Exhibit I-58(b)
Public

CT - 94/01

IN THE MATTER OF an application by the Director of Investigation and Research under section 79 of the *Competition Act*, R.S.C. 1985, c. C-34;

AND IN THE MATTER OF certain practices by A.C. Nielsen Company of Canada Limited

COMPETITION TRIBUNAL
TRIBUNAL DE LA CONCURRENCE
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I-58(b)

B E T W E E N:

THE DIRECTOR OF INVESTIGATION AND RESEARCH

Applicant

- and -

THE D&B COMPANIES OF CANADA LTD.

Respondent

- and -

INFORMATION RESOURCES, INC.

Intervenor

COMPETITION TRIBUNAL DE LA CONCURRENCE
File No. CT-94/1
No. du dossier
Director v The D&B Companies
Exhibit No. I-58(b)
No. de la pièce
Filed on Nov 1/94; 12h12
Déposée le
Registrar Shaw
Greffier

AFFIDAVIT

I, ANDREW M. ROSENFIELD, of the City of Lake Forest, Illinois, make oath and say as follows:

1. I am an economist and, together with Dr. John P. Gould, I was retained by counsel for Information Resources, Inc. ("IRI") to undertake an analysis of the economic and industrial organization aspects of certain issues raised in the Application filed by the Director of

Investigation and Research in this proceeding. Attached as Exhibit "A" to my Affidavit is a true copy of the report prepared for counsel to IRI pursuant to the aforesaid request.

2. I am an economist specializing in the application of economics to legal problems and controversies, a specialty in economics referred to as "law and economics" and in the economics of business, a specialty called "industrial organization". I am also a lawyer although I have never practised law. I am President and Co-Founder of Lexecon Inc., a leading economics consulting firm with offices in Chicago and London, and Senior Lecturer in Law at The University of Chicago Law School where I teach a variety of courses including antitrust. I have written on the economics of antitrust and I am co-author of a forthcoming casebook on that subject. I am a member of the American Economic Association, the American Finance Association and the American Law and Economic Association. I have testified as an economic expert in the District Courts of The United States and have made numerous appearances as an economic expert before the United States antitrust enforcement agencies. I and others at Lexecon have been retained to discuss the economics of antitrust by the antitrust enforcement department of the European Community, Directorate General IV, and by the Government of Puerto Rico and the Canadian Bureau of Competition Policy. Attached as Exhibit "B" is a true copy of my complete curriculum vitae.

SWORN before me at the City)
of Chicago, in the State of)
Illinois this 20TH day)
of September, 1994)

Andrew M. Rosenfield

"OFFICIAL SEAL"
RUTH ANN JOHNSON
Notary Public, State of Illinois
My Commission Expires Nov. 20, 1994

CT - 94/01

EXHIBIT "A"

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AFFIDAVIT EVIDENCE OF JOHN P. GOULD AND ANDREW M. ROSENFIELD

I. INTRODUCTION

1. We have been asked by counsel for Information Resources, Inc. ("IRI") to provide a

written analysis of the economic effects of various practices utilized in Canada by Nielsen Marketing Research ("Nielsen"), which we understand to be a division of The D&B Companies of Canada Ltd. Specifically, we have been asked to examine the effect of Nielsen's contracts with all or substantially all of the major Canadian grocery retailers that give Nielsen the exclusive right to access to such retailers' scanner data on the nature and extent of competition for providing certain types of market research in Canada. We have been asked to examine the relationship between these exclusive contracts and the issues of market definition, market power and abuse of dominant position as set out in the Application of the Director of Investigation and Research brought under section 79 of the *Competition Act* (Canada) in this proceeding.

2. As we explain in this report, we conclude that:

1) the relevant market in which to analyze Nielsen's practices is the provision of scanner-based market tracking service in Canada;

2) Nielsen has a dominant position in this market; and

3) Nielsen's exclusive contracts have the effect of preventing competition in this market. The lack of competition has resulted in higher-priced and lower-quality market tracking service in Canada than in the United States.

3. Stated briefly, Nielsen is able to maintain its dominant position in Canada by foreclosing entry into scanner-based market tracking service. It does this by using overlapping and staggered exclusive dealing contracts with the key retail grocery chains. The scanner data controlled by each of these contracts are an essential input into the production of scanner-based market tracking service and without access to such data no competitor of Nielsen can provide such service within Canada.

4. Our report and opinions are based on our professional training and experience as

economists and on information provided to us by IRI regarding the structure and practices in the U.S. and Canadian market tracking service business. We also have reviewed publicly available materials on information services offered by IRI and Nielsen. We have discussed industry practices in detail with IRI and with certain executives of consumer packaged goods companies that carry on business in both Canada and the United States that use scanner-based industry research. We also have reviewed certain summaries of interviews conducted by Professor Donald N. Thompson, a Canadian economist also retained by counsel for IRI. Finally, we have reviewed other documents of a general nature pertaining to this Application that were provided to us by counsel for IRI.

