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The Québec Intercity Bus Industry, Specialization and Route Abandonments: A Preliminary Assessment

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1. Introduction

The Canadian intercity bus industry is actually at a crossroads because intermodal competition for passengers, combined with an increase in consumer income, has led to a slow and progressive abandonment of this form of intercity transportation. However, the Québec industry which also shares the same hardship as the rest of Canadian firms must face two particular sets of difficulties, the first coming from the dismantlement of Voyageur Inc. and its expected side-effects and the second being various initiatives undertaken by the Québec Transport Commission which now allow firms to become more competitive. We contend that these different events could in fact be considered as blessings in disguise, because they offer opportunities for specialization in the industry which were previously constrained by too strict regulations. However, a natural consequence of these changes in the industry is to increase route abandonments in scheduled activities for small communities.

This paper outlines the current process which is going on in the Québec intercity bus industry. It is organized as follows: In section 2, a brief assessment of the existing economic situation is presented with a view to emphasizing the changes which are taking place. Section 3 discusses the actual dynamics of route abandonments which result from actions taken by firms to streamline their activities. Section 4 deals with alternatives which may be considered to maintain scheduled services in small communities.

2. The Industry: An Overview

Over the last ten years, the Québec Transport Commission has gradually modified some elements of the intercity bus industry regulation. These subtle moves, a clear proof that the regulatory agency is endogenous to the industry, have led the latter to go further into specialization. In 1983, there was a first step

toward the liberalization of the regulations respecting charter and tour services ¹. An order in council authorized intercity bus firms holding relevant authorities to offer charter and tour services from and to any point of service it currently served to any destination. It really increased competition among existing firms because, many cities in Québec obtain more than a simple bus carrier when trip activities begin or end at a given point.

A second step, parallel to the application of the new 1986 *Bus Transport Regulation* ², consisted in rewriting intercity bus permit authorities. As a by-product of this internal activity by the Commission, the regularly scheduled route and the charter services are now considered as two distinct and independent activities. So, an existing firm wishing to offer only charter and tour services or to expand its actual charter operations to new markets may buy the necessary charter operating rights from established firms.

A third step, not at all initiated by the regulatory board, occurred with the dismantlement of Voyageur Inc. into five different regional firms. Intra-provincial routes like Montréal-Hull were then transferred to Voyageur Colonial Inc. which still operates in Ontario and on interprovincial corridors such as those linking Montréal-Ottawa and Montréal-Toronto.

Last, but not least, was the entry of American parcel carriers in the province of Québec. As a matter of fact, United Parcel Service (UPS) ³, and later on, Roadway Parcel Service (RPS) and Federal Express, joined Purolator, now owned by Canada Post, and CanPar and extended their respective services to the whole province when the trucking industry was deregulated in 1988.

2.1 The Demand Side

On the demand side of the industry, two issues must be considered. The first refers to the gradual decline in demand for this transportation service over the years. For the 1974-1990 period, the number of customers dropped from 36.9 million to 17.0 million; when expressed in percentages it means an annual rate of decrease of 4.83. If the 1983-1990 sub-period is then considered, there is an acceleration in the time trend as the annual rate of decrease is 7.85 ⁴.

Various reasons could be put forward to explain that particular result. A negative or at best a zero income elasticity of demand constitutes the main reason that the intercity bus industry is losing ground over time to various transportation modes. As a matter of fact, the value of time increases with the income. An additional factor comes from the high price elasticity of demand for that particular transportation service. The latter implies the existence of a strong intermodal competition not only from the automobile, but also from the passenger train over

short and medium distances. Oum and Gillen⁵ suggest that the price elasticity of demand is about 1.62 at the end of the seventies and is slightly increasing over time. On the other hand, Ridout and Miller⁶, using a disaggregate logit functional form, obtain a price elasticity of demand of 2.09.

