent imports into Quebec is forcing Quebec refiners to lower prices on sales to private brand dealers. The prices on such sales differ little in Quebec from those in Ontario.

**TABLE 1**

**PRIVATE BRAND DEALERS' MARKET SHARE BASED ON VOLUMES  
PURCHASED FROM REFINERS, AND ADJUSTED FOR PBD IMPORTS,  
BY TOTAL AND TYPE OF GASOLINE; 1985-1986**

| <i><b>TYPE OF GASOLINE</b></i> | <i><b>MARKET SHARE</b></i> |               |                |                 |                |               |
|--------------------------------|----------------------------|---------------|----------------|-----------------|----------------|---------------|
|                                | <u>ATLANTIC</u>            | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <i><b>1988</b></i>             |                            |               |                |                 |                |               |
| PREMIUM UNLEADED               | NA                         | 15%           | 16%            | 7%              | NA             | 14%           |
| REGULAR LEADED                 | NA                         | 30%           | 32%            | 27%             | NA             | 26%           |
| REGULAR UNLEADED               | NA                         | 19%           | 27%            | 16%             | NA             | 21%           |
| -----                          |                            |               |                |                 |                |               |
| TOTAL                          | NA                         | 20%           | 26%            | 20%             | NA             | 21%           |
| TOTAL ADJUSTED<br>FOR IMPORTS  | NA                         | 23%           | 27%            | 20%             | NA             | 21%           |
| <i><b>1987</b></i>             |                            |               |                |                 |                |               |
| PREMIUM UNLEADED               | NA                         | 14%           | 13%            | 9%              | NA             | 12%           |
| REGULAR LEADED                 | NA                         | 29%           | 30%            | 30%             | NA             | 27%           |
| REGULAR UNLEADED               | NA                         | 16%           | 24%            | 20%             | NA             | 20%           |
| -----                          |                            |               |                |                 |                |               |
| TOTAL                          | NA                         | 18%           | 24%            | 24%             | NA             | 21%           |
| TOTAL ADJUSTED<br>FOR IMPORTS  | NA                         | 22%           | 24%            | 24%             | NA             | 21%           |
| <i><b>1986</b></i>             |                            |               |                |                 |                |               |
| PREMIUM UNLEADED               | NA                         | 13%           | 11%            | 8%              | NA             | 11%           |
| REGULAR LEADED                 | NA                         | 25%           | 27%            | 30%             | NA             | 26%           |
| REGULAR UNLEADED               | NA                         | 15%           | 22%            | 20%             | NA             | 19%           |
| -----                          |                            |               |                |                 |                |               |
| TOTAL                          | NA                         | 18%           | 22%            | 25%             | NA             | 21%           |
| TOTAL ADJUSTED<br>FOR IMPORTS  | NA                         | 20%           | 23%            | 25%             | NA             | 21%           |
| <i><b>1985</b></i>             |                            |               |                |                 |                |               |
| PREMIUM UNLEADED               | NA                         | 10%           | 12%            | 9%              | NA             | 10%           |
| REGULAR LEADED                 | NA                         | 20%           | 29%            | 28%             | NA             | 25%           |
| REGULAR UNLEADED               | NA                         | 16%           | 24%            | 19%             | NA             | 20%           |
| -----                          |                            |               |                |                 |                |               |
| TOTAL                          | NA                         | 16%           | 24%            | 24%             | NA             | 21%           |
| TOTAL ADJUSTED<br>FOR IMPORTS  | NA                         | 16%           | 24%            | 24%             | NA             | 21%           |

Source: Calculated from data supplied by Statistics Canada, Prices Division and the National Energy Board

**TABLE 2**

**PRIVATE BRAND DEALERS' MARKET SHARES BASED ON REFINERS' REVENUES ON SALES TO PRIVATE BRAND DEALERS AND SALES THROUGH REFINERS' BRAND RETAIL OUTLETS; 1985-1988**

