



Communications  
Canada

A CRITIQUE  
OF  
PROVINCIAL REGULATION  
OF  
TELECOMMUNICATIONS IN THE ATLANTIC PROVINCE

P  
91  
C655  
J36  
1974

P91  
C655  
J36  
1974

## PREFACE

This study falls into two interrelated parts:

- (1) a legal and administrative analysis of regulation of telecommunications in the Atlantic Provinces, and
- (2) an economic analysis of the effects of the regulatory process on the provision of telecommunications in the region.

We are aware that telecommunications embraces considerably more than the provision of telephone services. However, provincial regulation in this area is at present confined to telephone services. Hence this study is similarly limited. A complete analysis of all legal, economic and administrative aspects of even telephone regulation is well beyond the scope of the present study. In determining which issues warrant attention we have attempted to select those which (a) appear to be regionally distinctive, (b) reveal significant variations among regulatory approaches, and (c) are economically and politically important.

The study is comprised of three chapters plus an appendix. The initial chapter contains an analysis and comparison of the relevant provincial regulatory statutes and the manner in which they have been construed by the regulatory authorities and the courts. Chapter two attempts within a very brief compass to sketch the recent development of telephone services in the four Atlantic Provinces, the objective being to provide a background against which the economic analysis of the third chapter can be projected. This final chapter is subdivided into three major sections dealing respectively with costs, prices, and extensions of service. The appendix indexes and summarizes significant

provincial regulatory decisions in the development of telecommunications in the Atlantic Area.

As far as we are aware this is the first study of this nature undertaken for the Atlantic Area. As a result the initial task was the formidable one of collecting and collating the necessary raw material. There has been active provincial regulatory activity since before World War I. We estimate that between the four provinces there are 2,500 pages of telephone regulatory decisions which had to be culled out of about 12,000 pages of general regulatory decisions.

At the outset of our study we were greatly assisted by the collection of telecommunications decisions compiled by Peter Grant of the law firm of McCarthy & McCarthy of Toronto. However, as it turned out we were often obliged to consult the original reports in order to obtain a complete picture of regulatory activity. In his compilation Mr. Grant is seeking national coverage and we need, on occasion, to look at many minor decisions in order to gain a greater understanding of the workings of the regulatory process on a regional basis.

This type of study was only possible because the regulatory authorities have, on the whole, conscientiously published their decisions with full reasons. Their publication practices compare very favourably with similar provincial and federal bodies. The only exception has been in New Brunswick where regular publication was stopped in 1963. This made our task in that Province considerably more difficult and it may well be that we did not come across some significant New Brunswick decisions. It is a false economy to refrain from regular publication as the costs of publishing an annual report is small when compared with the



cost of time and effort required to dig things out on a case by case basis. See, A. H. Janisch, Publication of Administrative Boards in Canada, A Report Compiled for the Canadian Association of Law Libraries, 1972.

It was recognized at the outset that a real understanding of the decisions would require consultation with those persons most directly involved with the regulatory process. During the summer of 1973 we undertook extensive interviews with senior officials of the telephone companies and members of the regulatory boards in Halifax, St. John and St. John's. We regret very much that pressures of time did not allow us to visit Charlottetown.

The study is a collaborative effort and each of the authors has benefitted from the criticism of the other. Hudson Janisch is responsible for the drafting and revision of Chapter I, the drafting of Section III-C, and the overall structure of the study. Paul Huber wrote the final version of Section III-C and drafted and revised Chapter II and Sections III-A and III-B. The Appendix is jointly the work of Professor Janisch and Bruce Graham, a third-year law student at Dalhousie University and M.A. candidate in Economics at Acadia University who acted as our research assistant.

We would particularly like to record our appreciation of the very valuable assistance we received from Bruce Graham who made a very substantial contribution to this study.

We also express our appreciation to Janis Landry for assistance with the tables in Chapter II and to Marilyn Goode and Jeanne Arsenault for their typing.

Finally we would be most remiss if we did not express our appreciation for the cooperation afforded to us by members of the four regulatory bodies and the managements of the four major telephone companies. Their assistance and the stimulus of John Thwaites of Communications Canada have contributed substantially to whatever merits this study may have. All should be absolved of any responsibility for errors of fact or interpretation which remain; fault for such flaws rests solely with the authors.

## TABLE OF CONTENTS

	Page
Chapter I The Legal and Statutory Framework of Regulation	
Scope of Regulatory Authority . . . . .	1.1
General Characteristics of Regulatory Authorities . . . . .	1.4
Procedure of Regulation . . . . .	1.17
Nature of Regulation . . . . .	1.23
Special Problem Areas . . . . .	1.29
Chapter II The Development of Telephone Services in the Atlantic Provinces . . . . .	2.1
Chapter III Economic Analysis of Regulatory Decisions	
Section III-A Regulation of Telephone Utility Costs in Atlantic Canada . . . . .	3.4
Financing . . . . .	3.4
Depreciation . . . . .	3.21
Construction and Equipment Costs . . . . .	3.28
Operating Costs . . . . .	3.32
Separation of Costs . . . . .	3.37
Section III-B Regulation of Telephone Service Pricing in Atlantic Canada . . . . .	3.41
Pricing of Specialized Services . . . . .	3.51
Service Request Charges . . . . .	3.67
System Growth and Pricing Structure . . . . .	3.73
The Spatial Dimension of Exchange Service Pricing:	
Introduction . . . . .	3.79

	An Historical Perspective . . . . .	3.82
	Extended Area Service . . . . .	3.90
	An Economic Analysis of EAS . . . . .	3.100
	Optional EAS and WATS . . . . .	3.111
	Expansion of Exchange Areas . . . . .	3.114
	Mileage Charges and Rate Base Areas . . . . .	3.120
	Summary . . . . .	3.126
	Section III-C Extension and Upgrading of Service . . . . .	3.129
	Experience in the Maritimes . . . . .	3.132
	The Newfoundland Experience . . . . .	3.136
Appendix	Significant Events in Atlantic Telecommunications Development	
	Index . . . . .	A.1
	Nova Scotia . . . . .	A.9
	Newfoundland . . . . .	A.25
	New Brunswick . . . . .	A.43
	Prince Edward Island . . . . .	A.62



## TABLE OF TABLES

	Page
Table 2-1 Significant Characteristics of the Major Telephone Systems in Atlantic Canada . . . . .	2.3
Table 2-2 Annual Rates of Growth of Telephones by Five Year Intervals by Province and Major Company . . . . .	2.4
Table 2-3 Per Capita Annual Growth Rates 1950-1970 . . . . .	2.5
Table 3A-1 Rate Base Calculations, Atlantic Area Telephone Companies . . . . .	3.6
Table 3A-2 Debt Ratio to Funded Capitalization of the Major Companies . . . . .	3.14
Table 3B-1 Service Request Charges of Major Telephone Companies . . . . .	3.68

## TABLE OF DIAGRAMS

	Page
Diagram 1    The Spacial Dimensions of Exchange Service Pricing, M.T.&T. Tariff, 1918 . . . . .	3.85
Diagram 2    Demand for Message Units of Telephone Service at a Given Distance and Effect of Implementing EAS . . . . .	3.101

## CHAPTER I

### The Legal and Statutory

#### Framework of

#### Regulation

The purpose of this chapter is to set out, in a general way, the legal framework of regulation in the Atlantic Provinces. As it is designed to be intelligible to the non-lawyer, an attempt has been made to keep it reasonably free of legalistic jargon.

The design of the chapter is as follows:

A section on the scope of regulation is followed by one on the general characteristics of the regulatory authorities. Next, there is a section on the procedure of regulation and then one on the nature of regulation. Finally, there is a section devoted to special problem areas.

#### Scope of Regulatory Authority

Three of the four regulatory bodies in the Atlantic Provinces have inherited definitions from an earlier period of technological innovation. This was found during our interviews to be a matter of some concern to the Boards.

In Nova Scotia, New Brunswick and Prince Edward Island the

controlling statutory words are "telephone messages".<sup>1</sup> Only in Newfoundland is the apparently broader expression, "communication by telephone" employed.<sup>2</sup>

It could be argued that "telephone messages" could be made to cover such activities as facsimile and data transmission. The term "message" is defined in the Oxford English Dictionary as "a communication transmitted through a messenger or other agency; an oral or written communication sent from one person to another". The Random House Dictionary of the English Language similarly defines "message" as "a communication containing some information, advice, request, or the like, sent by messenger, radio, telephone or other means." Thus it could be argued that as "message" encompasses "communication" it includes all uses made of the telephone as an instrument of communication. When coupled with the "liberal construction" provisions to be found in the P.E.I. and

---

<sup>1</sup>Public Utilities Act, R.S.N.S. 1967 c. 258 s.1(e) (hereinafter cited as "N.S. Act"); Public Utilities Act, R.S.N.B. 1952 c. 186 s. 1(c) (hereinafter cited as "N.B. Act"); Public Utilities Commission Act, R.S. P.E.I. 1951 c. 133 s. 1(c) (hereinafter cited as "P.E.I. (P.U. Act)"), Electric Power and Telephone Act, R.S.P.E.I. 1951 c. 49 s. 1(d) (hereinafter cited as "P.E.I. (Tel. Act)").

<sup>2</sup>Public Utilities Act, S.N. 1964 no. 39 s. 2(e) (1) (hereinafter cited as "Nfld. Act").



Nova Scotia Acts<sup>3</sup> it might be possible to construe "message" in a broad enough sense to allow for rational regulation.<sup>4</sup>

It might thus appear that there is really no problem after all. One obvious difficulty arises, however, with the continued growth in the use of interconnecting equipment not owned or controlled by the telephone companies. Each operator of such equipment "for the conveyance of telephone messages" would then automatically be deemed to be a public utility even though such equipment was for the exclusive use of the interconnecting operation.

Thus, rather than tampering with "telephone messages" it might be desirable to adopt the Newfoundland definition.<sup>5</sup>

---

<sup>3</sup>See, N.S. Act s.111; P.E.I. (P.U. Act) s.12, 13.

<sup>4</sup>The classic instance of the stretching of old words to cover new forms of communication in Canada is, of course, the Radio Reference Case. There it was held that broadcasting was an undertaking "connecting the Province with other Provinces and extending beyond the limits of the Province". Although this in itself was enough to sustain federal jurisdiction, the Privy Council was prepared to undertake some rather adventurous statutory construction. "But further, as already said, they think broadcasting falls within the description of 'telegraphs'. No doubt in everyday speech telegraph is almost exclusively used to denote the electrical instrument which by means of a wire connecting that instrument with another instrument makes it possible to communicate signals or words of any kind. But the original meaning of the word 'telegraph', as given in the Oxford Dictionary, is: 'An apparatus for transmitting messages to a distance, usually by signs of some kind'. Now a message to be transmitted must have a recipient as well as a transmitter. The message may fall on deaf ears, but at least it falls on ears." In re Regulation and Control of Radio Communication in Canada, [1932] A.C. 304 at 315-6.

<sup>5</sup>Nfld. Act 2(1)(e).

2. In this Act unless the context otherwise requires:--

- (e) 'public utility' means a person, firm, or corporation who or which now or hereafter owns, operates, manages or controls in this province equipment or facilities for--
  - (i) the conveyance or transmission of messages or communication by telephone or [telegraph] where such service is offered to the public or any corporation for compensation;

The only problem with this type of definition would be if yet further technological innovation led to the complete by-passing of the telephone as such in favour of direct attachment to the telephone line.<sup>6</sup> This might require that the definition be extended to include "communication by telephone line", provided of course that the definition of "line" includes microwave transmission.

#### General Characteristics of the Regulatory Authorities

The regulatory authorities in the Atlantic Provinces have two dominant characteristics. The first is a high degree of independence from any form of possible interference or control; the second is that they are multi-purpose bodies with diverse responsibilities in addition to their concern with telephones.

##### (a) Independence

This characteristic must be further sub-divided into five inter-related aspects:--(i) tenure; (ii) independence from regulated utilities; (iii) limited role of the courts; (iv) lack of review and

---

<sup>6</sup>The other problem involving the use of "telephone" is the assumption that communication would have to be by way of "sound". A court might be persuaded, for example, to adopt the type of analysis discussed in R. v. Gignac [1934] 2 D.L.R. 113 at 121 which presumed "sound" to be essential.

control by government; (v) financial independence and power to appoint staff. Each must be dealt with separately before a broader assessment can be undertaken.

(i) Tenure

We are concerned here with the terms of appointment of members of the boards and the grounds for removal.

In Nova Scotia and Newfoundland the terms of appointment are very similar to those employed for judges in that it is provided the commissioners are to hold office "during good behaviour" until 70.<sup>7</sup> No provision, as such, is made for removal and it may be surmised by analogy to the procedure necessary to remove a judge, that it would require a specific charge of corruption or gross incompetence and a resolution of the legislature.<sup>8</sup>

The position in New Brunswick was until recently very different in that there the members of the Board only hold office "during pleasure" and thus lack entirely the protection of the strict judicial tenure provisions adopted in Nova Scotia and Newfoundland. A government bill has been

---

<sup>7</sup>N.S. Act s.2(4) & (5), Nfld. Act s.4(4) & (5).

<sup>8</sup>See, for example, the provisions made for the appointment of judges of the superior courts in the British North America Act s.99 as amended by The British North America Act, 1960, 9 Elizabeth II, c.2(U.K.) s.1. For provision respecting the county courts, see, Judges Act, R.S.C. Ch. J-1 s.31-2. It should be noted that in the Judges Act provision is made for removal for incapacity to act as well as for cause. This is a clearly desirable measure where extensive tenure is granted.

introduced to provide that the chairman shall hold office "during good behaviour" while commissioners other than the chairman continue to hold office" during the pleasure of Lieutenant Governor in Council."<sup>9</sup>

While it is not unusual to provide for some measure of security of tenure for members of boards and tribunals, the Newfoundland and Nova Scotia acts go further than most. As may be seen from a comparison with other relevant Nova Scotia legislation the older an empowering act the more likely it is to contain broad tenure provisions. The Workmens' Compensation Act provides for retention of office during good behaviour until 75<sup>10</sup> while the Liquor Control Act specifies that the chairman of the Liquor Licence Board has a similar form of tenure for ten years from the date of appointment.<sup>11</sup> On the other hand the more recent Trade Union Act and Planning Act contain no provision at all for the security of members of the Labour Relations Board and the Planning Appeal Board.<sup>12</sup>

#### (ii) Independence from Regulated Utilities

Strict provision is made in all the Acts (except for New Brunswick) to ensure that there is no involvement between the regulators

---

<sup>9</sup>Bill No. 40, An Act to Amend the Public Utilities Act. 4th Sess. 47th Leg. Ass. New Brunswick 23 Elizabeth II, 1974 amending N.B. Act s.3.

No provision is made for tenure in the Prince Edward Island Act although an element of security is provided in that the chairman has by s.2(1) to be a Supreme Court or County Court judge.

<sup>10</sup>Workmen's Compensation Act, R.S.N.S. c.343 s. 11-12.

<sup>11</sup>Liquor Control Act, R.S.N.S. c. 169 s. 6(1) & (2).

<sup>12</sup>See, Trade Union Act S.N. 1972 c.19 s.5, and, Planning Act S.N. 1969 c.16 s.51.



and the regulated. A typical provision is that contained in the Nova Scotia Act.

6. No commissioner shall be directly employed by or interested in any public utility or interested in any share, stock, bond, mortgage, security or contract of any such public utility; and if any such commissioner shall voluntarily become so interested, his office shall become vacant; and if any such commissioner shall become so interested otherwise than voluntarily, he shall, within a reasonable time, divest himself of such interest, and if he fails so to do his office shall become vacant.

8. No commissioner shall be disqualified in any matter affecting such public utility by reason of being the lessee or user of a telephone, or the purchaser of power, water or electric current or service from any public utility.<sup>13</sup>

(iii) Limited Role of Courts

For all practical purposes the courts have played no role at all in the regulation of telephones in the Atlantic region. Indeed, the only reported case is one concerned with an assessment by a municipality against Maritime Tel. & Tel. and is not even a regulatory case at all.<sup>14</sup> We should postpone at this stage any speculation as to why this has been so and confine ourselves to noting the limited nature of the provisions for appeal to the courts.

In Nova Scotia and Newfoundland appeal to the Appeal Division of the Supreme Court is confined to questions of law or jurisdiction.<sup>15</sup>

---

<sup>13</sup>The other equivalent provisions are to be found in Nfld. Act s. 6 & 8, P.E.I. (P.U. Act) s. 4 & 6.

<sup>14</sup>Maritime Telegraph and Telephone Company v. Antigonish, [1940] S.C.R. 616.

<sup>15</sup>N.S. Act s.97, Nfld. Act, s.84.

In New Brunswick appeal may be on law or fact. However, the court in deciding any question of fact, is obliged to decide upon the evidence taken before the Board.<sup>16</sup> In Prince Edward Island the Supreme Court sitting in banco on appeal may "...decide any question of fact and examine the evidence taken before the Commission or may hear further evidence and may confirm, modify, vary or reverse such decision or order."<sup>17</sup>

Of these provisions that of Prince Edward Island provides for the broadest avenue of access to the Courts. In a recent decision of the provincial Supreme Court in banco it was held that the Public Utilities Commission Act "...gives the Court very broad powers of review..."<sup>18</sup> This decision can be usefully contrasted with a 1972 judgement of the Alberta Court of Appeal<sup>19</sup> which dealt with the question of what is meant by "law" and "jurisdiction". In adopting the following test from the Supreme Court of Canada, the Alberta Court conceded that its powers were far more restricted than those contained in the Prince Edward Island Act.

---

<sup>16</sup>N.B. Act s. 25.

<sup>17</sup>P.E.I. (P.U. Act) s. 15(1).  
The stated case route to the courts is limited to questions of law. See, N.S. Act s.99, Nfld. Act s.86. The greatest flexibility is provided in the Prince Edward Island Act which, as amended in 1954, reads as follows: "If, in any matter before it, the Commission is of the opinion that the issue involved is properly triable in a court of law, it may of its own motion, or upon the application of any party transmit a statement of such issue to the Supreme Court."

<sup>18</sup>Re Brad's Transport Ltd. (1973), 29 D.L.R. (3d) 555 at 563 per Nicholson, J.

<sup>19</sup>Re City of Camrose and Calgary Power Ltd. (1973), 33 D.L.R. (3d) 66.

While the construction of a statutory enactment is a question of law, and the question as to whether a particular matter or thing is of such a nature or kind as to fall within the legal definition is a question of fact, nevertheless if it appears to the appellate Court that the tribunal of fact had acted either without any evidence or that no person properly instructed as to the law and acting judicially, could have reached the particular determination, the Court may proceed on the assumption that a misconception of law has been responsible for the determination.<sup>20</sup>

A regulatory authority is, of course, occasionally called upon to construe its own statutory powers. An example might be the matter already discussed as to exactly what constitutes "telephone messages". However, the overwhelming majority of decisions are questions of fact and these decisions can only be reviewed on appeal in the very unlikely situation where there is "no evidence" to support the decision.

Even where questions of fact may be reviewed on appeal there is authority for the proposition that the Court should exercise restraint. For example in the leading Supreme Court of Canada case, a right of appeal was granted "upon any question of law or fact". This, it was held, did not entitle the appeal court to substitute its judgement for that of the board as to what constituted public convenience and necessity.<sup>21</sup>

The need for judicial self-restraint has recently been forcefully restated by Mr. Justice Freedman of the Manitoba Court of Appeal.

---

<sup>20</sup> Canadian Lift Truck Co. Ltd. v. Deputy Minister M.N.R. for Customs and Excise (1955), 1 D.L.R. (2d) 497 at 498 per Kellock, J.

<sup>21</sup> Union Gas v. Sydenham Gas Co. (1957), 7 D.L.R. (2d) 65.

That a Court should leave matters of policy and of administration to the Board appears to make good sense. This is more than a matter of modest self-denial. It springs from a recognition that the Court is not a rate-making body; that a public utilities board of trained personnel and with expert assistance in technical areas has been specifically created for that purpose; and that in general it can perform such tasks much better than the Court. That does not mean that the Court should hesitate to assert all the powers that it lawfully possesses on appeal. It means only that it should not seek to extend those powers into questions of administrative policy or discretion.<sup>22</sup>

The lack of court cases cannot be explained solely in terms of the legislative provisions. In other areas where access to the courts has been even more restricted persistent efforts have succeeded and the courts have been persuaded to intervene. This is most strikingly illustrated in labour law matters where the courts have recently shown little of Mr. Justice Freedman's functional self-restraint.<sup>23</sup>

The answer must be sought not as much in the language of the various statutory provisions as in the overall nature of the regulation involved. This calls for an impressionistic judgement based on an analysis of the decisions and on interviews with the

---

<sup>22</sup> Re City of Portage la Prairie and Inter-City Gas Utilities Ltd. (1970) 12 D.L.R. (3d) 388 at 391-2. For a somewhat similar expression of disinclination to substitute the court's view of public convenience and necessity for that of the board as expressed recently by the Nova Scotia Supreme Court Appeal Division, see, Re Aves and Board of Public Utilities (1974), 39 D.L.R. (3d) 266.

<sup>23</sup> The leading case is Metropolitan Life Insurance Co. v. International Union of Engineers (1970), 11 D.L.R. (3d) 366 (S.C.C.). For a very recent Nova Scotia example of how readily the courts discover "jurisdictional" grounds for reversing labour relations boards, see, Re Nova Scotia Liquor Commission and Nova Scotia Labour Relations Board (1974), 40 D.L.R. (3d) 634 (N.S.).



regulators and the telephone companies involved. There would appear to have been four contributing factors to this state of affairs.

First, regulation has by and large not been sufficiently aggressive as to make the companies seriously consider resorting to the courts as a means of self-defence. In part this has been because the companies have acted responsibly and antagonistic regulation has not been necessary and in part because the boards have been only too willing to accept the timing and priorities proposed by the companies. As a result there have been very few head-on conflicts such as might precipitate court action.

Second, the very nature of regulation as a continuing process of almost daily interaction between the regulator and the regulated inhibits resort to the courts. The companies have realized that it is worth their while to lose a few battles provided they win the wars. Because of this on-going nature of regulation conflict engendered by litigation can adversely affect the company in other matters before the board. As one board chairman explained during an interview, he had frankly told the legal representative of a company which was considering raising the question of the legality of one of his board's decisions that he was perfectly entitled to carry that matter to the Courts. He would, of course, understand, he continued, that the general rate increase his clients were anxiously awaiting would take a good deal longer as the board could not devote itself to that issue with a threat of litigation hanging over its head!

Third, the rationalization of telephone service on a province-wide basis and the virtual elimination of any possible antagonism with

rural companies, has minimized the chances of litigation producing conflict between private interests before the boards. It is not without significance that the Prince Edward Island case referred to earlier involved a conflict between an established motor carrier and a potential competitor,<sup>24</sup> and that the only recent case involving the Nova Scotia board involved a challenge to the validity of regulations governing the opening hours of certain retail gasoline outlets.<sup>25</sup>

Fourth, there has so far been little evidence of sufficiently strong consumer representation such as might lead to resort to the Courts. An example of the sort of thing that could lead to litigation may be seen in a recent case from British Columbia. There law students and welfare recipients got together and successfully challenged the validity of the deposit requirements demanded by B.C. Hydro.<sup>26</sup>

(iv) Lack of Review and Control by Government

None of the acts make any provision for appeal to or review by governor-in-council or provide for any formal means by which government policy can be transmitted to the boards by way of directives or policy guidelines.

Provisions in comparable federal legislation are instructive. The Broadcasting Act provides for directions from the Cabinet as well as

---

<sup>24</sup>Re Brad's Transport Ltd. (1973) 29 D.L.R. (3d) 555.

<sup>25</sup>Re Aves and Board of Public Utilities (1974), 39 D.L.R. (3d) 266.

<sup>26</sup>Chastain v. B.C. Hydro [1974] 2 W.W.R. 481.

a limited control by way of reference back to the Commission.

27(1) The Governor in Council may by order from time to time issue directions to the Commission as provided for by...paragraph 22(1)(a)

22(1) No broadcasting licence shall be issued, amended or renewed pursuant to this Part

(a) in contravention of any direction to the Commission issued by the Governor in Council under the authority of this Act respecting

(i) the maximum number of channels or frequencies for the use of which broadcasting licences may be issued within a geographical area designated in the direction,

(ii) the reservation of channels or frequencies for the use of the Corporation or for any special purpose designated in the direction, or

(iii) the classes of applicants to whom broadcasting licences may not be issued or to whom amendments or renewals may not be granted...

23(1) The issues, amendment or renewal by the Commission of any broadcasting licence may be set aside, or referred back to the Commission, by order of the Governor in Council made within sixty days of any such issue, amendment or renewal...<sup>27</sup>

The National Transportation Act contains an example of a broad cabinet appellate provision.

64(1) The Governor in Council may at any time, in his discretion, either upon petition of any party, person or company interested, or of his own motion, and without any petition or application, vary or rescind any order, decision, rule or regulation of the Commission ...and any such order that the Governor in Council may make with respect thereto is binding upon the Commission and upon all parties.<sup>28</sup>

These powers have been exercised quite freely as of late and there is every indication that they will be used even more extensively in the future. For example, the whole matter of foreign ownership in

---

<sup>27</sup>The Broadcasting Act, R.S.C. 1970 c. B-11.

<sup>28</sup>The National Transportation Act, R.S.C. 1970 c. N-17.

Canadian broadcasting was dealt with by cabinet direction as had been the question of the capacity of provincial agencies to hold licences. And, of course, the power to vary a decision of the Canadian Transport Commission was given much prominence last year with respect to Bell Canada's rate application.

The lack of similar provisions in the Atlantic Region reflects the obvious intent of the legislation to treat regulation as an essentially judicial process and to depoliticize the decision-making involved in favour of the even-handed application of public utility principles. This approach, which at one time no doubt had much to commend it, is now difficult to reconcile with the recent appointment of provincial communications coordinators and the designation of ministers to be responsible for the development of communications policy. This development along with the appointment of a Regional Advisor on Telecommunications to the Council of Maritime Premiers clearly signifies a shift away from a judicial approach to regulation in favour of one involving more direct governmental policy intervention. Once it is recognized that conscious policy decisions have to be formulated and implemented in order to bring about desired goals, then the means will have to be found for the transmittal of the policy decisions to the regulators.

One approach might be to have a direct in-put into the regulatory decision-making machinery by the appearance of the policy makers as witnesses to bring the board's attention to matters concerning the government. This is a possibility to be discussed in the next section. Even if this could be achieved there would still have to be authority to check to ensure implementation. This will require provisions some-

what similar to those contained in the Broadcasting Act and the National Transportation Act. It might be possible, of course, to convey informally government policy priorities under the present legislation. It would be much more desirable if things were brought out into the open and the credibility of the hearing process retained.

It is worth noting that the government's interest in regulatory matters is already recognized to a limited extent in that in Nova Scotia and Newfoundland a stated case on a point of law to the courts may be made at the request of the Governor in Council as well as by the Board.<sup>29</sup>

(v) Financial Independence and Power to Appoint Staff

The Boards are not dependent on an annual appropriation from the legislature for all are authorized to make an assessment on the public utilities they regulate.<sup>30</sup> There are some slight variations which should, perhaps, be noted. Provision is made in Nova Scotia for an advance of up to \$125,000 by the Governor in Council from the consolidated fund.<sup>31</sup> In Nova Scotia "due regard" must be had to the gross earning of an assessed utility in determining the amount of the assessment by way of a proportion of the Board's annual expenses. In New Brunswick reference must be made exclusively to the gross earnings of the utility.<sup>32</sup>

---

<sup>29</sup>N.S. Act s.99; Nfld. Act s. 86.