Secondly, in 1988 the National Transportation Agency of Canada accepted the application filed by Voyageur Colonial Limited that a discount tariff for off-peak periods put in place by Via Rail would reduce Via Rail revenues, would incur a transfer of bus passengers to Via Rail and would "inevitably lead to a requirement for increased subsidies from the Government of Canada"⁷. However, the same federal agency rejected in 1993 a Voyageur Colonial Limited application which argues that an off-peak pricing structure by Via Rail effective since January 1990 would be harmful. The Agency "finds that the off-peak discount fare program of Via has not had a negative impact on the quality and variety of passenger services offered in the provinces of Ontario and Québec" and concludes that "it is not prejudicial to the public interest"⁸. It must be noted that the conclusions of the Agency are implicitly based on a high price elasticity of demand for bus passengers and therefore that price increases by Voyageur Colonial Limited in the nineties partly caused the actual decline observed in the bus industry.

In a study commissioned by the Royal Commission on National Passenger Transportation in Canada, Laferrière⁹ shows that the modal substitution index for intercity buses is around 0.75. That high result clearly implies that if there is an increase in the price for intercity busing, the quantity of intercity bus travels decreases. The latter quantity is broken down in the following manner: 75 per cent of the decrease in passengers comes from a diversion, namely customers continue to travel and therefore increase the demands for other transportation modes, car, air and train; the remaining 25 per cent in the decrease is induced, which means that customers stop travelling. It therefore corroborates the argument advanced by the Agency. In other words, the intercity bus industry does damage to itself by increasing its rates in the nineties. There are other modal substitutes which travellers may choose instead of buses.

2.2 The Supply Side

Before continuing this analysis and assessment of the impact of those facts on the industry, some considerations on the production function used by bus carriers must be highlighted. Under a traditional regulatory regime, as it was in the United States until 1982 and as it continues to be in Canada, a intercity bus firm generally produces more than one type of outputs. The latter is composed of a mix of regular scheduled routes, charter and tour trips, local transit services, commuting offered to suburban cities, mainly during peak periods, school bus

services and courier express operations. Empirical American studies, whose results are currently confirmed by the American deregulation, reveal that economies of scale are exhausted at a very small fraction of the total industry output. To put it in a context of a multi-product approach, there are no economies of scope nor product-specific economies¹⁰. It would therefore be cheaper in Canada to produce a mix of these separately than to produce them jointly. An empirical Canadian study shows that it could happen because the largest intercity bus firms, like the former Voyageur Inc., were operating on the largest right-hand side of their average cost curve¹¹.

These internal factors which induce the intercity bus industry to become more competitive also have some negative effects on the practices which come from existing regulations. One of them which is worth noting is the supposed cross-subsidization from low-cost routes to high-cost routes. This term designates the arrangement whereby authorization to provide a profitable service is made fairly explicitly conditional to the extension of service to customers unable to meet their costs.

Very few people would disagree that this situation could only be possible where intermodal competition was weak. Moreover, empirical studies, both in Canada and in the United States, raise serious doubts that they could have been important. As a matter of fact, a study undertaken in the United States after the 1982 deregulation concludes, after analyzing 205 intercity firms offering both scheduled and tour services, that "only six per cent of the mileage examined could represent potential cross-subsidization¹²". The exit of the former Voyageur Inc. clearly means that an internal network of routes no longer exists and that the avenue for implementing cross-subsidies is no longer a possibility, if indeed it ever existed. The recent NTA decision on Voyageur Colonial Limited challenged its feasibility in 1993.

On the positive side, a clear increase in specialization is also observed. A by-product of the American deregulation was to segment along certain activities, one of them being the charter and tour service. As this segment of the Canadian industry was not very well developed, accounting for only 12 per cent of activities in 1990, a catching-up effort was long overdue.

More and more bus carriers try to find new niches, and the best opportunities are now either to contract with international travel agencies for high quality services or to work jointly with local travel firms to offer different special services. This adjustment process also sees intercity bus firms reducing their level of regular scheduled activities, some at the margin, others at an inframarginal level. The latter group proceeds by selling their permit authorities to existing firms or to newcomers who generally are school bus operators. It must be

recalled that the only way to enter the industry is to buy permit authorities from firms already in operation. Our interest is to analyze the behaviour of firms which decide to gradually decrease the supply of services.