| <i><b>TYPE OF GASOLINE</b></i> | <i><b>MARKET SHARE</b></i> |               |                |                 |                |               |
|--------------------------------|----------------------------|---------------|----------------|-----------------|----------------|---------------|
|                                | <u>ATLANTIC</u>            | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <i><b>1988</b></i>             |                            |               |                |                 |                |               |
| PREMIUM UNLEADED               | NA                         | 11%           | 13%            | 6%              | NA             | 10%           |
| REGULAR LEADED                 | NA                         | 24%           | 29%            | 23%             | NA             | 22%           |
| REGULAR UNLEADED               | NA                         | 14%           | 22%            | 13%             | NA             | 16%           |
|                                | -----                      | -----         | -----          | -----           | -----          | -----         |
|                                | NA                         | 14%           | 21%            | 16%             | NA             | 16%           |
| <i><b>1987</b></i>             |                            |               |                |                 |                |               |
| PREMIUM UNLEADED               | NA                         | 11%           | 11%            | 7%              | NA             | 10%           |
| REGULAR LEADED                 | NA                         | 24%           | 27%            | 25%             | NA             | 23%           |
| REGULAR UNLEADED               | NA                         | 13%           | 20%            | 16%             | NA             | 16%           |
|                                | -----                      | -----         | -----          | -----           | -----          | -----         |
|                                | NA                         | 14%           | 21%            | 20%             | NA             | 17%           |
| <i><b>1986</b></i>             |                            |               |                |                 |                |               |
| PREMIUM UNLEADED               | NA                         | 10%           | 10%            | 5%              | NA             | 9%            |
| REGULAR LEADED                 | NA                         | 19%           | 24%            | 24%             | NA             | 22%           |
| REGULAR UNLEADED               | NA                         | 12%           | 19%            | 16%             | NA             | 16%           |
|                                | -----                      | -----         | -----          | -----           | -----          | -----         |
|                                | NA                         | 13%           | 20%            | 19%             | NA             | 17%           |
| <i><b>1985</b></i>             |                            |               |                |                 |                |               |
| PREMIUM UNLEADED               | NA                         | 9%            | 11%            | 7%              | NA             | 9%            |
| REGULAR LEADED                 | NA                         | 18%           | 27%            | 24%             | NA             | 22%           |
| REGULAR UNLEADED               | NA                         | 13%           | 21%            | 16%             | NA             | 17%           |
|                                | -----                      | -----         | -----          | -----           | -----          | -----         |
|                                | NA                         | 14%           | 22%            | 20%             | NA             | 18%           |

Source: Calculated from data supplied by Statistics Canada, Prices Division

Note: PBD - Private Brand Dealers - This category is equivalent to the retailers called the independent gasoline marketers in the text.

This table reports the ratio of PBD purchases of gasoline divided by the sum of PBD purchases (by dollar values) and refiners' revenues from sales through branded outlets.

TABLE 3

|   |
|---|
| <b>PRICES OF GASOLINE (NET OF RETAIL MARGIN AND TAXES)<br/>SOLD THROUGH REFINER BRAND RETAIL OUTLETS; 1985-1988</b> |
|---|

| <i>TYPE OF GASOLINE</i> | <i>PRICES, CENTS/LITRE</i> |               |                |                 |                |               |
|-------------------------|----------------------------|---------------|----------------|-----------------|----------------|---------------|
|                         | <u>ATLANTIC</u>            | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <b><u>1988</u></b>      |                            |               |                |                 |                |               |
| PREMIUM UNLEADED        | 29.75                      | 30.78         | 27.37          | 26.08           | 27.53          | 28.64         |
| REGULAR LEADED          | 26.63                      | 25.29         | 22.09          | 22.71           | 23.51          | 23.24         |
| REGULAR UNLEADED        | 28.7                       | 28.5          | 25.14          | 24.93           | 25.84          | 26.24         |
| <b><u>1987</u></b>      |                            |               |                |                 |                |               |
| PREMIUM UNLEADED        | 30.52                      | 32.01         | 29.32          | 30.13           | 30.5           | 30.54         |
| REGULAR LEADED          | 27.5                       | 26.7          | 24.34          | 26.14           | 26.33          | 25.72         |
| REGULAR UNLEADED        | 29.93                      | 30.37         | 27.57          | 28.58           | 28.87          | 28.71         |
| <b><u>1986</u></b>      |                            |               |                |                 |                |               |
| PREMIUM UNLEADED        | 33.2                       | 30.67         | 27.25          | 31.56           | 29.98          | 29.27         |
| REGULAR LEADED          | 31.04                      | 26.96         | 23.58          | 28.77           | 27.31          | 26.48         |
| REGULAR UNLEADED        | 32.9                       | 29.73         | 26.44          | 30.58           | 29.05          | 28.51         |
| <b><u>1985</u></b>      |                            |               |                |                 |                |               |
| PREMIUM UNLEADED        | 40.16                      | 37.21         | 34.21          | 37.73           | 38.44          | 36.36         |
| REGULAR LEADED          | 37.79                      | 33.86         | 31             | 34.89           | 35.48          | 33.75         |
| REGULAR UNLEADED        | 39.74                      | 36.14         | 33.56          | 37.01           | 37.8           | 35.62         |

Source: Calculated from data supplied by statistics Canada, Prices Division

TABLE 4

|  |
|--|
| <p><b>PRICES OF GASOLINE (NET OF RETAIL MARGIN AND TAXES)</b><br/> <b>SOLD THROUGH REFINER BRAND RETAIL OUTLETS</b><br/> <b>RELATIVE TO ONTARIO; 1985-1988</b></p> |
|--|