<sup>30</sup>N.S. Act s.14, 15; Nfld. Act s.12, 13; N.B. Act s.9; P.E.I.(P.U. Act) s.17.

<sup>31</sup>N.S. Act s.13.

<sup>32</sup>Compare N.S. Act s.14(1) and N.B. Act s.9(3).

In the Newfoundland and Nova Scotia acts broad provision is made for the appointment of a staff:

The Board may employ such accountants, engineers, stenographers or other persons as it may require or deem advisable for the purposes of carrying out the provisions of this Act.<sup>33</sup>

The Prince Edward Island Act is even broader:

The Commission may appoint or engage and define the duties of experts, inspectors, officers, agents or employees for the purposes of carrying out this Act.<sup>34</sup>

(b) Multi-Purpose

The regulation of telephones in the Atlantic Region is undertaken by provincial public utilities boards of general jurisdiction. Any evaluation of their effectiveness must take into account the non-specialist nature of this regulation. For example, the Nova Scotia Board acts under the following statutes;

Public Utilities Act  
Municipal Boundaries and Representation Act  
Bonus Act  
Motor Carrier Act  
Motor Vehicle Transportation Act  
Gasoline licensing Act  
Salvage Yards Licensing Act<sup>35</sup>

---

<sup>33</sup>N.S. Act, s.2(7); Nfld. Act, s.4(6), (7).

<sup>34</sup>P.E.I. (P.U. Act) s.11.

<sup>35</sup>A valuable survey of the Nova Scotia Board's jurisdiction and procedure may be found in an unpublished paper by W.D. Outhit, Q.C., "Notes of the Practice and Procedure of the Board of Commissioners of Public Utilities", a paper presented to the Conference sponsored by the Administrative Law Sub-Section, Canadian Bar Association, at the Faculty of Law, Dalhousie University, February 17, 1973. A copy of this paper has been deposited in the Faculty of Law Library.

It should be noted that in addition to the acts mentioned in the text, the Board administers the Halifax-Dartmouth Bridge Commission Act, the Rural Telephone Act and has functions under the Insurance Act. See, also, Lincoln Smith, "Regulation in Nova Scotia", 1969 P.U. Fortnightly, p. 23.

### Procedure of Regulation

All the boards have adopted a procedure fairly closely modelled on that used in the courts. Even aside from the dictates of their empowering statutes, as administrative tribunals they have had to adopt those fundamental tenets of the judicial process as form part of the requirements of "natural justice" or fair review in the courts.

This is not to say that the boards are not authorized to conduct informal investigations. For example, section 18 of the Nova Scotia Act grants wide investigatory powers.

Whenever the Board shall believe that any rate or charge is unreasonable or unjustly discriminatory, or that any reasonable service is not supplied, or that an investigation of any matter relating to any public utility should for any reason be made, it may, on its own motion summarily investigate the same with or without notice.

The Board would seem, however, to have chosen not to make full use of its possible investigatory powers which could lead to the cancellation of unreasonable rates. Where under section 78(1) complaints are made to the Board by individuals as to the inadequacy of service or the unreasonableness of rates, the Board "...shall proceed, with or without notice, to make such investigation as it deems necessary..." and it is then authorized to order service and change rates but "...no such order shall be made or entered by the Board without a public hearing or enquiry first had in respect thereof."

This same limitation is not to be found in section 82(1) which authorizes the Board to investigate of its own initiative.

If upon any investigation the rates, tolls, charges, or schedules, are found to be unjust, unreasonable, insufficient or unjustly discriminatory, or to be preferential



or otherwise in violation of any of the provisions of this Act, the Board shall have power to cancel such rates, tolls, charges, or schedules, and declare null and void all contracts or agreements in writing or otherwise, to pay or touching the same, upon and after a day to be named by the Board, and to determine and by order fix, and order substituted therefor, such rate or rates, tolls or schedules as shall be just and reasonable.

Significantly, 82(3) which deals with the extension of service specifically provides for a hearing. It could, nevertheless, be argued that a "formal" hearing is required by section 83(1) yet this section refers only to "summary" investigations and in any event is phrased in discretionary terms:

If after making any summary investigation, the Board becomes satisfied that sufficient grounds exist to warrant a formal hearing being ordered as to the matters so investigated, it shall furnish such public utility interested a statement notifying the public utility, of the matters under investigation.

In light of these provisions it is interesting to note that in the Board's Rules for the Regulation of Practice and Procedure, the Board largely turns its back on its investigative powers.

10. Investigation on the Board's Own Motion. In all cases in which the Board is authorized by law to make investigations of its own motion, it may, if it deems proper, conduct its investigations ex parte and without notice to the person, firm or corporation concerned. Before passing any final order, however, the Board shall in such cases formulate a complaint, setting forth fully and clearly the acts, omissions or matters which are the subject thereof, and a copy thereof, together with an order of the Board directed to the person, firm or corporation complained of, and requiring that the matter complained of be satisfied, or that the complaint be answered within twenty days from the service thereof, or within such less times as the Board may prescribe, shall be served on the person, firm or corporation complained of, in any manner authorized by law, and thereafter the proceedings shall be such as are set

forth in Rule III so far as the same are applicable.

The judicial process adopted by the Boards is based upon the central notion of an impartial non-interventionist judge presiding at a trial between two parties whose interests and capacities are evenly matched and thus capable of bringing out fully the issues involved.

As recently stated by Mr. Justice Evans of the Ontario Court of Appeal:

Our mode of trial procedure is based upon the adversary system in which the contestants seek to establish through relevant supporting evidence, before an impartial trier of facts, those events or happenings which form the bases of their allegations. This procedure assumes that the litigants, assisted by their counsel, will fully and diligently present all the material facts which have evidentiary value in support of their respective positions and these disputed facts will receive from a trial Judge a dispassionate and impartial consideration in order to arrive at the truth of the matters in controversy.<sup>36</sup>

It is to be seriously doubted whether this model can be transposed without substantial modification to the regulatory process. Individual subscribers just do not have the resources to participate effectively and although it is true that particular interests such as manufacturers of mobile telephone or hotel/motel associations may be in a position to intervene, their participation will be limited to their own interests.<sup>37</sup>

The unfortunate effect of lack of participation has recently

---

<sup>36</sup>Phillips v. Ford Motor Co. of Canada Ltd., [1971] 2 O.R. 637 at 657.

<sup>37</sup>We only came across one significant example of organized subscriber participation. See, In the Matter of an Application by the New Brunswick Telephone Company for Approval of Certain Matters Related to the Establishment of a New Exchange at Cocagne, Decision of the N.B. Board of Commissioners of Public Utilities, May 24, 1973.

been noted by the Prince Edward Island Commission.

At such hearing, although the interested public were invited to attend and be heard, the Public demonstrated little interest. Consequently, the Commission has been deprived of such assistance as might have been given to it by an interested public, and is placed in the unfortunate role of being both judge and advocate.<sup>38</sup>

It is apparent from a reading of the decisions, from talking with members of the boards and from attending at their hearings that serious thought will soon have to be given either to moving away from the current reliance on the adversary process in favour of a more investigatory approach or to bolstering the effectiveness of the adversary process by creating a true adversary situation.

There are several practical possibilities which will have to be explored.

(a) The Provincial Attorney General could intervene in the hearing either in his capacity as representative of the public interest or in his capacity as the lawyer to the major subscriber of telephone services in the province. His intervention need not necessarily be in opposition to any proposed rate increase etc., but could take the form of a request for further particulars which might, or might not, lead to outright opposition. This type of intervention has, of course, been of vital importance at the federal level where the active participation of Ontario and Quebec at the Bell hearings has rendered the adversary process somewhat more meaningful than it has been in the Atlantic region.

(b) Some active role could be devised for the recently appointed

---

<sup>38</sup>P.E.I. Annual Rpt. 1965-66 p. 22.

provincial communications advisers. In addition to advising counsel from the Attorney-General's Department they could submit issues and questions to the boards and generally insure that the applicant companies were not the only source of expert evidence on regulatory matters.

(c) Some effort could be made to encourage effective participation from user groups primarily through greater liaison and co-operation between such groups and the provincial communications advisers.

(d) Encouragement and support should be given to the steps being taken at Dalhousie University in order to give law and economics students a thorough introduction to the regulatory process.

In Nova Scotia at the most recent M.T.&T. rate case in June, 1974, the provincial telecommunications adviser appeared as counsel for the Board and the Consumers' Association of Canada mounted a full scale intervention. A number of comments were made which indicated that for the first time in many years, the hearing had taken on a meaningful appearance.

The issue of the confidentiality of certain information provided to the regulatory authorities recently came to a head in New Brunswick. As was to be expected, the issue arose where the telephone company was seeking to provide a competitive service (in this case an area paging system called "Bellboy") and a competitor sought to ascertain by way of cross-examination whether or not the rates for this service placed a burden on ordinary subscribers.

In view of its obvious importance the arguments and the decision (which favoured disclosure) have been set out fully in the Appendix. See, Significant Events in Atlantic Telecommunications Development: New Brunswick, 1973 - The Bellboy Case.

It would seem to be doubtful whether the amendment to the New Brunswick Public Utilities Act introduced by the government as a result of this case, is going to work satisfactorily. It provides:

2. The said Act is further amended by adding thereto, immediately after section 7 thereof, the following section:

7A. Where information concerning the costs of a public utility, or other information that is by its nature confidential, is obtained from a public utility by the Board in the course of any investigation under this Act, or is made the subject of inquiry by any party to any proceeding held pursuant to the provisions of this Act, such information shall not be published or revealed in such a manner as to be available for the use of any person, other than a party to the proceedings or the Board, unless in the opinion of the Board such publication or revelation is necessary in the public interest.<sup>39</sup>

This provision is a virtual carbon copy of s. 331 of the Railway Act which was cited extensively in the arguments in the Bellboy case. However, the phrase, "...other than a party to the proceedings..." has been added. This would seem to destroy the purpose of the enactment for all a trade rival would have to do is to intervene (as had Air Page Answering Services in the Bellboy case) and then as a "party to the proceedings" it would be entitled to see the confidential

---

<sup>39</sup> Bill No. 40, An Act to Amend the Public Utilities Act, 4th Sess. 47th Leg. Ass. New Brunswick 23 Elizabeth II, 1974.

information.<sup>40</sup>

A recent Federal Court of Appeal decision, Re Magnasonic Canada Ltd. and Anti-Dumping Tribunal,<sup>41</sup> makes it clear that the courts will construe confidentiality clauses very closely and this should be borne in mind when considering any possible statutory amendment.

#### Nature of Regulation

##### (a) General Supervision and Control

All four regulatory authorities have been granted broad supervisory power over public utilities. The standard provision in this regard is as follows:

The Board shall have the general supervision of all public utilities, and may make all necessary examinations and enquiries and keep itself informed as to compliance by the said public utilities with the provisions of law and shall have the right to obtain from any public utility all information necessary to enable the Board to fulfill its duties.<sup>42</sup>

---

<sup>40</sup>Of course, it may be that all the concern is about future competitors as was indicated by counsel for the Company. Transcript of Hearing, In the Matter of an Application by N.B. Tel, April 11, 1973 pp. 7-8.

<sup>41</sup>(1973), 30 D.L.R. (3d) 118.

<sup>42</sup>See, N.S. Act s.18; Nfld. Act s.14, N.B. Act s.5, P.E.I. (P.U. Act) s.9. In New Brunswick an additional source of regulatory authority may be found in the broad sweep of s.5(2): "The Board has power of its own motion to investigate in a manner to be determined by it the commercial practices and marketing conditions in any trade or industry; and if in its opinion any such practices are unfair or unreasonable or any such conditions are resulting in wasteful and demoralizing competition, the Board shall have the power, with the approval of the Lieutenant-Governor in Council, to prohibit such practices and to prescribe such marketing conditions as it deems to be in the interest of such trade or industry and the general public."

The depth of this supervisory power, however, varies significantly between the provinces. In New Brunswick there are no specific provisions signifying the exact extent of control. In Newfoundland construction improvements of over \$25,000 have to be approved<sup>43</sup> and by a 1970 amendment so too do leases of any property at a rent in excess of \$2,500 per annum.<sup>44</sup> In that jurisdiction, as well, statutory provision is made to regulate customer contribution to the extension of service.<sup>45</sup> In Nova Scotia the depth of supervision is somewhat greater in that construction improvements of over \$5,000 have to be approved by the Board<sup>46</sup> while in Prince Edward Island any improvement to "line plant or system" of over \$1,000 has to be approved by the Commission.<sup>47</sup>

In Nova Scotia and Newfoundland there can be no change in the type of equipment installed in any exchange without permission.<sup>48</sup> In Prince Edward Island the concern is apparently not so much control as uniformity for there the provision is as follows:

In order to ensure the ready replacement of parts  
and the easy installation of replacements and additions  
and the efficient operation of its system, no public

---

<sup>43</sup>Nfld. Act s.26(1).

<sup>44</sup>The Public Utilities (Amendment) Act, 1970 s.6.

<sup>45</sup>Nfld. Act s.26(2).

<sup>46</sup>N.S. Act s.34.

<sup>47</sup>P.E.I. (Tel. Act) s.6(1).

<sup>48</sup>N.S. Act s.66; Nfld. Act s.36.



utility, without approval of the Commission, shall install any equipment, fixtures, or appliances which are not of a uniform design and the product of a standard manufacturer.<sup>49</sup>

(b) General Rate Regulation

(i) Valuation

The statutory provisions range from none in New Brunswick to quite detailed provisions in Nova Scotia. Under the latter act the Board is empowered to determine the value of the property and assets of the utility as "used and useful in furnishing" service to the public as of a date fixed by the Board. The basis of this calculation is the "prudent original cost" less accrued depreciation as determined by the Board. Such depreciation is to be determined by the straight line method or by such other method as the Board may prescribe. The utility's expenses in determining a valuation (both its own and that which it is ordered to cover of the Board's expenses) may be charged if so directed by the Board's to capital account and "...added to the rate base of the public utility".<sup>50</sup>

In Prince Edward Island and Newfoundland the provisions are much the same<sup>51</sup> except that by amendment in 1966 in Newfoundland special provision is made for the "...checking of a valuation submitted to the Board by or on behalf of a public utility."<sup>52</sup>

---

<sup>49</sup>P.E.I. (Tel. Act) s.3.

<sup>50</sup>N.S. Act s.29, 30, 31.

<sup>51</sup>Nfld. Act s.48, 49, 50; P.E.I. (Tel. Act) s.22.

<sup>52</sup>The Public Utilities (Amendment) Act, 1966 s.4.

(ii) Depreciation

Again the range is from no provision at all in New Brunswick to quite detailed regulation in Nova Scotia. There the Board is empowered to prescribe rates of depreciation on all classes of property and the utilities are required to make provision for a depreciation fund. Money from that fund may only be devoted to new construction and for depreciation unless otherwise directed by the Board and may only be invested in securities approved by the Board.<sup>53</sup>

In Newfoundland the provisions are similar to those in Nova Scotia but it is also provided that the Board may require the creation of a "reserve fund" in addition to a depreciation fund "...for any purpose which the Board thinks proper, including as a purpose the public utility's status as a borrower or seeker of funds for necessary maintenance or expansion of its operations".<sup>54</sup>

In Prince Edward Island the provisions are straightforward in that they provide for a "depreciation account" and empower the Commission to determine what are proper and adequate rates of depreciation.<sup>55</sup>

(iii) Determination of Rate Base

As in valuation and depreciation the statutory provisions range from none in New Brunswick to quite detailed provisions in Nova

---

<sup>53</sup>N.S. Act s.35, 36.

<sup>54</sup>Nfld. Act s. 52, 53.

<sup>55</sup>P.E.I. (Tel. Act) s.24, 28.

Scotia. In the latter the Board is required to fix and determine a separate rate base for "each type or kind of service" furnished by a utility to the public.<sup>56</sup> The rate base is to consist of the value of the physical assets of the utility as determined according to the Act and, at the discretion of the Board allowance may be made for (a) working capital, (b) organization expenses, (c) construction overheads, (d) valuation expenses charged to capital account and (e) costs in whole or part of land acquired in reasonable anticipation of future requirements.<sup>57</sup>

The Newfoundland provisions are very similar<sup>58</sup> except that by a 1966 amendment the Board is given greater discretion to include in the rate base any other fair and reasonable expense "...which the Board thinks proper and basic to the public utility's operation".<sup>59</sup>

In Prince Edward Island the reference is to an "earnings base" to be determined similarly to a "rate base" elsewhere.<sup>60</sup>

#### (iv) Rate of Return

New Brunswick has no provision at all while Nova Scotia, Newfoundland and Prince Edward Island are substantially similar.

---

<sup>56</sup>N.S. Act s.39(1).

<sup>57</sup>N.S. Act s.39(2).

<sup>58</sup>Nfld. Act s.62(1), 63(1).

<sup>59</sup>The Public Utilities (Amendment) Act, 1966 s.5.

<sup>60</sup>P.E.I. (Tel. Act) s.24(1).

The companies are entitled to such return "...as the Board deems just and reasonable on the rate base as fixed and determined by the Board". This return is less any special reserve fund not deemed an operating expense and is in addition to such expenses as the Board may allow as reasonable and prudent and properly chargeable to operating account.<sup>61</sup>

In Prince Edward Island it is provided that where the cost of a hearing has been assessed against a utility, and the utility has been found to be in the wrong by charging excessive rates or by neglecting to provide adequate service, the Commission may order that "...such payments by the public utility shall be deducted from the amount which, otherwise, such public utility would be entitled to earn as a just and reasonable return".<sup>62</sup>

(v) Tolls and Rates

In Nova Scotia and Newfoundland rates are to be set by the Board "as it deems just". A schedule of fees and rates must be filed with the Board and the rates so filed constitute the only "lawful" rates. The schedule of rates must be available for public inspection. In New Brunswick a schedule of rates must be filed with the Board and "open to public inspection" while in Prince Edward Island only rates approved by the Commission are "lawful".<sup>63</sup>

---

<sup>61</sup>N.S. Act s.42(1); Nfld. s.64(1); P.E.I. (Tel. Act) s.26.

<sup>62</sup>P.E.I. (Tel. Act) s.27.

<sup>63</sup>N.S. Act s.41, 60, 67; Nfld. Act s.54(1); N.B. Act s.26; P.E.I. (Tel. Act) s.16.

## (vi) Equality of Rates

The standard provision here is that all rates shall "...under substantially similar circumstances and conditions in respect of service of the same description be charged equally to all persons at the same rate...".<sup>64</sup> Penalty provisions are provided concerning "unjust discrimination" in rebates, concessions, etc.,<sup>65</sup> except in Prince Edward Island. In New Brunswick the penalty provisions provide for the dissolution of a public utility charging unauthorized rates!<sup>66</sup>

Special Problem Areas

There remain five areas of concern that warrant special mention. These are: (i) Restrictions on Sale; (ii) Extension of Service; (iii) Overlapping Services; (iv) Discontinuation of Service, and, (v) Interconnection.

## (i) Restriction on Sale

The typical provision to be found in the acts is that in Nova Scotia:

Notwithstanding the provisions of any Act of the Legislature no public utility shall sell, assign or transfer the whole of its undertaking or any part thereof to any person or corporation except with the approval of the Board first had and obtained.<sup>67</sup>

---

<sup>64</sup>N.S. Act s.63(1); Nfld. Act s.57; N.B. Act s.16; P.E.I. (Tel Act) s.32.

<sup>65</sup>N.S. Act s.101-110; Nfld. Act s.88-97; N.B. Act s.20.

<sup>66</sup>N.B. Act s.17.

<sup>67</sup>N.S. Act s.58; Nfld. Act s.33; P.E.I. (Tel Act) s.11.

This provision has, of course, played no role at all in the Bell "take over" of Avalon, N.B. Tel., and M.T.&T. as this was not done by way of a sale of the undertaking. Indeed, in reading the legislative debate leading to the "Bell amendment" to the Maritime Telegraph and Telephone Company Act, there is little mention of any role for the Board, reliance being placed instead on a limitation on share voting.

(ii) Extension of Service

In Nova Scotia and Prince Edward Island extension of service is tightly tied into the concept that there may only be an order requiring extension of service "...that shall promise to be compensatory within a reasonable time."<sup>68</sup> In New Brunswick the situation is somewhat different in that the Board may order extension of service to a district without such service but when doing so the Board "...shall take into consideration the reasonableness of the rate to the public utility upon its investment".<sup>69</sup> The position in Newfoundland was the same as in Nova Scotia, but an amendment in 1970 following a controversial extension of service order to the Burin Peninsula,<sup>70</sup> removed the words "...that shall promise to be compensatory within a reasonable time".<sup>71</sup>

---

<sup>68</sup>N.S. Act s.82(3); P.E.I. (Tel. Act) s.21(2).

<sup>69</sup>N.B. Act s.6(1).

<sup>70</sup>[1964] Newfoundland Board of Commissioners of Public Utilities Reports 133-35; [1969] Newfoundland Board of Commissioners of Public Utilities Reports 7-17.

<sup>71</sup>The Public Utilities (Amendment) Act, 1970 s.8.

## (iii) Overlapping Services

The typical provision adopted in this regard is that in Nova Scotia.

50(1) No public utility shall begin the construction...in any territory already served by a public utility of like character, without having first obtained from the Board a certificate that the present or future public convenience and necessity require or will require such construction.

(2) The Board shall have the power, after a hearing involving the financial ability and good faith of the applicant, and the necessity of additional service in the community, to issue such certificate as applied for, or to refuse to issue the same,... and may attach to the exercise of the rights granted by said certificate such terms and conditions as in its judgment the public convenience and necessity may require.<sup>72</sup>

## (iv) Discontinuation of Service

A standard provision is that a public utility may not abandon any of its operations without the permission of the Board.<sup>73</sup> The issue of discontinuation of service to individual subscribers is not dealt with except in Prince Edward Island which provides:

Except as provided by this Act...no person who, at the date of the coming into force of this Section, is in actual receipt of the service of...telephone from a public utility, shall at any time after such date, have such service from such public utility disconnected, or terminated without his consent.<sup>74</sup>

## (v) Interconnection

Only in Prince Edward Island is provision to be found dealing with the issue of interconnection. It emphasizes the necessary balance

---

<sup>72</sup>N.S. Act s.50; Nfld. Act s.25; P.E.I. (Tel. Act) s.6(3).

<sup>73</sup>N.S. Act s.49; Nfld. Act s.24; P.E.I. (Tel. Act) s.9.

<sup>74</sup>P.E.I. (Tel. Act) s.33A.



between the rights of subscribers and the need to preserve the purity of the system.

If a customer of any public utility installs or connects or is desirous of installing or connecting any service, appliance or equipment which in the opinion of such public utility is or may be detrimental to the service being rendered the matter may be referred to the Commission by either party and the Commission may make such order thereon as appears reasonable.<sup>75</sup>

---

<sup>75</sup>P.E.I. (Tel. Act) s.33(2).

## CHAPTER II

The Development of Telephone Services  
in the Atlantic Provinces

Telecommission Study 1(b) sketches in varying detail the histories of the major telephone companies of Canada.<sup>1</sup> There is little point in repeating from that source the early history of corporate development. Instead, in this chapter we concentrate on the post-World War II period and attempt to outline briefly those features of the development of telephone services which are relevant to the economic analysis of Chapter III and which differ significantly within the region or between the region and the rest of Canada.

Immediately prior to the outbreak of the War, the number of telephones had recovered to its pre-depression peak in each of the Maritime Provinces. There were at the end of 1938, 86,348 telephones in operation in these provinces; on a per capita basis, .058 in P.E.I., .087 in Nova Scotia and .074 in New Brunswick. Of the total telephones 20,000 in Nova Scotia and 10,000 in New Brunswick were connected to automatic switchboards. At that time N.B. Telephone operated about 95%, Island Telephone 78%, and MT&T 88% of the telephones in their respective provinces.<sup>2</sup> By way of comparison there were in Canada as a whole at that time .12 telephones per person. 47% of the telephones nationwide

---

<sup>1</sup> TCTS, History of Regulation and Current Regulatory Setting, Telecommission Study # 1(b), submitted March 1970 (Queen's Printer, Ottawa, 1971).

<sup>2</sup> DBS, Telephone Statistics for 1938 (Queen's Printer, Ottawa, 1940). For obvious reasons Newfoundland is omitted from this comparison. There were 51, 257, and 36 telephone systems in P.E.I., Nova Scotia, and New Brunswick respectively.

were dial. Thus only Nova Scotia came anywhere near to approaching the national standard.

A very rapid expansion occurred over the next decade. In 1949, there were per capita in the Maritime Provinces, .113, .152 and .131 telephones; compared to 1938, the number of telephones had nearly doubled. In Newfoundland there were only .054 telephones per capita and 18,668 telephones in all. Except in New Brunswick where almost all telephones were part of the N.B. Tel. system, the proportion of total telephones belonging to the major company was about 90% in each of the other provinces. But there were significant differences: in Newfoundland there were only four telephone systems or companies; on P.E.I. there were ten times as many, and in Nova Scotia sixty times as many. Moreover, 85% of Avalon's telephones were dial -- easily the highest percentage of any of the major companies -- and its percentage of phones on rural lines was by far the lowest. This reflects the absence at that time of any telephone service in most parts of Newfoundland outside the larger communities as well as the CN Telecommunications takeover of approximately one thousand telephones in remote parts of the Province from the Newfoundland Postal System at Confederation.

Table 2-1 presents statistics at five year intervals on these characteristics of the major telephone companies from 1940 (Avalon from 1950<sup>3</sup>) onward, Table 2-2 shows estimated annual rates of growth for the same periods after 1950 of numbers of telephones for these companies

---

<sup>3</sup> On 28 December 1950, Avalon absorbed the telephone systems of Anglo-Newfoundland Development in the area around Grand Falls. About 1000 telephones were involved. This take-over is not reflected in Table 2-1 but has been introduced in making the growth calculations in Tables II-2 and II-3.

TABLE 2-1

Significant Characteristics of the Major Telephone Systems  
in Atlantic Canada

<u>Province</u>	<u>Year</u>	<u>Total # of telephones of the Major Co.</u>	<u>Major Co. telephones as a % of total # of telephones</u>	<u>Percentage of Major Co. Telephones on Rural lines</u>	<u>Percentage of Major Co. telephones that are Automatic</u>
N.B.	1940	34,351	96%	16%	50%
	1945	43,855	96%	16%	50%
	1950	71,167	98%	19%	54%
	1955	98,552	98%	17%	61%
	1960	127,450	99%	16%	78%
	1965	172,823	100%	13%	91%
	1970	225,121	100%	9.5%	100%
N.S.	1940	46,618	89%	11%	56%
	1945	63,505	91%	13%	56%
	1950	100,195	93%	13%	63%
	1955	130,782	94.5%	13%	78%
	1960	167,728	97%	12%	85%
	1965	218,533	97.5%	13%	88%
	1970	281,363	99%	10%	91%
P.E.I.	1940	4,361	78%	26%	0%
	1945	6,525	86%	27%	0%
	1950	10,447	92%	28.5%	18%
	1955	13,221	93%	24%	70%
	1960	17,794	96%	26.5%	67%
	1965	26,412	100%	29%	67%
	1970	34,132	100%	24%	74%
Nfld.	1950	19,146	89%	2%	85%
	1955	30,553	92%	.7%	84%
	1960	49,818	86%	5%	97%
	1965	66,898	76%		92%
	1970	92,991	68%	.1%	96%

Sources: D.B.S., Telephone Statistics and Telephone Statistics, A Preliminary Report on Large Telephone Systems,

TABLE 2-2  
Annual Rates of Growth of Telephones  
by Five-year Intervals by Province  
by Total Province and Major Company.  
 (in percent)<sup>1</sup>

<u>Years</u>	<u>N.B.</u>	<u>N.S.</u>	<u>P.E.I.</u>	<u>Nfld.</u>
1950-1955				
Total	6.5	5.3	4.4	9.9
Major Co.	6.7	5.6	4.9	9.5 <sup>2</sup>
1955-1960				
Total	5.0	4.7	5.8	11.2
Major Co.	5.2	4.8	6.4	10.1
1960-1965				
Total	6.0	5.0	7.2	8.7
Major Co.	6.1	5.5	8.1	6.1
1965-1970				
Total	5.6	5.1	5.1	9.1
Major Co.	5.6	5.4	5.1	7.1

<sup>1</sup> Computed using averages for each end year.

