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**“Regulation and the Contestability
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John N. McDougall

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**REGULATION AND THE CONTESTABILITY OF MARKETS:
SOME EVIDENCE FROM THE HISTORY OF TRANSPORTATION
AND COMMUNICATIONS IN CANADA**

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March, 1991

INTRODUCTION*

The conventional wisdom concerning the relationship between transportation, communications and government in Canada is that Canadian federal governments have been very active in the promotion of national systems designed for these purposes. Indeed, the building of the great "inter-oceanic railroad", which eventually emerged as the Canadian Pacific Railway, provided part of the rationale for the confederation of the British North American provinces. Similarly, the federal government created the Canadian Broadcasting Corporation to ensure that network broadcasting in Canada was achieved by means of a nationally-controlled system, and not merely as the extension into Canada of the American radio networks, NBC and CBS. (In the famous words of Graham Spry, "It is a choice between the State and the United States".)¹ In similar ways, all of Canada's national networks of transportation and communication seem an essential part of the country's very existence, and their creation and performance have consistently ranked among its most important public interests.

Given this, it might not seem very plausible, or even interesting, to hypothesize that Canadian regulation has often been

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¹Quoted in Marc Raboy, Missed Opportunities: the Story of Canada's Broadcasting Policy (Montreal and Kingston: McGill-Queen's University Press, 1990), 40. Spry, perhaps Canada's most vocal advocate of publicly-owned national radio, was addressing the House of Commons Special Committee on Radio Broadcasting in 1932.

aimed to delay or obstruct the introduction of new transportation and communication technologies into Canada. Nevertheless, it is the intent of this paper to examine the possibility that the federal government's policies affecting transportation and communications systems have frequently been designed to act as brakes on "Schumpeterian competition" for their markets. It seeks to test the hypothesis that, in Canada, the spread of innovations to infrastructural industries has been retarded by the desire of governments to protect existing systems from early obsolescence. More concretely, the aim of the discussion is to establish the extent to which the Canadian regulation of railways may have been aimed at the protection of previous investments in waterways and canals; of trucking at the protection of the railways; of satellite communications at the protection of existing telephone and microwave networks; and of fibre optics at the protection of established telecommunications systems.

The starting point of the discussion is the proposition that, to paraphrase the core of Harold Innis's thinking about Canadian economic history, "Canada does not build, it overbuilds."² The

²The analysis thus represents an attempt to update a set of Innisian observations about the "migration of mature technique" to a frontier setting constituted by Canada's physical environment, resource base and population. For a superb book-length examination of mining in Ontario with a similar objective, see Dianne Newell, Technology on the Frontier: Mining in Old Ontario (Vancouver: University of British Columbia Press, 1986), especially Part II. For a sample of Innis's thinking along these lines, see Harold A. Innis, "Transportation as a Factor in Canadian Economic History" in Mary Q. Innis, ed., Essays in Canadian Economic History (Toronto: University of Toronto Press, 1956). The "migration of mature technique" is addressed explicitly in Harold A. Innis, "An Introduction to the Economic History of Ontario from Outpost to

"building" referred to is the creation of Canada's infrastructure, that is, all of its nation-wide systems of transportation and communication. Canada inevitably "overbuilds" such systems, Innis taught us, because the optimum technological size of such systems consistently exceeds that required by its small and dispersed population and its relatively low level of economic activity. The argument here is that these same economic rigidities promote federal government regulation as a means of protecting these over-developed systems from a loss of traffic to more efficient systems, especially those centred in the United States. "Stakeholders" in these systems (their shareholders, workers and dependent clients) pressure the Canadian government to slow the rate at which the sunk physical and human capital invested in them is rendered obsolete by more advanced systems.

An initially attractive feature of this approach is that it makes the explanation of the Canadian experience with regulation - at least in some industries - consistent with more general theories of the origins and function of regulation as an instrument of government policy. Owen and Braeutigam, for example, have argued that the purpose of regulation is to delay the displacement of the old by the new, which has the effect of granting individuals and their interest groups equity rights in the status quo.³ Thus, regulation should be seen as endogenous to the preferences of

Empire" in Mary Q. Innis, ed., 121.