5. Our economic report is organized as follows. To understand how Nielsen's exclusive control of the scanner data works to foreclose entry and thereby create and perpetuate Nielsen's existing dominance it is necessary to understand the business of providing market tracking service and the chronology of events surrounding the recent transition to the use of scanner-based data from non-scanner-based (such as audit-based) data. These issues and the impact of the new technology are discussed in Section II. In Section III, we analyze the economic effects of Nielsen's practices. Specifically, we describe why we believe that the relevant market is the provision of scanner-based market tracking service in Canada and that Nielsen is a dominant provider in this market. We then explain why Nielsen's practices prevent competition in this market. In Section IV, we describe the effects of Nielsen's practices on the price and quality of market tracking service in Canada. Section V is a summary of our conclusions.

II. Market Tracking Service

6. Firms that produce "consumer packaged goods" and, in particular, packaged grocery products, such as cereals, cookies, canned goods, household soaps and the like, need to have a detailed understanding of sales and inventory information throughout the distribution and marketing system. While any firm such as Kraft/General Foods or Quaker or RJR/Nabisco can determine how much it has produced and how much it has shipped of any particular product, it is not easy to know how much of that product has been actually purchased by consumers or to determine how its sales compare with sales of competitors' products. Obviously no manufacturer can know its competitors' sales based only on its own production and shipment data. But it also is hard for a firm to know even its own sales to consumers. This is because there is a "pipeline" between the manufacturer and the consumer through which packaged goods flow; such products move from producer to warehouse to distributor or wholesaler to retail warehouse to the back room of the grocery store and finally to store shelf before the consumer finally purchases them.

7. In order to learn what is actually sold within a period and to allow firms to compare their sales to their rivals' sales, Arthur Nielsen (the person who gave the Nielsen firm its name) invented market tracking "audits." (The A.C. Nielsen Company was founded in 1923.) This manual- and labor-intensive exercise required Nielsen employees to count physically the in-store inventory of, say, Campbell's soup cans, compare that quantity to the amount of such cans delivered to that store in the period, add in the stock of the product on hand at the end of the last auditing period and from this produce an indirect estimate of actual sales. In other words, consumer purchases are not measured directly but are estimated based on the audited inventory and other data. Consequently, sources of error are introduced in counting and

because of the possibility of pilferage, discarded damaged goods and the like. The concept of measuring sales for market tracking through store audits was innovative and because A.C. Nielsen's first client was Campbell's and the first product audited was canned pork and beans, there is a belief that this is the source of the slang description of auditors as "bean counters."

8. Nielsen's service created a business that grew to be the dominant supplier of market tracking service in the United States, Canada, and many other countries. We understand that from the early 1930s until technological change (driven by other factors) created universal product code scanning, Nielsen functioned as a dominant firm in the sale of market tracking service. In 1984, before the technological revolution we describe in detail below occurred, the Nielsen company, still family managed, was purchased by Dun & Bradstreet for U.S. $1.3 billion.

9. Because of the basic technology of audits, the information generated suffers from some important limitations. For example, it is inherently "stale" because an estimate of sales during a period requires a great deal of time to obtain when the data are collected manually by in-store audits. Thus, when the sales estimate finally is disseminated, it is already usually several months old.

10. Similarly, because the time and expense of sending auditors into stores is so great, audits always involve "lumpy" or relatively large discrete intervals of time and are based on small samples of stores. Nielsen typically reported its audit information for time intervals two months long. Thus, a firm such as Kraft could buy information about, say, the sales of its macaroni and cheese and it would receive six sales reports per year, each representing a

two-month period. By the time the client (Kraft in this case) received that data it would be eight weeks out of date on average. In addition to being stale, the unit of observation is determined by the invoice data used. For example, if Campbell's invoices grocery stores for "cases of soup, various flavors" then an audit can only track Campbell's sales on an all-soup basis and not on a flavor-by-flavor basis. In marketing and statistical jargon, the "resolution" of an audit-based market tracking service is low.

11. Perhaps most importantly, however, the audit procedure reveals only quantity sold (and as we have explained only an indirect estimate of that) and not the transaction price at which the sale took place. This makes it impossible to study specific marketing questions such as how sales of a particular product at one or more stores are affected by a change in the product's price or the price of a competing product. Because the essence of modern market research focuses on understanding the response of consumers to a variety of factors including selling price, promotions, and advertising, this deficiency is important, especially in the context of sophisticated, current-day micromarketing methodologies.

12. In spite of all of these shortcomings, audit-based market tracking service proved useful to consumer packaged goods producers because before the mid-1980s these companies had no better sources of information. Other forms of tracking service, such as warehouse-withdrawal-based tracking service and consumer-panel-based tracking service also developed. These other types of tracking service face similar disabilities. For example, warehouse-withdrawal-based services do not include price information or direct measures of consumer sales; panel-based tracking services are based on even smaller samples than audit-based service. Because none of these other forms of market tracking service were substantial

improvements upon Nielsen's audit-based market tracking service, Nielsen's business continued to grow. (Although Selling Areas-Marketing Inc. ("SAMI") made substantial sales of its warehouse-withdrawal-based service in the United States before the advent of scanning-based market tracking service, we understand that the SAMI service was considered a complement to Nielsen's market tracking service by many of Nielsen's customers -- many producers of consumer packaged goods purchased market tracking service from both Nielsen and SAMI.) This situation was changed dramatically by the emergence of an important new technology.

