Dir - Expert - Aug 9/91 Original Ross

No. CT-90/1

COMPETITION TRIBUNAL

IN THE MATTER OF an application by the Director of Investigation and Research for orders pursuant to section 92 of the Competition Act, R.S.C. 1985, c.C-34, as amended;

AND IN THE MATTER OF the direct and indirect acquisitions by Southam Inc. of equity interests in the business of publishing The Vancouver Courier, the North Shore News and the Real Estate Weekly

BETWEEN:

THE DIRECTOR OF INVESTIGATION AND RESEARCH

Applicant

\- and -

SOUTHAM INC., LOWER MAINLAND PUBLISHING LTD., RIM PUBLISHING INC., YELLOW CEDAR PROPERTIES LTD., NORTH SHORE FREE PRESS LTD., SPECIALTY PUBLISHERS INC., ELTY PUBLICATIONS LTD.

Respondents

AFFIDAVIT OF THOMAS W. ROSS

I, Thomas W. Ross, of the Township of Rideau, in the Province of Ontario, make oath and say as follows:

I. Background and Qualifications

1. I am an economist currently employed as an Associate Professor in the Department of Economics at Carleton University in Ottawa.

2. I received a Ph.D. in economics from the University of Pennsylvania in 1981 and then worked as a Research Fellow in the Graduate School of Business in the University of Chicago before joining the faculty at Carleton University in 1984. A copy of my curriculum vitae is attached hereto as Appendix A.

3. In my teaching and research, I specialize in the area of Industrial Organization, which is the study of the relationships between market structure, the behaviour of firms and the performance of firms and industries.

4. I have been retained by the Director of Investigation and Research to provide a review of the economic theory of what constitutes barriers to entry in an industry and to consider what might constitute barriers to entry in the market for the supply of newspaper advertising services.

II. <u>Barriers to Entry</u>

5. The Competition Act makes specific reference to barriers to entry as a factor to be considered regarding the prevention or lessening of competition. In its list of such factors, Section 93 includes:

> "(d) any barriers to entry into a market, including
>
> (i) tariff and non-tariff barriers to international trade,
>
> (ii) interprovincial barriers to trade, and
>
> (iii) regulatory control over entry,
>
> and any effect of the merger or proposed merger on such barriers."

6. It can be argued as well that barriers to entry are important to the evaluation of two of the other factors listed in this section (with emphasis added):

> "(a) the extent to which foreign products or foreign competitors provide or <u>are likely to provide</u> effective competition to the businesses of the parties to the merger or proposed merger;"

and

> "(c) the extent to which acceptable substitutes for products supplied by the parties to the merger or proposed merger are or <u>are likely to be</u> available;"

Both of these items contemplate the possibility of competition coming from sources not currently available: in (a) these sellers are located in other countries, in (c) they sell substitute products not currently available in the relevant market. In each case, the likelihood and significance of entry will depend upon the barriers to entry faced by these other firms. Part (c) contemplates competition coming from two sources: from currently available substitutes and from new substitutes that might appear after new entry or after expansion by a current producer.

7. Economists have defined barriers to entry in a variety of ways. Bain (J. Bain, Industrial Organization, New York: Wiley, 1968) provided a definition that focused on the ability of incumbent firms to maintain prices above full economic costs (i.e. costs that include an allowance for a reasonable return on investment) without attracting entry. He went on to suggest that economies of large scale production, absolute cost advantages, and product differentiation affected the ease of entry.

8. Stigler (G. Stigler, The Organization of Industry, Homewood, Il.: R.D. Irwin, 1968) defined barriers to be costs that must be borne by the entrant that are not or were not borne by the incumbents. Thus Bain and Stigler would agree that absolute cost advantages, perhaps attributable to regulatory constraints, would be barriers. But they would not agree about economies of scale. Economies of scale refer to the lower unit costs possible in some industries when firms produce larger volumes of output. Economies of scale and market demand together go a long way toward determining market structure. Suppose that economies of scale are such that there is not room for another firm of efficient size in

an industry. According to Stigler, to say that entry is impeded by these economies is no more meaningful than saying that insufficient demand is a barrier to entry.

9. Due largely to Stigler's contribution, attention has increasingly focused on differences between established firms (typically referred to as "incumbents") and entrants that allow the former to make supranormal profits without attracting the latter into the market.

10. The following are seen to give rise to barriers to entry:

(i) Regulatory barriers that favour incumbents over entrants.