³The Regulation Game: Strategic Use of the Administrative Process (Cambridge, Mass.: Ballinger Publishing, 1978), 20.

political actors: the demand for regulation comes from actors who are concerned that

the victims of economic change should not be placed at the mercy of the impersonal market, but should instead be protected by a mechanism that provides economic justice. A very primitive, minimum response to this desire is the grant of a period during which adjustment can take place and useless fixed costs amortised. Noneconomists are great respecters of sunk costs; the transformation of useful physical and human capital into an irrelevant sunk cost by market or technological forces is a process that is easily viewed as unjust and even inhumane. In addition, substantive policy decisions are affected: people cannot be deprived of existing services at existing prices without due process.⁴

There is no reason to assume this description does not apply to Canadians. Thus, if Canadian regulation has a history of unusually lengthy delays in the introduction of new transportation and communication services, and if these delays are the consequence of regulatory intervention, it would follow that probable explanation for this is the incidence in Canada of unusually large sunk costs

⁴Ibid., 20-1. The idea that regulation generally serves to inhibit innovation in the interest of those with an economic stake in the status quo is broadly supported by Mancur Olson in The Rise and Decline of Nations Economic Growth, Stagflation, and Social Rigidities (New Haven: Yale University Press, 1982), 62:

Since a major technological advance will normally change the optimal policy for a cartelistic organization and the relative strength of its members, it will normally require difficult new rounds of bargaining which the special-interest organization or collusion might not survive. This in turn makes cartelistic groups cautious about innovation and change. When an industry is nationalized, regulated as a public utility, or for other reasons subject to political dictation, the pertinent lobbies may veto changes, or simply require consultation about them, and innovations and investments will take place less often and more slowly.

It is also compatible with the broad conclusion of Thomas McCraw's excellent account of the careers of four exemplary American regulators, Prophets of Regulation: Charles Francis Adams, Louis D. Brandeis, James M. Landis, Alfred E. Kahn (Cambridge, Mass: The Belnap Press of Harvard University Press, 1984), 302.

these industries.

The hypothesis that Canadian regulation has delayed the introduction new transportation and communication technologies can be proven false by two types of empirical findings: first, the discovery that, in fact, there is no delay and that, rather, the Canadian adoption of new transportation and communication technologies has generally occurred at rates comparable to those in other countries; and, second, the discovery that the delays observed cannot be attributed to government intervention. Accordingly, the next section of the paper is aimed to establish the extent of delays in the introduction of new technologies in Canada in the industries under review and to link the delays observed to the exercise of federal regulation.

CANADIAN REGULATION AND DELAYED OBSOLESCENCE

Most students of Canadian history would not expect to discover significant delays in Canada's "uptake" of innovations in transportation and/or communications. For one thing, such lags would be inconsistent with the theme of "defensive expansionism", which a school of Canadian economic historians developed to characterize the active promotion of such systems by the Canadian government.⁵ For another, it also seems at first glance to contradict the history of Canadian regulation presented by

⁵The definitive treatment of this theme is found in H.G.J. Aitken, "Defensive Expansionism: The State and Economic Growth in Canada", in W.T. Easterbrook and M.H. Watkins, eds., Approaches to Canadian Economic History (Toronto: McClelland and Stewart, 1967).

Armstrong and Nelles in Monopoly's Moment.⁶

Indeed, these authors conclude that the introduction of several new technologies into Canada at about the turn of this century formed an almost seamless web with their introduction into the United States. They write:

In one exhilarating decade aggressive entrepreneurs spread the telephone, electric lighting, and mass transit across urban North America. For purposes of analyzing technological diffusion, the Canadian-American border scarcely existed; Canada was part of the United States. Technological systems had been transferred to a region of rising per capita income by equipment salesmen and migrant technicians and had been eagerly taken up by local capitalists, manufacturers and consumers.⁷

And again:

Canada was not merely a passive recipient of foreign technology, but rather a region of active innovation where the state of the art was altered, especially in the case of electrical transmission. Canadian achievements fed back into the common North American technical pool, but in equipment manufacturing Canada was but a miniature replica of U.S. industry, technologically and organizationally. Imports of both producer and consumer goods came overwhelmingly from the United States.⁸

Given their apparently contradictory arguments, it is important to note that Monopoly's Moment and this study are focused on two different subjects. The present study deals with national utilities, or continent-wide networks, while Monopoly's Moment is focused on urban ones (although, admittedly, in several cities across Canada). In fact, their findings of the almost simultaneous

⁶ Christopher Armstrong and H.V. Nelles, Monopoly's Moment: The Organization and Regulation of Canadian Utilities, 1830-1930 (Toronto: University of Toronto Press, 1986).

⁷Ibid., 323-4.

⁸Ibid., 324.

introduction of several systems into Canadian and American cities tend to support the significance of overbuilding as a factor in the development of Canadian networks of transportation and communications. At the local level, the overbuilding phenomenon will not occur since, for cities of comparable total size, population densities in Canadian cities are not significantly lower than they are anywhere else. Indeed, one could say that Canada's overbuilding problem, stated in terms of cities and their development, has nothing to do with their size per se, nor anything to do with the manner in which new technologies are spread to them or through them, but everything to do with the small number of large cities within Canada and the correspondingly larger distances between them.⁹

In any case, little support for the model presented here can be gained from individual examples of the introduction into Canada of new technologies such as long-distance telephone services. It is necessary, instead, to review systematically the history of Canada's transportation and communications systems for a series of lags in the Canadian adaptation of new technologies to its particular economic circumstances. The historical examples to be

