Public

File No. CT-94/01

THE COMPETITION TRIBUNAL

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 as amended

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

BETWEEN:

THE DIRECTOR OF INVESTIGATION AND RESEARCH

Applicant

- and -

THE D&B COMPANIES OF CANADA LTD.

Respondent

- and -

INFORMATION RESOURCES, INC.

Intervenor

AFFIDAVIT

I, DONALD N. THOMPSON, of the City of Toronto, in the Province of Ontario, make oath and say as follows:

1. I have taught in the Graduate Programme in the Faculty of Administrative Studies at York University in Toronto since 1971, and have held the rank of Full Professor since 1973. I was formerly Chairman of the Marketing Department in the Faculty of Administrative Studies at York. I was a Visiting Professor at the London School of Economics in London, England in the 1977-1978 academic year, and was Senior Visiting Fellow in Law and Business Administration at Harvard University in the 1970-71 academic year. I served as Director of Research and Chief Economist for the Royal Commission on Corporate Concentration from 1975 to 1977. I have also taught in the graduate faculties of the University of Toronto, the University of Alberta, and at the Roth School at Long Island University.

2. I hold a Ph.D in business administration and economics and an M.B.A. from the University of California at Berkeley, and an LL.M from Osgoode Hall Law School in Toronto. My undergraduate studies were at the University of Manitoba in Winnipeg.

3. I teach in the areas of marketing, strategic planning, and economic regulation. My research is also in those areas. I have served as a consultant to the Director of Investigation and Research in several

matters under the Competition Act. I have also served as a consultant to a number of business corporations, Canadian government departments and foreign governments, primarily in the areas of marketing and strategic planning. Specifically, I have served as a consultant to a major Canadian supermarket chain, and to several consumer packaged goods manufacturers. I am also a member of the Competition Law and Policy Committee of the Canadian Council on International Business.

4. I have authored, co-authored or edited seven books and about fifty articles in the areas of marketing, strategic planning and economic regulation.

5. I was retained by the firm of Davies, Ward & Beck of Toronto, legal counsel to Information Resources, Inc. ("IRI"), the Intervenor in this proceeding, on January 28, 1994, to advise on the competitive implications of certain marketing practices in Canada of the Respondent firm, The D&B Companies of Canada Ltd., one division of which is Nielsen Marketing Research. I was asked to assist legal counsel to the Intervenor in the analysis of economic and other information on this matter.

6. Attached hereto as Exhibit "A" to this my Affidavit is a true copy of the report prepared for the Intervenor pursuant to the aforesaid request.

SWORN before me at the City of Toronto in the Regional Municipality of Metropolitan Toronto in the Province of Ontario this 20th day of September, 1994

Donald N. Thompson

Commissioner for
Taking Affidavits

EXHIBIT "A"

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Intervenor

CONFIDENTIAL AFFIDAVIT EVIDENCE OF DONALD N. THOMPSON

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1. I, DONALD N. THOMPSON, have taught in the Graduate Programme in the Faculty of Administrative Studies at York University

in Toronto since 1971, and have held the rank of Full Professor since 1973. I was formerly Chairman of the Marketing Department in the Faculty of Administrative Studies at York. I was a Visiting Professor at the London School of Economics in London, England in the 1977-1978 academic year, and was Senior Visiting Fellow in Law and Business Administration at Harvard University in the 1970-71 academic year. I served as Director of Research and Chief Economist for the Royal Commission on Corporate Concentration from 1975 to 1977. I have also taught in the graduate faculties of the University of Toronto, the University of Alberta, and at the Roth School at Long Island University.

2. I was retained by the firm of Davies, Ward & Beck of Toronto, legal counsel for Information Resources, Inc. ("IRI"), the Intervenor in this proceeding, to advise on the competitive implications of certain marketing practices in Canada of the Respondent, The D&B Companies of Canada Ltd., in particular a division of the Respondent that carries on business under the name Nielsen Marketing Research (referred to hereafter as "Nielsen", referring to the Canadian company, and "A.C. Nielsen", referring to the U.S. parent company). I was asked to assist legal counsel to the Intervenor in the analysis of economic and other information on this matter.

3. My report and opinions are based on my professional training as an economist, my review of relevant literature, and my independent research, data gathering, and data analysis. In addition, I have been provided with and reviewed material from IRI on the market structure and marketing practices found in the U.S. and Canadian markets for information services that utilize scanner data, and on pricing and contract terms for such services. I have had access to publicly available materials on syndicated information services available from IRI, Nielsen, and others. I have also had access to the documents produced by Nielsen and by IRI in this proceeding, to the Summaries of Information obtained by the Director in interviews by Competition Bureau officials with industry participants, and to the transcripts of the examination for discovery of Mr. Stephen Churchill of Nielsen, undertaken by counsel to the Director. I have also had the opportunity to discuss industry practices with officials of IRI, with a number of executives of consumer packaged goods companies in Canada and in the U.S., and with several executives of supermarket firms which provide scanner data to research firms.

4. I have not had the opportunity to read all of the material

relating to the List of Undertakings/Questions taken under Advisement and Refusals Given at the Examination for Discovery of Stephen Churchill on behalf of Nielsen, since at least some of that material had not been produced by counsel for the Respondent when this report was finalized.

5. The discussion which follows outlines the characteristics and economics of various kinds of market research services, briefly describes what IRI, Nielsen and other firms provide in Canada and in the United States, and discusses product and geographic market definitions, barriers to entry and the anticompetitive harm flowing from provisions in Nielsen's contracts with Canadian data suppliers and research customers.

6. My comments are divided into categories as follows:

I. Market research services

- in general
- syndicated market tracking services
- audit based tracking services
- warehouse withdrawal services
- diary panels
- scanner data
- supplementing scanner data with panel data
- comparison of syndicated marketing services

II. Market research firms

- Information Resources, Inc.
- A.C. Nielsen/Nielsen Marketing Research
- Efficient Market Services
- ISL International Surveys Ltd.
- other survey companies

III. Examples of sophistication possible in scanner data use

- product distribution
- consumer dynamics
- the "Efficient Consumer Response" program

IV. Appropriate product market definition

V. Appropriate geographic market definition

VI. Barriers to new entry
- capital costs
- cost structure for syndicated market tracking services
- exclusive access provisions
- Nielsen's customer contracts
- nonavailability of historical data
- conclusion

VII. Harm flowing from Nielsen's exclusive access provisions and its customer contracts

- Nielsen market power
- limiting innovation

I. MARKET RESEARCH SERVICES

In General

Marketing research is the systematic design, collection, analysis and reporting of data and findings relevant to a specific marketing situation.

Marketing research can be done by a company in-house, or can be done by a marketing research firm. Marketing research projects can be specific to one problem or one client, or can be syndicated, which means that the researcher gathers periodic consumer and trade information which is provided to a number of clients who share both costs and results. Syndicated data, once collected, generally is customized to some extent to respond to the specific business problems of individual research purchasers.

The principal criteria in the acquisition of consumer market research services are the quality, reliability and comprehensiveness of the data provided, the fit of data and analysis to specific client needs, the technical and service abilities of research personnel, capability for innovation, and price.

Canadian consumer packaged goods companies require purchase data to measure their market performance ("movement data"), which would include things like market share information. Companies also need data to make inferences about why changes took place ("causal data"). Causal data is information that assists in understanding or interpreting movement data, or more specifically, understanding changes in movement data. Causal data helps companies to evaluate the impact and effectiveness of specific marketing, advertising, or promotional

activities.