13. The adoption of "universal product codes" ("UPC") and the advent of several related technologies that enabled a grocery retailer to scan the UPC on packaged goods at its checkout counters transformed the market tracking service business. Put simply, in the late 1970s it became feasible to place a bar code on each packaged good product and then program computers in grocery stores with a vast "dictionary" of products in the store and each product's current selling price. Microcomputers incorporated in the check-out counters or point of sale terminals (which had been simple cash registers at the time of A.C. Nielsen's innovation) could then be used to scan the product and thereby tell the computer the product's name, find its price and produce a written receipt for the customer, all while calculating the customer's bill. Most significantly, this technology allowed retailers to keep a minute-to-minute computer record or database of actual grocery sales.

14. Scanning revolutionized grocery retailing. It permitted better control of inventory. It made more frequent price adjustment vastly easier because a display sign could announce a price change without the need to re-mark or re-label each item of inventory. All that is

required is that the central computer dictionary be told that, say, a 20 oz. box of Kellogg's Special K cereal is now $2.48 instead of $2.39. Scanning produced less error and better control at the checkout counter by substituting a scanned entry for a typed entry. In short, scanning represented a fundamental change in grocery marketing and inventory control. Schedule 1 shows the fraction of large retail grocery stores with scanners by year in the United States.

15. The transition to scanning was driven by the economics of enhanced customer service and retail management within grocery stores. An important by-product of the transition was the creation of a real-time transactional database containing accurate and detailed information on the purchase of packaged goods in the store or chain in which the good is sold. To explain, each scanner-equipped Safeway store could now produce a computer generated report on paper or on computer tape or disk that displays the precise quantity of sales of every grocery product sold at the UPC level (this means each flavor of Campbell's soup, each size of Coke, each package type of Kraft's cheese and so on) and its actual transaction price. The information is an actual record of a sales transaction, not an estimate based on a time-consuming audit with all the attendant risk of error. Most importantly, selling price is available. In addition, the advent of scanner-based tracking service allowed manufacturers for the first time to directly match in-store promotional activity, such as a special price or an end-aisle display, with detailed sales information. For example, scanning-based information enables Campbell's to measure directly the effect on sales of reducing the price of a can of tomato soup by 25 cents. Finally, the data are collected on a "real time" basis and so the information is inherently current. Thus, accurate daily reports are feasible with the computerized system and weekly reports are routine.

16. IRI was formed in 1979 by three individuals who saw the potential value of using data available from UPC scanners to develop information about the sale of consumer packaged goods. IRI's first use of scanning data was embodied in "BehaviorScan," a service it introduced in 1980 that tested the effect of introducing new products as well as the effect of advertising campaigns and pricing promotions on the sales of existing products. BehaviorScan was not (and is still not) a national market tracking service.

17. Nielsen initially did not turn to scanning data to displace its audit data as an input to its market tracking service in spite of the inherent richness of scanner data. Nielsen first used scanning data in the United States in its "ERIM" product, which was intended to compete with IRI's BehaviorScan (and, like BehaviorScan, was not a national market tracking service). ERIM was introduced in 1984 and discontinued in 1987. Instead, we understand that Nielsen initially treated the information generated by scanning with suspicion and skepticism. IRI, however, saw the scanner revolution as a unique opportunity to offer a competing market tracking service. Nielsen was dominant in the business of providing consumer goods market tracking service and entry of new firms attempting to compete with Nielsen using the same technology as Nielsen was unlikely because of the large costs of building a network of auditors to visit grocery stores physically and the expense of persuading existing Nielsen clients to switch to a new, untested supplier of audit information.

18. But the scanning data require no great physical collection effort -- they are created automatically as a by-product of the grocery purchase transaction and so have much broader application in the market tracking service business. By obtaining the transactional data from many grocery stores, IRI could acquire a vast quantity of information with detail that was

simply unavailable from any auditing procedure. And the data are gathered with greater resolution, more frequency, for more products, with less delay, from many more stores and at lower cost. This meant that the new scanner-based service was actually much more than a "me-too" alternative to an audit-based service and hence it had a special competitive appeal to existing Nielsen clients.

19. In 1986, IRI launched its scanner-based market tracking service, which it called InfoScan, in the United States. InfoScan was the first broad-scale effort to compete with Nielsen's audit-based service since the early 1960s when SAMI had launched its warehouse-withdrawal-based market tracking service. Nielsen initially responded by asserting various alleged advantages of audit-based market tracking service and various claimed deficiencies of scanner-based market tracking service. Its response was no doubt motivated by the fact that IRI was seen by all as the leading firm and the key innovator in the sale of scanner-based market tracking service. Nielsen was not unfamiliar with scanner-based data; by then it had its own scanner-based service called ScanTrack. But Nielsen operated ScanTrack on an experimental basis and positioned it as a supplementary "key accounts" service that was offered only as a complement to its basic audit-based market tracking service.

20. The response to InfoScan was clear: packaged goods producers wanted scanner-generated marketing data. They wanted faster turnaround. They wanted price data. They wanted weekly data instead of monthly data. They wanted accuracy. They wanted the ability to measure the effect of promotional activities on sales volumes. They wanted better resolution. All of this was possible using InfoScan because InfoScan used scanner data. None of this was possible using Nielsen's audit-based tracking service.