<sup>2</sup> Acquisition by Avalon Telephone Co. of minor telephone systems included.

Sources: Telephone Statistics, Dominion Bureau of Statistics, and  
Telephone Statistics, A Preliminary Report on Large  
Telephone Systems, Dominion Bureau of Statistics.

TABLE 2-3  
PER CAPITA ANNUAL GROWTH RATES  
1950-1970

Telephones, Plant, Income  
Telephones Per Person 1970  
Canada & Atlantic Provinces

	<u>N.B.</u>	<u>N.S.</u>	<u>P.E.I.</u>	<u>Nfld.</u>	<u>Canada</u>
1950 - 1970					
<u>Annual Growth Rates</u>					
Telephones/person	4.8	4.1	4.9	7.7	3.9
Telephone Plant/person <sup>1</sup>	9.6	9.6	10.2	12.5	8.7
Personal income/person	6.5	6.2	6.4	6.5	6.0
1970					
<u>Number of telephones/person</u>	.362	.368	.308	.260	.450

<sup>1</sup> Telephone plant is undepreciated original cost. CN Telecommunications and Bell Canada are excluded for Newfoundland.

Sources: D.B.S., Telephone Statistics (56-203) and D.B.S., Canada Yearbook, various years.

and Table 2-3 shows annual rates of growth of telephones per person, telephone plant per person and income per person in the Atlantic Provinces and in Canada over the twenty year period 1950-1970.

Several points are worth noting and emphasizing. As of 1950 there was a very large number of rural and mutual telephone companies in Nova Scotia relative to the number of telephones in service. The number of telephones served by these companies continued to increase until 1955, declined rapidly between 1961 and 1967 and has remained stable since then. The number of companies has been gradually decreasing. Thus MT&T has continually and gradually absorbed undercapitalized systems through this period and extended service into rural areas which it did not before serve. This accounts at least in part for the slow progress of dial conversion from 63% to 91% over the 20 year period; it also explains the stability of the percentage of telephones on rural lines between 1950 and 1965.

A similar situation prevailed on Prince Edward Island initially with relatively fewer rural companies providing a larger share of service. With the dial conversion of the Charlottetown Exchange in 1953 the percentage of automatic telephones reached a respectable level. However, the rural companies rapidly decreased in numbers between 1955 and 1965, there being only half a dozen remaining in the latter year and only one by 1971. Between 1960 and 1965, 90% of the telephones served by these companies were taken over by Island Telephone. This rapid rather than gradual elimination of connecting companies led to an increase in the already high proportion of telephones on more-than-four-party lines between 1955 and 1965 and a



decrease in the proportion of automatic service. Nearly a tenth of the expansion of Island Telephone in this period came from take-overs of independent companies.

This difference in rate of extinction of independent connecting companies reflected obvious differences in regulatory approach. In Nova Scotia the Board has attempted to help these companies to continue to function as long as possible; in Prince Edward Island the policy has been to impose not unreasonable conditions of service on connecting companies knowing that the probability of meeting these conditions was low and the likely result, the surrendering of the franchise.<sup>4</sup>

The proportion of telephones of N.B. Telephone on rural lines in 1950 reflected in comparison to MT&T, the relatively insignificant proportion of service provided at that time by connecting companies. With the exception of the Fort Kent Telephone Company's operations in Madawaska County -- which is affiliated with General Telephone Company (U.S.A.) and continues to operate -- the few remaining independent

---

<sup>4</sup> Compare for example treatment in P.E.I. of Iona Rural Telephone Co. (Report 1962-63, at p. 24) and Ellerslie-Conway Telephone Company (Report 1962-63, at p. 24 and Report 1963-64 at pp. 27-30) with treatment in Nova Scotia of Maple Leaf Telephone Company (Report 1956, at p. 333, Report 1968, at pp. 221-224 and Report 1960, at pp. 210-215 and pp. 289-291.) After some delay in holding a hearing Ellerslie-Conway was given two months to decide whether it would comply with rather tough conditions or the Commission would require Island Telephone to take-over its area. Maple Leaf was investigated in 1956 and ordered in 1958 to shape up. The worst of its plant was taken over by MT&T in 1960 and three new mutual companies were established to take over the remainder of the operation. At least part of the delay resulted from MT&T being unwilling to schedule an earlier take-over of portions of the areas served by Maple Leaf.

telephone utilities were absorbed gradually by N.B. Telephone in the following decade. Thus the percentage of telephones on rural lines could steadily be reduced and the proportion of automatic service increased to 100%.

In Newfoundland, growth of Avalon was rapid -- particularly in the 1950's. Little of this growth came from take-overs of previously independent companies. However, the growth of CN Telecommunications was considerably more rapid. And in addition, Newfoundland Labrador Telephone was set up and grew rapidly. The result was that the share of Avalon of total telephones in Newfoundland dropped from nine-tenths to two thirds over the twenty-year period. Given the rapid rates of expansion, is it not surprising that the per-capita telephone development in Newfoundland is now only modestly behind that of the other Atlantic Provinces.<sup>5</sup> In spite of expansion into previously unserved areas, such that in Avalon territory there are now no longer any areas which do not have service, rural multi-party lines were not built by Avalon, so the proportion of such service remained low.

In spite of growth rates of telephones and of telephone plant in the Atlantic area which are one to four percent higher than in Canada as a whole, a very significant gap between telephone development still is present. The variations in this respect among the four provinces are significant, but less so than the difference between this group of provinces and the rest of the country.

---

<sup>5</sup> It is interesting to observe that differences in rates of growth of per-capita income account for little if any of the differences in rates of growth of telephones.

## CHAPTER III

Economic Analysis of Regulatory Decisions

At the interface between utility and consumer are the services provided by the former and the prices paid by the latter. Although telephone utilities basically provide point-to-point communication of a quality adequate to transmit voice messages and for that purpose install terminal transmitting/receiving equipment and operate lines and switches for connections, the services provided vary in several dimensions. Equipment and/or switching may be standard or specialized and distance may be nominal or long. Thus, in addition to fixing a price for (a) standard local service with standard equipment, five other dimensions of telephone utility pricing may be distinguished:

- (b) installation and removal of equipment
- (c) provision of specialized equipment (e.g., system service, PBX, touch tone)
- (d) provision of specialized switching or services (e.g., conference calls, multi-party services, leased lines, mobile service)
- (e) connection at a distance from the local exchange
- (f) supply of peripheral services, such as directory listings, advertising, pole space, MUZAK.

Revenues from each of these dimensions contribute to the financial well-being of the utility, and each dimension is to some extent supported by a common plant and a common work force. Moreover, this "jointness" or interdependence in output is accompanied by significant interdependence among service dimensions in consumption. This makes it possible -- indeed likely -- that telephone utilities may subsidize some service offerings by charging monopoly rates on others, and it makes it difficult

and complex to determine the existence and extent of such cross-subsidization.

Clearly this ought to be an important area for regulation. In Section III-B we examine in some detail utility behaviour and regulatory performance with regard to one aspect of telephone pricing: short-haul services beyond the basic local calling area. In addition we consider the patterns of price regulation of a limited range of specialized services including installation. As well, there is a brief analysis of relationships between price structure and service growth. The focus throughout is on the structure of cross-subsidization which has been sought by the utilities and which has been permitted by the regulatory authorities.

Obviously, it is impossible to determine much about the justness of pricing policies without information on costs. Section III-A examines regulatory efforts to establish and limit financing, equipment, and operating costs, primarily from the point of view of the overall operations of the utilities, but also where possible in relationship to specific services.

Section III-C deals with extension and improvement of service. In areas of low population density and low incomes, the unit costs of providing service of a given quality are higher than in areas of dense telephone development, and indeed unit costs of providing any service may exceed the unit revenues which likely could be secured. This creates a problem for public policy and for regulation, which may be bluntly put: to what extent and how should rural basic telephone service be subsidized by other services of the telephone company? Expressed

this way, this question becomes a specific aspect of pricing policy, which -- as we shall see -- has been approached differently in the various Atlantic area jurisdictions.

### Section III-A

#### REGULATION OF TELEPHONE UTILITY COSTS IN ATLANTIC CANADA

The overall costs of operation of telephone utilities may be divided into three categories: costs of financing, costs of equipment, and costs of operation. The first of these relates to the entire operation of the firm and cannot in principle be broken down to apply to particular services. This may also be true of certain types of operating costs (e.g. directors fees) but in general -- subject to certain more or less arbitrary rules -- costs of equipment and of capital can be allocated to specific services. In this section we consider each of these types of costs in turn, centring our attention on the extent to which attempts to determine and control these costs have been undertaken by regulatory authorities.

#### Financing<sup>1</sup>

In all four jurisdictions, the regulatory authorities determine a rate base for each utility and fix an appropriate rate of return on this rate base by considering the imbedded (historical) cost of debt, the debt-equity ratio, and the necessary rate of return on

---

<sup>1</sup> Parts of this subsection and the remaining subsections on cost draw to some extent on P. B. Huber, An Economic Assessment of the Consumer Interest and Regulatory Commissions in the Atlantic Provinces, a report prepared for the Canadian Consumer Council, March 1974, Section 3.1.

equity.<sup>2</sup> The cost of financing is thus determined in two steps, each of which involves a number of complex questions of valuation and accounting. There are a number of significant differences in these respects among the four provinces, but these are important only if they are not taken into account when determining the permitted rate of return on equity. Whether comparisons which have been made are in fact based on adjustment for these differences is hard to say; probably this is only partially the case. In this sub-section we shall first consider the determination of rate bases, and then turn to the fixing of the rates of return.

Table 3A-1 presents in outline the variations in accounting and valuation practices with respect to calculations of rate bases. As described in Section I of this report, some of these practices are required by statute in Newfoundland, Nova Scotia and Prince Edward Island, but most are subject to the discretion of the regulatory body. In 1969, the New Brunswick Board for the first time gave explicit approval to a rate base calculation.

---

<sup>2</sup>There is a statutory requirement for this procedure in Newfoundland, Prince Edward Island and Nova Scotia. Such an approach was early attempted in New Brunswick, but was overturned on appeal on grounds that reasonableness of rates could only be judged on the basis of value to the purchaser -- an economically pernicious and exploitative doctrine propounded in *Canada Southern Railway Co., U.S. International Bridge Co.* (1883) 8 A.C. 723. See *ex parte Moncton Tramways, Electricity and Gas, Ltd.* (1927) 53 NBR469 and *ex parte Maritime Electric Co. Ltd.* (1934) 9 MPR 1. Subsequently (1935) the N. B. Act was strengthened to enable the N.B. Board to use this approach.



Table 3A-1  
Rate Base Calculations  
Atlantic Area Telephone Companies

	Nfld.	N.B. <sup>2</sup>	N.S.	P.E.I.
Valuation of assets prudent original cost	Yes <sup>1</sup>	Book	Yes	Yes
Depreciation straight line at approved rates	Yes	In practice	Yes	Yes
Timing of valuation	Mid-year	Mid-year	Year-end	Mid-year
Inclusion-Exclusion of				
Land	Incl.	Incl.	Incl.	Incl.
Plant under construction	Excl.	Incl.	Excl.	Excl.
Property held for future use	Incl.	Incl.	Excl. <sup>3</sup>	Excl.
Exclusion-Inclusion of				
Deferred taxes	Flowed thru	Deducted	Incl. <sup>4</sup>	Incl. Also deducted as in N.B. <sup>5</sup>
Contributions in aid of construction	Deducted	Deducted	Deducted	Deducted
Installation charges	Incl.	Incl.	Incl.	Incl.
Investments in Subsidiaries	Excl.	-	Excl.	-
Private Mobile Telephone	Incl.	Incl.	Excl.	Excl.
Working Capital				
12.5% of annual operating expenses	Yes	Yes	No <sup>4</sup>	Yes
Average material & supplies	Yes	Yes	No <sup>4</sup>	Yes
Average prepayments	Yes	No	No	No
Inclusion-Exclusion of Unamortised part of				
Valuation costs	Yes	-	Yes <sup>6</sup>	-
Organizational expense	No	No	Yes <sup>6</sup>	No
Hearings costs	Yes	No	No	No
Conversion costs	Yes <sup>7</sup>	-	-	-
Depreciation deficiency	Yes <sup>7</sup>	-	-	-

#### Notes

- (1) In Newfoundland s.48 of the Act (as amended Stats. N. 1966, c. 26) indicates that prudent original cost is appropriate for new assets created or acquired since 1 January 1950. Used assets created since that date are subject to prudent acquisition cost. Other assets are subject to fair depreciated value as of 1 January 1950.
- (2) There are no statutory requirements regarding rate bases in New Brunswick.
- (3) Land acquired in reasonable anticipation of future requirements may be included but is not. (s.39(2)(e))
- (4) N.S. includes \$275,000 and \$350,000 for working capital and materials and supplies, which respectively were fixed in 1946 at levels which at that time would have reflected the same criteria as employed currently in other jurisdictions. These low levels reflect a gentlemen's agreement between Board and MT&T to offset deferred tax credits against working capital. However, any reasonable estimate of the latter is far smaller than the former. See N. S. Board, Report 1958, "In the matter of an Application of NSLP for an Order determining an allowance for working capital", at pp. 96-99.
- (5) In P.E.I. in 1971 calculations of rate of return were made both on the physical "earnings base" and on the capital excluding deferred taxes.
- (6) These were carried in the rate base from 1914 to 1952 and then fully amortized through 1971.
- (7) See Newfoundland Board, Report 1966 Order #66 for details. The former relates to use of duplicate plant for a period in 1966. The latter is discussed fully under the sub-section "Depreciation", in the text below.

#### Sources

P.E.I.: Reports 1951-52 at pp. 46-48 and 1970-71 at pp. 14-16.  
N.S.: MT&T, "Application..." dated May 1974.  
N.B.: "Cole Report" 1969  
Newfoundland: Reports 1966 at pp. 116-122 and 1968 at pp. 24-25.

The significant differences among these practices are as follows. (1) The use of year-end calculations in Nova Scotia inflates the rate base by about five percent at current rates of growth. (2) Inclusion of plant under construction in New Brunswick and property held for future use there and in Newfoundland average about two percent and less than one percent respectively of rate bases. (3) Statutory inability to exclude deferred taxes in Nova Scotia and the resulting partial offset against working capital allowances inflates the rate base there relative to New Brunswick by about ten percent; the effect relative to Newfoundland depends on the treatment there of rate of return -- which will be discussed below. (In Prince Edward Island calculations in the most recent rate case were made on "earnings base" including deferred taxes and also on "capital" excluding it.<sup>3</sup>) (4) With the exception of the last two exceptional items included in Newfoundland -- which inflate the rate base of Newfoundland Telephone by about three percent at the present time -- the remaining items aggregate to a maximum differential effect of about half of one percent of rate base.<sup>4</sup>

The standard calculation of rate of return on rate base is the sum of the "test year" imbedded cost of debt and the required

---

<sup>3</sup>P.E.I. Commission, Report 1970-1971 at pp. 15-16. See below.

<sup>4</sup>Failure to deduct installation charges made by customers -- in effect a contribution to capital--inflates rate bases in all jurisdictions by two to three percent.

post-tax return on equity weighted respectively by the percentages of funded debt and equity in the capitalization of the utility. This approach does not seem to have been questioned by the boards in the Atlantic Provinces although it clearly is economically irrational in that it (a) mixes historical financing costs on the one hand and current financing costs on the other, (b) provides no incentive to economise on income taxes, (c) provides no incentive to economise on other operating costs, (d) provides no incentive to economise on debt costs, and (e) tends to promote an irrationally low ratio of debt to equity.

Presumably the goal of regulation with respect to financing should be to minimise the long run cost to consumers of securing funds, subject to avoiding excessive risk that might make future financing impossible. This implies concern with (a) the terms of sale of debt and equity, (b) the effective rate of interest paid on debt, (c) the rate of return on equity, (d) the balance of debt and equity in the capitalization, given the taxation of earnings on the latter, (e) the treatment of other sources of capital such as customer or government grants in aid of construction, and deferred taxes, and finally, (f) the definition of income. Let us consider these in turn.

Statutory provisions require every issue of stock or debentures whether to the public or not to be the subject of a public hearing, so the record is replete with decisions on the first question. But for the last twenty years it is difficult to find a case where approval has not been perfunctory. This is not surprising given the development of securities legislation and self-policing by the major

stock exchanges which has occurred since the 1929 financial collapse. Since the major companies are going to the market almost every year,<sup>5</sup> it would appear that general supervision over security issues accompanied by the filing of prospectives would suffice for the regulatory needs of the 1970's. The only issues in this immediate area which appear to warrant attention are the extent of discount offered under Employees' Stock Savings Plans and the possibility of excess commissions being paid to underwriters.<sup>6,7</sup>

---

<sup>5</sup> For example there have been 28 public issues of stock or debentures by N.B. Telephone and 24 such issues by MT&T in the last 28 years.

<sup>6</sup> The terms of the ESSP of MT&T have been changed several times in recent years, the changes in 1970 being admittedly introduced to relieve "the Applicant from criticism by its shareholders and others that the existing plan has become too generous..." N.S. Board, Report 1970 at pp. 330-338. See also Report 1967 at pp. 64-70.

<sup>7</sup> In 1955 the N. S. Board made some pointed remarks with respect to underwriting:

"In 1952... W.C. Pitfield and Co. Ltd. was appointed fiscal agent of the petitioner to sell the proposed issue on behalf of the Applicant at the best price obtainable.... In 1951, ... Applicant asked four bond dealing organizations to make tender for the said issue and the best offer... was accepted by the Applicant. In the present instance, however, the Applicant did not call for tenders or offers from any persons or firms other than W. C. Pitfield and Co. Ltd. .... There is no evidence...that...circumstances excluded the Applicant either from retaining a fiscal agent or seeking additional offers.... The Board has been compelled to conclude that if the issue had been handled [differently] ...an increase in the net amount to the applicant might have been realized." (Report 1955 at pp. 124-125)

Since imbedded interest costs are more or less automatically included in the approved rate of return the only review of interest charges which occurs is at time of issue and the utility has no incentive to call old issues when yields fall sharply or otherwise to concern itself very intensively with the timing of its debenture issues.<sup>8</sup>

Implicitly or explicitly the regulatory boards in the Atlantic Provinces apply a market criterion in their determination of the permitted rate of return on equity: a growing utility must provide earnings comparable to those generated by other firms in similar circumstances in order to be able to secure additional financing. But only in Newfoundland and Prince Edward Island has this principle been clearly stated,

"Simple comparisons of rates of return on the rate base in other jurisdictions are not possible.... The result is influenced by the formula used for determining the rate base.... Avalon should earn about the same return on common equity as would be earned by other telephone companies in the Atlantic region if the taxes payable method were used by them."<sup>9</sup>

---

<sup>8</sup> Admittedly regulatory lag may squeeze earnings on equity (or in times of stable prices and declining interest rates permit excess profits), but a reduction of return on equity can stem from many causes other than excessively high yields on debt issues.

<sup>9</sup> Newfoundland Board, Report 1968 at pp. 28-29. Emphasis added. The Board also listed five tests of fairness: (1) Similar with business bearing similar risks, (2) commensurate with comparable companies at the same time in some general area, (3) sufficient to assure confidence in financial condition, (4) sufficient to maintain credit and make possible necessary attraction of capital, and (5) lower than in highly profitable speculative ventures.

"A public utility is permitted to earn such fair return as will insure financial stability as to existing capital and make the enterprise attractive enough so that when additional capital is required willing investors will be found to furnish such capital. On the other hand, however, those who use the service provided must...pay no more than the reasonable and fair requirements of the public utility demand." <sup>10</sup>

"In determining whether the projected return to the Applicant is just, fair and reasonable, the return on capital rather than on earnings base alone must be considered since in the Applicant's case...total invested capital differs from its earnings base, for example, at the end of 1969...\$10,231,308 to \$12,180,038.... For the years 1971 and 1972 under the proposed...rates, the projected returns on total investment are 8.77% and 8.57%; ... on earnings base...7.93%...and 7.73%. ...The Commission's consultant...concluded...that the various returns on the various types of investment are acceptable and therefore the projected rates of return on earnings base are justified." <sup>11</sup>

In the other jurisdictions even decisions which sharply reduce requested increases by utility managements fail to indicate what standards of reasonableness are being applied:

"... to increase the rate of return to 8.26% (based on 1968 operations), is however, considered to be excessive. We are of the opinion that tariffs...which will increase the rate of return to 7.58% will meet the Applicant's present needs. This approximates the lower limit of the range of the rate of return originally petitioned [and]...would give a return on equity of 9.19%." <sup>12</sup>

"In the light of all circumstances including a review of the operations of the Applicant in the conduct and financing of its electrical utility undertaking in recent years, a careful examination of the evidence adduced at the hearing, and an attempt to more closely evaluate imponderables of marketing securities the

---

<sup>10</sup>P.E.I. Commission Report 1951-1952, at p.40.

<sup>11</sup>P.E.I. Commission, Report 1970-1971, at pp. 15-16.

<sup>12</sup>N.B. Board, Decision "In the Matter of an Application of N.B. Tel...", dated 3 December 1969 at p.7.



Board is of the opinion that a return of something less than 7% will meet the standard of reasonableness which the Board is endeavouring to establish. In reaching a reasonable return on rate base the Board has for some years regarded financial need as one of the yardsticks to be used to test the result, a yardstick which is by no means conclusive and one which, as in the present instance, must be appropriately lengthened or shortened to be properly related to the particular public utility operation under consideration.... A schedule of rates estimated to produce approximately \$450,000.00 less than the schedule of rates proposed by the Applicant will result in a reasonable return on rate base." <sup>13</sup>

One perhaps should not expect that the appropriate rate of return on equity can be -- or should be -- fixed with absolute precision as is done with excessive effort in some U. S. jurisdictions. Capital market conditions vary, the regulatory cost of such precision is high and the gain slight. Nevertheless it is instructive to note that some U. S. authorities have taken the cost of equity capital to subsidiaries of American Telephone and Telegraph as the cost of capital (equity plus debt) to the parent company. <sup>14</sup> Newfoundland Telephone might well have been treated thus, since it is wholly owned by Bell Canada; a similar approach for about half of the equity involved might have been applied to MT&T, NBT and ITC.

Income taxes are levied on pre-tax earnings at about 50%. Hence every dollar of post-tax earnings on equity requires two dollars of revenue. Since the required net earnings stream on equity generally

---

<sup>13</sup> N.S. Board, Annual Report, 1958, at pp. 109-110. This decision related to N.S. Light and Power. In 1966 and 1970 decisions relating to MT&T proposed rates were approved but the N.S. Board made no finding regarding what would be a reasonable rate of return.

<sup>14</sup> E.g. in New York, Public Utility Reports, 3rd 92 at pp. 359-367.



exceeds that on bonds by one to five percentage points, the required pre-tax earnings stream on equity financing will be at least double and perhaps more than triple that on bonds financing. Since the riskiness of bonds and stock both rise as the bond/equity ratio rises, this risk being expressed in higher rate of return on new stock or bond issues, there will be some bond/equity ratio which will minimize cost to the consumer in the long run. Almost surely this ratio is well above the 40% to 50% ratios derived from the conventional wisdom of the 1920's. If permitted rates of return were based on a hypothetical rather than actual debt/equity ratio, management would be free to choose some other ratio, and the appropriate financing vehicle at any moment of time but excessive conservatism would be penalized with low actual rates of return on equity and venturesome management rewarded with higher returns on equity. Hypothetical capital structures are in use elsewhere, for example, Manitoba and Michigan.<sup>15</sup>

Boards in the Atlantic area have reviewed the equity/debt ratios of utilities under their control but there is no record of a board objecting to excessive equity even though the difference in tax treatment of bond interest and earnings of equity has been explicitly recognized in decisions in Nova Scotia and New Brunswick. Experience

---

<sup>15</sup> Newfoundland used a hypothetical 50-50 ratio in 1968 for Avalon, but regarded Avalon as having too high a debt-equity ratio at that time. Report 1968 at pp. 28-29. The table on the following page presents the ratios of funded debt in the capitalization of the major companies in the Atlantic area -- commonly referred to as "debt/equity" ratios. Capitalization is taken to include retained earnings and premiums on stock.

Table 3A-2

Debt Ratio to Funded Capitalization  
of the Major Companies<sup>1</sup>  
(in Percent)

	N.B.	N.S.	P.E.I.	Newfoundland
1915		45		
1920		33		
1925	0	31		
1930	0	36	14	
1935	0	37	40	
1940	0	39	40	
1945	0	42	24	
1946	0	44	23	
1947	0	48	22	
1948	11	40	41	
1949	21	39	40	
1950	29	32	30	
1951	27	46	30	
1952	38	45	37	
1953	36	41	51	
1954	35	41	51	60
1955	34	45	50	56
1956	43	41	45	42
1957	38	40	44	49
1958	41	40	50	48
1959	40	40	50	47
1960	39	44	48	54
1961	36	43	49	49
1962	42	39	53	47
1963	38	43	48	50
1964	42	40	45	47
1965	39	44	48	42
1966	43	40	35	49
1967	43	42	39	42
1968	46	44	42	42
1969	44	45	45	38
1970	48	49	47	43
1971	47	50	54	50
1972	41	47	45	45

<sup>1</sup>Figures on long-term debt, par value of stock, retained earnings + premium on stock. Deferred taxes + short-term liabilities excluded.

Source: Calculated from company records.

in New Brunswick is particularly fascinating (and almost beyond belief!). Its Board decided on expert (?) advice in 1925 and reaffirmed its decision in 1930 over objections by shareholders and consumers that a telephone utility should have only one class of security: common stock.<sup>16</sup> Moreover Company and Board pursued the policy of capitalizing into issued equity its undepreciated capital investment and investing its depreciation reserve in government securities. In other words, N. B. Tel not only did not borrow at low rates of interest in the 1930's and 1940's, it lent substantial sums at these rates. This policy was retained until the late 1940's when \$3,500,000 of debentures were sold at 3 3/8%. And even then the Board did not realize that this shortsighted policy was penalizing consumers at the rate of five to ten percent of total revenues. It commented in a rate decision in 1949:

"The company's method of financing its capital requirements, to a large extent by the sale of capital stock rather than by the issue of bonds or debentures, was also criticized. The opinion of the Board on this point is reflected by its recent approval of an issue of common stock."<sup>17</sup>

Again in 1953 -- only four months after Commissioner Robichaud had sharply dissented in a rate case and taken note of possible ways in which N.B. Tel might reduce its income tax liabilities -- the N. B. Board tamely permitted itself to be bulldozed into approving a

---

<sup>16</sup> N. B. Board, Report 1925, at pp. 26-31 and Report 1930, at pp. 8-10.

<sup>17</sup> N. B. Board, Report 1949, at p. 203.