(ii) Tariff and non-tariff barriers to trade that add costs to sellers from outside the country but not to sellers within.

(iii) Asymmetric information, in this case information known by incumbents but not potential entrants, particularly when used strategically. When an incumbent knows more about (for example) the costs of production, it can take actions to try to convince the prospective entrant that entry will not be profitable.

(iv) Sunk costs.

11. Sunk costs represent investments that are fully committed once

made. If I sign a lease to rent office space for $1,000 for the next month, and I cannot cancel that contract, the $1,000 will have to be paid whether or not I actually use the office. Even if I was to close down my firm, I must pay my landlord $1,000. "Sunk" refers to that portion of my investment that I could not take back out should I choose not to continue. For example, if I can sublet the office for $600 then only the remaining $400 are sunk.

12. Sunk costs can arise as part of investments in physical and human capital, and in the start-up losses necessary before profitable operation is possible.

13. Sunk costs impede entry two ways. First, they represent the investment the entrant has put at risk in the attempt at entry. In the event that entry is not successful, perhaps because the entrant was not able to get costs down to competitive levels, the sunk investment is what the entrant loses. The greater these possible losses relative to the prospective gains from successful entry, the less attractive entry becomes.

14. Second, the fact that the incumbent firm(s) has committed resources to the industry that are now sunk means that the entrant will find the incumbent less accommodating in its response to entry.

15. A big part of what determines the profitability and therefore

the success or failure of entry is the response of established firms. Entry will have a much greater chance for success if incumbents respond in a relatively passive way, conceding some market share to the entrant.

16. On the other hand, an aggressive response on the part of incumbents will make the entrant's task more difficult. An aggressive response is a possibility any time the entrant significantly threatens the profitability of the incumbent.

17. If the incumbent views the entrant as a potential threat to its survival, the fact that the incumbent has already sunk part of its investment means it will be more difficult for the entrant to force it from the market. Even a more efficient firm will only force the exit of a rival once price falls below the level of non-sunk average costs. This is due to the fact that as long as a firm is covering all of its non-sunk costs and making some contribution to the sunk costs, it is better of remaining in the industry than leaving and having to carry the full burden of the sunk costs.

18. In this way sunk investments can serve to convince potential entrants that the incumbents will not yield to their entry; threats to maintain output in the face of entry are then more credible. This will clearly make entry less attractive to the entrant who feels it needs some accommodation by the incumbent to generate sufficient sales.

19. Faced with a significant loss of profits or, in the event of exit, loss of a substantial sunk investment, an incumbent might consider adopting a very aggressive strategy in response to entry or the threat of entry. This could involve lowering its price to a competitive level, which would be a socially valuable response. It might also involve predatory pricing and signing up customers to exclusive long-term contracts, which could be anticompetitive.

20. As indicated earlier, sunk costs can take many forms. Most familiar are the investments in specialized capital (e.g. machinery) that has limited second hand value. For example, a robot programmed to perform one highly specialized function on an assembly line may be useless when removed from its designed place. A large fraction of the money spent to purchase that robot will be sunk.

21. In this same general category, I would put things like customized computer software with very limited application outside that for which it was written. Also, the costs of buildings can have a significant sunk component to them, particularly if they are custom designed for a very special production process or if they have a very special location.

22. Less obvious are sunk costs associated with human resources. Time spent planning and building a firm is forever lost should that firm exit. The same is true of education and training specific to

a certain firm. In some highly labour intensive activities recruiting, screening and training employees is a major undertaking.

23. A third general category of sunk cost involves the start-up losses that must frequently be endured by an entrant trying to establish credibility in its market. Seldom can a successful business claim to have earned profits from its very first day. More typically, firms go through a start-up period in which costs exceed revenues; office or factory space is bought or rented, staff are put on the payroll, advertising begins and some products are produced to show prospective customers, all before a single unit is sold.

24. These losses are properly viewed as an investment to be repaid when sufficient customers are attracted to the firm. These losses also represent a largely sunk cost of entry.

25. High start-up losses do not necessarily constitute a barrier to entry in an industry. However, where start-up losses are very substantial relative to the prospective gains from successful entry, these start-up losses can be a significant barrier to entry.

26. Certain industries have special features that make these start-up losses large. The presence of learning-by-doing effects and coordination problems are two such features. For example, in

industries in which there is a considerable element of learning-by-doing in production, entrants will often have to sell output at prices lower than cost to sell sufficient quantities to provide the needed learning.