⁹Thus, the key question about the introduction of technologies like telephone services into Canada is not how quickly and efficiently such services were introduced in cities across Canada, but how quickly and efficiently those city services were linked together into an all-encompassing national network of long-distance services. At this level, the Canadian adoption of trans-Continental telephone service clearly lagged that of the United States, in that for about fifteen years Canada's local/provincial telephone companies were linked to one another for long-distance purposes through the system already operating in the other country. See *ibid.*, 292.

so reviewed are the Newfoundland fisheries; the fur trade; the St. Lawrence waterway; short-haul railways in the Maritime and Canadian provinces; the trans-continental railways; trucking since 1920; satellite telecommunications; and fibre-optical transmission.

Early History

The Newfoundland Fisheries. Harold Innis's major works on Canadian economic history describe several ways in which authority over areas of what is now Canada worked to protect monopolies against competitive forces. Indeed, his three works on the Newfoundland fisheries, the fur trade and the Canadian Pacific Railway (CPR) are heavily, if not centrally concerned with the conflicting tendencies toward centralization (monopoly) and decentralization (competitiveness) in Canada's "staple" industries.¹⁰ There are few direct examples of regulation-induced delay to be found in these works, but there are nevertheless several instances where Imperial power was clearly exercised to protect established forms of enterprise from new and competitive ones.

In concrete terms, according to Innis, both the fisheries and the fur trade were fundamentally at odds with, and under sustained challenge from, expanded settlement. Thus, some of the Imperial

¹⁰Respectively, The Cod Fisheries: the History of an International Economy, Revised Edition (Toronto: University of Toronto Press, 1954); The Fur Trade in Canada: An Introduction to Canadian Economic History, Revised Edition. (Toronto: University of Toronto Press, 1956); A History of the Canadian Pacific Railway, with a foreword by Peter George (Toronto: University of Toronto Press, 1971. First published in 1923.)

government's earliest regulations drafted specifically for Newfoundland were expressly aimed to suppress practices conducive to permanent settlement. However, settlement could not be completely prevented, and the authorities were consequently torn between the desire to discourage and the need to accommodate permanent settlement.¹¹ On balance, however, Imperial policies were designed to buttress the monopoly the West Country (English) fishing fleet held over the Newfoundland cod fishery.

It is interesting that the West Country monopoly was partly protected by the absence of effective government in Newfoundland.¹² However, in other ways, regulatory power was also used positively to restrict competitive practices. For example, regulations prohibited Newfoundland inhabitants from owning stages and other property necessary for fishing and restricted settlement altogether

¹¹This ambivalence in Imperial policy is well described in a frank self-assessment by the Privy Council after about a century and a half of Newfoundland governance. The Council acknowledged that for over a century it had wavered "between two different and in some measure adverse propositions *vis.* either planting the island and establishing a civil government, and thereby encouraging a promiscuous fishery, or discouraging inhabitancy and thereby conforming the fishery entirely to ships fitted out from these Kingdoms..." See Privy Council, IV, 1849 (1765), as quoted in Innis, The Cod Fisheries, Head to ch. VI, 144.

¹²Following the logic of the privy council, and as Innis's history records, the less extensively authority was exercised in Newfoundland, the less "liveable" the colony was for independent fishermen, whose permanent residence there promoted a form of the fishery the English fleet could not control. It is in this sense that "establishing a civil government" meant "encouraging a promiscuous industry". (This point may be more than an historic curiosity. I will argue below that the absence of federal regulation of interprovincial trucking and (until 1990) telephone services retarded the introduction of systems in competition with established services.)

by limiting the number of fisherman carried out to Newfoundland each season to no more than each ship required to conduct its own operations.¹³

Shipping and the Inland Waterways. The prosecution of the cod fisheries, then, at least shows signs of the early use of authority to inhibit the introduction of competitive practices in support of monopolistic control based on existing ones. The subsequent marine history of Canada shows further signs of significant lags in the introduction of competitive technique, but it does not necessarily support the view that government policies produced these lags. For example, the displacement of wood and sail by iron and steam ships was considerably slower in Canada than in the United States, but these lags appear to have resulted from contrasting economic circumstances. Unlike the American one, the Canadian economy left shipping based on the old techniques with more of what they were better fitted to do efficiently, such as the transport of unfinished, bulk cargoes with little premium on delivery time. Moreover, lower mobility of labour and/or capital on the Canadian frontier hampered economic adjustment to this new technological era.¹⁴

However, what is particularly noteworthy is the retarded rate

¹³Ibid., 97-99. Stages were racks for drying fish.