| <i><b>TYPE OF GASOLINE</b></i> | <i><b>PRICES, CENTS/LITRE</b></i> |               |                |                 |                |               |
|--------------------------------|-----------------------------------|---------------|----------------|-----------------|----------------|---------------|
|                                | <u>ATLANTIC</u>                   | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <i><b>1988</b></i>             |                                   |               |                |                 |                |               |
| PREMIUM UNLEADED               | 1.09                              | 1.12          | 1.00           | 0.95            | 1.01           | 1.05          |
| REGULAR LEADED                 | 1.21                              | 1.14          | 1.00           | 1.03            | 1.06           | 1.05          |
| REGULAR UNLEADED               | 1.14                              | 1.13          | 1.00           | 0.99            | 1.03           | 1.04          |
| <i><b>1987</b></i>             |                                   |               |                |                 |                |               |
| PREMIUM UNLEADED               | 1.04                              | 1.09          | 1.00           | 1.03            | 1.04           | 1.04          |
| REGULAR LEADED                 | 1.13                              | 1.10          | 1.00           | 1.07            | 1.08           | 1.06          |
| REGULAR UNLEADED               | 1.09                              | 1.10          | 1.00           | 1.04            | 1.05           | 1.04          |
| <i><b>1986</b></i>             |                                   |               |                |                 |                |               |
| PREMIUM UNLEADED               | 1.22                              | 1.13          | 1.00           | 1.16            | 1.10           | 1.07          |
| REGULAR LEADED                 | 1.32                              | 1.14          | 1.00           | 1.22            | 1.16           | 1.12          |
| REGULAR UNLEADED               | 1.24                              | 1.12          | 1.00           | 1.16            | 1.10           | 1.08          |
| <i><b>1985</b></i>             |                                   |               |                |                 |                |               |
| PREMIUM UNLEADED               | 1.17                              | 1.09          | 1.00           | 1.10            | 1.12           | 1.06          |
| REGULAR LEADED                 | 1.22                              | 1.09          | 1.00           | 1.13            | 1.14           | 1.09          |
| REGULAR UNLEADED               | 1.18                              | 1.08          | 1.00           | 1.10            | 1.13           | 1.06          |

Source: Calculated from data supplied by statistics Canada, Prices Division



**TABLE 5**

|  |
|--|
| <p><b>PRICES ON REFINERS' SALES TO PRIVATE BRAND DEALERS<br/>(NET OF TAXES); 1985-1988</b></p> |
|--|

| <i>TYPE OF GASOLINE</i> | <i>PRICES ON REFINERS' SALES, CENTS PER LITRE</i> |               |                |                 |                |               |
|-------------------------|---|---------------|----------------|-----------------|----------------|---------------|
|                         | <u>ATLANTIC</u>                                   | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <b><i>1988</i></b>      |   |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA  | 20.92         | 20.53          | 19.31           | 20.56          | 20.71         |
| REGULAR LEADED          | 21.66   | 18.08         | 19.01          | 17.99           | 20.21          | 18.71         |
| REGULAR UNLEADED        | 22.85   | 18.85         | 19.39          | 19.46           | 21.7           | 19.47         |
| <b><i>1987</i></b>      |   |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA  | 24.29         | 24.06          | 23.38           | 24.03          | 24.13         |
| REGULAR LEADED          | 21.69   | 21.05         | 21.09          | 20.45           | 21.8           | 20.99         |
| REGULAR UNLEADED        | 23.54   | 22.92         | 22.51          | 22.02           | 22.95          | 22.56         |
| <b><i>1986</i></b>      |   |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA  | 22.38         | 23.05          | 22.28           | 23.06          | 22.81         |
| REGULAR LEADED          | 24.06   | 19.42         | 20.65          | 21.16           | 20.79          | 20.69         |
| REGULAR UNLEADED        | 25.69   | 22.04         | 22.32          | 22.34           | 21.81          | 22.3          |
| <b><i>1985</i></b>      |   |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA  | 31.33         | 31.18          | 30.85           | 33.18          | 31.45         |
| REGULAR LEADED          | 31.35   | 28.71         | 28.32          | 27.93           | 29.74          | 28.55         |
| REGULAR UNLEADED        | 32.54   | 29.84         | 29.58          | 30.1            | 30.69          | 29.87         |

Source: Calculated from data supplied by statistics Canada, Prices Division

Note: PBD - Private Brand Dealers - This category is equivalent to the retailers called the independent gasoline marketers in the text.