27. "Coordination problems" involving customers can make entry more difficult by extending the period over which a prospective entrant will have to endure losses before attracting sufficient business to break even. A coordination problem in entry arises when the value a customer puts on a product (and therefore his/her willingness to pay for that product) depends upon how many other customers are buying that product. A simple example comes from the study of "network industries" (see D. Carlton and M. Klamer, "The Need for Coordination Among Firms, With Special Reference to Network Industries, University of Chicago Law Review, Vol. 50, 1983). The value to a customer of joining a telephone network depends, in part, on the number of other people on that network, since that determines the number of people who can be called.

28. It is entirely possible that everyone will expect no one will be joining the network and that therefore no one will join. At the same time, if people are more optimistic about the network's likely success, that optimism can itself make the network successful. This is a case of what economists refer to as "multiple equilibria". Unfortunately, even when everyone is better off under one equilibrium than under the other, there is no guarantee that

the market will find its way to the efficient equilibrium. Absent some way to coordinate the decisions of customers, the market can get stuck in an inefficient outcome.

29. Economists are coming to understand just how important and pervasive coordination problems are in real markets. In addition to the work on network industries (see also M. Katz and C. Shapiro, "Network Externalities, Competition and Compatibility", American Economic Review, Vol. 75, 1985) there has been work done that focuses on coordination problems in warranty markets (J. Bigelow, R. Cooper and T. Ross, "Warranties without Commitment to Market Participation", mimeo, revised 1991); contributing to bank runs (D. Diamond and P. Dybvig, "Bank Runs, Deposit Insurance and Liquidity", Journal of Political Economy, Vol. 91, 1983) and there is even a literature that attempts to explain business cycles as related to coordination problems (see e.g. R. Cooper and A. John, "Coordinating Coordination Failures in Keynsian Models", Quarterly Journal of Economics, Vol. 103, 1988).

30. The most famous case of a coordination problem in the economics literature is that of the typewriter keyboard. The keyboard in general use today is called the QWERTY keyboard (for the first six letters from the left on the top row). It has been suggested that an alternative keyboard layout known as the Dvorak, patented in the 1930s, is much superior in the sense that typists can achieve higher speeds on it than on a QWERTY board. Paul David

(P. David, "Clio and the Economics of QWERTY", American Economic Review, Vol. 75, 1985) has argued that we are stuck with the QWERTY board because of a coordination problem. No one wants to buy a new keyboard unless it is clear that there will be those trained to use it. But no one wants to learn how to use it unless there will be employers with the new boards for them to use.

31. Research using the techniques of experimental economics has provided strong evidence that coordination problems are real; markets can get "stuck" in an inefficient equilibrium. (See, for example, R. Cooper, D. DeJong, R. Forsythe and T. Ross, "Selection Criteria in Coordination Games: Some Experimental Results", American Economic Review, Vol. 80, 1990).

32. Let me turn now to a discussion of barriers to entry in the market for the supply of newspaper advertising services.

33. In this particular case, the necessary sunk costs associated with physical capital must be very low indeed. I have been asked to assume that almost all the equipment required to print a small paper can be rented rather than bought and with modern developments in desk-top publishing even buying much of the necessary capital is substantially less risky than it used to be.

34. The sunk costs associated with human resources may or may not be low. While the nonrecoverable expenditures on planning and

organizing start-up, and hiring and training staff are not insubstantial, they may be smaller in this market than in many others in which the product is more complex and the efficient scale much larger. The development of a reliable, relatively low cost delivery network may be considerably more problematic however. Here the challenge may be to recruit and train a significant number of carriers, and to the extent that the reliability of delivery is important to customers, this hiring should be carefully done.

35. To the best of my knowledge there are no regulatory barriers to entry in these markets.

36. There may be a significant coordination problem in markets for newspaper advertising services.

37. It has been recognized in the economics literature for some time that rival retail firms will often cluster close together. At first this might seem surprising, we might expect them to space themselves out so as to become little monopolists in their own small territory. The explanation offered for this behaviour is that this clustering reduces consumers' costs of search and so consumers will be drawn toward these clusters and not to isolated retailers.

38. The amount of clustering clearly varies by product. Jewellery stores and antiques shops seem frequently to cluster, while chain

grocery stores do not.

39. Something very much like clustering may be important in markets for newspaper advertising services. Advertisers want to advertise where their message will be seen by potential customers. If an incumbent newspaper has an established readership, advertisers will know that the paper is being read and that their message is getting out.