¹⁴See C.K. Harley, "On the Persistence of Old Techniques: The Case of North American Wooden Shipbuilding", Journal of Economic History, 33, 2 (June, 1973) 372-398; and Albert Faucher, "The Decline of Shipbuilding at Quebec in the Nineteenth Century", The Canadian Journal of Economics and Political Science, 23, 2 (1957): 195-215.

at which private (or commercial) shipping developed on the inland waterways, whether based on wood or iron, sail or steam. Regulations passed during the American revolutionary war restricted navigation on the Great Lakes to the king's own vessels. However, the fact that these regulations remained in force well after the cessation of hostilities suggests a motive beyond strict military security. For instance, Glazebrook cites evidence from the pen of the governor of Canada himself that the restrictions on private shipping were aimed at the preservation of the fur trade. Commercial shipping on the Great Lakes, he argued, would undermine the Montreal traders' monopoly of the Northwestern fur trade by facilitating the transportation of goods and furs through the lake ports of the American states.¹⁵ While these regulations were abandoned in 1788, the ordinances that replaced them still required that commercial ships must be under ninety tons, built on British soil, and crewed only by British subjects.¹⁶ Progress in commercial vessels remained slow until the end of the War of 1812, and lake shipping was dominated by military craft.¹⁷

Even if this slow rate of commercialization was not due to continuing obstruction by the state, is worth underlining the

¹⁵G.P. de T. Glazebrook, A History of Transportation in Canada with a Foreword by H.A. Innis (Toronto: The Ryerson Press, 1938), 31.

¹⁶Ibid., 32. See also Innis, The Fur Trade, 180-85.

¹⁷Glazebrook, History of Transportation: "It has been estimated that in 1811 the total private tonnage on Lake Ontario was only 1,100 tons; and that one-third of the vessels paying duty at Niagara and York were sailing under the American flag." 32.

concern that may have prompted Canadian authorities, even briefly, to retard the development private shipping on the Great Lakes. The idea that improvements in the efficiency of the Great Lakes transportation system might help to divert a portion of the fur trade from Montreal to New York foreshadowed the approaching era of canal- and railway-building in Canada. It became the ambition of the Montreal commercial class to monopolize the movement of goods from the entire North American interior to the markets of Europe. The fur trade was only the first of several occasions when this ambition was threatened by American-controlled systems that not only tapped the American interior but also attracted traffic originating in the British North American territories. According to an early promoter of the Welland Canal, for example, a canal linking Lakes Ontario and Erie (to get around Niagara Falls) would counteract the pull of the Erie Canal and allow Canada to "take down the whole produce from the Western country".¹⁸

Thus, with the Welland Canal and also (soon) the railways, an economic "grand strategy" was under way in British North America. It was one of the "defensive expansion" of Canadian systems in order to pre-empt American intrusions into Canadian territory through the marginal expansion into Canada of systems centred in the United States. The Canadian systems created to perform this function were fundamentally redundant in economic terms and,

¹⁸As quoted in *ibid.*, 85. Glazebrook's account of the Welland Canal contains evidence that it was "overbuilt", that is, suffered a severe problem of excess capacity and a large overhang of debt. See 86-7.

therefore, almost by definition "overbuilt". It is in this sense that, at the close of the fur trade, one can clearly see on the horizon the congenital character of ensuing Canadian systems of transportation and communication: the trans-continental railways, the broadcasting networks, the long-distance telephone network, the airlines and the communications satellites. While the monopolization of these systems was the essence of Canadian nation-building, the contestability of the Canadian market for their services was also (and alas) one of their most prominent economic characteristics.

The Railway Age

There can be little doubt that the development of Canadian railways was fundamentally affected by previous huge investments in canals and other improvements of the St. Lawrence and Great Lakes waterway, which was by then navigable by shipping from Lake Superior to the Atlantic. There are numerous contemporary accounts that saw the "rail roads", as they were termed at first, as either wastefully competitive with recently improved canal links in the Canadian provinces, or wholly redundant. There is also clear evidence that railways were much slower to catch on in Canada than in comparable regions of the United States. (There were a mere sixty-six miles of track throughout Canada in 1850.)¹⁹ It is true

¹⁹Ibid., 172. Glazebrook also records that during the "roaring 'fifties" some 2,000 miles of track were added to this meagre total, most of it in Canada West (171-2). Benoit-Mario Papillon presents data to show that the low cost of water transportation in Quebec accounts for the "partial, if not late, participation of the province in the new industrialism" and, in particular, the "relatively slow expansion of a railway network." See "Notes on

that Canadian governments eventually engaged in active - indeed, over-active - promotion of railways in Canada; however, this over-dramatized view is actually quite misleading, for two reasons.