TABLE 6

|   |
|---|
| <b>IMPLIED REFINER WHOLESALE MARGINS; 1985-1988</b> |
|---|

| TYPE OF GASOLINE   | IMPLIED WHOLESALE MARGIN, CENTS/LITRE |               |                |                 |                |               |
|--------------------|---------------------------------------|---------------|----------------|-----------------|----------------|---------------|
|                    | <u>ATLANTIC</u>                       | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <b><u>1988</u></b> |                                       |               |                |                 |                |               |
| PREMIUM UNLEADED   | NA                                    | 9.86          | 6.84           | 6.77            | 6.97           | 7.93          |
| REGULAR LEADED     | 4.97                                  | 7.21          | 3.08           | 4.72            | 3.30           | 4.53          |
| REGULAR UNLEADED   | 5.85                                  | 9.65          | 5.75           | 5.47            | 4.14           | 6.77          |
| <b><u>1987</u></b> |                                       |               |                |                 |                |               |
| PREMIUM UNLEADED   | NA                                    | 7.72          | 5.26           | 6.75            | 6.47           | 6.41          |
| REGULAR LEADED     | 5.81                                  | 5.65          | 3.25           | 5.69            | 4.53           | 4.73          |
| REGULAR UNLEADED   | 6.39                                  | 7.45          | 5.06           | 6.56            | 5.92           | 6.15          |
| <b><u>1986</u></b> |                                       |               |                |                 |                |               |
| PREMIUM UNLEADED   | NA                                    | 8.29          | 4.20           | 9.28            | 6.92           | 6.46          |
| REGULAR LEADED     | 6.98                                  | 7.54          | 2.93           | 7.61            | 6.52           | 5.79          |
| REGULAR UNLEADED   | 7.21                                  | 7.69          | 4.12           | 8.24            | 7.24           | 6.21          |
| <b><u>1985</u></b> |                                       |               |                |                 |                |               |
| PREMIUM UNLEADED   | NA                                    | 5.88          | 3.03           | 6.88            | 5.26           | 4.91          |
| REGULAR LEADED     | 6.44                                  | 5.15          | 2.68           | 6.96            | 5.74           | 5.20          |
| REGULAR UNLEADED   | 7.20                                  | 6.30          | 3.98           | 6.91            | 7.11           | 5.75          |

Source: Calculated from data supplied by statistics Canada, Prices Division

This table reports the differences between refiners' average revenues on retail sales (net of taxes and the retail margin) and the refiners' prices on sales (at wholesale) to private brand dealers.

**TABLE 7**

**IMPLIED REFINER WHOLESAL MARGINS RELATIVE TO CANADA; 1985-1988**

| <i>TYPE OF GASOLINE</i> | <i>CENTS/LITRE</i> |               |                |                 |                |               |
|-------------------------|--------------------|---------------|----------------|-----------------|----------------|---------------|
|                         | <u>ATLANTIC</u>    | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <b><i>1988</i></b>      |                    |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                 | 1.24          | 0.86           | 0.85            | 0.88           | 1.00          |
| REGULAR LEADED          | 1.10               | 1.59          | 0.68           | 1.04            | 0.73           | 1.00          |
| REGULAR UNLEADED        | 0.86               | 1.43          | 0.85           | 0.81            | 0.61           | 1.00          |
| <b><i>1987</i></b>      |                    |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                 | 1.20          | 0.82           | 1.05            | 1.01           | 1.00          |
| REGULAR LEADED          | 1.23               | 1.19          | 0.69           | 1.20            | 0.96           | 1.00          |
| REGULAR UNLEADED        | 1.04               | 1.21          | 0.82           | 1.07            | 0.96           | 1.00          |
| <b><i>1986</i></b>      |                    |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                 | 1.28          | 0.65           | 1.44            | 1.07           | 1.00          |
| REGULAR LEADED          | 1.21               | 1.30          | 0.51           | 1.31            | 1.13           | 1.00          |
| REGULAR UNLEADED        | 1.16               | 1.24          | 0.66           | 1.33            | 1.17           | 1.00          |
| <b><i>1985</i></b>      |                    |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                 | 1.20          | 0.62           | 1.40            | 1.07           | 1.00          |
| REGULAR LEADED          | 1.24               | 0.99          | 0.52           | 1.34            | 1.10           | 1.00          |
| REGULAR UNLEADED        | 1.25               | 1.10          | 0.69           | 1.20            | 1.24           | 1.00          |

Source: Calculated from data supplied by statistics Canada, Prices Division

**TABLE 8**

|   |
|---|
| <b>REFINER REVENUES ON SALES<br/>TO PRIVATE BRAND DEALERS (NET OF TAXES); 1985-1988</b> |
|---|

| <i>TYPE OF GASOLINE</i> | <i>REVENUE - IN THOUSANDS OF DOLLARS</i> |               |                |                 |                |               |
|-------------------------|--|---------------|----------------|-----------------|----------------|---------------|
|                         | <u>ATLANTIC</u>                          | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <b><i>1988</i></b>      |  |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                                       | 5,384.45      | 6,211.17       | 501.36          | NA             | 12,947.13     |
| REGULAR LEADED          | NA                                       | 4,666.43      | 13,090.97      | 9,425.30        | NA             | 31,101.11     |
| REGULAR UNLEADED        | NA                                       | 12,806.22     | 38,076.07      | 8,025.23        | NA             | 63,771.08     |
|                         | -----                                    |               |                |                 | -----          |               |
|                         | NA                                       | 22,857.10     | 57,378.20      | 17,951.89       | NA             | 107,819.32    |
| <b><i>1987</i></b>      |  |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                                       | 4,993.47      | 4,930.74       | 662.75          | NA             | 11,305.60     |
| REGULAR LEADED          | NA                                       | 7,482.64      | 18,490.59      | 14,264.96       | NA             | 47,422.50     |
| REGULAR UNLEADED        | NA                                       | 11,691.54     | 35,142.81      | 10,220.83       | NA             | 63,516.78     |
|                         | -----                                    |               |                |                 | -----          |               |
|                         | NA                                       | 24,167.65     | 58,564.14      | 25,148.54       | NA             | 122,244.88    |
| <b><i>1986</i></b>      |  |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                                       | 3,342.54      | 3,918.96       | 435.24          | NA             | 8,271.13      |
| REGULAR LEADED          | NA                                       | 8,016.48      | 21,145.70      | 16,487.64       | NA             | 55,325.18     |
| REGULAR UNLEADED        | NA                                       | 9,996.09      | 33,327.64      | 9,709.14        | NA             | 59,283.66     |
|                         | -----                                    |               |                |                 | -----          |               |
|                         | NA                                       | 21,355.11     | 58,392.31      | 26,632.02       | NA             | 122,879.98    |
| <b><i>1985</i></b>      |  |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                                       | 3,153.77      | 3,653.86       | 596.82          | NA             | 8,355.76      |
| REGULAR LEADED          | NA                                       | 11,860.65     | 30,090.42      | 23,171.93       | NA             | 80,264.70     |
| REGULAR UNLEADED        | NA                                       | 13,367.48     | 37,628.87      | 11,137.21       | NA             | 69,747.35     |
|                         | -----                                    |               |                |                 | -----          |               |
|                         | NA                                       | 28,381.90     | 71,373.15      | 34,905.96       | NA             | 158,367.81    |