Data can be collected from all members of the population to be measured, or from a sample of that population only. Any type of marketing research which collects data from a sample population and generalizes the results to the whole population meets two types of difficulties. The first difficulty is how to select, reach and get usable responses from a balanced sample of respondents. The second difficulty is how to accurately measure and collect accurate data on purchasing or other behaviour. These difficulties are illustrated in the discussion of diary panels later in the report.

Problems of drawing a sample include sample selection based on incomplete variables (for example, demographics, brand preferences or competitive influences), poor controls, and 'noise' in the system. Problems of measuring consumer response include both knowing what to measure, and getting consumers to both understand and accurately report what they are doing. Again, these are illustrated in the later discussion of diary panels.

There are two fundamentally different kinds of research studies. The first is cross-sectional studies, where characteristics of the sample population are measured only once. Factors measured include demographic information, such as age, sex and income, and "activity"

information such as product consumption. A one-time survey of the characteristics of gamblers who patronize the new Windsor casino is a cross-sectional study. Cross-sectional studies provide a "snapshot" of a sample population at one point in time.

The second basic kind of research is longitudinal research, where the sample or panel of respondents remains relatively constant over time. The sample could be a group of consumers whose purchase patterns are measured over time, or the sample could consist of a sample of grocery stores intended to be representative of all grocery stores in a region, and where the data measured is the sales of products through the sample of stores.

Both movement studies and causal studies are usually longitudinal. Panel members are measured repeatedly on the same characteristics, to determine how their characteristics or behaviour changes between measurements. Longitudinal studies provide a profile of changes in sample populations over time.

There is a trend to the provision of some marketing research services on a North American or global markets basis. A marketer of consumer packaged goods sold in a number of countries would like to have consistent data collection capabilities and comparable data analysis in each of the countries in which it operates. A research supplier which

cannot provide data in all major markets is at a competitive disadvantage to one which can.

There are several recent examples cited in the U.S. business press of Nielsen's U.S. parent being chosen over IRI as a data provider reportedly on the basis of Nielsen's ability to deliver comparable Canadian and U.S. data.

Syndicated Market Tracking Services

A syndicated market tracking ("SMT") service provides "movement data", and is longitudinal in nature. A SMT service tracks sales in a number of product categories, brands and sizes in a representative sample of stores (sometimes in all stores in the population), or in a defined geographic area for a specified period of time. The sample information collected can be projected to estimate total sales and relative market shares within product classes. The service can be sold to a number of customers who share both cost and results - hence the term "syndicated". In order to make the research of interest to many customers, the service must track sales of virtually all products in any category.

Various kinds of research or data methodologies can be utilized by a SMT service. These include in-store audits, warehouse withdrawal measurement services, diary panels, and scanner data services. One of the essential differences between methodologies is the point at which sales information is collected. Tracking services may collect information at the factory level, the warehouse level, store level or household level.

In general, more powerful analytical results are possible when sales results are available at the store level. Since the manufacturer's ultimate use of a SMT service is with retailers, it is desirable to be able to use retailer-specific data, sometimes augmented by causal data from sources such as panel studies.

Each methodology has its own cost structure and offers different problems of measurement and reliability. Some methodologies are adequate substitutes for others in terms of user information needs, and some methodologies are not.

Audit-Based Tracking Services

In an audit-based market tracking service, employees of the research company manually count the in-store inventory of products and check stock receiving records in a sample of stores at regular intervals. Adding beginning inventory to purchases and deducting closing inventory

produces an estimate of sales over the period. Manual audits are cumbersome, slow, expensive, and subject to counting and other errors. Reports usually cover a long period, typically two month intervals, and by the time reports are received the data tends to be old and only of value for historical score-keeping. Although the SMT service business founded by A.C. Nielsen was based on in-store audits, the methodology has virtually disappeared and been replaced by other SMT services in most countries. In the U.S., Nielsen withdrew its audit-based SMT service in 1990. Nielsen in Canada uses some audit to supplement warehouse withdrawal and scanner data in its MarketTrack service, and to cover "dead spots" such as convenience store sales, or to cover direct-delivered products. Non-sales tracking audit data is still collected on display, promotion, and price variables.

Warehouse Withdrawal Services

A warehouse withdrawal SMT service starts with a data supplier providing the research house with computer tapes detailing product shipments made to retailers over a period of time. Usually (as in the case of Nielsen's NWSS service), only warehouse shipments are included in the research report. The research company may, in addition, send auditors to take inventory of all products designated for the audit, and

combine with warehouse withdrawal records and direct shipments from manufacturers to determine merchandise moving through the store.

Warehouse withdrawal data reports typically cover a one or two month period, and thus provide rather "lumpy" product movement information. For example while marketing events such as product displays are week-to-week events, and price changes may occur daily, warehouse withdrawal reports may only contain 8-week cumulative data, and perhaps report a one-day price as representative of 8 weeks of prices and of the changes in volume that took place over that eight week period.

Warehouse withdrawal data only reports on a few variables. For example, warehouse withdrawal data can be used to provide information on total product category volumes, or brand shares, but provides no data on variables such as base volume share versus incremental volume share, regular shelf price versus merchandised price, or incremental volume due to features, displays, couponing or price reduction.

Warehouse withdrawal data is non-diagnostic, in that it does not tell you what marketing variables require change. (For diagnostic purposes, you need to get tracking data and promotion data from the same store at the same time). Even audit data collection in conjunction with warehouse withdrawal may not provide this information.

Until the late 1980's, a number of research services such as Selling Areas - Marketing Inc. ("SAMI") provided sales reports based on warehouse withdrawals rather than retail store sales. The SAMI service in the U.S. missed out on the scanner revolution and went out of business in 1990, selling its client roster and some assets to IRI.

Over the past decade, warehouse withdrawal research has gradually been replaced by scanner-based information services. Large scale warehouse withdrawal and audit tracking services no longer exist in the U.S.

Diary Panels

A diary panel can be used to generate an SMT service using data collected in a household diary. Diary panel members are given a preprinted diary in which they and their families record their monthly purchases in a large number of product categories. The diary typically asks significant details regarding the brand and amount purchased, the price paid, whether there were price deals involved or special displays, the store where the product was purchased, and intended use of the product. Sometimes diaries are completed from memory, or by

reference to cash register tapes or to the goods purchased.[1]

The diaries are filled in by a sample of respondents who are measured repeatedly over time with respect to their behaviour (a longitudinal sample). There is an attempt to recruit panel families such that the total panel will mirror the total population with respect to demographic variables such as family size, age, income and census region. The panel size actually used constrains the degree to which various demographic characteristics can be accurately represented by panel diary results.

Diary panel data have been used to estimate marketing variables as diverse as size of market, brand share, brand loyalty and brand-switching behaviour, frequency of purchase, and impact of a change in advertising or distribution strategy, or of a new brand introduction. However because of problems discussed below, diary panels provide only very imperfect data in these and other areas.

There are many problems common to diary panels. The obvious problem with diaries is that consumers may forget many purchases, incorrectly recall others, or intentionally mis-report purchase categories

[1] Sometimes the diary information is restricted to noting place and time of shopping and price paid, with product information provided by an in-home electronic scanner wand. Scanner wands are discussed later in the report.

such as cigarettes or alcohol. A less obvious problem is that the very act of keeping a diary precipitates changes in buyer behaviour, in particular increased brand awareness and learned price sensitivity.