First, there is a whole dimension to the introduction of the railway into Canada that must be viewed independently of the heroics surrounding the creation of the inter-colonial and trans-continental railroads, namely the adoption of the railroad for more localized, inter-urban and metropolitan-hinterland linkages. Here, the Canadian railroad story is definitely one of delay, and possibly "regulation-induced" delay.²⁰ Second, once the national government got behind major rail development, it seems to have done so, in essence, in order to expand the utilization of the recently-improved canal system. That is, the railways were to play their part in consolidating the position of the Montreal merchants with respect to the trade of North America. In short, early railways in Canada were either impeded by previous investments in canals or

Transportation Costs in Quebec Province in the Second Half of the 19th Century", Paper Presented to the 17th Conference on the Use of Quantitative Methods in Canadian Economic History, Kingston, Ontario, November 9-10, 1990, Mimeo, 2-3.

²⁰Glazebrook is not clear on the subject. He notes that "the relationship between canals and railways was a much disputed point" and proceeds after a few specific references to conclude that, "On the whole, railway construction was retarded by commitments made for canals, and by their success in the halcyon days of the grain traffic in the early 'forties." History of Transportation, 150-1.

By 1850, railway enthusiasts in Canada were complaining that, as one of them put it, "In the United States they build railways, in Canada we talk about it." One of his further observations contains a suggestion that sunk costs in canals were distorting the economics of rail. See Thomas C. Keefer, The Philosophy of Railroads, 5th Edition (Ottawa: Bell and Woodburn, 1871. First published in Montreal, 1850), 16-17.

commandeered to them.

As for the trans-continental railways, it is important to note that the Hudson's Bay Company successfully pressured the British colonial administration to delay the spread of settlement in the Northwest and, hence, the introduction of new and competitive mode of frontier development.²¹ Thus, George Brown, a great partisan of both confederation and the great western railway project, complained that "...Lower Canada, aided by the agents of the fur trading monopoly, prevents our march to the west..."²² It is also important to note that various forms of American connection were among the principal difficulties that delayed the beginning of the trans-continental railroad. In its final form the Canadian Pacific Railway was, at government insistence, built entirely through Canadian territory and owned and controlled exclusively in Canada. However, the project took many years to rid itself of rival or associated projects that were either substantially controlled by American railwaymen or were routed partly through the United States, an indication of the extent to which purely economic

²¹Innis, A History of the CPR, 35-7; 82-3. Glazebrook suggests that the southerly route through the Northwest - running through Calgary rather than Edmonton - reflects the lingering influence of the Hudson's Bay Company. History of Transportation, 275. A strong link between the two companies existed in the person of D.A. Smith (Lord Strathcona).

²²Globe, Toronto, May 24, 1859, as quoted in W.L. Morton, The Critical Years: the Union of British North America 1857-1873 (Toronto: McClelland and Stewart, 1964), 71. That the Hudson's Bay Company frustrated both the political and the transportation projects for over twenty years is established pretty clearly in E.E. Rich, The Fur Trade and the Northwest to 1857 (Toronto: McClelland and Stewart, 1967), chapter 15 (titled, "Epilogue: The Fur Trade and Confederation").

factors militated against its all-Canadian character.²³

However, with the completion of the CPR in 1885, railways were to dominate inter-city and trans-continental transportation for half a century or more. During this period, the monopoly position of the CPR in the Canadian west became the cause of a deep grievance among the growing number of settlers it had helped to locate there, and eventually two more trans-continental railways were constructed to meet protests against its alleged exploitation. Representing as they did "overbuilding in spades", these lines became bankrupt within decades, and the federal government welded their financial wreckage into the Canadian National Railway (CNR) in 1923.

Trucking and The Railway Impediment

Efficient or not, Canadian railways faced no real competitors until the late 1920s, whereupon severe economic times, and then World War II, forced a number of potential rivals to remain "on hold" until the late 'Forties and early 'Fifties. At this point, the story of railways in Canada begins to centre on their part in the slow rate at which Canada adopted the motor vehicle, one of two major transportation technologies peculiar to the Twentieth Century.²⁴

²³See A.W. Currie, The Grand Trunk Railway of Canada (Toronto: University of Toronto Press, 1957), 299-306.

²⁴The other, of course, is the airplane. It is useful to consider airlines and trucking as two separate parts of a joint challenge to the predominance of rail, with trucks challenging railway freight services and airlines railway passenger services. Note also that both road traffic and air traffic tend to integrate parts of Canada more closely with adjacent regions of the United

At first glance, trucking is not a very auspicious case in point for the hypothesis being tested here, for the simple and seemingly sufficient reason that trucking is not regulated at the federal level in Canada. However, the picture clouds a little when it is considered that, since a Supreme Court judgement in 1949, it has been well established that the federal government possesses **jurisdiction** over inter-provincial trucking services.²⁵ However, in 1954, the federal government used the Motor Vehicle Transport Act to delegate this power over interprovincial trucking to the provinces. There is strong evidence that this **failure** of the federal government to regulate trucking served to reduce the ability of the trucking industry to mount effective competition against the national railways. According to one observer, critics of the federal government's action have repeatedly argued that the resulting loss of regulatory uniformity and coordination "was fragmenting a major competitive sector of the transportation system in Canada. Moreover, such fragmentation had resulted in greatly increased costs for the trucking industry."²⁶

However, the story surrounding the politics of trucking regulation in Canada does not lend unambiguous support for the hypothesis under examination here. For one thing, in apparent

than with other parts of Canada, whereas the railroad - as a deliberate policy of government - did the reverse.