Source: Calculated from data supplied by Statistics Canada, Prices Division

Note: PBD - Private Brand Dealers - This category is equivalent to the retailers called the independent gasoline marketers in the text.

TABLE 9

|  |
|--|
| <b>REFINER REVENUES ON SALES<br/>THROUGH REFINER BRAND RETAIL OUTLETS; 1985-1988</b> |
|--|

| TYPE OF GASOLINE   | REVENUE - IN THOUSANDS OF DOLLARS |            |            |            |           |            |
|--------------------|-----------------------------------|------------|------------|------------|-----------|------------|
|                    | ATLANTIC                          | QUEBEC     | ONTARIO    | PRAIRIES   | PACIFIC   | CANADA     |
| <b><u>1988</u></b> |                                   |            |            |            |           |            |
| PREMIUM UNLEADED   | 7,030.55                          | 43,236.20  | 42,525.73  | 8,563.42   | 11,062.57 | 112,410.02 |
| REGULAR LEADED     | 7,293.74                          | 15,163.96  | 31,802.16  | 32,282.36  | 22,462.35 | 108,997.92 |
| REGULAR UNLEADED   | 32,679.92                         | 80,060.63  | 136,080.73 | 52,060.95  | 31,974.34 | 332,891.61 |
|                    | -----                             | -----      | -----      | -----      | -----     | -----      |
|                    | 47,004.21                         | 138,460.80 | 210,408.62 | 92,906.72  | 65,499.26 | 554,299.56 |
| <b><u>1987</u></b> |                                   |            |            |            |           |            |
| PREMIUM UNLEADED   | 5,755.28                          | 38,896.18  | 39,557.58  | 8,448.42   | 10,431.52 | 103,081.14 |
| REGULAR LEADED     | 9,545.80                          | 23,489.51  | 49,708.07  | 42,154.15  | 29,723.09 | 154,592.97 |
| REGULAR UNLEADED   | 30,466.85                         | 81,526.96  | 136,848.05 | 53,027.13  | 30,080.09 | 331,984.07 |
|                    | -----                             | -----      | -----      | -----      | -----     | -----      |
|                    | 45,767.93                         | 143,912.65 | 226,113.70 | 103,629.70 | 70,234.70 | 589,658.17 |
| <b><u>1986</u></b> |                                   |            |            |            |           |            |
| PREMIUM UNLEADED   | 4,764.83                          | 31,166.58  | 36,854.97  | 7,530.85   | 8,108.99  | 88,433.04  |
| REGULAR LEADED     | 14,360.56                         | 33,125.54  | 65,184.41  | 52,763.55  | 36,241.11 | 201,691.25 |
| REGULAR UNLEADED   | 28,755.92                         | 74,524.49  | 138,544.36 | 51,631.12  | 25,735.22 | 319,169.22 |
|                    | -----                             | -----      | -----      | -----      | -----     | -----      |
|                    | 47,881.31                         | 138,816.60 | 240,583.74 | 111,925.51 | 70,085.32 | 609,293.51 |
| <b><u>1985</u></b> |                                   |            |            |            |           |            |
| PREMIUM UNLEADED   | 4,894.26                          | 32,575.72  | 30,508.27  | 7,695.18   | 8,129.29  | 83,793.55  |
| REGULAR LEADED     | 20,865.30                         | 55,059.61  | 81,273.44  | 72,705.14  | 49,016.72 | 278,954.82 |
| REGULAR UNLEADED   | 32,515.07                         | 87,578.17  | 137,603.45 | 56,590.62  | 28,813.20 | 343,128.78 |
|                    | -----                             | -----      | -----      | -----      | -----     | -----      |
|                    | 58,274.62                         | 175,213.50 | 249,385.17 | 136,990.95 | 85,959.21 | 705,877.15 |