21. The vast technological superiority of scanner-based data prevailed in the United States despite Nielsen's efforts to resist this development and adhere to the less effective audit-based methodology. IRI obtained the required scanner data and offered InfoScan to packaged goods producers who eagerly bought it. For example, Procter & Gamble, one of the world's largest producers of consumer packaged goods, switched to IRI from Nielsen for several of its U.S. divisions market tracking service needs in 1988. In 1991, the rest of the U.S. operations of Procter & Gamble switched to IRI.

22. Once Nielsen's parent Dun & Bradstreet fully recognized what was happening in the market tracking service business, it attempted in 1987 to regain its dominant position by trying to buy IRI and indeed offered a huge premium over IRI's market value to eliminate its potent rival. The U.S. Federal Trade Commission voted unanimously to seek a court order to block the acquisition. According to newspaper reports, "[t]he commission said it had reason to believe that the merger could substantially reduce competition in syndicated national tracking of which products consumers buy" ("FTC to Oppose Dun's Purchase of Rival Firm," Wall Street Journal, November 17, 1987). According to an FTC staff attorney, "[t]he main thing leading to the FTC's decision was the overwhelming opposition to the deal from the two companies' clients" ("FTC, Clients Undo 'Dun' Deal for IRI," Marketing Week, November 23, 1987). Because of the FTC's actions, Nielsen subsequently withdrew its offer to buy IRI.

23. Nielsen also responded in the United States by (at long last) admitting the superiority of scanner-based data and turning ScanTrack into a complete substitute for its audit business. By 1990 Nielsen discontinued its base grocery store auditing activities in the United States because of a lack of demand caused by the substantial superiority of the scanner-based data

offered by both IRI and Nielsen. (The other non-scanner-based market tracking services also disappeared almost completely from the United States. For example, SAMI's service was discontinued in 1990.) But within the United States IRI obtained roughly half the market sales of consumer packaged goods market tracking service within a relatively short period of time. In a period of only a few years, Nielsen's multi-decade domination of the U.S. market for packaged-goods market tracking data ended.

24. The revolutionary impact of this technological change has been most significant in the United States where Nielsen lost substantial market share to IRI.

Consumer goods producers were able to perform studies that were simply infeasible before the advent of scanner-based data. Nielsen's status as a dominant source of market tracking service was eroded as it became clear to consumer packaged goods producers that Nielsen was no longer unique and that it was not a technological leader or innovator.

25. Nielsen's delay in utilizing scanning data for tracking services seems puzzling in retrospect. But this kind of strategic inertia by dominant firms is not unique. In the United States the steel industry and the automobile industry both waited too long to respond to overseas competitors and dominant companies such as Sears Roebuck (in retailing) and IBM (in computers) were displaced by innovating competitors that were not taken seriously until it was too late.

26. As we explain in the next section, Nielsen is continuing its attempt to prevent a

repetition in Canada of its U.S. experience by entering into exclusive contracts with Canadian grocery retailers. These contracts prevent IRI or other potential Nielsen competitors from obtaining the data needed to offer a scanner-based market tracking service in Canada. As a result, Canadian consumers have been denied the benefits of lower prices and superior product quality made possible by rivalry.

III. Nielsen's Anticompetitive Practices

27. It is widely accepted that competition benefits consumers by leading to lower prices and greater innovation. (See, for example, Chapters 9 and 10 of Economic Analysis of Law, Fourth Edition, by Richard Posner, who is Chief Judge of the United States Court of Appeals for the Seventh Circuit.) In contrast, monopoly results in high prices and an inefficient allocation of society's resources -- the output of the monopolist is lower than what consumers would be willing to buy if the good were priced competitively, leading to a net loss to society referred to by economists as "deadweight loss." Economists have shown that a monopolist may adopt certain practices that are exclusionary or abusive in the sense that they tend to perpetuate monopoly needlessly. In this section we first show that scanner-based market tracking service is a relevant economic market and that Nielsen has a dominant position in this market. We then explain why Nielsen's practices in Canada are abusive and how they perpetuate its monopoly power.

28. The appropriate economic market in which to analyze Nielsen's practices is the market for the provision of scanner-based tracking data in Canada. Nielsen disputes this definition of the relevant product market. Nielsen claims that it does not have market power in Canada because the relevant economic market is broader than audit-based or scanner-based tracking

data. Nielsen argues that the appropriate definition of the market in which it competes is "Decision Support Services," of which "market tracking" is only one component. Nielsen claims that the "Decision Support Services" market consists of the integration of data (such as but not limited to market tracking data) "with information management tools, applications and human resources" (Nielsen Response, p. 3). Nielsen also suggests that "non-scanner" methods of collecting market data, such as "pooled factory shipments, warehouse withdrawals, store audits and household panels using diaries, I.D. cards and portable home scanning devices" are substitutes for scanner-based methods of collecting market data (Nielsen Response, p. 4).

29. Economic markets are defined by analyzing whether a single seller of a product in a geographic area profitably can charge a higher price for its product than multiple sellers of the same product in the same area. For example, the U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines define a relevant product market for merger analysis as "a product or group of products such that a hypothetical profit-maximizing firm that was the only present and future seller of those products ("monopolist") likely would impose at least a 'small but significant and nontransitory' increase in price" (Guidelines, section 1.11).