Perhaps the greatest problem with diary panels is the cooperation rate, which on mailed recruiting is often cited as under ten percent. As with surveys, participation by certain segments of the population such as less educated consumers, lower income consumers, dual career families with children or singles, is low, while segments like retirees are over represented.

A problems in using diary panels for causal studies is that a panel can test only one level of response - advertising message, or change in advertising frequency, or change in price - but not two or three levels at a time, because you cannot control which members of the panel are exposed to which stimuli.

Typically, diary panel results are reported in hard-copy reports, or through electronic spreadsheet files. The user is able to graph and do trend analysis, but generally not able to create measures or indices other than those already incorporated in the report.

Diaries have been extensively used in the past, but difficulties with the procedure have caused diary panels to be replaced as better technologies become available. In the U.S., the National Purchase Diary

Panel (acquired by A.C. Nielsen in 1988) and the Market Research Corporation of America's consumer panel apparently still operate, but have largely been replaced by the major scanning SMT services.

Scanner Data

Scanner data is generated by the electronic device that "scans" purchases at a checkout counter. Data is recorded from the Universal Product Code (UPC), an eleven-digit number imprinted on most consumer products sold in supermarkets and elsewhere. The first digit indicates the type of product (grocery or drug); the next five digits identify the manufacturer, and the final five identify a particular product, size, and variety from that manufacturer.

There is a unique eleven digit code for every product in an outlet. As the product with its code is pulled across the scanner, the scanner reads the number, retrieves the price from a computer, and prints the description and price of the item on the cash register receipt. The computer simultaneously keeps track of the sales of each item for the store's own inventory and sales records, and provides a comprehensive computer data record that can be sold to a research house such as IRI or Nielsen Marketing Research.

Scanner coverage of major retail operations varies in developed

countries, but is well on the way to being universal in Canada and the United States. Industry estimates are that scanner coverage in the United States (as a percentage of all-commodity volume) is 100% in warehouse club stores, close to 100% in metro area mass merchandisers, about 90% in supermarkets, and 50% in drug stores. The lowest degree of coverage is in convenience stores.

Canada is among world leaders in penetration of UPC scanner installations, although slightly behind the U.S. Canadian coverage in supermarkets, warehouse clubs and mass merchandisers is high, with scanning in the key food channel in major metropolitan markets over 90% of all commodity volume. Channels of distribution such as convenience stores and smaller variety stores, and some geographic regions such as rural Quebec do not yet utilize UPC scanner technology on a broad enough basis that a research company could offer an accurate scanner based system tracking sales of products sold through such outlets. (In this situation alternative measures such as warehouse withdrawal could be used until more complete scanner coverage was in place.)

The use of scanner data for tracking purposes eliminates the major problem found with diary panel data. Respondent workload and the need to remember are eliminated as data capture is both electronic and

automatic - the data collection methodology is passive in that it does not require any active step or participation by the panel member.

A concern specific to UPC scanning research is that data is collected by grocery clerks interested in their own workload, and not by professional marketing researchers. For example, problems occur when a product has no code or when a coded product does not scan (in which case the clerk may just key in the price), or when multi-unit purchases (such as soft drinks or baby food) are recorded by scanning only the first unit and then using the quantity key, thus losing brand or flavour information.

Supplementing Scanner Data With Panel Data

A SMT service provider can supplement scanner data with scanner-based panel data. The research company contracts for scanner data in supermarkets or other channels representing substantially all of a local marketing area, and then organizes a consumer panel in the market area, and collects socioeconomic and shopping data from each participating household.

The most common and efficient method of collection is one in which each panel member is issued an identification card to be presented at checkout counters in participating stores. When the card

is presented, the cashier enters the panellist's identification number into an on-site computer to associate the panellist's purchases with the panel household. Thus the panel member's personal data becomes an add-on to the scanner data collected from the retailer. When UPC scanner card panels have been used in the United States, cooperation rates are claimed to be above 50%, still imperfect but many times better than diary panel rates.

There also exists a secondary type of scanner data panel in which respondents have portable electronic scan wands to scan and record purchases at home. This scan wand system requires the respondent to separately record the store, time, and price for each purchase and full details for purchases not brought home (or to retain cash register tapes), and thus has many of the problems associated with diary panel recording.

Both scan cards and portable scan wands are typically used as part of causal studies such as controlled product or advertising research experiments, with the card or wand respondents are clustered in a few communities. For these and other reasons, the results of scanner card or scanner wand panels are generally not projectable to the general public and thus not themselves usable as tracking data. Scanner panel research provides is highly useful complement to retail store scanner

tracking, but is not in any sense a substitute for it.

Where a scanner panel is used as an adjunct to processing of scanner tracking data, the researcher has available the same demographic and other household data captured in diary panels, to relate buyer characteristics to individual purchases. The research company can then collect data on the purchases made by individual participating households over time.

Comparison of Syndicated Market Tracking Services

There are no available sources of information that substitute for a scanner-based SMT service, in the sense of providing an equally accurate, SMT service available on a cost effective and timely basis. The number of transactions measured by a panel diary study is but a fraction of the number measurable through a store sample, which gives a scanner-based SMT service much greater accuracy in its projections. Also, scanner-data based information can relate changes in sales volumes to levels of product pricing, or to changes in promotional variables. Scanner-based data is available on a weekly (or daily) basis, in contrast to monthly or bi-monthly data from warehouse withdrawal, audit, or diary methods. Warehouse withdrawal data provides accurate but lumpy product movement information, and provides little or no price

information.

Scanner data combined with a scanner panel (particularly a card panel) is in combination superior to diary panel data on relating tracking to demographic measures, and produces superior data, particularly because data collection is passive and does not rely on memory. When household panels are utilized as a consumer diagnostic supplement to a UPC scanner-based tracking service, it is most frequently a scanner panel rather than a diary panel which is used.

The superiority of scanner-based data is indicated by the fact that in the United States, where scanner penetration is mature, lack of market demand has caused Nielsen to discontinue offering sales tracking audits (its NFI/NDI Index) and warehouse withdrawal measurement

(NWSS), and to rely completely on UPC scanner-based data collection.

II. MARKET RESEARCH FIRMS

Information Resources, Inc.

Information Resources, Inc. is a supplier of information services, decision support software products, and executive information systems in the United States and in a limited number of other countries.[2] IRI provides a scanner based SMT service with national or regional market

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category tracking; key account[3] and store-level data; household panels; data integration between areas; software applications; and the capability to do sophisticated analysis on marketing issues.

IRI considers itself to be the second largest (by revenue) marketing research firm providing sales measurement services to the consumer packaged goods industry in the United States, and to be one of the fifty largest independent software providers in the world. IRI appears to have achieved about a 50% market share in the U.S. market for scanner based SMT services, most of the gain coming in the past six or seven years.

IRI provides proprietary databases, analytical models and decision support software which are evaluated by customers as being as good or better than those offered by competitors. These products are used in the consumer packaged goods industry, the pharmaceutical industry, in health care, telecommunications, financial services, and in a wide range

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[3] The term "key account data" requires some elaboration. In Canada, Nielsen uses "key account" to refer to data by supermarket chain "banner", by metropolitan area or by province - for example, Safeway sales for British Columbia. Nielsen does not provide location (store) specific key-account data on sales anywhere in Canada. (Nielsen does provide store-specific information on variables like price and promotion.)

In many United States markets, "key account data" at the individual store level is available on product market share, distribution, pricing, and promotion. This is much more useful as diagnostic data, in that it enables a manufacturer to isolate specific market problems, for example those stores with product market shares below "average" for the metro area.

of other industries worldwide.