Source: Calculated from data supplied by Statistics Canada, Prices Division

TABLE 10

|  |
|--|
| <b>THE QUANTITIES OF GASOLINE SOLD BY REFINERS<br/>THROUGH REFINER BRAND RETAIL OUTLETS; 1985-1988</b> |
|--|

| TYPE OF GASOLINE | QUANTITIES (KILOLITRES) SOLD AT RETAIL |           |           |           |           |            |
|------------------|--|-----------|-----------|-----------|-----------|------------|
|                  | ATLANTIC                               | QUEBEC    | ONTARIO   | PRAIRIES  | PACIFIC   | CANADA     |
| <b>1988</b>      |  |           |           |           |           |            |
| PREMIUM UNLEADED | 236,321                                | 1,404,685 | 1,553,735 | 328,352   | 401,837   | 3,924,931  |
| REGULAR LEADED   | 273,892                                | 599,603   | 1,439,663 | 1,421,504 | 955,438   | 4,690,100  |
| REGULAR UNLEADED | 1,138,673                              | 2,809,145 | 5,412,917 | 2,088,285 | 1,237,397 | 12,686,418 |
| TOTAL            | 1,648,886                              | 4,813,433 | 8,406,315 | 3,838,141 | 2,594,672 | 21,301,449 |
| <b>1987</b>      |  |           |           |           |           |            |
| PREMIUM UNLEADED | 188,574                                | 1,215,126 | 1,349,167 | 280,399   | 342,017   | 3,375,283  |
| REGULAR LEADED   | 347,120                                | 879,757   | 2,042,238 | 1,612,630 | 1,128,868 | 6,010,613  |
| REGULAR UNLEADED | 1,017,937                              | 2,684,457 | 4,963,658 | 1,855,393 | 1,041,915 | 11,563,360 |
| TOTAL            | 1,553,631                              | 4,779,340 | 8,355,063 | 3,748,422 | 2,512,800 | 20,949,256 |
| <b>1986</b>      |  |           |           |           |           |            |
| PREMIUM UNLEADED | 143,519                                | 1,016,191 | 1,352,476 | 238,620   | 270,480   | 3,021,286  |
| REGULAR LEADED   | 462,647                                | 1,228,692 | 2,764,394 | 1,833,978 | 1,327,027 | 7,616,739  |
| REGULAR UNLEADED | 874,040                                | 2,506,710 | 5,239,953 | 1,688,395 | 885,894   | 11,194,992 |
| TOTAL            | 1,480,206                              | 4,751,593 | 9,356,823 | 3,760,993 | 2,483,401 | 21,833,017 |
| <b>1985</b>      |  |           |           |           |           |            |
| PREMIUM UNLEADED | 121,869                                | 875,456   | 891,794   | 203,954   | 211,480   | 2,304,553  |
| REGULAR LEADED   | 552,138                                | 1,626,096 | 2,621,724 | 2,083,839 | 1,381,531 | 8,265,328  |
| REGULAR UNLEADED | 818,195                                | 2,423,303 | 4,100,222 | 1,529,063 | 762,254   | 9,633,037  |
| TOTAL            | 1,492,202                              | 4,924,855 | 7,613,740 | 3,816,856 | 2,355,265 | 20,202,918 |

Source: Calculated from data supplied by statistics Canada, Prices Division

The volumes of gasoline sold by refiners through refiner brand retail outlets; premium unleaded, regular leaded, regular unleaded.

**TABLE 11**

**THE QUANTITY OF GASOLINE SOLD  
TO PRIVATE BRAND DEALERS; 1985-1988**

| <i>TYPE OF GASOLINE</i> | <i>QUANTITIES, KILOLITRES</i> |               |                |                 |                |               |
|-------------------------|-------------------------------|---------------|----------------|-----------------|----------------|---------------|
|                         | <u>ATLANTIC</u>               | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <b><u>1988</u></b>      |                               |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                            | 257,383       | 302,541        | 25,964          | NA             | 625,163       |
| REGULAR LEADED          | NA                            | 258,099       | 688,636        | 523,919         | NA             | 1,662,272     |
| REGULAR UNLEADED        | NA                            | 679,375       | 1,963,696      | 412,396         | NA             | 3,275,351     |
| TOTAL                   | NA                            | 1,194,857     | 2,954,873      | 962,279         | NA             | 5,562,786     |
| <b><u>1987</u></b>      |                               |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                            | 205,577       | 204,935        | 28,347          | NA             | 468,529       |
| REGULAR LEADED          | NA                            | 355,470       | 876,747        | 697,553         | NA             | 2,259,290     |
| REGULAR UNLEADED        | NA                            | 510,102       | 1,561,209      | 464,161         | NA             | 2,815,460     |
| TOTAL                   | NA                            | 1,071,149     | 2,642,891      | 1,190,061       | NA             | 5,543,279     |
| <b><u>1986</u></b>      |                               |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                            | 149,354       | 170,020        | 19,535          | NA             | 362,610       |
| REGULAR LEADED          | NA                            | 412,795       | 1,024,005      | 779,189         | NA             | 2,674,006     |
| REGULAR UNLEADED        | NA                            | 453,543       | 1,493,174      | 434,608         | NA             | 2,658,460     |
| TOTAL                   | NA                            | 1,015,692     | 2,687,199      | 1,233,332       | NA             | 5,695,076     |
| <b><u>1985</u></b>      |                               |               |                |                 |                |               |
| PREMIUM UNLEADED        | NA                            | 100,663       | 117,186        | 19,346          | NA             | 265,684       |
| REGULAR LEADED          | NA                            | 413,119       | 1,062,515      | 829,643         | NA             | 2,811,373     |
| REGULAR UNLEADED        | NA                            | 447,972       | 1,272,105      | 370,007         | NA             | 2,335,030     |
| TOTAL                   | NA                            | 961,754       | 2,451,806      | 1,218,996       | NA             | 5,412,087     |