30. Empirical evidence (which we describe in the next section) disproves Nielsen's contention. If Nielsen's definition of the relevant product market were correct, then it would not be possible for Nielsen to charge more for its market tracking service in Canada or offer service of lower quality (where it faces no scanner-based rivals) than it does in the United States (where IRI competes in the provision of scanner-based market tracking service). That is, if Nielsen were correct, then an attempt by Nielsen to charge higher (quality-adjusted)

prices relative to its costs in Canada than in the United States would result in Nielsen losing so many Canadian customers to rival providers of non-scanner based "Decision Support Services" that it would find such a price increase unprofitable. However, we understand that Nielsen's prices in Canada are substantially in excess of its prices in the United States (and the quality of the service is substantially lower in Canada than in the United States), which demonstrates that a "significant and nontransitory" price increase by a monopolist of scanner-based market tracking service does not result in customers switching to non-scanner based "Decision Support Services" in sufficient numbers to defeat the price increase. Thus, Nielsen's definition of the relevant product market in which to analyze its Canadian practices is economically incorrect.

31. The relevant geographic market in which to analyze Nielsen's practices is Canada. U.S. information is not a substitute for Canadian information. For example, Procter & Gamble, which does not purchase market tracking service from Nielsen in the United States, does not use the U.S. information for its Canadian operations -- if Procter & Gamble wanted to know how one of its products was selling in Montreal, it could not substitute sales information from stores in Chicago. Instead, Procter & Gamble purchases Canadian data from Nielsen. Furthermore, we understand that manufacturers of consumer packaged goods desire national market tracking service in addition to "market-by-market" information and would not purchase a tracking service that provided information on only one or more regions or cities in Canada.

32. Nielsen is a monopolist of scanner-based market tracking service in Canada. There are a variety of well-understood methods used by monopolists to try to inhibit entry or to extend or "leverage" monopoly power. In some cases, a monopolist will attempt to forestall

entry by refusing to deal with customers on any basis other than a long-term exclusive contract thereby foreclosing rivals from access to customers. In other cases a monopolist will use a monopoly in one market (say a monopoly created by law or regulation) to try to monopolize another market by tying the monopolized good to other goods. A classic illustration of this practice occurred in the United States throughout the 1970s when the pre-divestiture AT&T had a legal monopoly of the local exchange telephone business and insisted that all of its customers (roughly everyone in the United States) buy all of their telephone equipment and all of their long-distance telephone service exclusively from it. This is a classic exclusionary practice or abuse of dominant position that extended and misused AT&T local exchange monopoly power.

33. The AT&T practice bears a great similarity to the practice Nielsen has adopted in Canada. AT&T was able to monopolize the telephone equipment business in the United States because it owned and thereby controlled access to the local telephone network. If a resident of Chicago or New York or Los Angeles wanted to connect to the nation's telephone network it had to use an AT&T supplied telephone because the network was an "essential facility." Courts in the United States treated AT&T's practices as exclusionary and declared them illegal. Subsequent to this decision, neither AT&T or its successor local telephone companies could tie telephone equipment sales to service or, put differently, they could not deny access to the phone network to competing phone equipment manufacturers.

34. Scanner-based data from all or substantially all the major grocery retailing chains in Canada is an essential input to the provision of market tracking service for consumer packaged goods. That is, we understand that manufacturers of consumer packaged goods

would not purchase a market tracking service based on scanner data from only some or even most of the major grocery store chains in Canada. Thus, it would be economically infeasible for IRI (or another rival) to provide scanner-based market tracking service in Canada by relying on scanner data from one or two grocery store chains or independent grocery stores. In 1985, Nielsen was the dominant provider of audit-based market tracking service in Canada and thus had an incentive to attempt to protect its monopoly position in Canada. In 1986, Nielsen began to sign exclusive contracts with all or substantially all of the major grocery retailing chains in Canada, which at that time collectively accounted for over 70 percent of Canadian retail grocery sales. We understand that Nielsen has re-signed exclusive contracts with each of these suppliers of scanner-based data during the early 1990s; furthermore, we understand that Nielsen has "staggered" these contracts so that they do not all expire in the same year.

35. Nielsen's practices have thus resulted in it having monopoly access to an essential input to the provision of consumer packaged goods market tracking service in Canada. By foreclosing its rivals from access to an essential input, Nielsen has perpetuated its dominant position in the market tracking service market. In contrast, in the United States there are virtually no exclusive contracts between grocery stores and Nielsen or IRI, and both Nielsen and IRI purchase scanner data from substantially all major grocery stores. Because of its ability to purchase U.S. scanner data, IRI was able to introduce its superior product and gain substantial sales, resulting in Nielsen's loss of its dominant position in the United States.