²⁵See Richard Schultz, Federalism, Bureaucracy and Public Policy: the Politics of Highway Transport Regulation (Montreal: McGill-Queen's University Press, 1980), 14.

²⁶Ibid., 21. For a discussion of the MVTA, see 16-19.

contradiction to the argument that the absence of federal regulation of trucking reduced its capacity to compete with the railways, the railways themselves pressed the federal government to assume responsibility for inter-provincial trucking. However, this may have occurred because the railways expected from such prospective regulation precisely what the hypothesis examined here would predict from it, namely, that once the federal government undertook to regulate trucking, it would do so to the competitive advantage of the railways.²⁷

Certainly the early history of the struggle between road and rail seems to support this interpretation. To quote Kaplan's study again:

In 1928 the two railway corporations, backed by the railway unions and by municipal officials from the many 'railway towns' in Canada, began a major political campaign designed to convince both the federal and the provincial governments that they must restrict the spread of trucking. No trucking company should be authorized to operate in a market served by rail. If the provincial governments were unwilling to restrain trucking in this manner, jurisdiction should be shifted to the federal level, where the railway's problems were better understood and where the appropriate restrictions on trucks were more likely to be approved.²⁸

Eventually, though, the federal government began to edge its way

²⁷See Harlold Kaplan, Policy and Rationality: the Regulation of Canadian Trucking (Toronto: University of Toronto Press, 1989), 34-54. Kaplan's final conclusion on this question is cloudy. The possibility that federal regulation of trucking might be exercised in a "punitive or restrictive" manner is addressed explicitly on p. 43.

²⁸Ibid., 34. Kaplan shows how impressions formed around this early alignment of interests continued to plague the politics of trucking in Canada well past the point where the economics of the situation and the objective interests of the key players no longer justified them.

toward finally assuming regulatory authority for trucking. As a result, the present National Transportation Agency, successor to a very long line of transport commissions, is finally in a position to adopt an "integrated" approach to transport regulation in Canada, one presumably meant to regulate the various modes in a manner that maximizes the efficiency obtained by sector as a whole.²⁹

Telecommunications

The hypothesis under discussion here is best supported in the telecommunications field by the challenges of both satellite communications and fibre optics to established telephone and telegraph services.

Satellite communications. Telesat Canada was created by the federal government in 1968 to acquire and operate the world's first telecommunications satellite devoted to domestic (as opposed to military and intercontinental) communications. Its main applications promised to be in the carriage of television broadcasts, long-distance telephone services and the new forms of data transmission associated with computers. At the point of its inception, a conflict developed between the Minister of Communications, Bell Canada, and the new corporation's officers over the extent to which the new player in the field would operate

²⁹On the question of transportation regulation and inter-modal competition, see also H.J. Darling, "Transport Policy in Canada: the Struggle of Ideologies versus Realities" in K.W. Studnicki-Gizbert, ed., Issues in Canadian Transportation Policy, (Toronto: MacMillan, 1974), 34-7; H.L. Purdy, Transport Competition and Public Policy in Canada (Vancouver: University of British Columbia Press, 1972), 191-2.

independently of one of its most important prospective clients. These were the private and provincially-owned telephone companies who were all members of a consortium to operate interprovincial long-distance services known as the Trans-Canada Telephone Service (TCTS). At the beginning, the government (and, of course, the crown corporation itself) was determined that Telesat would not become simply a "carriers carrier", that is, a government-financed arm of the existing telephone companies.

There were, according to one authoritative account, two main reasons for the government's concern on this score:

For one thing, it was not clear that the telcos, once ensconced comfortably in control, would be energetic in developing a field substitutable for their own investments in terrestrial cables and microwave. Indeed...Bell's executive vice-president... unwisely confirmed this suspicion, opining: "I do not really think that the long-term future of telephone facilities is via satellite. I think this lies more in some of these other directions of wave-guides and lasers."³⁰

For another thing, as a positive extension of this concern, the government tried to ensure that Telesat would be fully able to provide services in competition with established systems. Of interest here is the apparent power of the established telephone companies to deflect the government from that initial intent.