\$2 million stock issue. The solicitor for the Company recited the law which (s.35, 186 RSNB 52) prohibited a public utility from issuing any securities to the public without Board approval, but then went on to

"add...that it [had been his] ... view during the last twenty-eight years...that determination of whether a public utility should issue stock or bonds is one which, under the law, is for the Directors to decide in their business judgment, and that their decision is not subject to review by the Board." 18

He argued

"The ratio of 60% stock and 40% debentures has been arrived at by the Board of Directors...after most careful consideration.... Interest payable is a deductible expense for Dominion Income Tax purposes. And furthermore, the rate of interest on bonds is less than the rate of dividend on capital stock... [But] each issue of debentures weakens the security behind the Common stock, and that loss of security must be compensated for by increased dividends if new stock is to be sold...and will result in higher rates of interest and less favourable terms for...future issues of debentures." 19

In other words the mere possible danger of having to pay  $\frac{1}{4}\%$  to  $\frac{1}{2}\%$  more on future debenture issues and in dividends on stock -- a danger which in fact might not materialize -- is more than enough to offset the 8% (at that time) difference in cost between equity and debt financing. Similar reasoning prevailed in Nova Scotia. 20

---

<sup>18</sup> N.B. Board, Report 1953 at pp. 128-133.

<sup>19</sup> Ibid. The solicitor also referred glowingly to "the sound character" of N.B. Tel stock during the depression. Apparently this soundness was demonstrated by its paying 5% dividends (except in 1937 when 5.5% was paid) while Bell Canada and MT&T were paying 8% (on par value)!

<sup>20</sup> N.S. Board, Report 1952, at p. 126.

"It was urged with much force that since interest...is allowed as an expense...the Company should finance its construction programme by issuing more bonds and less stock... The long

Interest-free contributions to the capital of a regulated utility may be accounted for in a variety of ways. From an economic point of view it is immaterial whether a dollar of cash flow received at a particular point in time is considered a current payment or a capital contribution, since if it is treated as the latter it will give rise to an expected stream of payments, the discounted sum of which is equal to receipt of the payment currently. To put the matter less abstractly in the context of rate of return regulation, if a capital contribution in aid of construction is treated as current income it results in lower rates for other subscribers in the current period but higher rates for all customers subsequently as the permitted rate of return is earned on all capital; if it is treated as a capital contribution and deducted from rate base, current rates are unaffected but future rates will reflect the smaller rate base. Clearly it would be incorrect to treat such a receipt as a capital account item but not to subtract it from rate base or to treat it as a current receipt and to subtract it. Correspondingly if depreciation were not charged on the construction financed by such a contribution it would be appropriate to write off

---

term outlook of the Company must of necessity be considered. ... Management have decided it would be unwise to issue bonds beyond 50% of its total capitalization (sic) as otherwise the Company might later find itself in serious financial difficulty. The Board would hesitate to take upon itself the grave responsibility of over-ruling the policy determined by the long experience of practical business men.... To secure a temporary gain might be to incur a future hazard..."

the contribution as the assets deteriorated; if depreciation were charged, the contribution continues to be subtracted from the rate base forever.

Direct customer or government contributions in aid of telephone construction are modest in the Atlantic Provinces, but deferred income taxes are a major item amounting to 15 percent of rate base for MT&T for example. Treatment differs in each of the four provinces. In Prince Edward Island statutory requirements make it impossible to avoid using an "earnings base" equal to net asset value, but in setting the appropriate return on that base the Commission takes explicit account of the capital actually invested. Similarly in New Brunswick, deferred taxes are simply subtracted from rate base before applying the rate of return. In Nova Scotia, however, tax allocation of deferred taxes is permitted but there is no subtraction from the rate base; not does there appear to be an adjustment in the rate of return. The effect is that customers not only supply the capital for establishing the deferred tax credit at the rate of two dollars in rates for every dollar of credit, but then they have to pay in additional rates to MT&T a rate of return on capital which they themselves have supplied.<sup>21</sup>

In Newfoundland the Board imposed for regulatory purposes taxes payable accounting for deferred taxes on the power and electrical

---

<sup>21</sup> See note (5) to Table 3A-1 above.

utilities in 1966 and 1967; for taxation purposes the Board requires that maximum depreciation allowances continue to be taken. Since it is the only regulatory authority in Canada to have so done<sup>22</sup> its reasoning is worth considering at some length:

"The Board does not believe that it is reasonable and prudent to allow Avalon to charge today expenses which will not become payable at all unless Avalon's plant growth falls below some rate which cannot be determined now.... The Board will not allow Avalon to use the tax allocation method...when there are long term differences between the time when Avalon may be required to pay it.... If Avalon were permitted to charge to operating expense a provision to pay future taxes, the interest coverage would be improved to a greater extent than if the same amount were provided by either shareholders or bondholders and...subscribers would benefit from lower interest rates on funded debt. ...[However such a charge to operating expense] would be a customer contribution toward the capital funds of Avalon but accounted for as if it were operating revenue. This explains why it has a greater effect on interest coverage than capital recorded in the capital section of the accounts." <sup>23</sup>

"If the deferred tax is not obtained from the customers as interest-free capital the Company must provide it in the form of additional debt, or equity. ...[and] customers would eventually have to pay the cost of this money.... The deferred income tax method of accounting would place the Company in a stronger financial position...[hence] it probably could raise its future capital requirements at lower cost and...customers would benefit from the lower cost of capital and the reduced rate base because of the deduction of the deferred income tax reserve.... [But] customers must pay for these benefits in the form of higher rates and...at a 50% tax rate, the amount...is double the amount which the Company retains in deferred income tax reserve. <sup>24</sup>

Notwithstanding this cogent analysis, as we have seen above the Newfoundland Board with respect to Avalon has accepted a comparative

<sup>22</sup> Bell Canada was forced by Cabinet decision to use taxes payable accounting for a number of years.

<sup>23</sup> Newfoundland Board, Report 1968 at pp. 21-22.

<sup>24</sup> Ibid., at pp.68-69 in a case dealing with Newfoundland Light and Power.



standard of rate of return on equity with respect to N.B. Tel and MT&T as adjusted to a tax payable basis. The effect of this is not to reduce interest-free consumer contributions to capital at the present time but instead to change the label on these contributions from "deferred tax reserve" to "retained earnings of the stockholders". Since the former is not part of equity whereas the latter is, the result is that the revenue requirements of Avalon (Newfoundland Telephone) and the profits of shareholders relative to the capital that they have invested are larger for Avalon than for the other companies -- given identical rates of return, tax payable, on equity.<sup>25</sup>

<sup>25</sup>Consider an example:

	Company A	Company B
Debt @ 5%	1,500,000	1,750,000
Deferred tax reserve	500,000	-
Equity	<u>1,500,000</u>	<u>1,750,000</u>
	3,500,000	3,500,000
Fixed charges	75,000	87,500
Taxes	120,000	140,000
Earnings tax allocated	120,000	
taxes: deferred	30,000	[ 35,000 ]
Earnings tax payable	150,000 = 10%	175,000 = 10%
<u>Excess revenues</u>	<u>B over A</u>	<u>32,500</u>

### Depreciation

Depreciation charges were early recognized as a regulatory problem. Thus in 1918 the Nova Scotia Board agreed with its experts that in the test year of 1914 MT&T had understated its annual depreciation by about 8% (1.8% of total revenue requirements). The implied composite rate of depreciation approved was 5.9%.<sup>1</sup> In 1924 in New Brunswick, the permitted rate of depreciation was ordered reduced from 6.31% to 5.0% of the depreciated plant value.<sup>2</sup> In 1929 MT&T petitioned for a detailed study of depreciation rates on the grounds that the rate was fixed "unnecessarily high and...was greater than required to...keep the petitioner's property intact."

This resulted in a detailed review by outside experts and the Board of depreciation rates both retrospectively to the 1914 valuation as well as prospectively.<sup>4</sup>

---

<sup>1</sup>N.S. Board, Decision 1918 at pp. 4, 15-16.

<sup>2</sup>N.B. Board, Report 1924 at p. 59.

<sup>3</sup>N.S. Board, Report 1929 at pp. 130-133.

<sup>4</sup>N.S. Board Report 1931 at pp. 146-174, 182-192. A brief history is worth recording. In 1917 the Board had permitted the Company to set up an earnings equalization and casualty reserve of 2.5% of rate base to which additions would be made in years when net earnings exceeded the then statutory 8% return after deduction of depreciation allowances, and from which -- subject to Board approval -- transfers would be made to stockholders' surplus in years in which earnings fell short. In spite of unusually favourable weather conditions, MT&T failed to earn 8% in all but one of the years up to 1928 and was permitted to transfer from depreciation reserve to earnings equalization reserve and from the latter to stockholders' reserve \$270,000 -- roughly \$150,000 less than the amount needed for full equalization of return at 8%. The Shareholders' Contingent Reserve Account and Casualty Reserve Account were abolished in 1967 after being dormant for 30 years. N. S. Board, Report 1967 at pp. 25-26.

The Board was sensitive to the effect of excess (or inadequate) rates of depreciation on the size of the rate base and hence the permitted earnings. It concluded that the depreciation rates set in 1918 were in fact excessive -- not because property had deteriorated less rapidly than expected but because prices for salvaged equipment had risen sharply; it declined however to predict such a development for the future. It fixed retrospective depreciation rates through 1927 for individual items of equipment which yielded a composite depreciation rate of 4.8%, and it suggested that depreciation rates be reviewed every five years.

In 1933 and 1937 a general review of depreciation rates was made and various reductions approved; in the former year special temporary reductions in rates on buildings, office equipment, instruments, cables and lines were also approved on the grounds that in

"determining the rates of depreciation to be applied, among the factors considered are...inadequacy [and] obsolescence.... The provision for [these]...formed a large part of the amount required to annually appropriated to depreciation and...due to...reduction in subscriber stations and...depressed business conditions, the allowance then made might now be temporarily reduced.... The necessity of providing for the factor of inadequacy and to some extent the factor of obsolescence are not present as in a growing system." <sup>5</sup>

Subsequently in Nova Scotia, reviews of depreciation rates were made in 1946, 1952, 1953, 1959, 1966, and 1969. <sup>6</sup>

---

<sup>5</sup> N.S. Board, Report 1933 at pp. 161-165 and Report 1937 at pp. 126-129.

<sup>6</sup> N.S. Board, Report 1946 at p. 186; Report 1952 at p. 114; Report 1953 at pp. 253-261; Report 1959 at pp. 67-76; Report 1963 at pp. 100-108; Report 1966 at pp. 32-35; and Report 1969 at pp. 44-48.

Far less supervision over rates of depreciation has been exercised by the New Brunswick Board. Apparently N.B. Telephone underprovided for depreciation between 1930 and 1932.<sup>7</sup> In 1945 the Board approved a new schedule of depreciation rates involving a composite 4.44% rate and ordered

"...further, that the said Company on filing notice with this Board of its intention to do so shall be at liberty to vary the said classified rates or any of them, from time to time as the experience of the Company shows such variation to be proper."<sup>8</sup>

Actual composite rates for N.B. Telephone and MT&T have generally been within about .25% of one another however. No doubt this difference in approach between the N.B. Board and the N.S. Board results primarily from differences in statutory authority: explicit provisions in the N.S. Act authorize the fixing of depreciation rates, whereas the N.B. Act gives its Board power only to fix reasonable and just rates for service, taking into consideration the reasonableness of the rate of return to the public utility upon its investment.<sup>9</sup>

Statutorily, the Newfoundland Board and Prince Edward Island Commission have powers in this respect similar to those exercised in Nova Scotia. In its first two major rate cases the newly constituted

---

<sup>7</sup> Peat, Marwick, Mitchell and Company, "Examination and Report on Application for Increased Rates", June 1969 (the Cole Report), Appendix F.

<sup>8</sup> N.B. Board, Report 1945, at pp. 17-18.

<sup>9</sup> A further significant difference in treatment of depreciation allowances has been dealt with above.

P.E.I. Commission considered the depreciation rates charged by Island Telephone, putting on record an opinion in 1948 that the then prevailing composite rate seemed excessive and expressing satisfaction in 1952 with the rate then proposed of 4.16%.<sup>10</sup> The accounting for ITC is carried out by MT&T, its parent; the P.E.I. Commission expressed its confidence that calculations for depreciation of ITC were in accord with practices in the larger Province.<sup>11</sup>

In 1951, one year after being constituted, the Newfoundland Commission was requested to approve a rate increase for Avalon Telephone. However it found itself unable to determine a rate base according to the statutory requirements because Avalon had (a) not adopted generally accepted accounting treatment of replacements and disposals, (b) based depreciation charges "on the expediency of meeting regular dividends", and (c) taken seemingly insufficient depreciation. The Board urged the necessity of a physical appraisal.<sup>12</sup>

---

<sup>10</sup>P.E.I. Commission, Report 1948-1949 at pp. 27-29; and Report 1951-1952 at pp. 48-49.

<sup>11</sup>It is interesting to note that no comprehensive valuation of ITC has ever been undertaken by the Commission

"In the experience of this present Commission...only on one occasion have we had to take objection to the Company's valuation of a piece of equipment... The expense of a complete physical appraisal would not bring results commensurate with its cost." (P.E.I. Commission, Report 1951-1952 at p. 48)

<sup>12</sup>Newfoundland Board, Report 1951 at pp. 8-9.

Avalon found it "impossible" to have such a valuation carried out and in 1952 the Board ordered the Company to charge depreciation at 3.3% and set new rates for service.<sup>13</sup> For a decade the Board did not pursue the questions of valuation or depreciation further although it apparently was aware that Avalon was continuing in its expedient depreciation practices.<sup>14</sup>

Following the Bell purchase of Avalon in May 1962, the Board replied that a valuation and a depreciation study were necessary first. These were carried out in 1963 and 1964, and eventually the depreciation rates were tentatively accepted by the Board in 1966. The result of the valuation was that Avalon's depreciation reserve was found to be deficient by \$3.4 million (about two-thirds of the total required). Initially the Board ordered the deficiency charged to the maximum extent possible against the deferred tax credit with the remainder of \$1,717 million charged in 20 installments without interest against future earnings.<sup>15</sup> Subsequently on appeal for rehearing by Avalon in 1968 the Board modified this order, requiring in addition to the \$1,673 million charged to deferred tax credit, \$218,500 to be charged to earned surplus thus leaving a net amount of \$1,498,500

---

<sup>13</sup> Newfoundland Board, Report 1952, at pp. 7-8.

<sup>14</sup> Newfoundland Board, Report 1966 at p. 118. Why the Board behaved this way is obscure. The management of Avalon in this period was unquestionably weak; and regulatory authorities have no levers by which they can introduce competent management into utilities under their control. The Board may have felt that a tougher stance would have made it impossible for Avalon to raise the additional financing it needed to expand facilities.

<sup>15</sup> Ibid at pp. 118-119, 122. See also Order #66 (1966) at pp. 123-124.

to be written off against future earnings. However it allowed this last sum to be added to the rate base rather than requiring it to be interest free. Since the present value of \$1,717,000 paid by consumers in 20 annual installments is only \$880,000 at 8%, this change in treatment was significantly easier on Avalon.<sup>16</sup>

In its Order #66 of 1966 the Board also ordered that

"Avalon shall make a depreciation study on or before December 31st, 1968 and shall submit it to the Board for consideration, and in the meantime a study of the rate of depreciation on Station Connections shall be made for the year ended December 31st, 1967, and the result reported to the Board."<sup>17</sup>

Subsequently in 1967 and 1968, by Order #8 (1967) the depreciation rate on Step-by-Step Central Office equipment was reduced from 4.4% to 4.2%, by Order #10 (1968) the rate on station connections was tentatively set at 11.3% and Avalon was directed to seek confirmation of this rate within a

---

<sup>16</sup>Newfoundland Board, Report 1968 at pp. 22-24. Obviously the Board could have been much tougher. It could have charged the entire deficiency to deferred tax credits and surplus immediately. This would have meant a substantial capital loss in one year but no charge on consumers. It reasoned that only \$437,000 of deficiency arose from failure to follow the 3.3% depreciation rates set in 1952 and that this only should be charged equally to tax credits and earned surplus. But of course the 3.3% rate was very low at the time it was set, and no valuation of assets in the 1950's took place so that the initial amount of assets to be depreciated may have been significantly misstated. Moreover, it should be noted that this write-off along with an additional \$294,000 of deferred assets which were to be written off without interest over ten years gave rise to \$1,954,000 of tax reductions in the years 1967 through 1970. Thus of the total deficiency, taxpayers covered half, and another half had already been paid for by consumers for deferred taxes; Yet the Board permitted an additional 45% of the total to be charged off to consumers with interest.

<sup>17</sup>Order #66 (1966) at p. 123.



further year, and by Order #39 (1968) an extension of time was granted for the new major study of depreciation.<sup>18</sup> This study was the subject of a hearing and decision in 1969 and a further study was similarly heard and approved in 1972.<sup>19</sup> On each of the occasions in the last decade when depreciation rates have come before the Board, it has retained its own experts to check and confirm the findings of the Company. There is little doubt that the Newfoundland Board has succeeded in putting depreciation rates on a basis comparable to other telephone systems and that it intends that they will remain that way.<sup>20</sup>

---

<sup>18</sup>Report 1967 at p.11; Report 1968 at pp. 35-38 and p. 112.

<sup>19</sup>Newfoundland Board, Report 1969 at pp. 49-54; Report 1972 at pp. 152-157.

<sup>20</sup>In 1972, it was "argued on behalf of the St. John's Municipal Council that if the use of the [more precise] ELG [depreciation] procedure could result in an increase in telephone rates, then the method should not be approved." The Board rejected this argument stating that statutory requirements make "telephone rates subject to depreciation rates, and that the reverse can never be used as a criterion for determining depreciation rates." (Ibid. at pp. 155-156)

### Construction and Equipment Costs

Section 1 describes the statutory variations among the Atlantic Provinces with respect to regulatory approval of construction by telephone utilities. Actual practice follows these variations, ranging from detailed control in Prince Edward Island to absence of direct control in New Brunswick.<sup>1</sup> Except on Prince Edward Island the regulatory bodies apparently treat supervision of construction and purchasing as matters of management rather than regulation. Regulatory bodies may dictate investment priorities, but they concern themselves primarily with results in terms of service provided and not with the unit capital costs of achieving those results. And although questions may be raised regarding utility purchasing practices both formally and informally, there is no record of a board requiring competitive bidding on equipment or construction contracts or of attempts to extend regulations to take into account earnings of owned suppliers such as Northern Electric.<sup>2</sup>

One should not suppose that the relationship to Bell and Northern Electric has necessarily worked to the disadvantage of the

---

<sup>1</sup> Although projected construction programmes are considered and approved when major rate cases develop in Nova Scotia, there is no record that the N.S. Board actively exercises its powers of approval of individual construction projects.

<sup>2</sup> In New York a majority opinion adjusted the debt/equity ratio of New York Telephone to eliminate the effect of Western Electric -- thus reducing the permitted rate of return from 8.31% to 8.23%. A strong minority opinion would have reduced permitted capitalizable prices of inputs bought from Western to a level which would have made Western's return on equity equal to that permitted N.Y. Telephone. This five percent reduction would have had roughly the same immediate effect as the majority decision since it would not have applied retroactively, but over time would have lowered the permitted rate of return to about 7.9%. Public Utility Reports 3rd 92 (1972) 321-397.

telephone companies in the Atlantic area. In fact, the record with respect to Avalon Telephone clearly indicates the opposite. If Bell had not owned Avalon in the years 1962-1969, the firm could never have financially weathered the pressure of the Board (nor in all probability would the Board have exerted the pressure) to extend service and put its operations on a business-like basis. Over this period, using normal accounting practices, net earnings on equity were negative, yet the capitalization was more than doubled as the number of telephones increased by about half.<sup>3</sup>

Nevertheless there is no reason to suppose that Bell or Northern Electric behaves altruistically with respect to their partially or wholly-owned subsidiaries. In fact, the record reveals a number of curious practices. In 1949 a N.B. rate case decision mentions a supply contract between NBTC and Northern, under which the latter rents a warehouse from NBTC which it stocks with telephone equipment for NBTC. Although prices paid by NBTC are Bell prices plus 5% the Board concludes that "the evidence is that the Company [NBTC] has saved a considerable sum of money on its purchases during the time the contract has been in effect."<sup>4</sup> In the 1969 N.B. rate hearings the supply contract was described as one which did not obligate NBTC to buy equipment

---

<sup>3</sup>Bell cannot lend to or guarantee the debt of Avalon. (Newfoundland Board, Report 1969, at p. 114) It is willing "to invest in equity an amount equal to that which Avalon can raise through the sale of bonds. Bell's willingness to match debt with equity was one of the reasons and perhaps the only reason Avalon was able to raise \$3,000,000 by sale of bonds in 1967." (Report 1968, at p. 26)

<sup>4</sup>N.B. Board, Report 1949 at p. 203.

from Northern, but did establish

"remuneration for such services as technical and engineering inspection, acting as purchase agent for materials not of Northern Electric...manufacture..."<sup>5</sup>

The President of N.B. Telephone claimed in testimony to have offered the same supply contract terms to other suppliers but none had taken up the offer. Notwithstanding the earnest protestations of this President that

"We attempt to get the best purchasing arrangement for everything we buy "<sup>6</sup>

it is not surprising that 55% to 70% of purchases in the decade 1958-1968 appear to be from Northern. If a manufacturer of telephone equipment is also acting as a purchase agent for a telephone company, it will presumably supply its own equipment whenever possible.

Interestingly enough, immediately after Bell gained a controlling interest in NBTC, Northern's prices were reduced to Bell's prices plus a royalty equivalent of one percent. Apparently such prices are available only to companies controlled by Bell, but this did not suggest to NBTC that Northern was charging too much previously. To the contrary, NBTC believed that Northern was in "competition" and that NBTC had done as well as it could "to get their prices down."<sup>7</sup>

---

<sup>5</sup>Peat, Marwick, Mitchell & Co. "Examination and Report on Application for Increased Rates" (the Cole Report) June 1969, at p. 5-1. Emphasis added.

<sup>6</sup>N.B. Board, "In the Matter of the Application of the NBTC", Transcript of Testimony of NBTC President Kenneth V. Cox at p. 50 et passim.

<sup>7</sup>Ibid. at p. 48. At this point an intervenor was cross-examining.

Questioning along this line was not pursued, however. To an economist this situation suggests highly oligopolistic behaviour on the Northern and considerable complaisance on the part of N.B. Telephone -- which after all was investing roughly \$10 million annually during the 1960's and presumably therefore had considerable choice of suppliers.

### Operating Costs

Operating expenses (other than depreciation) absorb 40% to 45% of operating revenues of typical telephone utilities. About three-fifths of these expenses are made up of maintenance and traffic. If the companies were subject to competitive pressures, the normal urge to secure profits would serve to impel management to restrict unnecessary operating costs. But in a regulatory rate of return environment this sort of inducement works only intermittently and in part. Only if operating costs are rising subsequent to a rate increase is management under severe pressure because of "regulatory lag" to engage in vigorous cost-cutting; if input costs are relatively stable, management may delay cost cutting innovations in order to avoid excessive profits and a resultant cut in rates. Thus the regulatory environment imposes a particular responsibility on the regulators to concern themselves closely with operating costs.

There is no doubt that all boards are informed in a general way regarding the operating costs of utilities under their control. Annual reports are submitted. Audits are held at intervals and almost invariably in connection with rate applications. During hearings on such applications questions may be raised regarding specific expenditures but there are so many issues in rate hearings that are of more immediate concern to intervenors that such questions tend to get lost in the mass of testimony.<sup>1</sup>

Four categories of current expenditure which might be of

---

<sup>1</sup> As is noted below, the PEI Commission is more closely involved in questions of operating costs.

particular regulatory interest come quickly to mind: charity, institutional advertising, promotional advertising, and service contracts with Bell Canada (and between MT&T and ITC). Such expenditures are taken involuntarily out of the pockets of consumers, and it is essential for regulatory bodies to question whether they are designed to promote the interests of shareholders and management or those of telephone subscribers.<sup>2</sup> Reasoning of this type has led regulatory boards elsewhere (e.g., Massachusetts, Vermont, California) to disallow part or all of the first three types of expenditures, and to treat them as distributions of profits rather than as operating costs. Such expenditures appear to be modest but not trivial in Atlantic Canada.<sup>3</sup> The Newfoundland board investigated Newfoundland Telephone's advertising budget and in its most recent rate decision, the N.B. Board commented

"We expect that ... the Applicant will persevere in controlling its capital programme and operating expenses, and will review expenditures on donations and advertising, with a view to eliminating all but those most necessary to give proper service to its customers".<sup>4</sup>

Similar pronouncements do not appear in the record in the other jurisdictions.

Attention has been devoted regularly in rate hearings to the service contracts with Bell; for example, in the 1952 hearings in Nova

---

<sup>2</sup> Promotional expenditures might induce fuller use of existing capacity thus lowering average unit costs, but it might also stimulate peak period demand and thus lead to unnecessary and expensive capacity increases.

<sup>3</sup> In New Brunswick in 1968, about \$300,000 or .3% of difference in return on rate base. "Cole Report" Appendices M,N,O,P,Q.

<sup>4</sup> N.B. Board, Decision, "In the Matter of an Application ..." dated 3 December, 1969, at p. 8.



Scotia the service relationship between ITC and MT&T was reviewed. The Board also questioned the relationship of MT&T to its wholly-owned subsidiary, Eastern Electric and Supply, which at that time did a significant amount of printing, automobile maintenance and installation work for the parent company. The Board's reactions are worth documenting since its subsequent decisions make almost no reference to these matters.

"No suggestion was made ... nor was there ... evidence to suggest that the inter-company arrangement with Eastern Supply and Electric is in any way disadvantageous to the [MT&T] Company. On the contrary .... However, in view of the fact that the work done by Eastern ... for the Company approximates 90% or more of its entire work, the necessity or desirability of having this work done by a separate corporate entity might well be made the subject of a study by the Company..."<sup>5</sup>

Several years later these activities of Eastern were in fact transferred to MT&T. With regard to the ITC contract and the Bell contracts, the N.S. Board commented respectively:

"A percentage charge on gross annual revenue, while it may approximate the actual cost, does not necessarily do so, and the company should give this matter further study with the aim of effecting a system which would be in more definite relationship to actual cost".<sup>6</sup>

"While it would be more satisfactory if the amount bore a more exact relation to the actual services given, there is a sphere in which Management takes the responsibility and the Board would hesitate to intervene especially as the matter is one of general telephone practice, which the management ... considers to be to the benefit of the Company and its subscribers".<sup>7</sup>

But this emphasis on costing service agreements has led to no actions

---

<sup>5</sup> N.S. Board, Report 1952, at p. 128.

<sup>6</sup> Ibid. at p. 130.

<sup>7</sup> Ibid. at p. 133.

comparable to that taken in California, for example, where only actual costs of services provided by AT&T and Bell Labs are permitted to be charged as operating expenses and service fees as a percentage of operating company revenue have been disallowed.

The P.E.I. Commission in 1952 found no evidence "that any of the items of operational cost were excessive". Regarding the practice of billing from Halifax (by MT&T), the Commission felt that although it might be desirable for ITC to do its own billing even at substantially greater cost, there was a "lack of definite evidence that such a change would materially benefit this Province".<sup>8</sup> In 1953 it declared unequivocally that ITC had to expect to pay its fair share of costs,

"One cannot imagine the Board of Commissioners of Public Utilities of Nova Scotia permitting the Maritime Telegraph and Telephone Company to divert from earnings any sum of money by way of subsidy to the Island Telephone Company ..."<sup>9</sup>

There can be little question that the Bell relationship has led to a significant improvement in the operation of Avalon (Newfoundland Telephone) if only by enabling the latter to secure high quality executive and administrative talent, but -- as one might expect -- the role of the Board in this improvement is limited. New Brunswick Telephone Company appears to be operated much more independently with only two Bell Directors on its board and a president who personally opposed the 1966 Bell take-over.<sup>10</sup>

---

<sup>8</sup> P.E.I. Commission, Report 1951-1952, at pp. 44-45.