36. Nielsen's use of exclusive contracts to acquire raw scanning data in Canada as an input for its market tracking service cannot be explained by Nielsen's desire to obtain more or

higher-quality information from retail grocery stores. The scanning data purchased by Nielsen are merely a byproduct of activities that the grocery stores would undertake even if no one was interested in buying the data. Indeed, grocery stores installed scanners in the United States and Canada before any research firm was buying scanner data. Thus, the same total amount of raw scanning information is generated whether the stores sell the data exclusively to Nielsen or on a non-exclusive basis to Nielsen and a rival firm such as IRI. Put differently, even if Nielsen is willing to pay more for an exclusive arrangement than Nielsen and IRI would be willing to pay collectively for non-exclusive supply arrangements, exclusive contracts do not result in more or better scanning information being produced by the retail grocery chains.

37. In addition to not affecting the total amount of raw scanning information produced, Nielsen's use of exclusive contracts also does not affect the amount of raw scanning data obtained by Nielsen. This is because the raw scanning data has "public good" aspects. Most goods that consumers are familiar with are "private goods" in the sense that if one person consumes the good, another person is thereby precluded from consuming it. For example, if one person consumes a particular ice cream it is no longer available to be consumed by someone else. However, some goods can be consumed by any number of consumers at the same time, and the amount one person consumes has no effect on the consumption of anyone else. Classic examples of public goods are national defense, radio and television broadcasts, and the quality of the environment. Once the raw scanning data are created (and we have explained why they will be created whether or not anyone pays for it), those data can be used by many firms, and the use of the information by one firm does not diminish the amount or quality of the information that is available to other users. Thus, Nielsen would receive the same raw scanning data even if it signed non-exclusive supply arrangements with

the grocery chains and the same information were provided to IRI or other rival firms. There would, however, be an improvement in the price and quality of reports and services received by client firms (e.g., Procter & Gamble, Campbell's) because of the competition from IRI and perhaps other firms.

IV. Effect of Nielsen's Practices on Consumers of Canadian Market Tracking Service

38. As we have shown, Nielsen's anticompetitive practices do not affect the total amount of information produced by retail grocery stores. However, Nielsen's practices harm its customers -- purchasers of consumer packaged goods market tracking service, and, ultimately, consumers of these products. In this section, we describe the effect of Nielsen's abusive practices on consumers of Canadian market tracking service. In brief, we explain that: 1) prices are higher in Canada than in the United States; and 2) the quality of information available in Canada is inferior to that available in the United States.

39. The lack of competition in Canada caused by excluding IRI from the market results in a higher price for market tracking service in Canada than in the United States. A direct measure of this price difference depends on a precise comparison that controls for quality differences. We have not been able to obtain the detailed information that we would need to make such a precise comparison, but we understand that major manufacters of consumer packaged goods that buy market tracking service in both the United States and Canada believe that prices in Canada are substantially -- -- higher than in the United States. However, we have been able to observe directly the reduced degree of rivalry in Canada caused by IRI's inability to enter and the consequent effect on the quality of services available in Canada.

40. As we have said, competition has multiple benefits -- it lowers price and it encourages innovation. In many markets, particularly those that are subject to significant technological change, the effects of competition on quality can be much greater than the effect on (measured) price. For example, automobile prices have risen dramatically since the 1960s but the safety and overall quality of modern cars has risen so much more that a car produced and sold in 1994 is in fact a better value than a car from the 1960s. Similarly, the average personal computer costs more today (with its typical configuration and portfolio of software) than did the average personal computer introduced by IBM in the early 1980s. But today's personal computers are so much more powerful and have so many more features and uses that they too represent far superior products than their predecessors of ten years ago. Indeed, when carefully analyzed, the cost of quality-adjusted personal computer "services" has fallen enormously. These radical improvements in quality are the result of innovation created by competition.

41. In the United States, where there has been intense rivalry between Nielsen and IRI, there has been quality improvement in market tracking service equivalent to the transition in the transportation industry from the horse and buggy to the modern automobile or from the manual typewriter to the modern personal computer.

42.

44. Schedules 3 and 4 illustrate the vast technological change that occurred as scanning displaced auditing in the United States and as competition between IRI and Nielsen generated benefits to consumer goods producers. But the differences are much greater than the exhibits suggest because the 1994 scanner-based market tracking service is supplied in computer-readable form and can be organized and analyzed in a virtually limitless number of ways.

None of this could have been done in 1985.

45.

The reason is straightforward: Nielsen has no rival in Canada to motivate its efforts

and so its pricing and innovativeness are insufficiently responsive to technological progress.

V. Summary and Conclusions

46. Based on our economic analysis, we conclude that scanner-based market tracking service in Canada constitutes a relevant market. Nielsen dominates this market and it has extended its dominance by anticompetitive means. The effect of these practices has been substantially to raise price, reduce quantity, inhibit innovation, and reduce quality relative to competitive levels.

47. Our economic analysis of the market for scanner-based market tracking service presents a clear picture of the effects of anticompetitive behavior by Nielsen in Canada. The reason that this anticompetitive effect stands out so sharply is that Nielsen's practices cause there to be only a single seller in Canada in contrast to the United States where IRI competes directly with it. Moreover, IRI seeks to enter Canada and thereby produce competitive benefits. These benefits are likely to be very great, as illustrated by our descriptions of the market tracking service available in the United States compared to the service available in Canada.

48. For all of these reasons, we conclude that Nielsen's practice of obtaining the required scanning data exclusively has an anticompetitive effect and is an abuse of its dominant position in the Canadian scanner-based market tracking service market.