40. People read papers for both their editorial and advertising content. Just as a paper can develop a reputation for its editorial content, it is likely that it can become known as the locus for certain kinds of advertising. If successful in establishing itself as the home to a particular category of advertising, customers interested in information about these products would seek this paper out.

41. If a particular newspaper has a history as the major vehicle for, for example, grocery store retailing, it is likely that customers will continue to look to it for this information.

42. In many markets, customers can be attracted away from their former suppliers by a small savings in price. It is not clear that stealing customers will be this easy in newspaper advertising markets. Suppose an entrant promises substantial savings to an advertiser over what the advertiser is currently charged by the

established paper. Will the advertiser switch? Not necessarily. The advertiser is buying space, but what he/she really cares about is exposure to potential customers. The extent to which the space will translate into such exposure will depend upon how well read the paper is. This will depend, in turn, on the content of the paper, both editorial and advertising.

43. The uncertainty associated with these coordination problems means that output, properly measured as the exposure of an advertiser's advertisement to a potential customer, is difficult to predict for a new newspaper. Advertisers do not know what they are getting for the advertising dollars they spend in a new paper. They might be reluctant to shift because money spent in the new paper will be wasted if people do not read it.

44. Just as the antique dealer will be reluctant to leave "antique alley" out of a concern that buyers will not seek him out at a new location, advertisers might be reluctant to leave a paper that has established itself as the carrier of its kind of advertising.

45. In this way, it is likely advertisers' decisions are linked with one another: they all want to advertise in the vehicle that customers regard as <u>the</u> place to look for their advertising. Even an entrant offering a much better deal to all of them might run into trouble if each of the advertisers was pessimistic about the chances of substantial numbers of the others moving to the new

paper. This theory suggests that, in a very real way they would want to coordinate their decisions about where to advertise.

46. In an important sense, the coordination problem is even deeper than this. When a promising new entrant comes along offering a better product and/or lower price, not only will advertisers wish to coordinate their actions, they would benefit if they could coordinate with potential readers. Readers will read the paper if they think the content merits their time and part of the content they care about is the advertising. So readers might be influenced in part by advertisers decisions and advertisers will certainly be influenced by the decisions of potential readers.

47. When these coordination problems are present we might expect the start-up losses required of the successful entrant to become quite large.

48. There would be no easy way for the entrant to overcome these coordination problems. One alternative would be to go to press, printing issue after issue and selling advertising at attractive rates, slowing building an advertising base. Some advertisers will be less concerned with the location of their rivals' advertisements and they will buy space at attractive rates once they are convinced that the paper will be properly produced and circulated. After attracting a few advertisers, attracting others would become easier.

49. The result of this is that even small newspapers might have to go through a start-up period involving extensive losses. As discussed above, these losses represent a sunk investment that can function as a barrier to entry. At the core of this barrier is a coordination problem among advertisers.

50. If these coordination problems are significant, they would even face an entrant that is already established in the newspaper business in another market. Advertisers in one market will not be interested in advertising in newspapers circulated in another market. This is not like the market for computers, where a firm from another market can simply ship its product into new markets. To be successful in the market for newspaper advertising services, the entrant must establish a local newspaper, and in doing so the entrant will suffer many of the disadvantages of a new player. A reputation earned in another market is not necessarily sufficient to overcome coordination problems.

51. To properly assess the significance of these losses as a barrier to entry, they should be compared to the prospective gains from successful entry. A sunk cost of $1,000 might seem like a small price to pay if successful entry yields a million dollars of profits but a large price to pay if annual profits are measured in the hundreds of dollars.

Sworn before me at the
City of Hull, in the
Province of Quebec, this
9th day of August, 1991.

Elizabeth Brist (lawyer)

APPENDIX A

July 1991

Curriculum Vitae

THOMAS WAYNE ROSS

Personal Data

Born:	September 20, 1955 Hamilton, Canada
Marital Status:	Married, two children
Home Address:	5586 Goddard St. Manotick, Ontario Canada K4M 1C5 (613) 692-2589
Office Addresses:	Department of Economics Carleton University Ottawa, Ontario Canada K1S 5B6 (613) 788-2600 ext. 3761 FAX 788-3906

Present Positions

Associate Professor, Department of Economics, Carleton University, since July 1987.

Director - Carleton Industrial Organization Research Unit, November 1985 to present.