IRI's principal SMT services are InfoScan and InfoScan Census, with the latter gradually replacing the former. InfoScan Census is a national and local market tracking and evaluating service for the consumer packaged goods industry, which gathers UPC information from 13,000 retail supermarkets, drug stores, mass merchandisers, and warehouse membership stores in the U.S..

The InfoScan service combines four independent data sources: retail store scanner sales; household purchase information; causal data (such as price, couponing, and newspaper feature ads) and information on in-store conditions such as displays and promotions; and television viewing, into a single-source data base.

IRI also offers BehaviorScan, a supplemental scanner panel testing

service in six geographic mini-markets in the U.S.[4] In these mini-markets, IRI has obtained cooperation from retailers in test product placement, ad copy, etc..

In BehaviorScan, an additional feature is a targetable cable television capability, which permits the researcher to direct specific television commercials to selected households within the consumer panel.[5] Targetability permits the researcher to test as many levels of

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[4] There are 3,000 test households per market in Pittsfield, Mass.; Marion, Indiana; Eau Claire, Wisconsin; Midland, Texas; Grand Junction, Colorado; and Cedar Rapids, Iowa.

[5] It is difficult to get good experimental manipulation with TV advertising. One approach is to try one advertising campaign in one market, a second campaign in another, and so on. Nielsen and others have used this approach in the U.S. in the past. It works if enough markets are used, but it is very expensive.

A second approach is to use split cable, where two TV cables originating from a single source, with one ad inserted on each cable. Response is measured using an instrument such as a diary panel. However the split often produces sample groups that are not matched by demographic or other factors - the people on one cable may be richer than the people on the second cable. Nielsen used this split cable approach in a now-discontinued test in Calgary.

A third approach, used by Adtel in the USA, is to lay down two cables side by side and serve some people off one and some off the other, so there can be samples matched on one product attribute. However the samples may not match for another attribute - once you lay your cable, you are stuck with the sample composition.

BehaviorScan uses a fourth technology called Targeting, which works with a single cable, but with a device attached to each respondent household's TV set which permits one commercial to be directed to a given set of households, and a second commercial to be simultaneously directed to a second set of households. The household sample sets can be chosen based on any demographic or behaviour data, either simple measures such as demographic profile, or more complex measures such as category consumption, previous brand choice, or propensity to purchase on deals.

advertising as desired (the only restriction being sample size). For example, two different advertisements could be tested, each at a different spending level.

Contracts for collection of InfoScan scanner data only Indeed, scanner data produced by U.S. retailers is typically never sold exclusively to one company.

Contracts for collection of IRI's BehaviorScan data (which may involve scanner or computer equipment installed by IRI)

generally cover data from only a small number of the total stores owned by a particular chain or in a particular city.

The samples can be changed for each commercial tested. The sending of different messages to different household samples happens in a normal programme environment, with the ads on the same channel, at the same point in time, and the changes invisible to the viewer.

IRI offers financial or other incentives to families which participate in its BehaviorScan studies, and thus regards the data produced as proprietary.

The business currently carried on by IRI in Canada is limited to providing decision support software products and services. It is unable to offer syndicated market tracking services such as InfoScan.

A.C. Nielsen/Nielsen Marketing Research

A.C. Nielsen, a wholly owned subsidiary of The Dun & Bradstreet Corporation, is the largest (by revenue) marketing research firm in the world. Dun and Bradstreet's Information Services division is composed of three subsidiaries: Nielsen Marketing Research, Nielsen Media Research, and IMS International, Inc. Nielsen Marketing Research and IMS are, respectively, the first and third largest market research firms in the United States. Nielsen's global coverage for tracking services has gone from 28 countries in July of 1992 to 41 in July of 1994, with the increase all coming through acquisition of competitors in other countries.[6]

Nielsen Marketing Research, part of A.C. Nielsen, operates in the United States, Canada and world-wide in measuring consumer purchases and causal factors to manufacturers and retailers of groceries, health and beauty aids, and other packaged and durable goods. It provides household panel data services, demographic information, and analytical software services.

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[6] Dun and Bradstreet acquired Nielsen in 1984 and IMS in 1987. Serge Okun has been President and CEO of both companies since July, 1993. Other acquisitions by Nielsen have been Hong Kong headquartered Survey Research Group, Ltd., the principal competitor in the Pacific Rim region, in 1994; AGB McNair, the key competitor in the Australian market, also in 1994; a minority interest in the major South African tracking services company, Integrated Business Information Services, in 1994; and the leading marketing information company in Puerto Rico, STARS/TM, in late 1993.

Dun & Bradstreet acquired IMS in 1987. IMS was at that time the second largest syndicated market tracking business in the United States (behind Nielsen). IMS tracking services were and are targeted at prescription drug sales of pharmaceutical companies.

A company called Dun & Bradstreet Software, another subsidiary of the Dun & Bradstreet Corporation parent, is the world's largest (by revenue) provider of financial, distribution, manufacturing and related software and services.

A.C. Nielsen (with its ScanTrack service) and IRI (with InfoScan) are the only competitors in the United States that offer UPC scanner based SMT services for the consumer packaged goods industry. Competitors SAMI and National Brand Scanning exited this market several years ago, and Efficient Market Services, Inc. was acquired by Nielsen in March, 1994 (see below). There are a few scanner companies providing services in specialized market segments, but they do not offer an SMT service for a broad range of consumer packaged goods categories.

In the U.S., Nielsen's ScanTrack service provides weekly sales tracking from a national sample of about 4,000 scanner-equipped stores. ScanTrack is a scanner data-only product, with no warehouse withdrawal component.

Nielsen is the only supplier of scanner-based syndicated market tracking services for the consumer packaged goods industry in Canada. Their principal product is called MarketTrack, a Canadian version of their U.S. ScanTrack service. Nielsen also offers in Canada a number of reports and services based on the MarketTrack data, and services specialized to particular product types, for example "MarketTrack Personal Care", or "MarketTrack HealthCare".

MarketTrack also collects data on trade advertising, display advertising, display frequency, "share of merchandising", and other marketing variables. MarketTrack covers major supermarkets, a number of "remaining grocery" outlets, and defined non-grocery outlets such as Zellers, KMart, and Shoppers Drug Mart.

A Nielsen presentation document called "MarketTrack Basics" (undated but apparently published in 1992) suggests that MarketTrack actually produces data from a combination of UPC scanner data, and for a sub-sample of stores, from manually collected audit and warehouse withdrawal data.

Nielsen offers a "Key Account" service which provides manufacturers with data in respect of specific product categories sold by specified retailers. Key account data appears to be offered by retail banner, but not to be available as store-specific data.

Depending on the banner, Nielsen key account data may be scanner based or warehouse withdrawal based.

Nielsen operates a warehouse withdrawal measurement service called Nielsen Warehouse Shipment Service and sold as "NWSS" which consists of reports which summarize product shipments from warehouses of co-operating organizations. Warehouse withdrawal data is both sold separately and as part of the MarketTrack offering. Nielsen operates a related service called "Nielsen Warehouse Shipment Service Plus", which is the NWSS warehouse withdrawal service, plus some causal information on things like in-store product display activity. The

characteristics of the NWSS and NWSS Plus services seem inferior to those of Nielsen's MarketTrack service, but appear to be offered to customers at a substantially lower cost.