Schedule 1

Percentage of U.S. Grocery Stores with Annual Sales of $12 Million or More that Use Scanners

	Chain	Independent
1982	63%	60
1983	80	57
1984	85	67
1985	91	89
1986	93	91
1987	93	94
1988	95	96
1989	94	96
1990	98	96
1991	97	95
1992	99	94

Source: Progressive Grocer, April issues for 1983-1993.

Schedule 2

Marketing Data Suppliers of Top 50 U.S. Food and Drug Mass Merchandisers (Based on Sales for 52 Weeks Ending June 19, 1994)

Schedule 2

Marketing Data Suppliers of Top 50 U.S. Food and Drug Mass Merchandisers
(Based on Sales for 52 Weeks Ending June 19, 1994)

Schedule 3

(Separately Bound)

(Confidential - Not Attached)

Schedule 4

(Separately Bound)

(Confidential - Not Attached)

Exhibit "B"

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EDUCATION

J.D., THE UNIVERSITY OF CHICAGO LAW SCHOOL (cum laude, Order of the Coif): 1978.

Graduate studies in the Department of Economics, The University of Chicago (completed course work toward the Ph.D. degree before transferring to the Law School): 1975.

M.A., HARVARD UNIVERSITY Kennedy School of Government, Cambridge , Mass. (economics and public policy): 1975.

B.A., KENYON COLLEGE, Gambier, Ohio (cum laude): Mathematics and economics (with honors): 1973.

EMPLOYMENT

LEXECON INC., Chicago, Illinois: Founder and President (1977 -).

SENIOR LECTURER IN LAW, University of Chicago Law School, Chicago, Illinois (1986-present). (Courses taught: Antitrust, Advanced Antitrust, Securities, Corporate Finance, Evidence).

LEXECON HEALTH SERVICES, INC., Chicago, Illinois: Founder and Chairman, provider of health care data and quality information. Acquired in 1994 by Dun & Bradstreet.

KRELL DIGITAL, INC., Milford, Connecticut: Founder and Chairman, manufacturer of high fidelity equipment (1988-present).

ADJUNCT PROFESSOR OF LAW, Northwestern University Law School, Chicago, Illinois (1985), (Regulated Industries).

LMC (LOGICAL MICROCOMPUTER CO.): Founder and Chairman, manufacturer of multi-use microcomputers (later acquired by The Marmon Group) (1980-1985).

FIELDS OF SPECIALIZATION

Law and Economics
Antitrust
Corporate Finance/Securities Regulation
Industrial Organization
Regulated Industries
Particular expertise in the Communications, Entertainment and High-Technology/Computer Industries

PUBLICATIONS AND OTHER WRITINGS

"An Empirical Test of Class-Action Settlement," 5 Journal of Legal Studies 113 (January 1976).

"Impossibility and Related Doctrines in Contract Law: An Economic Analysis," 6 Journal of Legal Studies 83 (1977), co-authored with Richard A. Posner. Reprinted in Kronman and Posner, editors, The Economics of Contract Law (1979) and Victor P. Goldberg (editor) Readings in the Economics of Contract Law (1988); in Craswell and Schwartz, editors, Foundations of Contract Law (in press); and in Contract Law - Cases, Materials, and Commentary (forthcoming).

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Affidavit of Andrew M. Rosenfield In Re: Data General Corp. Antitrust Litigation (July 29, 1987).

Affidavit of Andrew M. Rosenfield In Re: Federal Trade Commission v. Owens Illinois, et al. (January 16, 1988).

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"Discounting Risky Promises in Bankruptcy," Expert Report in Re: Chateaugay Corporation, Reomar, Inc., The LTV Corporation v. Pension Benefit Guaranty Corporation (with Richard W. Leftwich) December 12, 1990).

Declaration of Andrew M. Rosenfield In Re: Bell Atlantic Business Systems Services, Inc. v. Hitachi Data Systems Corporation and Hitachi America, Ltd. (May 20, 1993).

Declaration of Andrew M. Rosenfield In Re: Litton Systems, Inc. v. Ssangyong Cement, et al. (December 13, 1993).

Report of Andrew M. Rosenfield In Re: Owens-Illinois Plastic Products Inc. v. Constar Plastics, Inc. (August 15, 1994)

TESTIMONIAL EXPERIENCE

Testimony In Re: Spruce Oil Corporation v. Archer-Daniels-Midland Company, (August 25, 1994).

Testimony In Re: Litton Systems, Inc. v. Ssangyong Cement, et al., (November 1 and 2, 1993).

Deposition of Andrew M. Rosenfield In Re: Spruce Oil Corporation v. Archer-Daniels-Midland Company, (May 28, 1993).

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Deposition of Andrew M. Rosenfield In Re: United States Gypsum Co. v. Admiral Insurance Co., et al. (February 8 and 9, 1989).

Deposition of Andrew M. Rosenfield In Re: Federal Trade Commission v. Owens Illinois, et al. (November 9, 1988).

Deposition of Andrew M. Rosenfield In Re: Cordis Corporation v. Medtronic, Inc.: In the U.S. District Court for the Southern District of Florida (March 29, 1988).