<sup>9</sup> P.E.I. Commission, Report 1953-1954, at p. 43.

<sup>10</sup> N.B. Board, "In the Matter of the application of the NBTC", Transcript of testimony of N.B. Tel. President, Kenneth V. Cox under

Unlike the regulatory bodies in the larger provinces, the PEI Commission possessed powers relating to labour disputes in public utilities prior to the repeal of the PEI Industrial Relations Act in 1971. Any collective bargain between labour and management in a public utility reached by a formal conciliation or arbitration award, had to be reviewed publically by the Commission which was required to "confirm, modify, reverse, extend, or vary any [such] award" and to decide whether "any expenses occasioned by such award are reasonable and prudent and properly chargeable to operating account".<sup>11</sup> This gave the Commission direct influence on an important aspect of operating costs. It used this power in 1953 to confirm a wage increase primarily in its view to stem

"the great and continued loss to the Company of qualified and trained personnel because of the low rates of salaries and wages paid here in comparison with those of other Provinces..."<sup>12</sup>

At the same time it overturned the arbitration award of a 40-hour week and urged employees and Company alike to be as productive as possible in order to avoid a rate increase.<sup>13</sup>

---

examination by an intervenor and the N.B. Board's Chairman, at pp. 48-50 and pp. 69-70. Cox testified also that the services obtained from Bell under the service contract were "cheap at twice the price", at p. 49.

<sup>11</sup> Ibid at p. 38.

<sup>12</sup> Ibid, at p. 42.

<sup>13</sup> A second case was dealt with less successfully in 1968.

### Separations of Costs

On 25 September 1969, a decision of the Canadian Transport Commission directed Bell Canada to undertake a study of methods and procedures appropriate for determining cost and revenue separations between regulated and unregulated services. But Newfoundland had acted earlier. It ordered a separation study on 12 May, 1969:

"the Applicant shall separate the amounts recorded in each of its accounts, into two categories, one in respect of services to which the Public Utilities Act applies and the other in respect of services to which the act does not apply".<sup>1</sup>

New Brunswick followed in December, 1969 in its decision:

"With regard to intra-provincial non-regulated revenues, the Board directs that N.B. Tel. should make a study to show the extent to which revenues derived exceed the incremental cost of supplying each service".<sup>2</sup>

The Board in Nova Scotia noted the CTC decision four months later and expressed great interest, but took no action.<sup>3</sup>

Subsequently, Newfoundland extended the deadline on its separation order in 1970 on grounds that the Telecommission was looking into the question; then it rescinded its order on the grounds that Federal legislation was being drafted to provide for the regulation of interprovincial telephone services.<sup>4</sup> Since only a quarter of Newfoundland Telephone's revenues are unregulated (against 42% for N.B. Tel. and 31% for MT&T) and virtually all of this consists of interprovincial

---

<sup>1</sup> Order # 3 (1969), at p. 54.

<sup>2</sup> N.B. Board, "Decision" dated 3 December, 1969, at p. 12.

<sup>3</sup> N.S. Board, Report 1970, at p. 52.

<sup>4</sup> Newfoundland Board, Report 1970, at p. 88, Report 1971, at p. 68.

long distance for which CN Telecommunications supplies the microwave link to the mainland, this change of direction is perhaps understandable.<sup>5</sup>

N.B. Telephone submitted a brief undated sixteen-page study which the N.B. Board apparently accepted as meeting its order. Unregulated intraprovincial revenues amounting to \$1.5 million -- less than five percent of total revenues -- were broken down into four categories according to whether arbitrary assumptions were necessary for separation and whether the service was competitive. About two thirds of revenue was deemed to come from separable activities.

"The outcome of this study clearly indicates that intra-provincial non-regulated services as a group are self-supporting and do not represent a burden on regulated services".<sup>6</sup>

But is it sufficient that as a group unregulated services are self-supporting? And can one be satisfied with a study that is so abbreviated regarding the assumptions employed in allocating joint capital?

It is an obvious failure of regulatory initiative in New Brunswick (and elsewhere) that there should be any unregulated activities of a public utility which are non-competitive. But it is surely well accepted that unregulated monopoly will earn excess profits. And indeed such unregulated activities of N.B. Telephone for which there is no effective competition -- pole rentals to non-utilities, yellow pages advertising, and local private line loops appear to produce 90 percent

---

<sup>5</sup> In addition, a member of the Newfoundland Board indicated privately that separation calculations in the United States appeared to be highly arbitrary.

<sup>6</sup> N.B. Telephone, "Non-regulated Intra Services Study", undated mimeo, at p. 3. Emphasis added.

of the roughly \$500,000 in "excess revenue" generated by unregulated services.<sup>7</sup>

The argument for regulating the activities of public utilities when they enter competitive unregulated markets is that they are able to underprice non-utility firms in the market. By pricing below marginal cost they may substantially increase their rate base and continue to earn their permitted overall return by increasing monopoly (and presumably regulated revenues). It is not reassuring therefore to discover from this separation "study" that private mobile telephone -- in operation for a decade -- yields a net post-tax return of only 8.9% in spite of allocating all the central station costs to regulated General Mobile Telephone service and to N.B. Tel's own private mobile service, the first of which is probably a marginal operation, and the second of which earns no revenue.<sup>8</sup>

#### Summary

Resources of society are scarce. Costs are important because they provide guidelines as to how best to make use of these limited

---

<sup>7</sup> Exorbitant pricing of pole rental space to a CATV licensee was the subject of a complaint and hearing in 1970, but the Board denied jurisdiction on grounds that rental of pole space was not a public utility function or operation and that CATV could not claim public utility status. N.B. Provincial Secretary, Report 1970, at p. 52.

<sup>8</sup> Underpricing of private mobile services was the subject of the Morgan complaint and hearing in 1961. The Board denied jurisdiction but in addition declared that the complainant had failed to meet the burden of proof that ordinary telephone subscribers were adversely affected by NBTC's private mobile service practices. See also below, section III-B under pricing of specialized services for additional analysis of mobile telephone rates.

resources for telecommunications purposes. Our review in the foregoing pages of efforts to determine and limit costs has revealed an uneven regulatory terrain. But some features stand out.

- (1) It seems likely that excessive effort is devoted to overseeing the issuance of securities by telephone utilities.
- (2) Depreciation rates are subject to very close review in Nova Scotia and (since 1966) in Newfoundland, but similar rates appear to be generated in New Brunswick with far less regulatory effort.
- (3) There are significant variations in accounting practices with respect to rate bases and rates of return among the four provinces -- with the result that no easy comparisons are possible.
- (4) Except in Prince Edward Island, relatively modest efforts have been devoted to determining unit costs of equipment and construction and operating expenses; there is little evidence of regulatory efforts to control such input prices.
- (5) Half-hearted steps toward basic cost separations of regulated and unregulated services have been made in New Brunswick which indicate the need for (a) additional regulatory powers over unregulated monopoly services and (b) more detailed cost-separation efforts.
- (6) Although the next section will deal in some detail with the costs of a limited range of specific telephone inputs -- costs developed generally from information secured by the boards -- as a general proposition minimal regulatory effort has been directed to attempts to discover and influence costs of individual service offerings of the telephone companies.



## Section III-B

REGULATION OF TELEPHONE SERVICE PRICING IN ATLANTIC CANADA

In the Atlantic provinces, rates charged for regulated utility services must be reasonable, just, sufficient, and not unjustly discriminatory, taking into consideration the justness and reasonableness of the rate of return to the public utility on its investment.<sup>1</sup>

In Nova Scotia and Prince Edward Island, the regulatory bodies are required -- and in Newfoundland, permitted -- to fix and determine separate rate bases for each type or kind of service rendered, and on each rate base the utility is entitled to a just return.<sup>2</sup> This might

---

<sup>1</sup> Public Utility Act, RSNB c. 186, s.6 empowers the N.B. Board power to investigate and order changed rates which are unreasonable or unjustly discriminatory. S.10 requires that "... all charges ... be reasonable and just". S.26 empowers the Board to alter telephone rates if they are excessive or unjust in the opinion of the Board, and under s.15 the Board must approve any proposed changes in utility rates. In Newfoundland (Public Utility Act, RSN 1970 ch. 322, s.84) Nova Scotia (Public Utility Act, RSNS 1967, c.258 s.82) and Prince Edward Island (Electric Power and Telephone Act, RSPEI 1951, c.49 s.21 as amended by Stats PEI 1959 c.10) similar provisions permit the respective regulatory bodies to investigate and void rates which are unjust, unreasonable, insufficient, unjustly discriminatory, preferential, or otherwise in violation of the respective acts.

Note that Section I presents a general discussion of the statutory basis for regulation. Here we are concerned with those aspects of the legislation which relate to pricing.

<sup>2</sup> In the Newfoundland Act, s.77, a utility is "... entitled to earn annually a just and reasonable return ... on the rate base ... for each type or kind of service furnished". Almost identical language may be found in the PEI Act, s.26. S.39 and s.40 of the Nova Scotia Act require determination of separate rate bases for each type of service furnished to the public, and s.42 entitles the utility to a just return. In the New Brunswick Act a reasonable return on investment is indicated in s.6. Note that s.75 and s.76 in the Newfoundland Act permit that Board arbitrarily to treat a utility as though it supplied only one type of service.

be thought implicitly to rule out internal cross subsidization of one type of service by another in these provinces. But there are also explicit provisions which define discriminatory behaviour in Newfoundland and Nova Scotia:

"All tolls, rates and charges shall always, under substantially similar circumstances and conditions in respect of service of the same description be charged equally to all persons at the same rate and the Board may by regulation declare what shall constitute substantially similar circumstances and conditions."<sup>3</sup>

The approval of rates by the respective regulatory authorities involves two determinations. First, an overall level of rates must be set to permit the utility to earn a return sufficient for it to raise the necessary capital for it to continue to carry on its responsibilities. In economic terms this implies overall pricing at minimum long-run average cost -- where the necessary reward for equity and debt capital is included in cost. Second, a structure of rates must be established which at a minimum does not discriminate geographically or interpersonally and which more broadly (in Nova Scotia and P.E.I. at least) is just, in the sense that each type of service provided by the utility pays its own way without support from other types of service. Ideally this price structure would have -- in the absence of externalities and of transactions costs -- no prices set below long-run marginal cost for the type of service (including peak use of facilities) involved; only if prices above marginal cost were necessary because of declining or constant average variable costs with

---

<sup>3</sup> RSN, ch. 322, s.70 (1) and RSNS, ch. 258, s.63 (1). s.104 in ibid defines undue or unreasonable preference to be unlawful discrimination.

respect to scale would they be related to the respective elasticity of demand.<sup>4</sup>

But we do not live in an ideal world. In practice only rudimentary attempts have been made by regulatory commissions in North America (and in the Atlantic area) to come to grips with the legislative mandate to avoid cross-subsidization and prevent discriminatory pricing practices in telephony.<sup>5</sup> Professor Gainer has asserted:

"For the most part ... overt regulatory activity has been slight to non-existent on the part of provincial regulatory commissions .... As a matter of practice then the large provincial and municipal carriers have been free to raise their own revenues according to individual management precepts and whatever guidance they wished to adopt from experience in other systems".<sup>6</sup>

This does not imply that telephone companies have fully exploited their monopoly positions or have priced whimsically; obviously they will be sensitive to the potential costs to them of inducing stricter regulation. Nor does Gainer suggest that the level of revenues of telephone utilities -- as distinct from the structure of those revenues -- has been determined independently of regulation.

Consider treatment of the tariff structures by the

---

<sup>4</sup>  $P = MC\alpha\left(\frac{e}{e-1}\right)$  ; where  $\alpha$  is minimized over the system.

<sup>5</sup> It is ironic that in the Atlantic Area the two initiatives in recent history to require separation of telephone costs -- essentially first steps toward setting separate rate bases for regulated and unregulated activities -- were in New Brunswick and in Newfoundland, jurisdictions where the statutory authority for suppression of this sort of discrimination is weakest.

<sup>6</sup> Walter D. Gainer, Telecommission Study 2(a). The Canadian Telecommunications Industry: Structure and Regulation (Canada, Department of Communications, August 1970) at pp. 111-112.

utilities in rate cases in the Atlantic Provinces since World War II. In Nova Scotia there were lengthy rate decisions in 1952, 1965, and 1970. The first involved complete acceptance of both level and structure proposed.<sup>7</sup> In 1965 there were modifications of proposed rates for hotels, for connecting lines, for temporary discontinuations of service, there were fifty cent reductions in the business flat rates in groups V and VI, and there was an exception to proposed rural flat rates on lines with more than ten subscribers.<sup>8</sup> A similar exception for rural subscribers on overloaded lines was made in 1970 along with other very minor amendments.<sup>9</sup> Similarly, in the 1948 and 1952 PEI rate cases, the proposals were approved without change; in 1965 an exception was made with respect to overloaded lines, and in 1970 with respect to service in the town of Souris -- in both cases explicitly because of inadequate service.<sup>10</sup> In New Brunswick, the 1949 rate decision led to a number of significant changes in the tariff -- perhaps because of the influence of then Commissioner Louis Robichaud.<sup>11</sup> In 1951, 1952, and 1958, however,

---

<sup>7</sup> N.S. Board, Report 1952, at pp. 107-152.

<sup>8</sup> N.S. Board, Report 1965, at pp. 49-161.

<sup>9</sup> N.S. Board, Report 1970, at pp. 18-58.

<sup>10</sup> P.E.I. Commission, Report 1948-49, at pp. 21-38; Report 1951-52, at pp. 36-66; Report 1965-66, at pp. 21-29; and Report 1970-71, at pp. 12-19.

<sup>11</sup> N.B. Board, Report 1949, at pp. 196-212. Amendments to proposed rates were introduced with respect to person-to-person, off-peak long-distance rates, station-to-station rates for the mileage band 0-10 miles, directory listing charges, and pay telephone charges. Business flat rates in Groups IV, V, and VI were slightly reduced and the discount to governments which had

there were virtually no structural changes in the proposed tariffs.<sup>12</sup> In 1969, the Board reduced the increase in requested revenues by about half, permitting the full requested increases on "miscellaneous services", "service charges", and "other toll services", permitting half the sought increases with regard to basic business and residential services, one third of the increases sought on intra-provincial toll calls and disallowing completely increases in Hotel-Motel rates.<sup>13</sup>

The 1952 and 1954 rate decisions in Newfoundland are so abbreviated that it is impossible to determine to what extent company proposals were approved. There is no hint however of significant changes in the structure of proposed rates.<sup>14</sup> "In 1962 Avalon notified the Board that an application for a new rate increase was in the course of preparation and were informed that a valuation and depreciation study would have to be carried out before an application would be heard". Rates proposed in the 1964 hearings were not acted upon since the Board concluded "that the standard of service

---

prevailed since 1924 was eliminated. As is clear from his concurrence in 1949 and dissent in 1952, Robichaud's main concern was the level of rates, not their structure.

<sup>12</sup> N.B. Board, Report 1951, at p. 43; Report 1952, at pp. 105-109; and Report 1958, at pp. 100-109. Note that in 1951, the rate relief requested was rejected in toto. In 1952 and 1958 rate group limits approved differed slightly from those requested.

<sup>13</sup> N.B. Board, "In the Matter of an Application of the N.B. Tel. Co. Ltd. ...", Decision dated 3 December, 1969. Note that commissions to hotels were also rescinded. Thus the net effect was to grant an increase in hotel rates about 30% of the amount requested.

<sup>14</sup> Newfoundland Board, Report 1952, at pp. 7-12; and Report 1954, at pp. 6-9.

provided by Avalon was not reasonably adequate". The rate proposal was subsequently withdrawn and in October 1966 an interim tariff approved pending the completion of a depreciation study.<sup>15</sup> Having satisfied itself regarding plant valuation and depreciation practices of Avalon at hearings in 1968, the Board dealt with rates in two decisions in 1969. It approved increases designed to yield 18 per-cent more revenue than requested by the company subject to the requirement that the company increase its capital construction programme by \$3.5 million in order "to serve the 65 [non-compensatory] communities not provided for in the proposed program".<sup>16</sup> In requiring the company to resubmit rates designed to yield this extra revenue the Board imposed the restrictions "that the increase in basic telephone rates for any rate group should not exceed 25% and on P.B.X. lines 33 $\frac{1}{3}$ %". Further it disallowed increases on magneto telephone service and restricted rates on multiparty lines with more than four customers to "one-half the approved rate for two-party service in the same rate group".<sup>17</sup>

<sup>15</sup> Newfoundland Board, Report 1966, at pp. 114-124, 126-127. Quotations from p. 118 and pp. 115-116 respectively. The initial depreciation study which began in 1962 was essentially retrospective -- to assist in the valuation of the plant. The study ordered in 1966 was prospective.

<sup>16</sup> Newfoundland Board, Report 1969, at pp. 106-117 and p. 121. Commenting on the expanded construction programme, the Board explicitly "realized that this will make it necessary for subscribers in compensatory areas to pay higher telephone rates in order to make service available in non-compensatory areas". p.115.

<sup>17</sup> Ibid, at p. 116 and p. 117. Although there were a number of decisions regarding rural telephone systems, two further decisions may be mentioned for completeness, both from 1965. The Fort Kent Telephone Company's rate request was approved without change by



In interpreting this record of major regulatory decisions, three points stand out. First, in all jurisdictions willingness of regulatory authorities to modify tariff proposals appears to be increasing in the course of time. Second, significant variations among the boards with regard to apparent vigour and toughness are displayed. To some degree this may reflect differences in the attitudes of telephone company management toward regulation however. Third, where boards have acted to modify proposed rates, the primary concern has been with rate levels; changes in structure have been based on what might be termed "gut" perceptions of fairness, penalties for inadequate service, or expediency. The boards have all accepted the telephone utilities' arguments about the appropriateness and necessity of value of service pricing.<sup>18</sup> The decisions

---

the New Brunswick Board, and the Newfoundland Labrador Telephone Company's request approved by the Newfoundland Board. The latter is of interest since the decision (Report 1965, at pp. 59-62) reveals that rates charged are kept at the same levels as the Quebec North Shore and Labrador Railway Company regardless of the profitability of NLTC.

<sup>18</sup> e.g., N.S. Board, Report 1952, at pp. 136-138, "It is a long and well established principle of rate making that telephone rates are made on a system-wide basis .... The principle followed in rate making is that the cost of service increases proportionately with an increase in the number of stations and, correspondingly, the value of exchange telephone service to any subscriber varies directly with the number of subscribers he is able to reach .... The principle that rates are made on a system-wide basis on the value of the service rendered as determined by the number of subscribers in the exchange, is long established".

or P.E.I. Commission, Report 1970-71, at p. 18, quoting a witness for the Company,

"None of our rates are based on costs. They recognize ... relative costs and relative values of service and so on'."

or Report 1965-66, at p. 27,

"No exact formula has yet been devised for the determination of rate differentials .... While the factor of value to the



evidence minimal effort to relate costs of individual services to prices.<sup>19</sup> Moreover, no board has made any significant effort to set up separate rate bases for separate services even when the prices of some of these services may be unregulated.<sup>20</sup> Since it is widely recognized that rational regulation is impossible if significant activities of regulated utilities are not subject to regulatory control, aggressive regulatory agencies might have been expected to act to reduce the scope of unregulated activities of utilities or at least to require separate accounts.<sup>21</sup> If anything the opposite

---

subscriber is certainly a recognizable one, it cannot be ascertained with certainty, but must be arrived at in an arbitrary manner after considering also the additional cost of supplying the service. However, while realizing that no formula can be applied to determine the proper differential, we are unable to say that the proposed ones are out of line when viewed in relation to known factors".

or Newfoundland Board, Report 1969, at p. 116.

"Authors on public utility regulation, the courts and regulatory bodies have all accepted the concept 'relative value of service'.... The Board finds, therefore, 'relative value of service' can be used as a factor in determining the rate schedule for the Applicant".

<sup>19</sup> As we shall see below, costs have been examined in setting tariffs for new services, however.

<sup>20</sup> As noted in Section I, some aspects of utility pricing have been treated by the various Boards as outside their jurisdiction. Specifically, interprovincial long-distance connections are unregulated in all jurisdictions; and except in Newfoundland, so are private mobile telephone service, leased circuits, teletype, data, music, and programme transmission, yellow page advertising, pole space rentals to non-utilities and inter-communications and paging systems. Some of the Boards have fully accepted the utilities pleas regarding the "impossibility" of cost separation, even though such separations are made with respect to electric power and are made in the United States with respect to interstate long-distance telephone service.

<sup>21</sup> Statutory powers in this respect differ significantly among the provinces and raise difficult questions of interpretation.

trend is apparent however.<sup>22</sup>

In Nova Scotia the Board may "make such orders as it deems just in respect to the tolls, rates and charges to be paid to any public utility for services rendered or facilities provided ..." (s.41) and "no public utility shall ... receive any compensation for any service ... unless the Board has approved its schedule of rates". (s.60) Although this would appear general, "service" is defined to include "the conveyance or transmission for compensation by a public utility of telephone messages", (s.1 (f) (ii)) and public utility is defined to include any person that may own, operate, manage or control any plant or equipment for the conveyance of telephone messages. (s.1 (c) (iii)). Clearly all charges relating to conveyance of "telephone messages" whether or not for private or public interests may be regulated. But "provision of facilities" may also be regulated and s.78 (1) gives the Board sweeping power after complaint and investigation to order modified any unreasonable rates tolls charges or schedules or any regulation, practice or act whatsoever of a public utility. (Emphasis added)

In Newfoundland the Board has similar powers with respect to tolls, rates, and charges, but "services" is defined sweepingly to include "the use and accommodation afforded customers or patrons, and any product or commodity furnished by a public utility, and also ... the plant ... and facilities employed by or in connection with any public utility in performing any service or in furnishing any product ..." (s.2 (f)). A public utility includes any person who owns ... equipment or facilities for the conveyance of communication by telephone or telegraph for the public or for any corporation for compensation. Virtually all pricing practices of utilities are subject to regulation under these provisions.

In Prince Edward Island the Commission exercises general supervision over all public utilities and "whenever any public utility wishes to vary any existing rates ... or to establish any new rates ... it shall submit [these] for the approval of the Commission ..." which may approve, "amend or vary the same as it sees fit". (c.49, s.16 (1)). Elsewhere (s.21 (1)) the Commission is authorized to determine the rates, tolls, charges and schedules. Thus the or any rates of a public utility are subject to regulation, not merely those rates for service which the Act defines as including "the furnishing to or for a customer [not the public] by a public utility for compensation of the equipment and facilities for the transmission of telephone messages". (s.1 (c)). A public utility includes any person that owns, operates, manages or controls or is incorporated for the purpose of owning ... any plant or equipment for the conveyance of telephone messages ... either directly or indirectly to or for the public". (s.1 (d)). (Emphasis added)

With the foregoing serving to provide an abbreviated and general introduction to the regulation of telephone prices in the Atlantic area, we now turn our attention to four specific aspects of pricing policy. The first three -- pricing of certain specialized services and equipment, a brief discussion regarding installation charges and costs, and the relationship of rate structure to system growth -- are dealt with in the next three sub-sections. The fourth aspect is the distance dimension of telephone pricing insofar as it relates to the boundary between local and long-distance service. This is an area which has absorbed considerable regulatory energy from the early 1900's onward. Several sub-sections are devoted to describe and analyse the results.

---

In New Brunswick the Board must approve changes proposed in rates or charges established for any service to be performed by a public utility within the Province. (s.14). "Service" is not defined in the Act, but, "public utility" is defined to be "a person owning, operating, managing, or controlling ... any plant or equipment for the conveyance of telephone messages either directly or indirectly to or for the public. A reasonable interpretation of these provisions would be that all charges of companies providing telephone service were subject to regulation. However, the N.B. Board has on at least two occasions declared its unwillingness to accept jurisdiction for charges or rates for services other than narrowly defined telephone messages to or for the public.

- 22 Between 1952 and 1965 private line rates disappeared from the tariff of Maritime Telegraph and Telephone. In 1960 private mobile rates were permitted to be dropped from the tariff of N.B. Telephone. By way of contrast the Newfoundland Board vigorously asserted its jurisdiction over transmission of cable TV in 1969 (Report, pp. 36-39).

### Pricing of Specialized Services

This sub-section deals with the pricing of what is referred to in the tariffs of telephone companies as "miscellaneous equipment". This includes such items as coloured, speakerphone, volume control, nitelight, princess, ericophone, touchtone, decorator, and contempora instruments, as well as automatic answering and recording equipment, extra long cords, and call director sets. The common characteristic of all these special items -- with the exception of touchtone and automatic answering equipment -- is that their use is completely independent of the basic telephone system; both demand for basic service and cost of basic service are unaffected by the addition or subtraction of units of such miscellaneous equipment to the telephone network.<sup>1</sup> This implies two corollaries: (a) for most users the equipment is a luxury or convenience and hence probably income-elastic and more price-elastic than basic service, and (b) prices of these services can easily be related to their costs.

And indeed in decisions relating to such services the various Boards have not only explicitly introduced cost factors, but have

---

<sup>1</sup> Touchtone telephones require special switching equipment which ultimately will lead to significant reductions in capital and operating costs. Even at present touchtone switching equipment is less expensive than dial. See testimony of Eldon Thompson, "In the Matter of the Application of the N.B. Telephone, Hearing", July 30, 1969 at p. 191, p. 194 and p. 196. Answering equipment requires no special switching, but it results in telephone circuits being used which otherwise would be free. Hence it too has system effects.

abandoned the "value of service" justification. The pricing principles putatively employed have been most clearly stated in Nova Scotia,

"The Board considers the colored handset to be a luxury item which should bear its full share of cost and not be supported by other rates. It is quite possible that before too long the colored sets will be as much in demand as the black and when that point is reached the colored set should be considered standard. The Board believes that a rate differential should be maintained until that time".<sup>2</sup>

"The proposed rate reflects the additional costs of purchase, supply and installation, the costs of maintenance, depreciation and similar costs and an allowance for return".<sup>3</sup>

The stress on full costing of new equipment, and in addition avoidance of capital losses, can be found in a more recent decision on contemporary telephones as well as in a 1928 decision on hand-sets:

"... a luxury item which should bear its full share of costs and not be supported by other rates nor make any additional burden on other subscribers, and should not be permitted to speed obsolescence of standard telephones".<sup>4</sup>

"The argument pressed the contention that allowance must be made not merely (sic) for the actual cost and maintenance of the new instrument but also take care of the shrinkage of assets which will occur by reason of the present type becoming obsolete and the further shrinkage of value in the new, due to quantity production and also to its manufacture in Canada later when part of the cost now represented by duty will be saved to the purchaser".<sup>5</sup>

As statements of principle which are consistent with statutory requirements these are not surprising. One might conceive of public policy toward luxury consumption being rather different

---

<sup>2</sup> N.S. Board, Report 1957, at p. 252.

<sup>3</sup> N.S. Board, Report 1958, at p. 190.

<sup>4</sup> N.S. Board, Report 1969, at p. 263.