Thus, having been prevented at first from achieving total control of Telesat, the telephone companies began to fight instead to be the sole owners of the earth stations through which messages carried by the satellite were transmitted and received. This the

³⁰Robert E. Babe, Telecommunications in Canada: Technology, Industry and Government (Toronto: University of Toronto, 1990), 224. The Bell officer was speaking before a Parliamentary committee hearing on the Telesat white paper.

government rejected as a glaring example of public risk for private benefit: the government would control only the technical operation of the costly and risky space segment of a system whose use on the ground would be controlled by established players. According to Babe, the telephone companies, though, were still undaunted:

Then, as their final ploy, the carriers demanded that Telesat be prohibited from leasing channels to anyone other than themselves - that Telesat become in other words a 'carriers carrier.' This ultimatum was backed up by threats to boycott the system entirely unless the government caved in. A strike against Telesat by Canada's common carriers would doom the system to financial disaster before even getting off the ground.³¹

The Minister of Communications finally settled for something very close to this, since the only non-telephone carriers who would be eligible for Telesat's services would be the CBC and other customers willing to lease full (high-capacity) transponders on long-term leases with no capacity for re-sale or sharing. This amounted to a severe constraint on the ability of Telesat itself to offer services in competition with the telephone companies, or to sell capacity to others who might try to do so.³²

Fibre Optics. In addition to its account of the Telesat Canada story, Babe's book provides considerable general support for the hypothesis under discussion here. Given the comprehensiveness of his survey of the origins and performance of the entire

³¹Ibid., 224-5.

³²In 1985 the CRTC relaxed these restrictions slightly. However, it specified that this could be done only so long as any capacity so leased was not used for long-distance voice communication. See *ibid.*, 228.

telecommunications industry, his summation of the role of government in its development is significant. He writes:

Another factor belying the doctrine of natural monopoly is the government's historical and continuing function of structuring industries... Initially charters, franchises and governmental grants were pivotal in establishing monopoly; today, regulatory rulings and licensing often serve the purpose of preserving it.³³

To date, the regulation of new services utilizing fibre optics appears to be no exception to this generalization. Janisch and Schultz, among others, have complained that so far the Canadian telecommunications regulatory regime has been slow to make the benefits of fibre-optics technologies available to high-volume users. Moreover, this failure seems unmistakably to favour the existing telephone carriers, including most notably the Bell Canada monopoly in Ontario and Quebec.³⁴

However, one should not assume that this is done solely to bestow surpluses on Bell Canada. Enormous pressure is focused on governments by consumer groups and others in the social welfare field who fear that increased competition in the interprovincial long-distance market will end the cross-subsidization of local rates that is alleged to have taken place for decades. This issue thus provides a nice illustration of how a configuration of

³³Ibid., 16.

³⁴See Hudson Janisch and Richard Schultz, "Exploiting the Information Revolution: Telecommunications Issues and Options for Canada" (Montreal: Royal Bank of Canada, 1989, Mimeo); and "Federalism's Turn: Telecommunications and Canadian Global Competitiveness" Paper presented to the Conference on "Global Competition and Canadian Federalism", Organized by the International Business and Trade Law Programme, Faculty of Law, University of Toronto, September 15, 1990, Mimeo).

stakeholder interests can build up around existing systems, and also how the determination of these stakeholders not to be deprived of existing services at existing prices can delay the introduction of technologies that promise enhanced general welfare.

Of course, it is of some theoretical interest that, like trucking, telephones have not been subject to federal regulation (until very recently), despite the fact that operationally they are every bit as much "national" (or interprovincial) systems as television broadcasting or railways. However, the absence of effective federal regulation over both trucking and telephones may be the "exceptions that prove the rule" in connection with the "delay hypothesis". This is because, as the discussion of trucking suggested, the absence of effective federal regulation seems to have acted as an obstacle to the successful challenge of new systems against existing ones.³⁵

CANADIAN REGULATION AND DEFENSIVE EXPANSIONISM

As noted earlier, Canadian governments traditionally have adopted an economic strategy of "defensive expansionism" to counter the encroachment of American-centred transportation and communications systems on Canadian territory. The school of Canadian economic history associated with the defensive expansionism thesis has generally focused on the use of crown corporations or private corporations as the "chosen instruments"

³⁵More explicitly, the argument is that the absence of federal regulation rarely means no regulation, but rather multiple (and probably conflicting or even competitive) provincial regulation, thus retarding even more the capacity of an eclipsing technology to unseat an existing one on a nation-wide basis.

for the implementation of this strategy. However, the defensive expansion strategy requires more than the creation or promotion of corporate instruments; as this discussion has shown, the systems owned and operated by these corporations must be protected on an on-going basis from the intrusion of American-centred systems on the market for their services. This highlights a difference between public ownership and regulation as instruments of Canadian public policy. Generally speaking, when the government has faced a need to pre-empt American intrusion into Canadian markets not yet served by any Canadian network, it has adopted a chosen instrument approach; when it has faced a need to prevent American encroachment on existing Canadian systems, it has adopted a regulatory approach.