Nielsen operates a scanner household panel called Nielsen Electronic Diary Service ("NEDS") of 6,000 households, 2,000 each in Toronto, Montreal and Calgary, which apparently uses an ID card system supplemented by the customer saving their cash register tapes. NEDS reports on buying activity, demographic profiles, shopper loyalty, and brand interaction.

NEDS will be replaced by a Nielsen service called HomeScan in October of 1994. HomeScan will use a panel of 7,200 households selected by their demographic characteristics, and utilizing an in-home Telxon scanning technology, whereby the customer does their own scanning of every item that they purchase. The Telxon units can transmit their data to Nielsen over telephone lines. The households will be selected so that results can be projected regionally or nationally rather than to metro populations as with NEDS.

Nielsen formerly operated a Calgary panel called ERIM, which was discontinued in 1988. ERIM may be the same service as one called Test Site, which Nielsen operated in the Calgary market and discontinued in about the same time period.

Nielsen offers a computer work station software product called INF*ACT, which enables data from individual services to be delivered to the subscriber electronically. Nielsen offers a diagnostic service which permits decomposition of causation of incremental sales much as InfoScan does. Nielsen also offers a number of other software applications and analysis packages such as Spaceman (shelf space management software) and Spotlight (an expert system).

Nielsen offered a tracking service covering consumer sales, distribution, and promotional activity and prices called Nielsen Grocery Index, which now appears to have been incorporated into MarketTrack. They offer a Nielsen Drug Index and Nielsen Confectionery and Tobacco Index and Nielsen Mass Merchandiser Index similar to the Grocery Index.

A striking characteristic of Nielsen Marketing Research' operations in Canada is their slowness in innovation, as measured by the lag between the time Nielsen's parent U.S. company introduces a service to the time it is introduced in Canada. The lag between introduction of MarketTrack in Canada (April, 1992 nationally) and ScanTrack in the U.S.(1987), or Homescan (1994) or key account services (1990) in Canada and their comparable U.S. services (1987), is three or more years in each case.

Efficient Market Services

A company called Efficient Market Services (EMS) was formed in 1991 by former IRI and Nielsen executives and became known in marketing media as "the third player in scanner data". EMS collected sales data from about 1,200 food chain stores in the U.S. west and midwest. In March 1994, Nielsen purchased a 20% interest in EMS, and acquired exclusive rights to all EMS data. Nielsen apparently will integrate EMS daily census data in to existing Nielsen databases in the U.S. Efficient Market Services has never operated, nor has its data been offered, in Canada.

ISL International Surveys Ltd.

ISL International Surveys Ltd. ("ISL") has since 1946 run the Consumer Panel of Canada, apparently the largest syndicated national purchase diary panel in Canada. ISL sends a monthly purchase diary to 5,000 Canadian households selected to be geographically and demographically representative of the country. Respondents are rewarded for diary completion by rewards from a gift catalogue. Panel members record purchase information for about 70 product categories. Information which they are asked to record includes date of purchase,

store, brand, size, UPC number, and price paid. Information is generated on market volume, brand share, plus outlet information.

ISL claims that its data can be used to forecast success for specific promotional activities, although it is difficult to see how this can be done properly without accurate weekly product sales data on an SKU basis. However, the ISL data certainly focuses on some of the same issues as Nielsen and IRI's panel services, including trial/repeat measures and brand switching behaviour.

ISL may be collecting scanner data on limited product categories from mass merchandisers such as K-Mart, but what use they are making of this data is not known.

ISL also conducts telephone and mail interviewing, and runs custom home opinion panels by mail, telephone or personal interview, on topics like beverage consumption trends.

Other Survey Companies

Other Canadian companies such as Market Facts, Canadian Facts, and Thompson Lightstone run smaller syndicated telephone, mail or interview-based respondent samples or panels which attempt to track product purchases. Thompson Lightstone & Company and the Contemporary Research Centre offer Omnitel, a 2,000 household,

national, monthly telephone omnibus survey, with a supplemental 2,000 households every second month.

Dialogue Canada offers a monthly omnibus mail panel with national or regional samples. The Print Measurement Bureau conducts large-scale questionnaire mailings, seeking information on product purchase behaviour.

Specialized companies like Walsh Canada collect data on narrowly defined industry segments. Walsh produces audience identification, promotional research and monitoring reports on physician and dentist activity relating to prescription and ethical non-prescription drugs. As input, Walsh uses a combination of information from salesforce reps, physician diaries, and direct mail surveys. Walsh neither collects nor processes scanner information.

III. EXAMPLES OF SOPHISTICATION POSSIBLE IN SCANNER DATA USE

Data alone is just a commodity. The value added is in analysis of that data to provide actionable information, and to direct data and analysis to answering important questions. The real wealth of scanner tracking data is that it can be the key data source to answer causal

questions as well as provide product movement information. Both more "causal" questions and more important questions can be answered with scanner data, often as a base for incorporating panel data, than with audit data, withdrawal data, or panel data alone. In this section I discuss four examples that illustrate this point. The first example is an actual product distribution problem with a company called

utilizing data from IRI's InfoScan Census SMT service. The final three examples are hypothetical, but realistic.

Product Distribution

A major potential for a scanner-based SMT service is to streamline product lines and improve product distribution. The
is the leading manufacturer of

however had problems: flat sales; an unwieldy, 200 item product line with many items not moving at store level; and retailers who were increasingly unenthusiastic about the whole product line. Many of strongest-selling items had poor distribution, and many more-in-demand items were frequently out of stock.

used data from InfoScan Census to rank its entire product line by retail sales and sales rate: the top 67 selling items needed at point of distribution, as determined by profitability, sales, and nutritional

value; items that contributed to revenue but were not priority items; and products that were slower movers. Sales representatives were able to increase the distribution of core SKU's in favour of its slower movers, and to deal with poor product reordering at the same time by using actual product movement information from each individual chain to convince retailers how to maximize shelf space usage to improve sales and profits.

Consumer Dynamics

Another major use of scanner data is to try to answer questions on consumer dynamics. For example, once the product is in the market place and advertising and promotion dollars are invested, what happened? Who purchased, who was affected, and what affected them?

Consider a simple first example, where two competing consumer packaged good brands have equal market shares as reported by warehouse withdrawal or diary sources, with diary panel indicating there are "light" and "heavy" user clusters, but with no indication as to how the two differ.

Scanner/panel data might show that the two brands have substantially different underlying consumer dynamics. Brand "A" has a low household penetration rate but a high purchase frequency. Brand

"A" needs to increase the number of households purchasing the product through awareness building efforts such as media advertising and high visibility in-store demonstrations and promotions. Brand "B" has a high household penetration rate but low purchase frequency. Brand "B" might focus on building purchase frequency through advertising alternative uses, and time-restricted bounceback offers or couponing.

Consider as a second example a new consumer packaged good introduction. Introductory test market sales are strong, but repeat sales levels are weaker. What is the cause? Scanner/panel data might show that initial and repeat buyers only purchased when the product was on sale. Only after three or four purchase cycles would buyers buy when the product was not on sale. The problem might not be with product formulation (which is the first assumption you would make given weak repeat sales), but with the number of purchases required before a trier was transformed into a loyal customer. Information to permit the manufacturer to structure deals and promotions to stimulate repeat purchases and build a consumer franchise would be available from scanner based data but not necessarily from other SMT services.