<sup>5</sup> N.S. Board, Report 1928, at p. 45.

however: luxury services might be priced well above costs in order to yield excess revenues which could be employed to reduce the price of necessities (ie., basic service). Whether this redistributive function should be incorporated in an ad hoc fashion into the rate structure of regulated monopolies or whether the public interest is better served by centralizing the redistributive functions of government directly under parliamentary control is a question partially of fiscal and administrative efficiency and partially of judgement.<sup>6</sup>

If we turn from principles to practice and examine the establishment of rates of specialized equipment in the sixty-odd decisions filed since 1950, four points quickly become apparent: (a) the adversary process has been short-circuited in that most hearings have been ex parte.<sup>7</sup> With no independent expertise to oppose that of the companies, it is perhaps to be expected that (b) there is no record of any management proposal ever being rejected or modified in any of the jurisdictions by the regulatory authorities. Thus Gainer's judgement fully applies and (c) with minor variations, prices of specialized equipment in the four Atlantic Provinces are

---

<sup>6</sup> In a number of U.S. jurisdictions special telephone or power rates have been established for disadvantaged persons -- welfare recipients, pensioners, etc.

<sup>7</sup> The argument (vide N.B. Board, Report 1960, at p. 222) is that the rates are for new services, or else that reductions are being proposed. Hence advertising and public hearings are unnecessary. But these circumstances have been interpreted so narrowly -- e.g., by treating each new model of answering equipment as a new service (N.S. Board, Report 1962, at p. 473) -- that it seems clear that the Boards wish to avoid public hearings on these questions.



the same as those charged by Bell Canada.<sup>8</sup> (d) Where it is possible to determine costs from the evidence sited in the decisions, prices yield returns generally well in excess of the company average -- particularly with respect to services which are primarily residential. Let us examine some decisions in order to discover how the supposed application of a non-discriminatory principle leads to discriminatory results.<sup>9</sup>

In the 1928 decision on handset instruments, the Board compared the cost (including 30% duty) of \$34.31 against costs of ordinary wall sets of \$11.69 and noted that quantity production in Canada might be expected to yield cost decreases with respect to the former. No evidence of increased maintenance costs or of more rapid depreciation of the new sets was cited; it is probable that in these respects they were at least as good as existing sets.<sup>10</sup> In any event, in setting depreciation rates in 1931 (based on studies which commenced in 1927) a rate of five percent was applied to all instruments.<sup>11</sup> Let us analyse these facts.

If subscribers exhibited an overwhelming preference for the

---

<sup>8</sup> For Gainer's judgement, see above, p.3.43. Copying Bell's prices has a long history. For example, see N.S. Board, Report 1928, at p. 45 wherein a 50 cent monthly surcharge on handset telephones -- identical to the rate charged by "the American companies and the Canadian Bell Company" -- is approved.

<sup>9</sup> The decisions analysed below are all Nova Scotian. This reflects no invidious intent on our part -- rates are similar everywhere; rather reasons for decisions -- and therefore costs -- are more clearly set forth in Nova Scotian decisions than elsewhere.

<sup>10</sup> N.S. Board, Report 1927, at Pp. 45-46.

<sup>11</sup> N.S. Board, Report 1931, at p. 165.



new sets, at the very worst this might have necessitated a write-off of existing ordinary wall sets to nothing. In this event, the full sum of \$34.31 (less the depreciated value of old sets of zero) would be subject to depreciation, which on an annual basis would equal \$1.72. On the assumption that existing telephone sets were fully depreciated, addition of one new handset would add a maximum of \$34.31 to the rate base of the company; however over the twenty-year life of the instrument, it would depreciate to zero, so the average increase in the rate base would be about \$17.15 per handset at a maximum. The eight per-cent statutory return which then prevailed requires therefore an annual charge of \$1.40.<sup>12</sup> Thus the total justified increase in annual rates for the handset relative to the wall set was only about half the proposed charge of \$6.00 which the Board approved.<sup>13</sup> Nine years later the company apparently concluded that it could increase its profits by reducing the price of handsets to 35 cents per month. Noting that the purchase price had been reduced the petition concluded,

"The fact that some 5,500 of these sets are now in service indicates that with a lower cost their use would be substantially increased'.<sup>14</sup>

The Board -- with completely changed membership -- acidly commented,

"Mr. A.M. MacKay, Commercial Superintendent for the Petitioner,

---

<sup>12</sup> This is an approximation; compounding would increase this amount by about ten percent.

<sup>13</sup> This is an extreme estimate, of course. Under more reasonable assumptions regarding the write-off of wall sets and the costs of Canadian handsets, the justified charge would be only about a quarter as large as the approved charge.

<sup>14</sup> N.S. Board, Report 1937, at p. 130. This was about one eighth of the total telephone sets in the system.

appeared and gave evidence, supporting the petition, which, though not satisfactory to the Board, established the fact that there should be a reduction to the amount stated in the petition herein, at least".<sup>15</sup>

Treatment of contempra telephones is similar to that of handsets, but even more extreme. Again there is no evidence cited regarding durability or maintenance, but it is reasonable to expect that there are no significant differences between contempra and other sets. Dial contempra sets cost \$34.35 versus \$20.33 for standard dial sets. For touchtone sets the costs are \$73.38 and \$38.82 respectively.<sup>16</sup> Annual contempra charges of \$21.00 were approved in 1969 on an interim basis but subsequently left unchanged. Although only about one-quarter of the annual increase in numbers of new telephone sets are expected to be contempras let us again make the most extreme assumptions regarding obsolescence of standard sets. For dial contempras, depreciation at rates approved in 1969 of 6.1% involves annual charges of \$2.11 maximum, and return on the average addition to rate base (at the seven percent rate of return which implicitly was approved in 1970)<sup>17</sup> amounts to \$1.22 for a total of \$3.33 annually as a non-discriminatory maximum charge for dial contempra. The approved annual charge results in a rate of return on contempra of the order of 100 percent per year on the basis of these extreme assumptions and considerably more under the actually prevailing situation where existing standard sets are not being written off.

---

<sup>15</sup> Ibid. at p. 131.

<sup>16</sup> N.S. Board, Report 1969, at p. 262.

<sup>17</sup> N.S. Board, Report 1970, at pp. 40-42. The post-tax 7% return on rate base requires pretax 11 to 12%. This could imply a total annual charge slightly greater than \$4.00. This does not much alter the conclusions.

To put the matter differently, the evidence cited in the decision makes it quite clear that the first year of revenues from contempra exceed the capital investment involved by about one quarter and that this pattern will continue as additional contempras are added to the system.<sup>18</sup>

A 1962 decision setting rates on the home interphone of \$5.00 monthly for the first interphone, is illuminating regarding the economic reasoning employed by company and Board:

"... we have the cost of the first interphone of \$188.33. The Petitioner's witness states that this equipment will have a service life of ten years and it is quite possible that this type of equipment will become out-of-date rather quickly.

Mr. Myers stated that the bare revenue requirement for the above mentioned capital cost of \$188.33 would be approximately \$4.80 monthly and he gave as his reason for this that the Company has established a percentage rate of 30.56% of its capital invested in plant and equipment in order to take care of its revenue requirement including depreciation rates which on its other equipment is not as high as on this interphone equipment .... Mr. Myers suggests a monthly rate of \$5.00 .... It is interesting to note that by applying an additional 5% to cover the accelerated rate of depreciation, one comes within a few cents of the total of recommended rates. In view of the foregoing, and also because the Board must insist on this type of service being self-supporting, the Board will approve the recommended rates".<sup>19</sup>

If straight-line depreciation is taken over eight rather than ten years, to allow for obsolescence, the annual depreciation charge would

---

<sup>18</sup> N.S. Board, Report 1969, at p. 263. Note that the price of contempra telephones appears to be standard across the continent.

<sup>19</sup> N.S. Board, Report 1962, at pp. 385-386. The home interphone appears in the 1966 tariff but disappears without a trace between then and the 1970 tariff. Apartment interphones are to be found in the unregulated portion of the current tariff however.

add up to \$23.54. Annual pretax return on the average net addition to the rate base at 10% (adjusted from the post-tax 6% approved in 1952) amounts to \$9.42. Thus an annual charge of \$33 and monthly charge of \$2.75, in addition to basic telephone service, would appear justified -- there being no evidence cited of extra maintenance or operating costs. To apply a gross revenue/capital ratio of thirty percent is to require that the home interphone not only support itself, but that it also support the operating costs of the rest of the system, a "fair" share of which are already being borne by the basic telephone charge of the interphone subscriber. Moreover, the calculation is based on the one hand on the depreciated value of existing capital and on the other hand on the original value of the interphone.<sup>20</sup>

A similar calculation involving the ratio of gross/revenue to capital arises in connection with interim approval of touchtone rates in 1968 and confirmation of these rates in 1969.<sup>21</sup>

---

<sup>20</sup> The comment regarding "an additional 5% to cover the accelerated rate of depreciation ..." apparently merely reflects the fact that \$5.00 is 4.17% larger than \$4.80. Whether this has any meaningful relationship to the evidence presented that the interphone rate of depreciation was expected to be double that of ordinary telephone sets is obscure.

<sup>21</sup> N.S. Board, Report 1968, at pp. 5-13 and Report 1969, at pp. 94-97. The rates approved were \$2.00 for residence and \$2.50 for business private line service. For system service a per line charge of \$1.50 plus a per station charge was approved. Rates of \$1.75 (residence) and \$2.50 (business) were approved in Newfoundland in 1966 (Report 1966, at p. 30) but subsequently were increased to \$2.00 and \$2.90 respectively in the general rate increase effective 1 January, 1970. An installation charge of \$6.00 per line applies. In New Brunswick, touchtone was also introduced in 1966 (Peat Marwick, Mitchell and Co., "Examination and Report on Application for Increased Rates", submitted to N.B. Board, June 1969 -- the "Cole Report" -- Appendix A). The current rates for individual line service are \$2.00 (residence) and \$2.75 (business) (N.B. Tel., 1973 Tariff).

In its initial application Maritime Telegraph and Telephone forecast

"a gross revenue return [on investment in stations and in central office equipment] of 33.3 percent within two years. As the gross revenue return on Applicant's overall capital investment is in the vicinity of 24-25 percent, the service offering should not be a burden to the general body of telephone subscribers. ... A higher rate would deter market development ... Touch Tone equipment is its highest cost at present and will reduce as the offering becomes more a standard service .... As [it] ... is related to exchange service and is a modernization move ... no further attempt was made to prove in rates on the initial incremental cost of providing the service'."22

Fifteen months later the company reported that actual central office costs per line were ten percent lower, costs per station one third lower, and demand about fifty percent greater than anticipated. During 1969 the company expected a gross rate of return of 30.9%. Presumably a much higher gross return could have been expected in subsequent years as full utilization of touchtone central office facilities was achieved. This return was justified

"on the grounds that the service was basically a luxury service ... and [such a return] is required by the company to produce a total Company average in the vicinity of 22% in view of the very inadequate rates of return on connecting company takeovers and dial conversions in many instances".23

Accepting for the moment comparability of gross revenue/capital ratios, we have here a bald statement of exploitation of luxury service subscribers for purposes of cross-subsidization of other services. But are these ratios comparable in the sense that if they are equal, net revenue per dollar of rate base (i.e., permitted rate of return) will be equal? This would require (a) that depreciation

---

<sup>22</sup> N.S. Board, Report 1968, at p. 11.

<sup>23</sup> N.S. Board, Report 1959, at p. 95.

rates were the same for touchtone or other such special service as the average of the system at 5% and (b) that income taxes, maintenance, and operating cost bore a constant proportion relative to capital investment.<sup>24</sup> While the depreciation and tax assumptions may be reasonable here, the assumptions with respect to maintenance and other operating expenses clearly are not: one of the reasons for introducing touchtone is precisely to reduce overall operating costs of the system. The result of this misleading comparison is to understate the contribution of touchtone to the profitability of the telephone system.<sup>25</sup> If the companies were to produce data on net returns to this new service, probably they would be shown to be at least twice the average pretax return on rate base.

The danger of this gross revenue approach, and the opportunities it affords the utilities to offer marginally profitable competitive or partially competitive services -- particularly to business subscribers -- can be seen with respect to the pricing of public mobile telephones and of automatic answering equipment. By accident the

---

<sup>24</sup> Unlike the comparison on interphone, the gross revenue/capital ratio mentioned here is in terms of the original undepreciated value of existing assets and of touchtone.

<sup>25</sup> Perhaps this explains the N.S. Board's comment which indicates that it is unsure whether contempra and touchtone are fully paying their way:

"Mr. Waller stated categorically that 'there is a strong attempt made here to ensure that the customer who subscribes to these particular items of service pay the full costs of providing them ...' This approach must be tempered by judgement and experience, of course ... and another factor to be considered in the design of rates for new offerings, such as Touch Tone and Contempra, is that the rates will not be as such as will deter the growth of the use of these offerings and affect the increase in revenue generated by such use".

Report 1970, at p. 48.



former was considered in Nova Scotia in the same hearings in 1968 and 1969 as the touchtone application, so there is no possibility that the Board might have applied different principles.<sup>26</sup>

In 1968 the Board rather reluctantly agreed to permit Maritime Telegraph and Telephone to offer "Mobile Exchange Service" and agreed to a proposed rate of \$42 per unit per month -- a rate which was supposed to yield a gross return on undepreciated capital of 24.2 percent. The demand for the service was "greater than anticipated". Capital costs were underestimated by more than ten percent and "... the actual [gross] return on the capital investment ... amounted to 21.9%". Although the company considered this gross "... rate of return too marginal" it recommended "... that the \$42.00 rate be continued" since it was "... about as high as any other company is charging for equivalent service .... and it was undesirable to commence giving the service at a rate which would deter development". The Board continued its interim approval; with the general tariff revision in early 1970 the monthly charge was increased to \$48.00.<sup>27</sup>

But unlike special handsets, mobile exchange equipment depreciates far more rapidly than telephone equipment generally.

---

<sup>26</sup> N.S. Board, Report 1968, at pp. 17-26; Report 1969, at pp. 100-102; Report 1970, at pp. 51-52.

<sup>27</sup> N.S. Board, Report 1969, at pp. 101-102 and Report 1970, at p. 52. A rate of \$18.00 equal to the one-party business rate, was also introduced for customer-owned installation in 1970. Note that there is no message charge for service.



Presumably the Board knew this in 1968; in 1969 at any rate it fixed a 12% rate of depreciation on "station apparatus - general mobile" only a month prior to its rate decision.<sup>28</sup> On the capital cost of \$2324 per unit this amounts to \$279 alone. Moreover, the user of mobile service secures the equivalent of one-party business exchange service in Halifax without paying a regular charge for exchange service -- imposing the normal costs on the entire telephone network which a business subscriber might impose. It is not obvious how large these are but the business subscriber paid \$16 per month (including \$1.75 for the handset at extension rates). This amounts to an additional \$171 annually. And special maintenance, operating and commercial costs are generated by mobile units. Conservatively these might run \$5.00 per month. Adding these charges up yields a negative net rate of return on investment at the \$42 rate; about one-third the permitted pretax return on rate base is yielded by the \$48 rate subsequent to 1970. If the 1974 rate application of MT&T is approved, the net rate of return on mobile service (on which no increase is requested) will be approximately zero.<sup>29, 30</sup>

---

<sup>28</sup> N.S. Board, Report 1969, at pp. 44-48.

<sup>29</sup> N.S. Board, In the Matter of the Public Utilities Act and in the Matter of an Application of MT&T for the Approval of Certain Revisions to its General Tariff, dated May 1, 1974. The \$18 rate charged mobile customers who supply their own equipment is even more of a money loser. In addition to receiving business service -- at business rates or \$2.50 lower if the 1974 tariff revision is improved -- these subscribers share in the use of radio-telephone base equipment worth nearly \$500 per channel and cause extra operating costs.

<sup>30</sup> The pricing of mobile services in New Brunswick has not been without its problems. There, in addition to a \$40 monthly charge

Automatic answering and recording equipment was the subject of decisions in Nova Scotia in 1958, 1961 and 1962; in Newfoundland a rate was approved in 1959, in New Brunswick in 1960; and the Island Telephone Tariff includes rates similar to those of MT&T.<sup>31</sup>

Initially in Nova Scotia rates were approved for models TR and DCRI, but the former was deleted from the tariff in 1962 and models TT and LP were added. A year later model DCRI was stated to be obsolete and model LP obsolescent because a new model with improved features and lower cost, "Code-a-phone", became available. Model LP cost \$850 per unit and originally was priced at \$336 per year -- a 40% gross revenue return. But on the basis of experience with TR and (surely to some degree with DCRI) MT&T must have reasonably applied a 25% to 33% rate of depreciation to model LP. And maintenance cost with such equipment typically is far greater than the telephone company average of about 5%. Even without hindsight it appears that LP was a risky and possibly sub-marginal offering. But the Board imposed the costs

---

(\$60 for portable units) a message rate of 35 cents per call of 3 minutes duration and 10 cents per overtime minute prevails. The first \$6.00 of messages per month is free. Private mobile service was removed from the tariff in 1960 and a complaint by Thomas Morgan a year later of discrimination by N.B. Tel. in provision of such services was rejected for alleged lack of jurisdiction by the N.B. Board. The same question was considered in some detail in the 1969 hearings where the company reluctantly admitted that it charged all basic costs of capital, maintenance, and so on against regulated services, considering solely whether unregulated activities would on an incremental (not full-cost) basis yield additional revenue. (Testimony of G. Edwin Graham, "In the Matter of the Application of N.B. Telephone, Hearing," July 30, 1969, at pp. 124-128, pp. 131-134.)

<sup>31</sup> N.S. Board, Report 1958, at pp. 184-189, Report 1961, at pp. 60-66, Report 1962, at pp. 472; Newfoundland Board, Report 1959, at pp. 15-16; N.B. Board, Report 1960, at pp. 238-239; and Island Telephone Co., General Tariff, 1970.

of this error on general subscribers, philosophically observing that,

"in the light of present knowledge it might be said that the acquisition of such equipment by the Applicant in 1961 was an error of judgement and that the losses resulting therefrom must be absorbed by the Applicant [i.e., by shareholders by writing-off the excess value of the LP models]. The Board considers, however, that in relation to the present and similar subject matters, such an attitude would be unrealistic and would affect to an unreasonable degree the exercise of discretion by the Applicant in its desire to provide new equipment and services to its subscribers".<sup>32</sup>

In concluding this review of decisions on the pricing of specialized equipment, the treatment of coloured telephones is worth considering because it illustrates not only the widespread practice of excess pricing of even minor items of such equipment but also reveals significant variations in pricing policies among the four Atlantic Provinces.<sup>33</sup> In Newfoundland a 1959 decision approved a one-time "purchase" charge of \$15 for coloured handsets. This subsequently was reduced to \$10 plus applicable service charges.<sup>34</sup> New Brunswick reduced the non-recurring colour charge to \$7.50 in 1960 and to \$5.00 in 1965.<sup>35</sup> The approach in Nova Scotia was similar

<sup>32</sup> N.S. Board, Report 1962, at p. 474.

<sup>33</sup> Pricing of long cords might be also similarly characterized. For a nine-foot cord -- four feet longer and about \$.25 more expensive than the standard cord -- a subscriber is charged a one-time \$4.00 in Newfoundland, \$.20 monthly in New Brunswick and \$.15 monthly in the other two provinces. On a present value (at 11.5%) basis, these charges equal respectively \$4.00, \$21.00 and \$16.00. On a rate of return basis they yield annual returns of 750% up.

<sup>34</sup> Newfoundland Board, Report 1959, at pp. 15-16; NTC, Tariff dated June 1970. In 1959 Avalon Telephone also had a non-recurring \$7.50 charge for a black handset.

<sup>35</sup> Peat, Marwick, Mitchell & Co., "Examination and Report on Application for Increased Rates" submitted to N.B. Board June 1969 (the "Cole Report") Appendix A. Note that the charge "does not apply when a customer who has a coloured telephone moves to a different location...within New Brunswick or moves into New Brunswick from other parts of Canada or the United States. However a \$4. service charge may apply."

up to 1957 (and in P.E.I. 1958) in that after payment of a non-recurring extra installation charge "equal to the additional cost of such a set over the cost of a standard set" standard monthly rates for service were charged.<sup>36</sup> After an unattended public hearing in 1957, the N.S. Board approved a monthly charge of \$.50 for coloured handsets in addition to any applicable service charges. The Board viewed this as an increase in rates but was convinced by an MT&T study that purchase price, installation cost, commercial costs, accounting costs, maintenance and depreciation all were higher for colored sets than for standard sets. A subsequent study showed these cost estimates to have been excessive and the rate was reduced to \$.35 and then to \$.25.<sup>37</sup> At the pretax ten percent rate of return approved in the 1950's and 1960's the present value of an infinite stream of earnings at \$.50 monthly is \$60.00.<sup>38</sup> Since the difference in cost between a standard dial set and a coloured dial set in the late 1950's was less than \$10.00 and by 1970 was less than \$2.00 (the total cost of a coloured set being only \$22.33 in 1968), it is not obvious how the N.S. Board came to the conclusion in 1957 that a charge equivalent to \$60 was needed to cover the full costs of colour. And it must have been particularly annoying to subscribers

---

<sup>36</sup> From 1938 to 1952 a special provision applied to ivory handsets in that these bore charges \$.25 per month higher than black handsets (\$.60 per month more than wall-sets). The quotation is from the 1952 MT&T Tariff. See P.E.I. Commission, Report 1958-1959, at pp. 27-28, and N.S. Board, Report 1957, at pp. 251-255.

<sup>37</sup> ITC, General Tariff, 1971. N.S. Board, Report 1961, at p. 53; Report 1966, at p. 85.

<sup>38</sup> For \$.25 monthly it is \$30. The present value of an earnings stream of -- say -- 5 years duration at 10% is about half that of an infinite stream.

who had previously "purchased" coloured handsets to discover that they now had to "lease" the sets which they already "owned" at an annual rental almost as high as the original "purchase" price. But the company and the Board had some balm for these 245 unfortunates. It forced them to accept rebates (with no accumulated interest) of their previously paid installation charges.<sup>39</sup>

---

<sup>39</sup> Report 1957, at pp. 252-253.

### Service Request Charges

These charges are one-time levies on telephone subscribers who change their service requirements and/or the location(s) at which they derive service. In the tariffs of each of the companies several pages are devoted to the application of these charges with respect to main and extension private lines, key equipment, system service, and other installations. In addition special service charges may apply in connection with installation of miscellaneous equipment of various types.

Table 3B-1 presents a comparison of some of the common service request charges in 1973 in the Atlantic Provinces as extracted from the relevant tariffs. Along with these are the rates which prevailed prior to the current rates -- generally for a period of several years during the late 1960's. These are roughly two-thirds of the present levies, which range from nil to \$10. Increases in existing rates of up to 50 percent have been proposed by Maritime Telegraph and Telephone in its 1974 rate application. Thus in recent years, the rate of increase in service request charges appears to be about three times that in basic exchange service charges. In part this reflects more rapidly increasing costs in installation activities which appear less well suited to technological innovation than the provision of telephone service per se; in part this may demonstrate some weakening of the utilities' policies of substantial subsidization of installation costs.

The magnitude of this subsidy may be gauged from data obtained from MT&T in the course of the 1974 rate hearing. In 1973,

TABLE 3B-1

## Service Request Charges of Major Telephone Companies

Atlantic Canada - 1973

in dollars  
(previous tariff in parentheses)

	NTC	NBTC	MT&T	ITC
<b>A. INSTALLATION</b>				
Basic Service:				
Residence	6.00	7.00 (5.00)	7.00 (5.00)	6.00 (5.00)
Business	6.00	10.00 (6.00)	10.00 (6.00)	8.00 (5.00)
<b>B. INSTALLATION</b>				
Extension phone:				
Residence (W/A)*	nil	nil (2.00)	nil (nil)	nil (nil)
Residence (not W/A)	6.00	4.00 (2.00)	nil (3.00)	nil (3.00)
Business	6.00	4.00 (2.50)	5.00 (3.00)	5.00 (3.00)
<b>C. MOVE OF BASIC SERVICE</b>				
Residence	6.00	7.00 (2.00)	7.00 (3.00)	5.00 (3.00)
Business	6.00	10.00 (2.50)	10.00 (3.00)	5.00 (3.00)

Source: Company Tariffs

\* (W/A) installation with basic service installation

(not W/A) installation separate from basic service installation



total costs of residence and business installations by MT&T were \$2.80 million and total revenues \$.84 million.<sup>1</sup> Under the rates proposed, this deficit of \$1.96 million would shrink to \$1.57 million. This is more than three percent of current operating revenues, nine percent of total income before fixed charges and income tax, and one percent of the rate base. No doubt these percentages would be somewhat larger for Island Telephone where the installation charges are lower, and possibly for Newfoundland Telephone as well.

Obviously there is an interaction between low installation charges for some types of equipment and high monthly rates. The latter can be used to recover from subscribers to these types of equipment the capital costs of installation. If all subscribers to such equipment calculated their costs using the same rate of discount as the permitted rate of return (pretax), avoided myopia with respect to such calculations, and if the duration of subscription were identical, then the extent to which installation charges were capitalized at the permitted pretax rate of return would be a matter of indifference to both utility and customer. In reality however, some subscribers have highly fluctuating needs, while others exhibit stable demands. The prevailing pattern of charges confers a large subsidy on the former at the expense of the latter. And because low installation

---

<sup>1</sup> It is not clear whether these costs and revenues include service requests (other than repair) of all types or only labour and materials for installing and removing station apparatus, PBX systems, etc. Installation costs are capitalized but this does not affect the analysis since the rate of depreciation of "station connections" so called is independent with respect to time -- the rate chosen (currently 11.6% in Nova Scotia) being designed to be sufficient to balance the changes to the account in the current period. See Newfoundland Board Report 1968 at. pp. 35 - 38 and Nova Scotia Board Report 1969 at pp. 235 - 236.

charges and high monthly rates lead customers with time preference greater than the pretax rate of return and those who lack the sophistication to be able correctly to compare alternative payment streams through time to install more equipment than otherwise would be the case, benefits accrue to the former, while the myopia of the latter is exploited.<sup>2</sup>

If telephone shareholders earn a return above their costs of providing equity, or if telephone managements are compensated according to the assets or revenues of the firm managed, utilities will have an incentive to expand capital equipment in service. If this can be done through absorption of installation costs which are recovered in ways which do not much reduce capital input, additions to rate base and profit will result. This may serve to explain the general phenomenon of very low service request charges as well as specific cases where utilities have sought to persuade regulatory boards to eliminate service charges completely.

What has been the regulatory response to these pricing policies? To begin with, it seems doubtful that the Boards are aware of the magnitude of the subsidies involved. As noted above, large increases in service request charges in general have been approved in recent years, but there is no evidence that the impetus for this

---

<sup>2</sup> The higher the installation charges and the more the extent of capitalization of use charges, the less equipment will be installed by those with high rates of time preference and the more by those with low time preference. See also Averch, H. and Johnson, L.L., "Behaviour of the Firm under Regulatory Constraint", American Economic Review 52 (1962) at pp. 1053-1069, regarding the relationship of capital intensity to permitted rate of return and cost of equity.

came from the regulatory authorities. At the same time, Boards in Nova Scotia, Prince Edward Island, and New Brunswick have perfunctorily approved discriminatory reductions in particular service charges on specific items of miscellaneous equipment within the last four years.<sup>3</sup> In the first two provinces all installation charges on residential extension telephones, on residential touchtone, and on residential contemporanea sets were eliminated in May 1971 and February 1972 respectively.<sup>4</sup> In New Brunswick, the Board permitted installation charges on residence extensions to be suspended for March 1970. Again it approved the suspension of installation charges on residence extensions and on contemporanea telephones during the pre-Christmas period in 1970; in 1971 for roughly the same pre-Christmas period it permitted N.B. Telephone to install coloured extension and contemporanea telephones on a 10 day trial basis without charges. A similar arrangement was permitted with respect to touchtone in the period April 19, 1971 to May 21, 1971; and in 1972 the Board approved the dropping of installation charges on touchtone.<sup>5</sup>

Although in general installation charges are unreasonably low, the question here is not one of making losses on installation of specialized equipment; as discussed in the previous sub-section

---

<sup>3</sup> It is not clear whether the observed differences in Newfoundland reflect differences in company or in Board policy.