Source: Calculated from data supplied by statistics Canada, Prices Division

Note: PBD - Private Brand Dealers - This category is equivalent to the retailers called the independent gasoline marketers in the text.

**TABLE 12**

**IMPORTS OF MOTOR GASOLINE;  
QUEBEC, ONTARIO AND BRITISH COLUMBIA; 1985-1988**

*(THOUSANDS OF m<sup>3</sup>/ KILOLITRES)*

|                                | <u>1985</u> | <u>1986</u> | <u>1987</u> | <u>1988</u> |
|--------------------------------|-------------|-------------|-------------|-------------|
| <b><u>QUEBEC</u></b>           |             |             |             |             |
| BY NON REFINERS                | 0.5         | 160.1       | 252.6       | 233.4       |
| BY REFINERS                    | 773.6       | 762.8       | 859.7       | 607.6       |
| <b><u>ONTARIO</u></b>          |             |             |             |             |
| BY NON REFINERS                | 11.2        | 128.1       | 45.2        | 115.2       |
| BY REFINERS                    | 4.0         | 45.7        | 129.5       | 116.8       |
| <b><u>BRITISH COLUMBIA</u></b> |             |             |             |             |
| BY NON REFINERS                | 0.9         | 0.5         | 19.4        | 111.8       |
| BY REFINERS                    | 6.4         | 0.0         | 35.0        | 0.0         |

Source: Calculated from data supplied by the National Energy Board



**TABLE 13**

**GASOLINE USAGE RATIOS; 1985-1988**

| <i>TYPE OF GASOLINE</i> | <i>USAGE RATIO</i> |               |                |                 |                |               |
|-------------------------|--------------------|---------------|----------------|-----------------|----------------|---------------|
|                         | <u>ATLANTIC</u>    | <u>QUEBEC</u> | <u>ONTARIO</u> | <u>PRAIRIES</u> | <u>PACIFIC</u> | <u>CANADA</u> |
| <b><u>1988</u></b>      |                    |               |                |                 |                |               |
| PREMIUM UNLEADED        | 14.33%             | 27.66%        | 16.34%         | 7.38%           | NA             | 16.94%        |
| REGULAR LEADED          | 16.61%             | 14.28%        | 18.73%         | 40.53%          | NA             | 23.65%        |
| REGULAR UNLEADED        | 69.06%             | 58.06%        | 64.93%         | 52.09%          | NA             | 59.42%        |
| <b><u>1987</u></b>      |                    |               |                |                 |                |               |
| PREMIUM UNLEADED        | 12.14%             | 24.28%        | 14.13%         | 6.25%           | NA             | 14.51%        |
| REGULAR LEADED          | 22.34%             | 21.11%        | 26.54%         | 46.78%          | NA             | 31.22%        |
| REGULAR UNLEADED        | 65.52%             | 54.60%        | 59.33%         | 46.97%          | NA             | 54.27%        |
| <b><u>1986</u></b>      |                    |               |                |                 |                |               |
| PREMIUM UNLEADED        | 9.70%              | 20.21%        | 12.64%         | 5.17%           | NA             | 12.29%        |
| REGULAR LEADED          | 31.26%             | 28.46%        | 31.45%         | 52.32%          | NA             | 37.38%        |
| REGULAR UNLEADED        | 59.05%             | 51.33%        | 55.90%         | 42.51%          | NA             | 50.32%        |
| <b><u>1985</u></b>      |                    |               |                |                 |                |               |
| PREMIUM UNLEADED        | 8.17%              | 16.58%        | 10.02%         | 4.43%           | NA             | 10.03%        |
| REGULAR LEADED          | 37.00%             | 34.64%        | 36.60%         | 57.85%          | NA             | 43.24%        |
| REGULAR UNLEADED        | 54.83%             | 48.78%        | 53.37%         | 37.71%          | NA             | 46.72%        |

Source: Calculated from data supplied by statistics Canada, Prices Division

This table reports each type of gasoline's share of regional gasoline sales.