Deposition of Andrew M. Rosenfield In Re: Federal Trade Commission v. Owens Illinois, et al. (January 22, 1988).

Deposition of Andrew M. Rosenfield In Re: Cordis Corporation v. Medtronic, Inc.: In the U.S. District Court for the Southern District of Florida (October 30, 1987).

Deposition of Andrew M. Rosenfield In Re: Dynamics Corporation of America v. CTS Corp. (1986).

SIGNIFICANT INVOLVEMENT IN LEXECON'S ASSISTANCE IN THE FOLLOWING REPRESENTATIVE CASES, STUDIES, REGULATORY MATTERS AND PROCEEDINGS

American Insurance Association (products liability), 1979.

American Maize-Products, acquisition of Bayuk Cigars Inc., 1981.

American Salt, Acquisition of Carey Salt, Inc., 1989-1990.

Ameritech (various regulatory proceedings), 1984-present.

AT&T, Litton Systems Inc. et al. v. American Telephone and Telegraph Co., et al. (interconnection litigation), 1977-1982.

AT&T, U.S. Department of Justice v. AT&T, Western Electric, Bell Telephone Labs. (Section 2 monopolization case), 1979-1983.

Baxter Travenol Labs Inc. acquisition of American Hospital Supply Corporation, 1985.

Beverly Enterprises, various acquisitions, 1983-1988.

Caterpillar, (numerous distribution issues), 1980-1984.

CBS, Inc., U.S. Department of Justice v. CBS Inc. (The Network Syndication Inquiry), 1979-1981.

Chicago Title & Trust, various acquisitions, including that of Safeco Title Insurance, 1986-1989.

Coca-Cola Company, attempted acquisition of Dr. Pepper Co., 1986-1990.

Continental Can, In Re: Cecil McLendon, Vandertulip, Carthern, Trojinear v. Continental Group, Continental Can Co. (pension litigation), 1986-1990.

Data General Corp., In Re: Data General v. Digidyne & Fairchild Camera (tying litigation), 1986-1987.

Dun & Bradstreet Inc., National Business Lists Inc. v. Dun & Bradstreet Inc. (Section 2, monopoly misuse case), 1979-1983.

Eastman Kodak, Berkey Photo Inc. v. Eastman Kodak Co., GAF Corp. v. Eastman Kodak Company (monopolization, monopoly misuse), 1979-1982.

Emerson Electric Co., various acquisitions, 1985-present.

GE, various acquisitions including those of RCA and Borg-Warner Chemicals, 1984-1993.

General Motors/Toyota, Chrysler Corp. v. General Motors Corp and Toyota Motor Corp. (litigation attacking joint venture), 1984-1985.

Hallmark Cards Inc. (price fixing, distribution issues), 1981-1987.

Hoffmann-LaRoche acquisition of Genentech, Inc, 1990.

In Re: Copper Tubing Antitrust Litigation (price fixing), 1981-1984.

In Re: Ralph C. Wilson Industries v. American Broadcasting Co., et al (restricted distribution), 1982.

Jefferson Smurfit, acquisition of various assets of Container Corporation of America, 1978.

KKR's acquisition of RJR Nabisco, Inc, 1988-1989.

Kraft, Inc. various acquisitions, including those of CFS Continental, Inc., Seven Seas Salad Dressings, and others, 1984-1990.

Litton Systems, Inc. (trade secrets case), 1992-1993.

Matsushita Electric Co., In Re: Japanese Electronic Products Antitrust Litigation (conspiracy to predate), 1980.

McGraw-Hill and MacMillan, formation of the McGraw-Hill School Publishing Co., 1985-1989.

National Association of Independent Insurers (analysis of McCarren-Ferguson exemption, 1979-1980.

NCAA, Board of Regents of University of Oklahoma et al. v. NCAA (price fixing), 1982-1985.

Owens-Illinois, acquisition of Brockway, Inc., 1987-1989.

R.J. Reynolds, acquisition of Dole and Del Monte, 1987-1988.

Rhone-Poulenc, Acquisition of Miles Inc.'s Marschall Dairy Products, 1989-1990.

Salomon Brothers, Inc., various litigation concerning alleged misconduct with regard to Treasury securities auctions, 1992-present.

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SeaCo v. IRS. (Section 482 litigation), 1985-1989.

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Sealed Air Corporation acquisition of Jiffy Packaging Corp., 1987.

Sealy, Kaplan v. Sealy (price fixing, restricted distribution), 1978-1983.

SmithKline Beckman Corporation, acquisition of International Clinical Laboratories, Inc., 1988.

Spectra-Physics, (securities litigation) 1984.

State of Illinois, State of Illinois v. Panhandle Eastern Pipeline Co. (price fixing, tying, monopoly misuse), 1984-1989.

Stone Container, various acquisitions, including assets of Champion International, 1986.

Teledyne Inc., (securities litigation) 1987-1990.

U.S. Gypsum, (acquisition of Conwed) 1985.

VISA, Inc., NaBanco v. VISA, U.S.A. (monopolization, price fixing), 1981-1983.

Warner Bros., various acquisitions, including a proposed acquisition of Polygram Records, Inc., 1983; and various music publishing companies.

Westinghouse Electric Corporation (proposed acquisition) 1994.