3. The Dynamics of Route Abandonment

Table I presents, over an eight year period, 1985-1986 to 1992-1993, the various steps undertaken by bus intercity firms when they want to downgrade their actual services. The first possibility consists of making a formal request to the Commission, generally in public hearings, to change its schedules, its routes and its rates and tariffs. It is the usual approach that firms use and the high percentage of approval reveals how flexible and receptive the board can be when evidence brought in sustains the request. A second way to succeed in the reduction of services is to ask the regulatory agency to cancel a given service for which the firm owns the permit authority. Again in public hearings, the bus carrier tries to demonstrate the validity of such a request, mainly by showing how weak the profits are or how high the losses are, when generated by this particular service. Certified financial statements are systematically used by bus carriers to support their arguments. On the other hand, customers or their representatives and different pressure groups react by revealing the adverse impact of this abandonment on their welfare and on that of third parties. Part 2 of Table I shows how unimportant this avenue was until very recently and that the rate of success seems generally inferior to the preceding approach. A third mean which directly leads to route abandonments is to behave in such a way that the Commission des transports du Québec will itself repeal the permit authority. The last part of Table I reveals its relative importance and especially its variation in percentage over the last five years.

However, the results contained in Table I do not present a real image of the adjustment process which is really taking place in the industry. The real mechanism by which Québec bus carriers proceed is much more subtle and it needs more time than expected to deal with reality. In short, the Québec regulatory regime has not only barriers to entry, but also barriers to exit. As firms can be locked in, the most financially successful ones which can obtain a good value for their permit authorities will sell them and the least financially successful firms which really cannot get out of the industry will gradually reduce the value of some of their operating rights to minimize their losses over the years.

3.1 The Real Adjustment Process: An appraisal

A intercity bus carrier which faces a decline in the demand for its services can modify its actual activities in various ways to maintain or sustain its level of profits. For the sake of the argument, let us focus on its own relations with the

Table I
 Different Changes in Activities by Intercity Bus Firms
 1985-1986 to 1992-1993

	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93
1) Change in Schedules, Routes and Rates								
. Accepted	18	14	14	11	17	7	7	29
. Partly Accepted	0	1	1	3	0	1	2	0
. Retired	0	1	2	4	2	1	1	3
. Rejected	1	2	1	1	0	0	0	0
TOTAL	19	18	18	19	19	9	10	32
2) Discontinuance of Services								
. Accepted	5	5	3	5	2	5	2	10
. Partly Accepted	2	0	1	0	0	0	0	0
. Retired	0	3	2	0	1	2	1	0
. Rejected	1	0	0	0	1	0	1	1
TOTAL	8	10	6	5	4	7	4	11
3) Repeal of Permit Authorities								
. Accepted	-	-	-	7	1	9	8	3
. Partly Accepted	-	-	-	0	0	1	1	0
. Retired	-	-	-	2	0	2	0	0
. Rejected	-	-	-	0	2	2	0	0
TOTAL	-	-	-	9	3	14	9	3

Source: Annual Report of the Commission des Transports du Québec, various years.

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regulatory agency. Its first initiative is generally to request a change in its timetable so that actual customers will be served in a more economical way. However, the bus carrier must clearly show that there shall be an effective decrease in its operating costs to compensate for the reduction in consumers' welfare. If the latter are not really reduced with the diminution in services, the regulatory agency will reject its request. The following situation can be used to ascertain that avenue. In 1988, the intercity bus carrier, *Autobus du Littoral Inc.*,¹³ tried to change its schedule by invoking eventual losses. The board rejected its request by raising the argument that the usual implicit trade-off was not really effective. The bus carrier did not bring evidence on a future decrease in its costs which shall match immediate negative benefits for travellers (a reduction in their choice set). However, the firm did not easily give up its goals to rationalize its operations, and forty-three months later, it was able to decrease without any opposition from its customers the number of departures on the corridor from 10 to 8 a week. In 1993, it obtained again that an additional departure be dropped from its weekly schedule. The overall process took 58 months.