<sup>4</sup> MT&T, General Tariff, dated 1973 Section E-8, p. 2 and ITC, General Tariff, dated 1973, Section E-7, p. 2. The N.S. Board -- contrary to its usual practice -- did not even bother to file a decision on the matter.

<sup>5</sup> N.B. Board, Report 1970, at p. 50 and p. 52; Report 1971 at pp. 54-55; N.B. Telephone, Tariff, at pp. 70-71 and 124.

extremely high returns are earned on some of this equipment with or without installation charges. The arrangements described in the previous paragraph are discriminatory as between (a) users with stable and fluctuating equipment requirements and (b) users who install special equipment at Christmas and those who install it at other seasons. The issue is whether despite statutory strictures against discrimination in pricing, the regulatory commissions are going to judge that it is in the public interest that telephone service be marketed like groceries with loss-leaders, special year-end sales and the like.

### System Growth and Pricing Structure

It is sometimes alleged by spokesmen for the telephone utilities that pricing in accordance with (marginal) cost principles rather than according to vague value of service criteria, would have stunted the growth of telephone service. The implication is that relating prices to costs would have caused the value of service to subscribers of the telephone system to have reached a level lower than that actually attained, and that this would have been a bad thing.<sup>1</sup> This argument has been used inter alia to justify subsidization of rural telephone rates by urban subscribers on the grounds that extension of the telephone network in rural areas increases the value of the service to the city telephone customer.<sup>2</sup> It has also been used to condemn measured local

---

<sup>1</sup> E.g., testimony of F.M. Waller, "In the Matter of the Public Utility Act and in the Matter of an Application of MT&T for the approval of certain revisions to its General Tariff", June 1974.

<sup>2</sup> "... these subscribers [in compensatory areas] will obtain the advantage of telephoning to areas which cannot be reached now. At the same time, residents of the unserved areas, the majority of whom are primary producers, will have better access to markets. This should assist them to increase their sales and thereby the general economy as well". (Newfoundland Board, Report 1969, at p. 115)

"From the standpoint of the welfare of the telephone public as a whole, it is to the advantage of the telephone users in the larger cities and towns to have the rural districts developed as fully as possible, and this development must be of such a character that the speedy and accurate telephone connections to which the city subscriber is accustomed may be established with the rural territory .... The larger cities should therefore contain in their rates a sufficient amount to cover the additional cost ... which is not required by the inhabitants of those smaller exchanges'."

N.S. Board Decision, 1918 at p. 20, quoted from the so-called "Jackson Report".

service.<sup>3</sup>

For the utility subject to Averch-Johnson assumptions, any expansion is of course advantageous so long as monopoly pricing possibilities are less than fully exploited. In other words, under rate of return regulation, increases in capital which are not of themselves compensatory, will raise profits of shareholders if additional revenues can be secured from other subscribers in order to maintain the overall return at a permitted level which exceeds the "true" cost of capital.<sup>4</sup> A "value of service" pricing structure designed to recover total costs will inevitably lead to overexpansion of activities priced below long-run marginal cost and underexpansion of activities priced above marginal cost -- the extent of underexpansions and overexpansions depending on the individual price elasticities (and cross-price elasticities) of demand. Although there is no logical necessity that the net effect will be a larger capital investment than would result under "cost of service" pricing, this result is likely given reasonably intelligent utility management.

---

<sup>3</sup> "'Measured services ... very often result in disputes over billed messages and appear to restrict full use of service'."

"'A good Tariff should encourage maximum use of the service by the customer and in this regard I would say that the provision of a flat rate business service offering is definitely intended to encourage the objective whereas, of course, the onposite effect occurs when the cost of service is related to usage ...'." Quoted in N.S. Board, Report 1966, at pp. 75-76.

<sup>4</sup> The extreme case is so-called "gold-plating" -- investment in facilities which are totally unnecessary and which are not used. This is prevented by the controls the regulators exercise with respect to investment. But many investments can be both "used and useful" and yet yield returns which are below the permitted level and even negative. There is no check on such investments.

It is not therefore surprising that MT&T states its service objective to be that of

"providing the maximum availability of telephone service of an appropriate standard at reasonable rates, to be in the best public interest".<sup>5</sup>

And the first two objectives of its rate structure are

"(1) to encourage system growth, which is simply to recognize that the larger the system to which subscribers are connected the more value it has to them. An example of this is rate grouping to encourage maximum development in each exchange;

(2) to encourage maximum development of the better grades of service with economy .... An example of this is the one-party and two-party differential that encourages maximum development of one-party service".<sup>6</sup>

Similarly, the general rates supervisor of B.C. Telephone,

"A good Tariff should encourage maximum use of service .... any Tariff which bases the cost to the consumer according to usage is naturally going to affect usage and this is not good for the telephone community at large".<sup>7</sup>

In New Brunswick, objectives are stated with more circumspection:

"generate the necessary total revenue, ... encourage optimum usage of the plant required to provide the service, ... achieve optimum economy, ... simplicity, ... distribute charges for service equitably, ... [avoid] introducing unwarranted discontinuities [between old and new Tariffs], ...

<sup>5</sup> MT&T, "Rate Philosophy", dated May 31, 1974, at n. 1.

<sup>6</sup> The same six objectives have been stated in each of the rate hearings in 1965, 1970 and 1974. See Ibid, at pp. 4-8; N.S. Board, Report 1970, at pp. 42-43 (whence quoted extract), and Report 1965, at n. 68. See also Report 1952, at pp. 139-140 for a slightly different set of objectives with the same emphasis. The remaining four current objectives are (3) to encourage long-term use of service, (4) to apportion some part of costs against particular subscribers, (5) to provide for economical operation and (6) to attain simplicity of administration. The example chosen to illustrate objective (4) is ironically service request charges -- which we have examined above and found wanting.

<sup>7</sup> N.S. Board, Report 1965, at pp. 75-76.



balance ... unit and flat rating techniques -- allowing a reasonable opportunity for growth but limiting the risk of widely fluctuating revenues, ... [and] charge more for business service".<sup>8</sup>

Note the care with which this NBTC witness at this point suggests "optimum" not "maximum" use of presumably existing plant. But subsequently he slips and lets the cat out of the bag,

"... Rates should be designed so that maximum development occurs".<sup>9</sup>

"Rates are sought that encourage people to add to and improve usage of their service".<sup>10</sup>

It is an elementary application of economic logic that maximum expansion or development of the telephone system is not desirable from the point of view of subscribers. Nevertheless, the point is worth analysing since some regulatory bodies seem to think otherwise. Clearly most conceivable expansions of any telephone system will enable some persons to communicate more rapidly, conveniently, or pleasantly with some other person. Hence all such expansions yield a gross benefit to the point where a surfeit of communications possibilities overwhelms the society -- an eventuality that in Atlantic Canada at least is still some distance in the future. But every expansion of the system also involves costs which ultimately fall upon subscribers, though not necessarily those who are receiving the gross benefits. Clearly the net benefit of a given expansion equals incremental gross benefit minus incremental

---

<sup>8</sup> N.B. Board, "In the Matter of the Application of N.B. Tel. Testimony, July 30, 1969", at pp. 437-439.

<sup>9</sup> Ibid., at p. 442.

<sup>10</sup> Ibid., at p. 461.

cost; it may be positive, negative, or zero. "Maximum development" implies that some expansions yielding negative net benefits are undertaken and hence the total of net benefits to consumers of communications services is less than it otherwise would be.

In fact, limiting development of the telephone system by avoiding any expansions which yield negative net benefits is not a sufficiently stringent condition for maximising the sum of net benefits to subscribers. This condition implies that there are no other competing uses of capital in the economy which yield positive incremental net benefits. Only those expansions of telecommunications should be undertaken which yield an incremental net benefit as great as or greater than the incremental net benefit obtainable elsewhere in the economy.<sup>11</sup>

There is no question that regulatory bodies are sensitive to the direct connection between large construction programmes and applications for rate increases.

"A competitive rate of return is essential also to telephone users since without regular and large inputs of capital, the Applicant's construction programme cannot be sustained, and without the construction programme the Company cannot meet the demand of the public for improved and ever-expanded telephone service".<sup>12</sup>

---

<sup>11</sup> Since pricing on a basis other than cost results in some consumers receiving services for which they are paying less than costs and other consumers being forced to pay more than cost, the former will desire the pricing structure which favours them while the latter will prefer a cost-oriented price structure. Which sets of desires are regarded as more important is a value judgement. But the inefficiency of such value of service pricing is not a value judgement: excessive resources are devoted to uses which from a social point of view are of low priority, while areas of greater priority are denied adequate resources.

<sup>12</sup> P.E.I. Commission, Report 1970-1971, at p. 14. For comparison,

Doubtless, the companies wish to induce this reaction. But it is difficult to explain why regulatory bodies should be so insensitive to the equally direct connection between pricing policies designed to induce rapid expansion of service and the results of those policies in large construction programmes and applications for general rate increases.

"Demand of the public for improved and ever-expanding telephone service" is not an independent variable; it is an inverse function of the prices charged for service.<sup>13</sup>

---

"The Board must make a decision with respect to the appropriateness of the construction program proposed by the Applicant, because it has a most direct bearing upon the quality and adequacy of the service to be supplied and upon the monies that are required to be raised ..."

N.S. Board, Report 1970, at p. 31.

"We expect that having regard to continuing high cost of raising capital, the Applicant will persevere in controlling its capital programme ..."

N.B. Board, "Decision", dated 3 December 1969, at p. 8.

"... Public convenience and necessity in the Applicant's service territory requires that the proposed capital construction program of \$26,200,000 be carried out ... and the additional capital construction program of \$3,500,000 .... The Board therefore will grant approval for a schedule of telephone rates which will enable the Applicant ... to ... raise the capital required .... An additional gross operating revenue of approximately \$1,800,000 ... would be required .... This amount includes \$275,000 to make up for the ... deficiency due to the additional capital construction program of \$3,500,000".

(Newfoundland Board, Report 1969, at pp. 115-116)

- <sup>13</sup> The only occasion when boards are invited to take advantage of elasticity of demand and seem to feel at ease in maintaining high prices to restrict it is when they are delaying technological innovation in attempting to halt the obsolescence of existing equipment.

### The Spatial Dimension of Exchange Service Pricing: Introduction

Utilities use singly or in combination three basic types of prices in marketing the various dimensions of their services.

- (a) one-time "purchase" of service or equipment
- (b) "flat rate" periodic recurring "rental" of equipment or of access to service which is unrelated to use of equipment or service
- (c) variable periodic charges related to extent of use of equipment or service during the period.

Following the typical North American pattern, in the four Atlantic Provinces, unlimited basic service within a defined geographical local area is priced on a flat monthly basis while measured rate pricing is used for basic service beyond the defined area.<sup>1</sup>

For services which vary in extent of use one of the main advantages of flat rate pricing -- indeed its only advantage from the point of view of society -- is that it eliminates the administrative costs of measuring and billing the extent of service provided to individual customers. These administrative costs have varied through time with changes in labour costs and in the technology for measuring and recording service use; with the advent of low-cost, high-capacity, on-line computers, they may be at historic lows. It is by no means obvious that this cost advantage of flat rate pricing outweighs its attendant disadvantages -- even for local service. Measured service is the norm in much of Europe, and it applies to all local service in some North American areas as well.<sup>2</sup> As has long been recognized, any

---

<sup>1</sup> New Brunswick and Nova Scotia also offer measured rate local basic service in the larger exchanges.

<sup>2</sup> Measurement is of number of calls only, not duration. In New York

system of flat rate charges for telephone service is inherently discriminatory in that heavy users of the system pay less than the costs they impose on the system and are implicitly subsidized by infrequent users who pay the same rates but use far less of the service.<sup>3</sup>

For this reason flat rate pricing and measured use pricing coexist uneasily within a single system since the underlying principles are incompatible. Thus, for example, mixture of flat-rate local service and measured rate long-distance service pricing systems generates exchange boundary problems since arbitrary divisions must be made separating different toll-free calling areas. Thus two households living in approximately the same location but on opposite sides of an exchange boundary will be treated differently regarding their telephone service charges for short-distance and

---

City measurement of both number and duration of local calls has recently been introduced; a similar development is planned for West Germany for 1976 by The Deutsche Bundespost.

<sup>3</sup> In a small little used system, indivisible capital equipment may force excess capacity if there is to be service at all. In this case it is not clear that heavy users are more responsible for capital costs than light users since all must contribute if any are to obtain service. (In this situation, it is equally unclear, however, that responsibility for capital costs should be equally shared among all users.) While such excess capacity may have been highly prevalent at the turn of the century it can scarcely be held that it reflects current conditions. See regarding flat rate charges inter alia N.S. Board, Decision, dated 29 June 1918 re Central Office Facilities, Rates and Service, Maritime Telegraph and Telephone, esp. at pp. 12-15; N.S. Board, Report, 1919 at pp. 94-100 and pp. 121-133; A. Hazlewood, "Optimum Pricing as Applied to Telephone Service", Review of Economic Studies 18 (1950-51) at pp. 67-78; and S.C. Littlechild, "Peak-load pricing of telephone calls", Bell Journal of Economics and Management Science 1 (1970) at pp. 191-210.

medium distance calls.<sup>4</sup> Finally, flat rate pricing reduces the marginal cost of a call and the marginal cost of the duration of a call to zero, thus greatly increasing the quantity of service demanded at peak periods and hence the capacity needed to provide service. This undoubtedly accounts for the attractiveness of flat rate pricing to telephone companies operating under rate of return regulation.<sup>5</sup>

One may conceive of polar alternative responses to these problems: flat-rate system-wide calling, and universal distance-based measured service. But there are a variety of palliative intermediate solutions -- expanded exchange areas, marginal cost pricing of measured service, individual optional extended area service,<sup>6</sup>

---

<sup>4</sup> In general, if x and y live near each other but in different exchanges, x will pay nothing and y will pay long distance charges for calls to a third subscriber in x's exchange. Moreover, x and y must pay different flat monthly rates as well. A particularly striking instance of an exchange boundary problem is afforded by Labrador City, Labrador and Wabush, Quebec which are linked under an EAS plan, but which have sharply different local service rates and sharply different long-distance rates for calls into Bell Canada territory.

<sup>5</sup> If the permitted and earned return exceeds the cost of equity capital, this increases total profits. See Averch, H. and Johnson, L.L., "Behaviour of the Firm under Regulatory Constraint", American Economic Review 52 (1962) at pp. 1053-1069.

<sup>6</sup> This was called ORTS in California and permitted the "subscriber to select one or more of four options: (1) service in a defined expanded calling area at a fixed rate, (2) service to one or more communities at a specified rate for each community selected, (3) calls on an unlimited basis, for a fixed additional charge, to any exchange in an extended geographical area as a local toll-free call, and (4) calls, for a fixed rate calculated on an hourly use basis, [underlining added] to any exchange in an extended geographical area as a local, toll-free call. Optional residential telephone service works in only one direction ... 24 percent of eligible subscribers subscribe to ORTS". "Telephone Subscribers Fail in Burden of Proof for Extended-Area Service", Public Utilities Fortnightly 82 (9.26.1968) at p. 57. See also "The Pacific North-West Bell Telephone



Wide Area Telephone Service, and general mandatory extended area service (EAS) for example. In recent years introduction of EAS and redefinition of exchange areas have been the principle responses of the telephone companies in the Atlantic area to subscribers dissatisfaction with the exchange boundary problem. In the next section we review the historical development of exchange in relation to distance. Then we consider recent developments in this dimension of telephone pricing. The remaining sections are devoted to an analysis of various aspects of extended area service.

#### The Spatial Dimension of Exchange Service Pricing: An Historical Perspective

Pricing policies and exchange patterns were established in New Brunswick and Nova Scotia as regulation took hold in the second decade of this century. Small telephone systems existed in this period in Newfoundland and Prince Edward Island but meaningful regulation began only after the Second World War. Hence, initially we restrict ourselves to developments in the two mainland provinces.

By 1913 there was one dominant company in each jurisdiction. Prior to regulation these companies had classified exchanges by the number of subscribers, there being in Nova Scotia, for example, seven classes (plus a special category for multi-party rural service) ranging from under 50 subscribers to 2,000 and over. One-party exchange service was charged on monthly flat rate basis in amounts ranging

---

Co."; Public Utility Reports, 3rd 92 (1972) at p. 458 where the Oregon Public Utility Commissioner ordered development by PNWBTC of an optional EAS plan. Within the last two years both Maritime Telephone and New Brunswick telephone have introduced limited optional measured EAS plans.



from \$1.67/\$2.00 in the smaller exchanges to \$2.50/\$3.75 for residential/business subscribers respectively in the larger. (If we denote the price of one-party service and the minimum number of telephones in the  $i$ th exchange class as  $p_i$  and  $n_i$  respectively, and compare the ratios  $R_p = P_i/P_{i-1}$  and  $R_n = n_i/n_{i-1}$  for  $i = 3, I$ ;  $R_p$  varied between 1.00 and 1.125 and  $R_n$  between 1.5 and 3.0). The basic flat rate applied only to service within a one-mile radius of the central exchange office, a charge of twenty-five cents per fifth mile per month being levied on the mileage beyond one mile for subscribers living outside the "basic rate" circle. Unlimited intra-exchange calling was permitted but extra-exchange calls were measured and billed on a tariff which varied with distance.

But there were many exceptions to these arrangements, there was little uniformity in the geographical extent of exchanges, and there was great variation in the quality of service offered. In rural areas there was a crazy quilt of undercapitalized independent companies the development of which continued to be stimulated by public policy in the ensuing decades. In bringing order into this chaotic situation, the regulatory authorities mandated uniform policies for the dominant companies, defining standard exchange sizes (circles 10 miles in diameter, 79 square miles in extent) and accepting the inherited pricing structure with only minor modifications. The essentials of this structure persist even today:

- (i) division of the provinces into exchanges of approximately equal geographical size in which local calls are free and charges are monthly flat rates.
- (ii) flat rates which discriminate among exchange areas on the basis of numbers of subscribers

- (iii) flat rates which discriminate between business and residential calling
- (iv) monthly flat rate mileage charges to subscribers outside the basic rate area of an exchange<sup>1</sup>
- (v) extra-exchange calling charged by use.

Diagram I below outlines this pattern of exchanges and charges. Note the potential overlap of exchange areas and the size of basic rate areas relative to exchange areas. Under this set of arrangements management and regulators have eight variables which they may manipulate to achieve desired goals:

- (a) geographical size of exchanges
- (b) flat rate by class of exchange
- (c) unit rate for local calls (set initially at zero)
- (d) business/residential differential
- (e) geographical size of basic rate areas
- (f) mileage charge within exchange areas beyond the basic rate area
- (g) unit charge for calls to adjacent exchanges
- (h) use charge for calls to distant exchanges.<sup>2</sup>

Not surprisingly, two types of boundary problems rapidly became apparent. Although there was little general dissatisfaction with the business/residential differential, subscribers outside the basic rate area (sometimes because of arbitrary location of the central

---

<sup>1</sup> The basic rate area for small communities was initially a circle one mile in diameter centred on the telephone exchange office.

<sup>2</sup> If (f) is zero, (e) effectively coincides with (a) and is uninteresting by itself. There is no inherent reason why (g) and (h) need to be distinguished.

Long Distance tolls  
10¢/call + 6¢/mile/minute

Diagram 1

The Spatial Dimension of Exchange Service Pricing  
MT & T Tariff, 1918

15 miles

10¢/call  
local toll

10 miles

5¢/call  
local toll

Exchange area A

Basic  
Rate  
Area A

Note: Mileage charges  
apply outside Basic  
Rate Area; toll  
charges apply outside  
Exchange Area

Exchange area B

mileage charge  
for private con-  
nection to exchange  
\$1.25/mo./mile  
flat rate

Exchange Area C

1  
mile

For multi-party  
"farmer's line"  
\$1.50-2.00/mo.

no  
mileage  
charge

exchange office) and thus required to pay mileage charges and monthly rates higher than others in the same exchange naturally expressed dissatisfaction. Moreover, standard definition of exchange areas forced a number to be reduced in size; outlying areas which had enjoyed toll-free connection to central communities were forced to form independent exchanges subject to long distance tolls. A telephonic disassociation -- a reverse EAS -- thus took place prior to World War I among communities which were again associated under EAS only in the last twenty years. For example, Bedford was divorced from Halifax in 1914 and Rothesay from Saint John, N.B. in 1913, even though in both instances subscribers petitioned against the change.<sup>3</sup>

In both the mainland provinces, the solutions to these boundary problems and to capacity problems which arose during World War I were found by modifying base rate areas and mileage charges; by changing exchange sizes, adjacent exchange tolls, and flat rate exchange charges -- in part by introducing EAS plans; and by introducing measured local service charges (c). In many cases the resulting arrangements were ad hoc. From published records it is difficult to determine whence the initiative for particular changes arose; as a matter of practice, however, most proposals for changes in boundaries or prices have been put before the boards by the companies.

By way of historical illustration consider the service provided between Westville-New Glasgow (N.S.) on the one hand and Chatham-Newcastle (N.B.) on the other -- both involving distances of about five

---

<sup>3</sup> N.S. Board, Report 1914, at pp. 36-39 where reference is also made to the New Brunswick decision in 1913.

miles. In 1915 when exchange areas were being fixed, "Westville subscribers pressed to be placed in the New Glasgow area", even though the distance made "the flat rate for service very high on account of the mileage charge". "The Board placed Westville within the New Glasgow area [and] this entailed a considerable expense on the part of the respondent company". But in 1919 Westville subscribers petitioned for their own central office; MT&T opposed, but the Board ordered one installed in Westville "on or before March 16th next".<sup>4</sup>

The problem resurfaces in 1928 with a petition by MT&T for establishment of a dial exchange area within the New Glasgow Exchange. Apparently the 1919 decision had not been implemented, since "it appears that the Town of Westville at the present time [1929] is included within the limits of the New Glasgow Exchange area ..."<sup>5</sup> At this point the Westville subscribers no longer want a separate exchange, but instead automatic service which would provide lower mileage charges and faster service. MT&T was willing and the Board acquiesced unenthusiastically,

"the logical step to take under the conditions ... would appear to be to set up Westville and vicinity as a separate exchange area .... This plan the Westville subscribers do not desire ..., preferring to pay a higher flat rate in order to get service free from toll with New Glasgow".<sup>6</sup>

In 1931 a dial system was installed in Westville and rates for single-party service were cut in half. The remainder of the New Glasgow

---

<sup>4</sup> N.S. Board, Report 1919, at pp. 20-22.

<sup>5</sup> N.S. Board, Report 1929, at pp. 34-36.

<sup>6</sup> Ibid., p. 34. No mention of the 1919 or 1915 decisions appears. Why Westville should have been granted this special treatment and Bedford denied it (in 1914) is not clear.

exchange continued with manual equipment and normal mileage charges continued to be paid by residents of Stellarton and Trenton.

In mid-1948 Stellarton complained about this unfair treatment. After public hearing and considerable delay the Board ordered an expansion of the free mileage area of the New Glasgow exchange to include all the area within the town limits of the four towns, which "were taken as a community ... and a differential of from 15¢ to 35¢ over and above the ordinary Group V [flat monthly rates] was approved".<sup>7</sup> Thus this boundary problem was ultimately resolved by creating an ad hoc rate group. The costs of eliminating mileage charges were therefore borne by the New Glasgow town residents, not by the system as a whole or by the residents of Stellarton or Trenton. The Board reasoned that

"The four towns ... are practically one community with a community of interest .... New Glasgow is central and benefits materially from expanding telephone communication with the other three towns .... A large or central community profiting from telephone communications with a widening circle of telephone users ... should also pay its fair and just share of the cost .... A proposed community rate would distribute the cost fairly ... since the Town of New Glasgow derives benefit from the service equally with the other three towns".<sup>8</sup>

The history of service between Chatham and Newcastle is briefer and contrasts with the foregoing in both development and resolution. Established as separate exchanges, the record reveals a reduction in the toll charge from 10¢ to 5¢ in 1924,<sup>9</sup> and in 1949 a

<sup>7</sup> N.S. Board, Report 1950, at pp. 161-163. Decision in Report 1949 at pp. 100-104 (unindexed). In December 1952 the entire New Glasgow Exchange was cut over to dial (Report 1952, at n. 399).

<sup>8</sup> N.S. Board, Report 1949, at pp. 101-102.

<sup>9</sup> N.B. Board, Report 1924, at p. 55. This was part of a general

request to raise the 5¢ charge for three minutes to 10¢ for five minutes by N.B. Telephone. This was considered unreasonable and the Board fixed a reduced level of tolls. It also expressed its

"opinion that the situation in Chatham-Newcastle calls for special consideration; ... and urges that the exchanges be consolidated. This might result in an upgrading, but ... a source of irritation and complaint would be removed .... The Company is urged to ... amalgamate these exchanges as soon as conditions warrant and it is feasibly possible to do so".<sup>10</sup>

In May 1952 N.B. Tel. received general approval for EAS, and in August specific approval for EAS for Chatham-Newcastle, the effect of which was to increase basic exchange rates in both communities while eliminating the toll charge.<sup>11</sup>

---

rate reduction of about 20%. Note that in both Provinces there was at this time a special tariff for short haul toll calls under which duration of call was unlimited.

<sup>10</sup> N.B. Board, Report 1949, at p. 204.

<sup>11</sup> N.B. Board Report 1952 at pp. 71-85 and pp. 87-104. Very detailed data was presented on the structure of revenues in the two communities.



The Spatial Dimension of Exchange Service Pricing:  
Extended Area Service

General mandatory Extended Area Service (EAS) is the association of two or more telephone exchange areas -- between which toll charges would otherwise apply -- to form a common toll-free calling area. Such associations may be formed in several ways, of which two are basic: (1) by combining parts or all of existing exchanges, and (2) by dismembering an existing exchange into new exchanges which are then recombined into an EAS. Although exchanges under EAS plans are rate grouped according to the number of stations to which subscribers have toll free access, EAS differs from a simple amalgamation of exchange areas in that each exchange involved in an EAS plan has its own identity as a toll rate centre for long distance calls to exchanges not belonging in its EAS plan.<sup>1</sup> When formed from pre-existing exchanges, intra-EAS toll charges are eliminated but rate group reclassification may occur since rate groupings are a positive function of the number of stations in the toll-free calling area. Such reclassification implies higher monthly charges for some or all subscribers in an EAS. Since creating an EAS out of a single existing exchange does not affect the number of subscribers, basic monthly rates and intra-EAS toll charges are not changed under method (2). However, for at least one of the new exchanges the extra-EAS toll schedule will change because a new toll rate centre is set up; moreover, mileage charges are reduced because a new base rate area is created.

---

<sup>1</sup> Note that exchange A may be joined with B and with C in EAS plans, but B not joined with C in a common EAS.