Member, Board of Editors, Canadian Journal of Economics

Education

University of Western Ontario
Honours B.A. in Economics, May 1977

University of Pennsylvania
M.A. in Economics, June 1979
Ph.D. in Economics, August 1981
(Thesis supervisor: Almarin Phillips)

Professional Experience

Holder of the T.D. MacDonald Chair in Industrial Economics, Bureau of Competition Policy, Consumer and Corporate Affairs Canada, 1990-1991.

National Research Fellow, Hoover Institution, Stanford University, 1987-88.

Assistant Professor, Department of Economics, Carleton University, July 1983 to June 1987.

Research Fellow and Lecturer, Center for the Study of the Economy and the State, Graduate School of Business, University of Chicago, September 1981 - August 1984.

Instructor, Introductory Microeconomics, University of Pennsylvania, Summer 1979 and Summer 1980.

Research Fellow, Economics Research Unit, University of Pennsylvania, September 1977 to May 1980.

Teaching Assistant, Graduate Microeconomics, University of Pennsylvania, September to December 1978.

Publications in Scholarly Journals

"Communication in Coordination Games" (with Russell Cooper, Douglas V. DeJong and Robert Forsythe), forthcoming, Quarterly Journal of Economics.

"Selection Criteria in Coordination Games: Some Experimental Results" (with Russell Cooper, Douglas V. DeJong and Robert Forsythe), Vol. 80, American Economic Review, March 1990, pp. 218-233.

"Cartel Stability and Product Differentiation", forthcoming, International Journal of Industrial Organization.

"Communication in the Battle of the Sexes Game" (with Russell Cooper, Douglas V. DeJong and Robert Forsythe), Vol. 20, Rand Journal of Economics, Winter 1989, pp. 568-587.

"On the Relative Efficiency of Cash Transfers and Subsidies", Vol. 29, Economic Inquiry, July 1991, pp. 485-496.

"Canada's New Competition Policy", (with Christopher J. Maule), Vol. 23, George Washington Journal of International Law and Economics, 1989, pp. 59-109.

Publications in Scholarly Journals (con't)

"An Intertemporal Model of Warranties" (with Russell Cooper), Volume 21, Canadian Journal of Economics, February 1988, pp. 72-86.

"On the Price Effects of Mergers With Freer Trade", Vol. 6, International Journal of Industrial Organization, June 1988, pp. 233-246.

"Movements Toward Free Trade and Domestic Market Performance With Imperfect Competition", Vol. 21, Canadian Journal of Economics, August 1988, pp. 507-524.

"Brand Information and Price", Vol. 36, Journal of Industrial Economics, March 1988, pp. 301-313.

"Store Wars: The Chain Tax Movement", Vol. 29, Journal of Law and Economics, April 1986, pp. 125-138.

"The Costs of Regulating Price Differences", Vol. 59, Journal of Business, January 1986, pp. 143-156.

"Monopoly Provision of Product Quality With Uninformed Buyers" (with Russell Cooper), Vol. 3, International Journal of Industrial Organization, December 1985, pp. 439-449.

"Extracting Regulators' Implied Welfare Weights: Some Further Developments and Applications", Vol. 25, Quarterly Review of Economics and Business, Autumn 1985, pp. 72-84.

"Product Warranties and Double Moral Hazard" (with Russell Cooper), Vol. 16, Rand Journal of Economics, Spring 1985, pp. 103-113.

"Winners and Losers Under the Robinson-Patman Act", Vol. 27, Journal of Law and Economics, October 1984, pp. 243-271.

"Prices, Product Qualities and Asymmetric Information: The Competitive Case" (with Russell Cooper), Vol. 51, Review of Economic Studies, April 1984, pp. 197-207.

"Uncovering Regulators' Social Welfare Weights", Vol. 15, Rand Journal of Economics, Spring 1984, pp. 152-155.

"The Cyclical Variation of Wage Premiums in the Canadian Manufacturing Industries" (with William J. Milne), Vol. 39, Relations Industrielles/ Industrial Relations, Vol. 39, 1984, pp. 762-773.

Other Publications and Reports

"Comments on 'Strategic Trade Policy, Technology Spillovers and Foreign Investment' by Richard Harris", forthcoming in a volume to be published from the Investment Canada Conference on Foreign Investment, Technology and Growth, held in Ottawa, September 1990.

"Product Warranties and Moral Hazard" (with Russell Cooper), in Issues in Pricing: Theory and Research, T. Devinney (editor), Lexington Books, 1988, pp. 83-98.