Next to the CPR, the CBC provides perhaps the best illustration of the "defensive expansionism" thesis and the chosen-instrument approach to the threat of American encroachment. The origins of the CBC as a publicly-owned, monopolistic provider of nationally-broadcast radio services probably lie in a visit to the National Broadcasting Company in New York by members of the Aird Commission in 1928. During this visit, the commissioners learned of NBC's plan to "cover" Canada as "part of the North American radio orbit."³⁶ The commissioners seriously doubted that Canadian network broadcasting could be developed once an American network was operating across Canada. According to Garth Stevenson, similar considerations moved the government in the 1930s to establish air

³⁶Raboy, Missed Opportunities, 23.

services across Canada by means of the crown-owned monopoly, Trans Canada Airlines (now Air Canada).³⁷ Finally, the impression that American natural gas pipeline systems were on the verge of expanding into previously untapped Ontario and Quebec markets for natural gas prompted the government to assist in the construction of the trans-Canada natural gas transmission system: the privately-owned TransCanada PipeLines company was "chosen" to deliver Alberta natural gas to Central Canada to pre-empt the marginal extension into Canada of an American-centred system of natural gas distribution.³⁸

These, then, are three examples (in addition to the CPR) of the creation or promotion of corporate instruments to implement the strategy of defensive expansionism. This discussion has attempted to outline the role that regulation may have played as a complementary instrument of this strategy. As noted in the earlier discussion of Canada's waterways, regulations were needed to prevent a river-based transportation system centred on New York from attracting the fur trade away from a similar system centred on Montreal. This was the first instance historically of a problem

³⁷The Politics of Canada's Airlines from Diefenbaker to Mulroney (Toronto: University of Toronto Press, 1987), 10-11. As Graham Spry would have recognized, the choice facing Mackenzie King in 1936 was not whether or not Canadians would fly, but whether they would fly on a Canadian airline or on American airlines.

³⁸For a detailed discussion of the circumstances surrounding the TransCanada project, see H.G.J. Aitken, "The Midwestern Case: Canadian Gas and the Federal Power Commission", Canadian Journal of Economics and Political Science 25, 2 (May 1959), 129-43. I discuss the TransCanada case in the context of Canadian economic nationalism in Fuels and the National Policy (Toronto: Butterworths, 1982), chs. 4 and 8.

facing of all of Canada's national networks of transportation and communication, that of the by-pass of Canadian systems in favour of more advanced and efficient systems operating out of the United States. Generally operating as monopolies - or, at least, as parts of duopolies - the corporate instruments of defensive expansion have had to rely on Canadian regulation to protect them from competition for their markets arising from the incremental extension into Canada of American-based systems.

CONCLUSIONS

The above analysis supports, more or less firmly, two main conclusions. First, delay in the introduction of new transportation and communications technologies into Canada is quite prevalent historically. The full utilization of canals, railways, steam and iron ships, inter-city trucking, long-distance telephone, network broadcasting, satellite transmission and fibre-optic transmission all occurred later in Canada than in the United States. Significantly, this is not always true of the earliest appearance of these technologies in Canada - the telephone and radio transmission were, to all intents and purposes, invented here - but only of their integration into national systems.

Of course, in many of these instances, the strong presumption must be, simply, that economic circumstances in the Canadian setting did not permit earlier use of these technologies on a national scale, but this interpretation is complicated by the fact that government, including specifically regulation, has been heavily involved in such transitions from one technological era to

another. The point of this study is that this role for government, contrary to accepted wisdom on the subject, sometimes has worked more to inhibit than to promote the ease and rapidity of such transitions.

Second, Canadian governments' use of chosen instruments to pre-empt American entry into undeveloped Canadian markets for transportation and communication services can create economic and political sunk costs that they later find it difficult to abandon to the free play of market forces. The answer to this political problem has been to prevent the redundancy of such systems by protecting them from competition for their markets through regulated delay in the introduction of systems incorporating new technologies. The history of Canadian transportation and communications shows several instances of such "regulation-induced delay". The most compelling cases involve trucking against the railways, satellite transmission against the telephone carriers and (currently) fibre optics against the telephone system.

These two government strategies - to promote and impede the introduction of new transportation and communication technologies into Canada - both appear to derive from the same broad and fundamental objective of preserving an autonomous state and national economy on the upper half of the North American continent. However, as the current experience with fibre-optics and their application to new communications services shows, attempts to fend off innovative systems in favour of existing ones can entail real costs for increasing numbers of Canadians and Canadian businesses.

Indeed, the inefficiency and lack of competitiveness resulting from such policies may prove unsustainable, short of major sacrifices of economic welfare to the goal of independence. Even more challenging, though, is the fact that over a broad range of services, recent new technologies are making the by-pass of established Canadian systems **physically impossible** to contain. Should this problem prove unanswerable on a broad front - should, in other words, more and more Canadian markets for transportation and communication services become contestable - Canadians may find that the fundamental objective inspiring both strategies is itself no longer realizable.