Consider as a third example a two-brand market, "A" and "B", when a competing third consumer packaged good "C" is introduced. Simple brand tracking might show the market share level reached by brand "C",

and a corresponding drop in brand share by "A". Scanner/panel data might show that the underlying consumer dynamics were more complex than the simple assumption that "C" was gaining share from "A". Most of "C"'s gain might have come from new category buyers, and increased category consumption. "C" may actually have gained share from "B", with "B" gaining brand switchers from "A". Brand "A" needs to concentrate not on matching "C", but on targeted advertising and coupons to attract new buyers to the category, and to increase consumption by its existing buyer base by bounce-back offers (such as subsequent-purchase coupons), or by introducing larger package sizes. Data sources other than scanner based data would be unlikely to show these consumer dynamics.

The 'Efficient Consumer Response' Program

Another major use of scanner data is to bring cost savings and efficiency to manufacturers and distributors using the data. The most dramatic framework for using such data is the "Efficient Consumer Response" (ECR) program championed by the Food Marketing Institute, which forecasts huge savings in the food distribution sector, based on

more sophisticated and wide-spread use of scanner-based information.[7]

The objective of ECR is to redesign the grocery supply chain and its trade practices to make them more efficient and competitive. Fundamental to the savings seen to be possible are major changes in the relationships between trading partners, in which all parties work together to eliminate cost from the supply chain.

The savings are accomplished by a combination of more efficient store assortments, optimizing the inventory replenishment system, improving trade and consumer promotion, and improving the effectiveness of new product introductions.

Efficient store assortments addresses the optimum use of store and shelf space through a category/space management system. Efficient replenishment links the consumer, retail store, distributor and manufacturer into a data-synchronized system. Efficient promotion tries to match the flow of product though the system to consumer demand. Efficient product introduction uses consumer preference data to reduce the very high failure rate in the introduction of new products.

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[7] Efficient Consumer Response is a project of the Food Marketing Institute in Washington, cosponsored by the Uniform Code Council, Inc.; Grocery Manufacturers of America; National Food Brokers Association; and American Meat Institute. ECR is discussed at length in a publication by Kurt Salmon Associates, Inc. and Food Marketing Institute, Efficient Consumer Response, Washington: FMI, January, 1993.

Bar coding, scanning, and electronic data interchange (EDI) are referred to as the "enabling technologies" that permit ECR to function. The key information requirements are accurate point-of-sale (POS) scanner data, store-level sales history based on scanner data adjusted for promotion and season, an accurate UPC item database, and point of sale consumer identification and demographics.

The key component of ECR, and the source of the greatest savings, is vendor managed continuous inventory replenishment, with front-end, POS scanner data as input to an electronic data interchange (EDI) system which minimizes order times and costs. The intention is to produce an almost paperless, fully integrated business information system linking suppliers, distributors and retailers to manage the replenishment function.

The benefits of ECR are thought to be substantial, with total savings in the warehouse-supplied dry grocery segment in the U.S. projected at $10 billion, and total potential supply chain savings in excess of $30 billion - largely accomplished by cutting the supply chain inventory 41% from 104 days of supply to 61 days. This is projected by FMI to permit a reduction in average consumer prices in dry goods of approximately 11%.

It is clear from all the discussion of ECR that no data source other

than scanner data can substitute as a key, front-end information input to EDI, or as a data source for third-party research firms assisting the store assortment, promotion, and product introduction portions of ECR strategies.

IV. APPROPRIATE PRODUCT MARKET DEFINITION

It is my opinion that, given the facts of this case, the relevant product market for the purposes of section 79 of the Competition Act is scanner-based syndicated market tracking services in Canada.

This definition excludes audit-based SMT services, warehouse withdrawal services, and diary based tracking services, which have quite different product characteristics and entry barrier characteristics.

This definition also does not distinguish syndicated market tracking services by the channel of distribution through which the products being tracked are sold. Most product categories are sold through multiple channels, and barriers to new entry of research providers are similar in each channel. My product market definition is broader than that adopted by the Federal Trade Commission in considering a merger of IRI and Dun & Bradstreet proposed by Dun & Bradstreet in 1987. In the FTC's analysis, syndicated market tracking services for the packaged

goods industry was the relevant product market for the proposed merger.

In determining the relevant product market, I have considered the degree to which the product in question is distinct from other products, in terms of whether it should be considered a separate product or as part of a broader class of products. I have focused on whether other products may be good substitutes for the product in question.

As indicated in examples cited above, a scanner based SMT service has different characteristics and far broader and more flexible uses than does a warehouse withdrawal SMT service, an audit-based SMT service, or a diary based SMT service. Other types of data and services are not good substitutes for UPC based scanner tracking data and services.

A frequently cited test of relevant product market is found in the Director's Merger Enforcement Guidelines, which focuses on what would happen if a merging party attempted to increase the price of the product by a significant and nontransitory amount. If such a price increase would cause buyers to switch their purchases to other products in sufficient amount to make the price increase unprofitable, the product that is the next best substitute is added to the relevant market.

Because other types of data are not good or complete substitutes for UPC based scanner data, in my opinion an increase in the price of scanner based SMT service would not likely cause buyers to switch to

an SMT service based on another methodology or data sources.

V. APPROPRIATE GEOGRAPHIC MARKET DEFINITION

It is my opinion that, given the facts of this case, the relevant geographic market for the purposes of section 79 of the Competition Act is Canada, and does not include the United States. As a starting point, each country's syndicated sales tracking database is distinct because of differences in currency, product offerings, language, and social factors.

An important question in defining geographic markets is whether an area is insulated from price pressures from adjacent geographic areas such that prices can differ significantly for a period of time from area to area. Prices for scanner-based SMT services in Canada appear to be higher than prices in the United States, and average unit prices appear to be increasing in Canada while average unit prices are decreasing in the United States.[8]

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8 There are a number of reasons why no direct comparison of U.S. vs. Canadian prices for scanner tracking services has been attempted in this

If prices are higher in Canada, and the direction of price changes is different, then in my opinion separate price markets are prima facie evidence of separate geographic markets. (The alternative is not true of course; price markets which move in the same direction are not necessarily evidence of a single geographic market).

Most or all of the contracts made between Nielsen and its customers for UPC based scanner data from their SMT service appear to be restricted to the supply of data covering an entire country, for example Canada or the United States, rather than covering only a region. A supplier appears to need national data to effectively serve customers who themselves supply a national market. Nielsen may offer discounts of various kinds to customers who agree to a "tying arrangement" contract to purchase data from several countries, but it is

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report. I have had no access to Nielsen U.S. contracts, and if I had, it is doubtful that there would be an "apples to apples" comparability. Nielsen ScanTrack uses a single methodology, while MarketTrack uses a combination of methodologies.

clear that this is a discount for buying a "bundle" of countries, and that each country's data is a separate, and separately available, product.

While many customers contract with Nielsen for data or services covering Canada and the United States, it is the norm that separate prices are charged for each country, and separate contracts exist.

The fact that both buyers and sellers consider Canada to be a separate geographic market for data collection purposes and for contracting purposes would seem persuasive evidence that Canada is in fact a separate geographic market.

VI. BARRIERS TO NEW ENTRY

Capital Costs

The capital cost of new entry to the Canadian market for scanner-based SMT services depends on whether the potential entrant is already operating such a service elsewhere. For a company like IRI, capital costs would be considerable, but probably manageable. The requirement for computer hardware or software development would be minimal. IRI would have to hire several hundred field personnel as customer contact people, and to collect data on newspaper advertisements, in-store displays and other causal variables. If IRI could enter the Canadian market with no delays, the risk facing the company would be restricted to personnel and other marginal costs of introducing an established product that IRI already offers in other countries. This appears to be reflected in IRI's statement that they would enter the Canadian market if contractual barriers such as those to the acquisition of scanner data were eliminated.