A second option available to a bus carrier is a request for discontinuance of existing services on a given corridor. The latter is either partial or complete. The regulatory body approves the request if and only if the losses incurred by this service strongly affect the financial operations of the firm and eventually can lead it to bankruptcy. In 1992, a bus owner *Camille Mailloux R.D.L. Inc.*¹⁴ attempted in a first step to get a decision from the Commission to discontinue for one month and then for some longer periods of the year, the service between two points. In the regulatory jargon, this is called a temporary total discontinuance of service. Later on, he returned to the Commission with a request for a total and permanent discontinuance of service. Requirements for the latter are tougher than the former which only requires evidence that the service is either no longer used by travellers or is only lightly used. As a matter of fact, the regulatory agency requires not only evidence on the drastic decline in demand, but also proof based on certified financial statements that cessation is the only solution, all other alternatives being ruled non-operational or unviable. In the case considered, the saga lasted around 18 months before the Commission finally approved the exit for this particular line.

A third possibility that a bus carrier must undertake to definitively exit from a given service is that the Commission agrees, in a decision, to permanently cease its service and to cancel out the operating right. It must be noted that this situation only represents an extension for the previous case in that now the operating right no longer exists. Once again, in 1991, a bus carrier named *Alma Autobus and Taxis Inc.*¹⁵ started the process by requesting changes in its scheduled activities, then requested a temporary discontinuance for some months

and finally asked to really give up its operating right. The due process is still the same, in that evidence is related to a declining demand, financial losses and eventual bankruptcy if the exit is not allowed. In this case, the overall process took only 17 months because the distance traveled by customers was short and there existed other bus substitutes.

From the analysis of these different decisions, we can infer that the overall adjustment process that takes place between the bus firm and the regulatory agency is longer when the requesting firm produces more than one output, a situation which helps cross-subsidization in a short period, and when the service is provided to relatively large cities. Otherwise, it goes in much faster because it easily takes less than an half, if not two-thirds, of the time usually required.

A final possibility to exit from a corridor occurs when the regulatory agency repeals *proprio motu* the permit authority. This situation generally occurs when a bus carrier does not produce the standard and normal service as expected by the customers and by the Commission or when it abruptly ceases its operations for different motives, more often than usual, following the rejection by the Commission of its own request.

Because the Commission is generally reluctant to behave like this, it can be said that this is a last resort move. The real meaning of this ultimate solution is explained by the saga that actually faces travellers on the Montréal-Abitibi corridor. In 1991, the bus firm, Autobus Auger Inc.,¹⁶ whose operating rights were bought from Voyageur Inc., requested a total complete discontinuance of services in the Abitibi region. However, this important provincial bus carrier wanted to keep its rights linking Montréal to the two main cities of the region. The board approved the request on the evidence brought in and it therefore authorized the firm to cease all its intra-regional operations. But the latter immediately stopped its operations before the deadline specified by the Commission. The board held different public hearings on the situation and repealed all the permit authorities owned by the recalcitrant firm, the intra-regional permits as well as the Montréal-Abitibi corridor. The bus carrier replied by challenging the decision in the Court of Appeal and lost in 1993. Everybody is now back at square one and the problem is not yet resolved because nobody knows which firm will serve the region.

The Commission had no other alternatives but to revoke existing operating rights, because the owner did not act according to by-laws and existing regulations. The recalcitrant operator anticipated the repeal, but only for its intra-regional operating rights. This strategy is generally used by small bus carriers when the Commission does not grant their request for discontinuance of services in small communities. Their losses incurred are very minimal. So what are the

other acceptable solutions for small communities when route abandonments occur?

4. Possible Solutions

A severe decline in demand leads various bus operators to institute cost-cutting measures, among them work-rule changes, renegotiation of wages contracts and the discontinuance of some routes they consider to be unprofitable. However, the reduction in services is not instantaneous but takes time because of delays caused by the existing regulation. As the deregulation scenario is really inappropriate for the Québec environment in the near future, only marginal solutions shall be considered¹⁷. One can be a variant of the hub-and-spoke system that operates in the airline industry. Regional carriers under contract with an important bus firm can provide service by using minibuses, cars, and demand response taxis as the demand is insufficient to warrant the traditional intercity buses. Small communities in the country would retain services they can afford to pay. Other innovative approaches to the provision of feeder modes can also be brought forward.

Although the timing is not the most appropriate in Canada, at this moment, the province and the rural cities can provide public subsidies to compensate for losses incurred by carriers to operate in low density areas. Local communities must commit resources to show their "willingness to pay" if they really want their citizens to be linked to the existing network of intercity buses. If not, they must acknowledge that every member of the community will find his own personal answer, the automobile.

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