Solutions to Problems in the Theory of Price, fourth edition (with George J. Stigler), Macmillan, 1986.

"The Role of Competition Policy in an Economy Moving Toward Free Trade", prepared for the Bureau of Competition Policy, Consumer and Corporate Affairs Canada, June 1986.

Other Papers

"Proposals for a New Canadian Competition Law on Conspiracy", mimeo, June 1991.

"Cooperation without Reputation" (with Russell Cooper, Douglas DeJong and Robert Forsythe), mimeo, October 1990.

"On Vertical Integration of Successive Monopolies", mimeo, Department of Economics, Carleton University, August 1990.

"Imperfect Competition and Pareto-Improving Strategic Trade Policy" (with Aslam Anis), CIORU Working Paper #89-14, Department of Economics, Carleton University, Revised August 1990.

"Forward Induction in the Battle of the Sexes Games" (with Russell Cooper, Douglas V. DeJong and Robert Forsythe), mimeo, Revised July 1991.

"Raising an Army: A Positive Theory of Military Recruitment", Working Paper E-88-46, Domestic Studies Program, Hoover Institution, Stanford University, revised October 1990.

"Warranties Without Commitment to Market Participation" (with John Bigelow and Russell Cooper), Working Paper E-88-3, Domestic Studies Program, Hoover Institution, Stanford University, revised November 1990.

"When Sales Maximization is Profit-Maximizing: A Two-Stage Game", CIORU Working Paper #87-01, Carleton University, January 1987.

Other Papers (con't)

"International Oligopoly and Domestic Market Performance With a Falling Tariff", mimeo, Carleton University, October 1986.

Grants Received

1990-92, Social Sciences and Humanities Research Council of Canada ($25,120), for "Long Term Contracts Without Commitment to Market Participation" (with Russell Cooper, Boston University).

1988-90, National Science Foundation ($140,000 U.S.), for "Experiments on Equilibrium Selection in Coordination Games" (with Russell Cooper, Douglas DeJong and Robert Forsythe, all at the University of Iowa at that time).

1986-1988, Social Sciences and Humanities Research Council of Canada ($22,950), for "Product Warranties: Insurance, Incentives and Signals" (with Russell Cooper, University of Iowa at that time).

1985-1986, Consumer and Corporate Affairs Canada (Bureau of Competition Policy), ($5,000) for "Competition Policy With Freer Trade".

1985-1986, Carleton University, through the GR-6 programme funded by the Social Sciences and Humanities Research Council of Canada, ($1,500) for "A Positive Theory of Military Recruitment".

1984-1985, Carleton University, through the GR-6 programme funded by the Social Sciences and Humanities Research Council of Canada, ($2,000) for "Moral Hazard, Insurance and Product Warranties".

In addition, a number of grants have been secured to fund the activities of the Carleton Industrial Organization Research Unit. Details available upon request.

Doctoral Thesis Supervisor For

Dr. Aslam Anis
Simon Fraser University
Completed January 1990

Professor Philippe Cyrenne
University of Winnipeg
Expected completion Summer 1991

Papers Presented - Invited Seminars and Conferences (Recent years only.)

1987-88: Stanford University, University of British Columbia, University of California - Berkeley, University of California - Los Angeles.

1988-89: University of Chicago, University of Alberta, University of Saskatchewan, University of Guelph, Laval University, Allied Social Sciences Association Meetings (New York City), Canadian Economics Association Meetings (Quebec City)

1989-90: University of Toronto, University of Waterloo, University of Winnipeg, University of Manitoba, University of Illinois, Allied Social Sciences Association Meetings (Atlanta), Canadian Economics Association Meetings (Victoria - June 1990)

1990-91: University of Maryland, University of Guelph, University of Windsor, University of Waterloo, McGill University, University of Toronto, University of Michigan, Canadian Economics Assoc. meetings (Kingston, June 1991), Western Economic Assoc. meetings (forthcoming, Seattle, July 1991)

Professional Affiliations

American Economic Association
Canadian Economics Association
Western Economic Association

Refereed Submissions For

American Economic Review
Canadian Journal of Economics
Economic Inquiry
International Economic Review
International Journal of Industrial Organization
Journal of Business
Journal of Law and Economics
Journal of Industrial Economics
Journal of International Economics
Journal of Political Economy
National Science Foundation
Social Sciences and Humanities Research Council of Canada