An initial requirement for IRI (or any other new entrant to the provision of scanner-based SMT services in Canada) would be the creation and maintenance of a UPC dictionary. A useful UPC dictionary

for Canada might encompass 150,000 items, with perhaps 1,000 new item entries per week.

The capital cost of new entry to the Canadian market for a company not already offering scanner-based SMT service in other countries would be very high. Such a company would have to invest heavily in data collection, data processing, data storage, and software development, as well as in a UPC dictionary, and would have to develop a longitudinal database of sales data from retail locations across the country to provide future buyers with comparable, quarter over quarter trend statistics. A new entrant would also have considerable problems gaining credibility with potential customers, given that it would have no

track record elsewhere comparable to that of Nielsen or IRI.

A new entrant to the provision of scanner-based SMT services in Canada would almost be forced to start with tracking consumer packaged goods sold through supermarkets because this is the largest distribution channel by far for most consumer packaged goods. The new entrant could then move to acquire scanner data through channels like mass merchandisers and large drug chains.

On balance though, capital costs are not a major deterrent to new entry in this business. Of more concern is the cost structure for providing syndicated market tracking services, and the way that competitors can exploit this cost structure to raise barriers to entry.

Cost Structure for Syndicated Market Tracking Services

All SMT services, but particularly scanner based tracking services, have a cost-structure characterized by substantial fixed (or "front end") costs, and quite low marginal costs. Data collection, data processing and data storage facilities for an SMT service must be in place, a quality control system for dealing with data inaccuracies established, and a UPC dictionary must be created or purchased, before a research report can be produced. In addition, it has in some cases been Nielsen's practice in Canada to transform the purchase of scanner data from retailers into

a front end cost by paying large sums of money as a "signing fee" in a long term data supply arrangement.

All facility expenditures and data purchase agreements must be in place before a single report can be "sold", but once in place, the cost of providing another report to a second buyer from the same database is minimal.

Many or most of the costs incurred to enter the SMT industry are "sunk costs", in the sense that the investment in research facilities and initial marketing will be almost totally lost in the event of failed entry.

A high incidence of fixed or sunk costs produces a high minimum viable entry scale level for a new competitor. Minimum viable entry level is that market share which a new entrant must attain quickly to earn enough profit to cover its costs, to "break even"[10]. Sales below breakeven level result in average unit costs that are too high to make

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[10] Conceptually, the number of unit sales required to break even is given by the equation:

$$\text{\# of units required to break even} = \frac{\text{\$ fixed costs}}{\text{\$ contribution per unit}}$$

where \$ contribution per unit = selling price - variable cost per unit

Break even market share is then calculated as:

$$\text{break even market share} = \frac{\text{\# of units required to break even}}{\text{size of total available market, in units}}$$

a profit.

Minimum viable scale is expressed as a percentage of total market sales. If at the current price a new entrant needs to capture 35% of the market to break even, its minimum viable scale is 35%. Minimum viable scale analysis is the end result of any firm's analysis of whether to enter an industry, except of course that the firm will calculate not just break-even level, but whether it will earn a rate of return on the investment acceptable to the firm - the "hurdle rate".

When entry to a business such as SMT service is costly, and particularly when it involves investing in specialized physical assets or in front-end marketing expenditures, there is a strong incentive for an incumbent competitor to try to prevent the newcomer from signing up enough customers to break even - that is, to raise barriers to entry. The incumbent attempts to reduce the entrant's perceived chance of garnering a sufficient share of the post-entry market to make entry profitable. Any existing contractual or other restraints which prevent a new provider of SMT services from signing up customers will make achieving minimum viable scale for breakeven difficult, and will act as a barrier to new entry.

So the cost structure for the provision of syndicated market tracking services is not itself an important barrier to entry, unless that

cost structure is exploited by competitor's practices that raise breakeven periods. Exclusive access provisions in contracts relating to an essential input, and certain clauses in customer contracts are such practices, as discussed below.

Exclusive Access Provisions

Nielsen Marketing Research has contracts with the major grocery and drug retailers in Canada for UPC based scanner data. Most or all of these contracts appear to require providers of scanner data to sell this information exclusively to Nielsen ("exclusive access provisions"). Such exclusive access provisions do not appear to generally exist in contracts between either A.C. Nielsen or IRI and their data suppliers in the United States.

The result of including

exclusive access provisions in Nielsen contracts is thus to preempt access to scanner data, an essential facility that IRI or any new entrant to the Canadian market for scanner-based information systems requires to compete.

In each region of Canada, there are a number of large "Retail Banners" whose share of total food store (or other category) sales is substantial.

In British Columbia, the required chain data would probably include Safeway, Overwaitea, and Save-on-Foods; in Alberta, Safeway and Co-op; in Saskatchewan, Co-op, Real Canadian Superstore, and Safeway. In Manitoba, data would be required from Safeway and Real Canadian Superstore. In Ontario, data would be required from the A&P group, Oshawa Group, and Loblaw group; in Quebec, from Metro, Provigo (Univa), and IGA. In the Atlantic region, data would be required from Sobeys and Co-Op.

A provider of a scanner-based SMT service such as IRI would

require access to data from all the major retail banners in each region, and probably require national data from each banner and from additional chains such as Metro-Richelieu, in order to be able to provide key account and other services.

It appears that in 1985, a decision not to participate by one of the eleven grocery distributors in the Retail Council of Canada's cooperative marketing information project caused the entire RCC project to be cancelled. Canada Safeway would not grant IRI access to its UPC scanner data, agreeing instead to an exclusive contract for scanner data with Nielsen.

The possibility

:or exclusivity being repeated raises the perceived risk and thus the cost of new entry. A new entrant which was somehow able to bypass the exclusive data access contracts currently in effect in Nielsen contracts for scanner data from major suppliers, would still factor into the decision to enter the perceived "threat" that Nielsen might again pay

to one or more distributors' data, thus making the new entrant's research unattractive to buyers, and negating the new entrant's investment in the Canadian market.

A new provider of scanner-based SMT service would also require access to historical scanner data from all major supermarket firms if they were the only possible providers of historical scanner data. Without a complete set of historical scanning data, a new provider would be unable to supply the historical period comparisons that all research purchasers require.

Related to the existence of exclusive access provisions is the fact that payment levels for scanner data by Nielsen are almost certainly higher in Canada than in the United States (and this is sometimes cited

by Nielsen to justify its higher product costs in Canada). However the likely explanation is that Nielsen is, in contracting with data suppliers, purchasing two separate "goods", scanner data plus an exclusive data access provision.

So a new entrant like IRI cannot immediately enter the market and

purchase research data. It might have to wait as long as five years (until the scanner data it required was available), before it could hope to have a nationally projectable data sample, or more importantly, before it could hope to have scanner data from all the sources required by purchasers of SMT services before they will purchase the service. And all during this period, it would have the additional risk factor that Nielsen might overpay to deny it an essential data source.

This artificial extension of its breakeven period is perhaps the greatest barrier to entry faced by IRI. But there are other contractual barriers created by Nielsen that extend the breakeven period even more.

Nielsen's Customer Contracts

Nielsen contracts to provide tracking and other research to Canadian manufacturers contain several additional clauses which may act as a barrier to a new entrant given an existing monopolistic supply situation. One is the average length of the contract period itself.

A second contractual barrier is the existence of a variety of penalty clauses for terminating the Nielsen research contract.