APPENDIX 3: REFINERS' DOWNSTREAM SEGMENT PROFITABILITY , 1981-1987**RATES OF RETURN ON AVERAGE CAPITAL EMPLOYED**

|                               | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1987</u> |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Downstream Petroleum Ind.     | 10.5%       | 3.1%        | -0.1%       | 4.0%        | 1.4%        | 6.9%        | 6.5%        |
| Upstream Petroleum Ind.       | 7.2%        | 7.8%        | 8.1%        | 8.4%        | 6.9%        | -0.8%       | 6.7%        |
| Total Operation               |             | 5.6%        | 4.9%        | 7.1%        | 5.2%        | -0.8%       | 6.4%        |
| National Refineries/Marketers | 9.2%        | 2.3%        | -1.1%       | 3.3%        | 0.8%        | 6.6%        | 6.0%        |
| Regional Refineries/Marketers | 14.4%       | 5.4%        | 3.3%        | 6.2%        | 2.8%        | 7.5%        | 7.8%        |
| Manufacturing                 |             | 3.9%        | 9.5%        | 12.1%       | 10.2%       | 10.6%       | 14.0%       |
| Mining                        |             | -1.8%       | 1.6%        | 2.3%        | 0.9%        | 1.4%        | 10.7%       |
| Imperial                      |             | 2.6%        | 5.3%        | 4.1%        | 7.6%        | 9.0%        | 10.0%       |
| Shell                         |             |             |             |             | 7.0%        | 6.8%        | 6.1%        |
| Texaco                        |             |             |             | 3.3%        | 6.2%        | 5.9%        | NA          |
| Petro-Canada                  |             |             |             |             | 4.0%        | 3.4%        | NA          |

Source: Calculated from Petroleum Monetary Agency Reports and Company Annual Reports

APPENDIX 4: RESUME

GEORGE LERMER

|                              |          |                       |
|------------------------------|----------|-----------------------|
| Consulting Economist & Dean  | Address: | 4401 University Drive |
| Faculty of Management        |          | Lethbridge, Alberta   |
| The University of Lethbridge |          | T1K 3M4               |
|                              | Phone:   | (403) 329-2633        |
|                              | Fax:     | (403) 329-2022        |

George Lerner, B.Sc.(Massachussets Institute of Technology), M.A.,Ph.D.,(McGill), is currently Dean of the Faculty of Management of the University of Lethbridge. He joined Lethbridge as Director of the School of Management when it was founded in 1981.

Between 1976-81, Dr. Lerner was Director of the Resources Branch, Bureau of Competition Policy, Consumer Affairs Canada where he specialized in the enforcement of the Combines Investigation Act in the agriculture and energy industries. In 1980, he was seconded to the Privy Council of Canada, Federal-Provincial Office of the Task Force for the Renewal of Federalism where he developed economic policies for improving federal-provincial cooperation.

Between 1974-76, Dr. Lerner was senior economist at the Economic Council of Canada and specialized in the study of the regulation of financial institutions and markets, contributing to the study "Efficiency and Regulation," in preparation for the revision of The

Bank Act.

Between 1962-74, Dr. Lermer taught at various Canadian universities, including Concordia University in Montreal and the University of Waterloo.

He has consulted for numerous government departments and private clients and has appeared as a witness before the Restrictive Trade Practices Commission, the Ontario Securities Commission and the Canadian Import Tribunal. He advised the Royal Commission on the Economic Union and Development Prospects for Canada (MacDonald Commission) on research into industrial policy, and contributed to the Economic Council of Canada's study of crown corporations and its study of financial regulation.

Twice during 1987, Dr. Lermer was an expert witness before the Canadian Import Tribunal in connection with the countervail duty applied to imports of grain corn from the United States. For the Bureau of Competition Policy, he undertook the analysis of several mergers. On behalf of the Office of the Minister of State for Privatization and Regulatory Affairs, Dr. Lermer prepared course materials and led a training course for government regulatory officials. He also organized a workshop for forty senior managers of the Premiere group of companies. He contributed a paper, "The Economics of the Canadian Accounting Profession" to the Service Sector Project of the Institute for Research in Public Policy and

The Fraser Institute.

Included among Dr. Lermer's clients during the past year are:

Energy Mines and Resources, The Petroleum Monitoring Agency: concerned with the PMA's Report regarding the acquisition of shares of Husky Corporation by a group of Hong Kong investors, led by Li-Ki Shing.

Shell Canada Ltd.: advisor on a competition policy matter.

Caterpillar Inc.: undertaking economic research in four or five areas preparatory to being an expert witness in a civil suit scheduled for January, 1990.

Bureau of Competition Policy: consultant on the acquisition of Petrosar by Nova, and also on the acquisition of Texaco by Imperial Oil.

Dr. Lermer is the author and editor of several books and numerous articles published in professional journals that deal with risk, financial institutions, trade, industrial structure, and economic regulation, (especially of agriculture). His most recent publications, written for the Economic Council of Canada, are AECL -- An Evaluation of A Crown Corporation as a Strategist in a Global Entrepreneurial Industry and Conflicts of Interest in Financial

Markets and Their Regulation.

He is 49 years of age, married, with four children all in their early twenties.

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