The length of contract terms, and particularly the existence of termination penalties, act as a barrier to entry in that they further extend the breakeven period, and thus increase the costs and risks associated with initial entry.

Nonavailability of Historical Data

The nonavailability to a new entrant of a historical database for individual customers also serves as a barrier to new entry. Comparison with a base of historical data is an essential part of using the data from a UPC scanner based syndicated market tracking service.

Historical raw data may be available from some supermarket chains at such time as IRI signs contracts for future data supply. There is also the possibility that historical data may only be available from Nielsen (even though "owned" by the retailer), or indeed that it may not be available at all, if the exclusive data access provision in Nielsen contracts is interpreted to mean that IRI cannot access even previous-period data.

If such historical data is for whatever reason not available to a new competitor from retailers, it might be necessary for a new entrant such as IRI to produce and supply data "free" for several years, in order that

those customers who require it have a historical data base to support future data analysis. A requirement for several years of "free" data production would increase the breakeven period even further.

Conclusion - Existing Entry Barriers are Virtually Insurmountable

There should be a strong a priori concern about entry barriers in any industry where a dominant firm has the potential to charge supra-competitive prices, where the rate of innovation is less than might be expected, and where there has been an observed lack of full-scale entry to the industry for many years. Since the publication by Joe S. Bain of his seminal book Barriers to New Competition in 1956, and developed in later work by George Stigler and the Chicago School, it has been recognized that barriers to entry were those things which allowed an incumbent firm to charge supra-competitive prices in the long run, or to be non-innovative, without inducing new entry.

My conclusion is that there are currently very high barriers to a new entrant coming into the Canadian market to provide syndicated market research based on UPC scanner data from Canadian retailers - not only barriers to an inefficient entrant, but also to an efficient entrant such as IRI which has achieved a 50% market share in the U.S. in a comparatively short period of time. IRI would face an entrenched

competitor, Nielsen Marketing Research, which is both a single and entrenched buyer of UPC scanner data, and a monopolistic seller of syndicated marketing research based on scanner data.

Given the various barriers to entry discussed above, consider the scenario if IRI were to attempt to enter the Canadian market. Given the existence of Nielsen's exclusive data access clauses for scanner data from supermarkets, IRI would have to wait for the first data supply contract, for example with Loblaw, to open up for competitive bidding. IRI could bid for Loblaw scanner data, but could not promise Loblaw provision of marketing research in return, and could not provide relevant market comparison data, until such time as IRI had access to data from all key Canadian supermarket chains

But could IRI purchase scanner data from Canadian supermarket chains, one by one, in the interim? If Loblaw contracts to supply data to Nielsen, even if Nielsen insists on an exclusive data access clause, Loblaw gets payment for data plus the right to purchase national market research data from Nielsen. If Loblaw resists the demand for an exclusive data access clause, then Loblaw can sell data to IRI, but can get no research output from IRI.

If Nielsen does not insist on exclusive data access with Loblaw but does enforce these clauses with other data suppliers, IRI and Nielsen could both purchase Loblaw data, but IRI could not sell the resulting research data to anyone until such time as it had signed up all major retailer data suppliers. For IRI to be able to produce a saleable research product, all Nielsen's exclusive data access clauses with retailers would have to be invalidated, and contracts for scanner data come open for bid simultaneously (with no exclusives allowed to any buyer). IRI could then anticipate being able to purchase data from all supermarkets on a non-exclusive basis, as is the case in the U.S.

Dropping exclusive data access contract provisions is a necessary condition for IRI to enter the market, but is still not sufficient. Almost all revenue from the sale of scanner based research data comes from manufacturers and other suppliers - and all such customers are currently tied to Nielsen, a monopolistic seller, by long term contracts

It could be two or three years past the point where IRI had access to all scanner data before a "break-even" critical mass of research purchasers were available to IRI to bid for. The only way IRI could hope to shorten its break-even period is if all Nielsen contracts with research buyers were to come open to competitive bidding without penalty payments, and

without regard to minimum contract periods.

If Nielsen's existing contract restrictions remain in place, IRI faces a five year period to obtain scanner data, followed by two to three years to achieve a "break even" critical mass of research purchasers, and perhaps preceded by two years to collect back data - a nine or more year period to breakeven for IRI. No investor in the world would undertake a project with a breakeven period that long, and with substantial negative cash flow prior to breakeven.

To remove the absolute barrier to IRI entry, it would be necessary that exclusive data access clauses be invalidated, to compensate for Nielsen's power as a sole buyer. It would also be necessary that all contracts with research buyers were to open up, to compensate for Nielsen's power as a monopolistic seller. Finally, it would be necessary that back scanner data be available to IRI at fair market value.

For any potential new entrant without existing software technology and/or a proven track record, the capital requirements to build and operate a system that collects data from retailers across the country and uses that data to produce projections of sales and market shares on a national basis would almost certainly make entry to the Canadian market alone impossible, whether or not such an entrant faced Nielsen's existing contract restrictions. The reality is probably that, at least for the

foreseeable future, IRI is the only realistic potential entrant available to provide syndicated scanner-based market tracking studies to the Canadian market. This conclusion is supported by the fact that in the United States, no new entrants to the provision of national scanner-based SMT services have appeared since the startup of IRI in 1979.

VII. HARM FLOWING FROM NIELSEN'S EXCLUSIVE ACCESS PROVISIONS AND ITS CUSTOMER CONTRACTS

Nielsen Market Power

When the merger of Information Resources Inc. and Dun & Bradstreet was proposed by Dun & Bradstreet in 1987, it was the Federal Trade Commission's view that the merger would produce a virtual monopoly in the market research industry, that prices would rise and that the rate of innovation would decrease. It is my conclusion that Nielsen enjoys a current monopoly in the provision of scanner based syndicated market tracking services in Canada, and that Nielsen's exclusive access provisions and other contractual provisions, by making entry barriers virtually insurmountable, have the effect of preserving Nielsen power in this market.

An increase in prices and a decreased rate of innovation in the

provision of scanner data are serious harms which appear to have already occurred in Canada as a direct result of the Nielsen monopoly in provision of scanner-based tracking services. (The difference in prices between Canada and the U.S. is discussed above under "Appropriate Geographic Market Definition").

Limiting Innovation

Much of the focus in competition law is on the topics discussed above: allocative efficiencies - the ability of an industry to raise price above cost, and static efficiencies - generally economies of scale.

In addition to the role of allocative and static efficiencies, it is important to consider the role of progressiveness or innovativeness as a source of economic growth and welfare. Most empirical evidence in studies like Michael Porter's The Competitive Advantage of Nations (1990) is that a central focus of competition policy should be the pursuit of dynamic efficiency, on fostering progressiveness, which includes not only technological innovation but new ways of competing in product quality, marketing, and services.

It seems generally accepted that the pace of market research innovation in Canada has lagged behind that in the United States, meaning that Canadian manufacturers have had less opportunity to

obtain accurate, cost-effective and timely market tracking information of types already available in the United States.

This impacts on their ability to launch effective product introductions and make more efficient use of promotional and advertising investments. Similarly, Canadian retailers have had less opportunity to obtain services that allow them to plan more efficient store layouts, product assortments, and inventory levels. Reduced efficiencies at two levels may well have led to higher prices for grocery products for Canadian consumers than would otherwise have been true.

The real economic cost of the exclusive access provisions and other clauses in Nielsen contracts is not only to elevate static prices today, but to prevent the lowering of feature and quality adjusted prices over time, and to limit the potential for innovativeness and quality improvements.