The above elements apply in all four Provinces even though EAS definitions vary somewhat among them.<sup>2</sup> In Newfoundland, there is in addition to the foregoing, an EAS monthly surcharge which is applied to primary services of the smaller exchange in the EAS plan if it is less than half as large as the larger exchange; this varies from \$0.80 to \$1.60 for residence subscribers (and twice as much for business telephones) depending on the mileage between the rate centres of the exchanges involved.<sup>3</sup>

EAS plans must be approved by the regulatory authorities in each of the jurisdictions. To be acceptable, plans must meet various conditions: for example, in New Brunswick, the exchange areas must be contiguous and their rate centres must not be further apart than 23 airline miles, and community of interest must warrant the EAS. In Nova Scotia, exchanges must be adjacent with major centres or communities "within reasonable distance"; cost of the service must be reasonable, there must be a community of interest and high volume of calling among the exchanges, and there must be majority subscriber endorsement.<sup>4</sup> In Newfoundland a distance limit of 25 miles is

---

<sup>2</sup> ITC, General Tariff, January 1971, Section E4, Sheet 2  
 NTC, Tariff, January 1970; p. 46 revised  
 NBTC, General Tariff effective July 1973, p. 43.  
 MT&T, General Tariff, January 1970, Section E5, Sheet 1

<sup>3</sup> If the number of stations in the larger exchange is less than 65% of the combined total, the surcharge is split equally between the exchanges involved. NTC, Tariff, January 1, 1970, p. 46 revised. In Newfoundland there are only five rate groupings other than common battery, hence reclassification occurs less frequently ( $2.0 < R_p < 5.0$ ). Moreover, maximum  $R_p$  is only 1.13. This no doubt explains the extra charge.

<sup>4</sup> N.S. Board of Commissioners of Public Utilities, Report 1970, at

implicitly applied and subscriber endorsement is necessary.<sup>5</sup> Conditions which may be imposed in Prince Edward Island are apparent neither in ITC's tariff nor in decisions of the PEI Public Utilities Commissions.

The present mileage restrictions reflect a considerable loosening of the original limits: in New Brunswick the initial limit was ten miles between rate centres; this was extended to 13 miles in 1957 and 20 miles in 1961.<sup>6</sup> In Nova Scotia it was initially eight miles between communities.<sup>7</sup> Moreover "adjacent" in Nova Scotia has been interpreted not to mean "immediately adjacent".<sup>8</sup>

---

p. 141. It is not clear whether these conditions are imposed by MT&T or by the N.S. Board. No references to such criteria appear in the initial decisions on EAS (Report 1956 at pp. 196-206; Report, 1960 at pp. 239-245; and Report, 1961 at pp. 263-266 and pp. 275-279. In Report, 1964 at pp. 44-45 the language of the decision appears to imply that MT&T imposes conditions: "... before applying to give such service, the Applicant requires the following conditions exist ...;" but a shift to Board responsibility is apparent in 1967 (Report 1967, at p. 4) "In accordance with the requirements of the Board and established practice, the Applicant has made studies and canvasses ... and submitted to the Board estimates ... related to the extension of the Base Rate Area and approval of the Extended Area Service ..." Subsequently, the Board appears to impose the conditions (Report, 1969 at p. 68); "In view of the foregoing, the Board finds that the following conditions exist...;" and 1970 (Report, 1970 at p. 141) "The application ... has been supported by evidence which has satisfied the Board that the following conditions exist ...."

<sup>5</sup> The mileage rate shown in the tariff is graduated only to a maximum of 25 miles. All recent EAS decisions have indicated that subscribers whose rates would be increased by EAS were given opportunity to express their preferences.

<sup>6</sup> N.B. Board, Report 1952 at p. 83; Report 1957 at p. 56; and Report 1961 at p. 20.

<sup>7</sup> N.S. Board, Report 1964 at pp. 44-45.

<sup>8</sup> N.S. Board, Report 1969 at p. 63. "In the Sackville Exchange Area, which is adjacent to the Halifax Exchange Area although not immediately adjacent being separated by the Bedford Exchange Area ...".

The initial introduction of EAS in the Atlantic area was in New Brunswick in 1952, between existing exchanges of Saint John and Rothesay, and Chatham and Newcastle, and within dismembered exchanges of St. George, St. Quentin, and Petitcodiac.<sup>9</sup> Since the Board had pressed for such a development earlier, only the first of the applications was given public notice. Between 1954 and 1956, twenty-one more EAS plans were approved, some retroactively, all but one without public notice. The principle of advertising only those EAS's which involved increased rates to some subscribers appears to have become established; since all but three of these EAS plans were method (2) plans (i.e., new exchanges created from existing ones), the low amount of advertising is not surprising. However, in at least one case, Petitcodiac-Salisbury, the EAS pre-existing between subscribers in Havelock and Salisbury portion of the Petitcodiac exchange was terminated by the establishment of the Salisbury exchange. Ex parte, N.B. Tel. advised the Board that it had "been informed by the delegation of persons carrying on business in Salisbury that this effect is unimportant".<sup>11</sup> A similar case arose in 1957. So casual had the approval of EAS plans become that it not only was dealt with ex parte, but also retroactively. However, the Company did note that this time it had canvassed each subscriber in the new Redbank exchange regarding

<sup>9</sup> N.B. Board, Report 1952 at pp. 71-85 and 87-104. Note that an optional EAS plan was set up in Bedford, N.S. in 1949. See below.

<sup>10</sup> N.B. Board, Report 1954 at pp. 183-188; Report 1955 at p. 208 and pp. 218-220, 227-229; Report 1956 at pp. 12-13, 17-22.

<sup>11</sup> Ibid. at p. 18.

loss of toll-free calling to Chatham and none had objected.<sup>12</sup>

Over the following five years, roughly five EAS applications per year were approved, but subsequently the average number of applications has been lower. Most of these EAS plans were between existing exchanges. It is instructive to trace efforts to determine customer sentiment regarding EAS proposals. In 1959 it is noted that

"The company has received no protest against establishment of EAS from any of the exchanges which will be effected (sic) by the establishment of the [EAS's]."<sup>13</sup>

In 1961 a poll of subscribers was taken in Memramcook and Shediac, but only businessmen were included. Moncton businessmen were not polled although the effect of the EAS would be to cause its rate group to be reclassified about seven years early than might otherwise have been the case.<sup>14</sup> And in 1962 there is the first mention of a poll of all subscribers in exchange areas affected.<sup>15</sup>

The paternalistic attitude of N.B. Tel. and the casual approach of the Board in seeking information on subscriber attitudes culminated in a significant outbreak of consumer dissatisfaction. In July 1972 without notice to the Board, N.B. Tel. advised customers in

---

<sup>12</sup> N.B. Board, Report 1957 at pp. 71-73.

<sup>13</sup> N.B. Board, Report 1959 at p. 167.

<sup>14</sup> In May 1961, as Moncton was about to be reclassified into the next higher rate group, the rate group boundary in question (20,000 phones) was increased without explanation and without public hearing by a quarter. Apparently N.B. Telephone wanted to avoid a situation where it would have to poll subscribers in Moncton with respect to the proposed EAS plans involving the Moncton exchange. Report 1961 at pp. 12-14 and pp. 33-35, 38-44.

<sup>15</sup> Report 1962 at pp. 103-105, 112-113. In this case both the Minto and Chipman exchanges were being reclassified.

parts of the Shediac and Buctouche exchanges that they would be included from 2 June, 1973 in a new Cocagne exchange which would have measured EAS with Shediac but no toll-free calling with Moncton, Cap Pete, Buctouche or St. Antoine -- all exchanges to which customers in the Shediac or Buctouche exchanges had previously enjoyed toll-free calling. Customers would, in addition to these changes, have optional measured EAS (Callnak) to Moncton and would have reduced basic rates as well as generally lower mileage charges. Several hundred subscribers objected, and the Company attempted unsuccessfully to persuade them and then to negotiate, while continuing to construct the new exchange. The Board informally got wind of the matter and after several months' delay insisted on a formal application and public hearing.

The Board rapped the Company's knuckles:

"The Company should have known ... that the discontinuance of extended area service between Cocagne and Moncton, affecting as it would so many subscribers, should have been made the subject of an application to the Board .... The Company erred in...the letter...to its subscribers [in] ... the proposed Cocagne Exchange .... The composer of this letter was either unfamiliar with the jurisdiction of the Board or deliberately ignored it".<sup>16</sup>

The Board decided on 24 May, 1974 that N.B. Tel.

"shall continue to provide extended area service with Moncton for those subscribers of the Cocagne area who are presently enjoying it and who will come under the proposed Cocagne Exchange; ... [at] the rates applicable to the Moncton Rate Group;" <sup>17</sup>

<sup>16</sup> N.B. Board, Decision, "In the Matter of an Application by NBTC for approval of certain matters relating to the establishment of a new exchange at Cocagne". at p. 11. In light of previous actions of the Board, this knuckle-rapping seems a bit unfair.

<sup>17</sup> Ibid, at p. 14. Note that this implies within the new Cocagne exchange two classes of service - one enjoying EAS to Moncton, the other not.



reasoning that

"Whatever may have been the community of interest between Cocagne and Moncton in 1963, the Company nevertheless at that time saw fit to provide extended area service between the two points.... The Board is also convinced that extended area service enjoyed by the concerned Cocagne area subscribers over the years has been an important factor in the economic, social and cultural pattern of its development .... The Company ... is largely responsible for the significant community of interest which has developed between Cocagne and Moncton".<sup>18</sup>

The contrast between EAS development in New Brunswick and that in Nova Scotia is striking. In 1956 the N.S. Board reacted with enthusiastic caution to the first proposal from MT&T for an EAS Plan between Halifax and Bedford:

"The present application is of particular importance because for the first time in the history of telephone development in the Province of Nova Scotia the Applicant proposes the introduction and approval of a two-way Extended Area Service Plan. Extended Area Service Plans have been successfully adopted by telephone utilities in other territories in Canada and the United States. During comparatively recent years ... [persons have become] interested in local telephone service much greater in range than the one they normally used in the past. To meet these changed circumstances telephone utilities developed a plan called Extended Area Service .... Is such a plan entitled to approval?"<sup>19</sup>

The Board then went on to describe the results of balloting by subscribers in Bedford (Halifax and other MT&T subscribers were not consulted) and the reductions in revenues and costs of the company from the proposal. It concluded that the proposed EAS plan

"... meets the demand for additional service; ... meets with general approval of a substantial majority of the affected subscribers in the Bedford Exchange Area; ...

---

<sup>18</sup> Ibid at pp. 12-14.

<sup>19</sup> N.S. Board, Report 1956 at pp. 196-197.



does not result in unreasonable or unjust discrimination in the rates; ... will have a wide and general beneficial effect upon telephone subscribers generally throughout the [Halifax-Bedford] area; [and will better serve] ... the welfare of all telephone subscribers ...."20

Note that the initiative for this combination of two existing exchanges came from Bedford subscribers, not MT&T. Although the Board required a poll of all subscribers, it nevertheless retained

"the responsibility of determining whether or not the proposed plan is one which, even acknowledging (sic) the wishes of the majority of subscribers of the Bedford Exchange Area, the Applicant should be permitted to carry out".21

For the next four years there were no further EAS applications; by the end of 1965 there were only seven EAS plans which had been approved. From 1967 through 1970 about five applications per year were approved. In many cases EAS was introduced in connection with dial conversion, but in sharp contrast to the roughly 50 EAS plans in New Brunswick, only one of the 25 EAS plans approved in Nova Scotia through 1970 involved "method (2)" -- division of an existing exchange into new exchanges which were then recombined under EAS.<sup>22</sup> However, at least one other EAS plan served to recombine exchanges which had years earlier been divided: the division of Kingston from Middleton in 1948 had led to considerable subsequent dissatisfaction; no doubt this was an important factor leading to its EAS in 1961.<sup>23</sup>

<sup>20</sup> Ibid., at p. 201.

<sup>21</sup> Ibid., at p. 200. This theme may also be found in Report 1964 at p. 50.

<sup>22</sup> There were several cases however, where exchange boundaries were changed and new exchanges created, but -- except for Ketch Harbour (Report 1970, at p. 138) new exchange creation was always balanced by the elimination of an old exchange.

<sup>23</sup> See N.S. Board, Report 1948 at pp. 439-441; Report 1950 at pp. 47-50;

Two other aspects of EAS development in Nova Scotia are worth mention. First, in contrast to the Westville - New Glasgow precedent, described earlier, the burden of commuting distance charges through EAS arrangements is generally thrown on the smaller exchanges, but no recognition of inconsistency is evident in the Board's decisions. Second, the principle of majority subscriber support has, on several occasions, been overridden by the Board -- always in favour of establishing an EAS.<sup>24</sup>

In Newfoundland, the concept of EAS was approved in 1960 and plans for Grand Falls - Bishop's Falls and Stephenville Crossing - St. Georges were implemented. Subsequent development of EAS was minimal up through 1969 -- the investment priorities of Avalon Telephone being directed elsewhere. As a result of rapid EAS development in 1970, 1971 and 1972 however, the number of Newfoundland Telephone exchanges

---

Report 1955, at pp. 323-326; Report 1961, at pp. 275-279; and Report 1962, at pp. 443. Similarly, the Saulnierville - Meteghan EAS in 1967 (Report 1967, at p. 260) was preceded in 1951 by the establishment of a central office in Meteghan and considerable controversy over the appropriate location of the boundary between the two exchanges. (Report 1951, at pp. 212-215)

<sup>24</sup> Notably in three decisions (Report 1968, at pp. 120-123, 167-170, and pp. 279-282) in the same year, the Board found rationalizations regarding lack of subscriber enthusiasm.

"But be that as it may, the Board is of the opinion that this proposed extended area service is in the interest of the public generally as a progressive advance in the field of telephony and to the public of the two exchanges particularly for the reason [that there is an established community of interest between the two Exchange Areas and the elimination of tolls] ... and also because of the long range effects on economy of operation.

which belong to an EAS plan exceeds the number of MT&T exchanges with EAS. All but two of the plans involve the concatenation of pre-existing separate exchanges rather than the restructuring of an existing exchange. Adherence to the principle of majority subscriber endorsement has been rigid.<sup>25</sup>

On Prince Edward Island, the first EAS plan was introduced in 1968 between New Haven and Charlottetown. Two additional plans involving Summerside were approved in the course of the following fiscal year and an EAS between Alberton and O'Leary followed. In fiscal 1972-73 three additional EAS plans were approved, two relating to Charlottetown.<sup>26</sup>

---

<sup>25</sup> On April 3, 1972 a hearing was held with respect to establishing EAS for Botwood with Bishop's Falls and Grand Falls. (Report 1972, at p. 58) NTC gave the results of a canvass of Botwood customers which showed that 58.3% favoured the EAS which was ordered approved. This implied an increase in exchange rates. But within two months, "as a result of adverse publicity and apparent confusion which followed the Company's announcement that EAS had been accepted, the Botwood Town Council conducted a similar canvass which indicated that 66% of the subscribers were against EAS; therefore the Company arranged to update its canvass ... this information showed that a majority of customers no longer wanted EAS".

The Board therefore immediately and without any ado cancelled its previously granted approval (Report 1972, at p. 80)

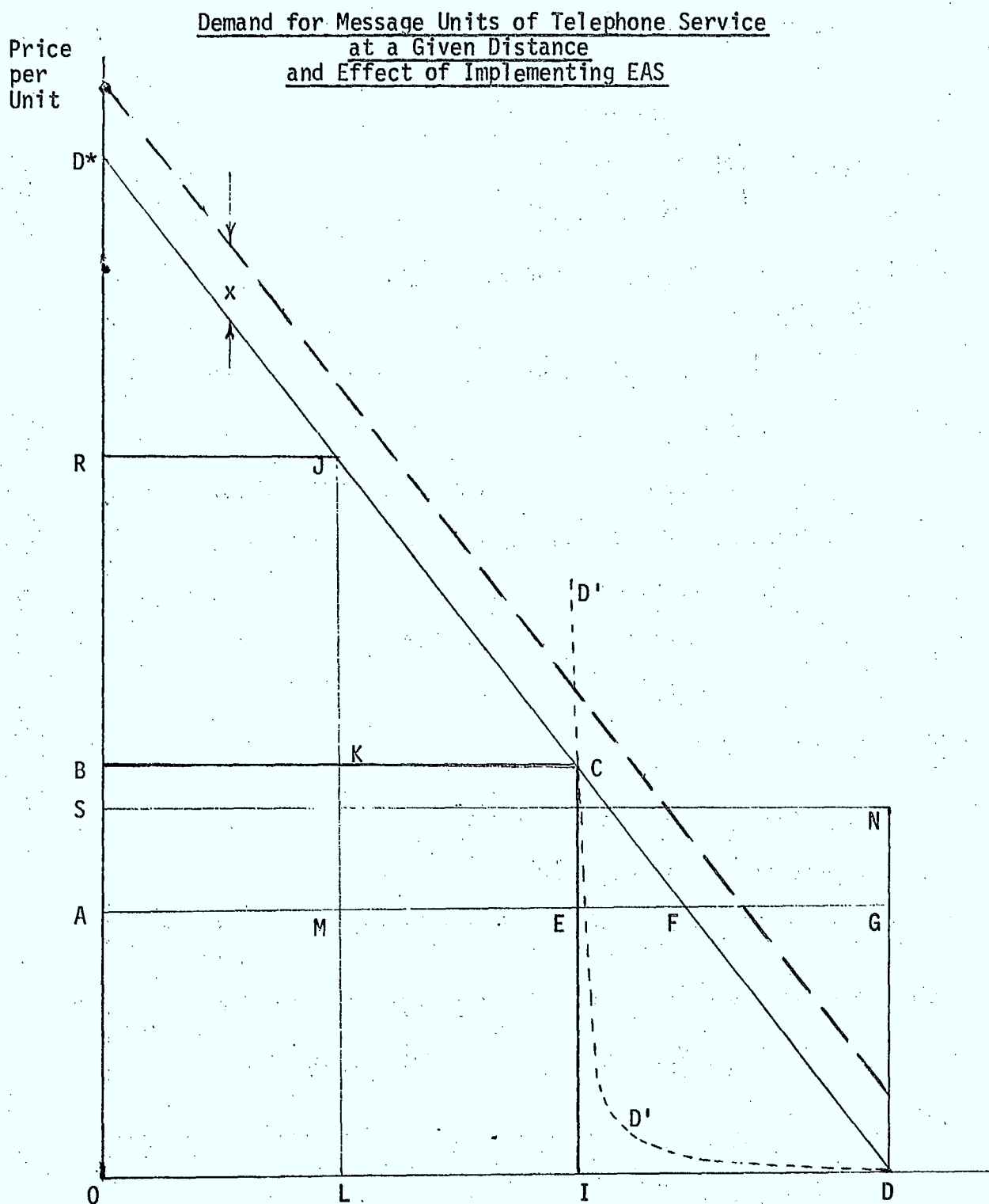
<sup>26</sup> P.E.I. Commission, Report 1967-68, at p. 21, Report 1968-69, at p. 13 and Report 1972-73, at p. 58; and ITC General Tariff, dated 1 January, 1971. Reports of EAS approval are so abbreviated that it is impossible to determine the criteria applied in PEI.

The Spatial Dimension of Exchange Service Pricing:  
An Economic Analysis of EAS

We utilize a partial equilibrium framework, assume initially that the number of subscribers is invariant and that subscribers are evenly distributed throughout the environment. For simplicity let us also assume that marginal switching and transmission costs per message unit (for a call of given duration) for a given distance are fixed and that costs of message unit measurement and billing are also constant per message unit. Under these assumptions, demand for telephone message units from any location to all other locations a given distance away, will exhibit the usual negative slope. Let the demand curve be the straight line DD in figure 2. If price equals marginal cost it will be OB(= IC). OB is comprised of OA, the cost (c) of switching and transmission and AB, the measuring and billing cost (b). OI units ( $V_1$ ) will be purchased. If subscribers at this distance are incorporated into the toll-free calling area, price per message unit will drop to zero and the volume of message units will increase to OD ( $V_2$ ). Billing costs to the extent of ABCE --  $b \times V_1$  will be eliminated, but transmission and switching costs will increase by EADI. However, consumer subscribers will be better off to the extent of paying nothing for their initial level of calling as well as receiving the value of the additional calls. This improvement in their welfare must be netted against the drop in revenue to the company to determine the net social benefit, the triangle CID (externalities being neglected).

From a social point of view it is advantageous to institute

Diagram 2



EAS at this distance if the reduction in billing cost plus net benefit to consumers just exceeds the increase in transmission costs. This implies that ABCF is only slightly larger than FGD.

Thus

$$(1) \quad bV_1 + b \frac{b}{b+c} \frac{V_2 - V_1}{2} \geq c \frac{c}{b+c} \frac{V_2 - V_1}{2}$$

Multiplying by  $2(b+c)$  and expanding we obtain,

$$(2) \quad 2b^2V_1 + 2bcV_1 + b^2V_2 - b^2V_1 \geq c^2V_2 - c^2V_1$$

Combining terms, factoring out  $(b+c)$ , and manipulating, we arrive at a concise condition

$$(3) \quad \frac{b}{c} \geq \frac{V_2 - V_1}{V_2 + V_1}$$

But for a given distance and given price for calls the increase in volume of calling will be directly proportional to the original number of calls.

$$(4) \quad V_2 - V_1 = \alpha V_1 \quad ; \quad \text{where } \alpha \text{ is a constant}$$

If  $\gamma$  is defined

$$(5) \quad \gamma = \frac{\alpha}{\alpha+2} < \alpha$$

We may substitute (4) and (5) into (3) to obtain the necessary condition for a socially advantageous EAS:

$$(6) \quad \frac{b}{c} \geq \gamma$$

Let us relax the assumption of a linear demand curve and suppose instead that the demand curve has the least advantageous shape  $D^1CD^1D$ . In the limit, consumer surplus from additional calls disappears and EAS can be justified on social grounds only if the additional transmission costs are less than the reduction in billing costs.

$$(7) \quad bV_1 \geq c(V_2 - V_1).$$

This implies a more stringent condition than (6):

$$(8) \quad \frac{b}{c} \geq \alpha > \gamma$$

We may also relax the assumptions of constant marginal cost. If  $b$  and  $c$  are both measured at  $V_1$  and both are increasing but linear functions of calling volume,<sup>1</sup> measured  $b$  will overstate the average cost of billing by no more than a factor of two, and measured  $c$  will understate additional costs of transmission by a maximum of  $\frac{\alpha}{2} + 1$  relative to equation (9). In this extreme case, the condition would be

$$(9) \quad \frac{b}{c} \geq \alpha^2 + 2\alpha > \alpha$$

If decreasing costs prevail, conditions (6) and (8) are excessively strict. This has immediate implications for EAS extensions into areas of low subscriber density where trunk lines and switching for transmission to other exchange centres are underutilized. Such cases may well be characterized by decreasing long-run marginal cost but they turn out to be more -- not less -- attractive situations for application of EAS.<sup>2</sup>

---

<sup>1</sup> Non-negativity is also assumed.

<sup>2</sup> Implicitly this relaxes the assumption of equal subscriber density through space. It also assumes the interchangeability of trunk lines and EAS lines. Areas of low density turn out on assumptions of excess trunk capacity to be better suited to EAS than areas of high density since the likelihood of excess capacity is greater in the former and long-distance service must be supplied in any event. It may be noted that peak-load problems have been suppressed in our analysis. Clearly if peaking increases with EAS it will tend to result in increased marginal costs -- and vice-versa. Since peaking tends to increase  $c$  but not  $b$ , the greater the peaking characteristics of short-haul inter-exchange telephoning, the lower the critical value of  $\alpha$ .



Before turning to modify the marginal cost pricing assumption, we may introduce externalities: as Squire has recently pointed out, receipt of telephone calls is valued by most subscribers.<sup>3</sup>

Presumably the receipt of the additional phone calls which result from EAS confers benefits on the parties called. We may incorporate this into the analysis by assuming constant external benefits per message unit received. Then the benefits associated with the demand for telephone message units is given by a line parallel to the demand curve and  $x$  units above it and benefits from EAS are understated in equation (1) by  $(V_2 - V_1)x$ . Introducing this change modifies equations (6), (8) and (9) so that  $b/(c-2x)$  replaces  $b/c$ , viz,

$$(6a) \quad \frac{b}{c-2x} \geq \gamma$$

$$(8a) \quad \frac{b}{c-2x} \geq \alpha > \gamma$$

$$(9a) \quad \frac{b}{c-2x} \geq \alpha^2 + 2\alpha > \alpha$$

Now let us consider the effect of pricing above marginal cost, specifically under profit maximising monopoly assumptions. With a linear demand function and constant marginal cost, monopoly output will be one half the output level we have been considering -- at OL with price at LJ. Cost reduction will now equal BKMA and net gain to consumers JMF.

Hence:

$$(10) \quad bV_1 + (V_2 - V_1)\left(\frac{p-c}{p}\right)\left(\frac{p-c}{2}\right) \geq V_2 - V_1\left(\frac{c}{p}\right)\frac{c}{2}$$

<sup>3</sup> Lyn Squire "Some Aspects of Optimal Pricing for Telecommunications" Bell Journal of Economics and Management Science 4 (1973) at pp. 515-525. This point is also made in N.S. Board, Report 1966 at pp. 74-75.

where  $p$  is the price actually charged. If  $p^*$  equals  $p - b + c$ ; that is  $p^*$  is the excess of price above marginal cost, derivation of conditions corresponding to equations (6), (8) and (9) result in  $b/(c-p^*)$  replacing  $b/c$ , viz.

$$(6b) \quad b/(c-p^*) \geq \gamma$$

$$(8b) \quad b/(c-p^*) \geq \alpha$$

$$(9b) \quad b/(c-p^*) \geq \alpha^2 + 2\alpha ;$$

each of which can be modified for the effect of externality as in equations 6a, 8a and 9a.

Thus the effect of monopoly pricing is similar to that of externalities, although it must be borne in mind that from the point of view of maximising social welfare the alternative of marginal cost pricing will generally be superior to monopoly pricing -- and as we have seen already -- may be superior to EAS.<sup>4</sup>

What is the effect of varying distance on  $b$ ,  $c$ , and  $\alpha$ ? Clearly  $b$  is constant while  $c$  increases (but much less than proportionally). The drop in price with introduction of EAS increases with distance -- not inherently, but because the costs rise with distance;

---

<sup>4</sup> If we wish to determine whether in a monopoly pricing situation EAS is superior to the situation which would prevail given marginal cost pricing we must deduct the monopoly deadweight loss triangle JKC ( $= (V_2 - V_1)(p - b - c)(p - b - c)/2p$ ) from the net benefits calculated for EAS. This yields the condition

$$(6c) \quad \frac{pb}{(b+c)^2 - pb} \geq \gamma ; \text{ where } p > b+c$$

under the assumptions outlined for equation (6). If  $MC = MR$ , we may use the well known proposition that monopoly output is one half competitive output to eliminate  $p$ , thus obtaining

$$(6d) \quad \frac{3b + c}{3c + b} \geq \gamma$$

if the demand curves at each distance were parallel straight lines this would imply that the ratio of  $AU$  to  $V$  would increase with distance. But if the desire for telephonic interaction attenuates linearly or more than linearly with distance it can easily be shown that the assumption of parallel linear demand curves is inconsistent with the observation that for EAS over short distances  $\alpha$  is between 3 and 4, and that fewer long distance calls are placed at a higher price for longer distances. If arc elasticities between the pre-EAS and post-EAS equilibria are constant over distance,  $\alpha$  is constant. If long-distance demand is less elastic than short-distance demand,  $\alpha$  will decline with distance. Although unlikely, this effect could conceivably be sufficient to offset rising  $c$  and make it socially advantageous to introduce Canada-wide EAS.

Toll revenue equal to  $pV_1$  is lost by introducing EAS. Flat rate revenue is generally increased as some subscribers are reclassified into higher rate groups (and in Newfoundland a flat rate mileage charge is applied). This additional flat rate lump sum charge may be conceived as applying equally to all units consumed; it will then be a rectangle  $qV_2$ , where  $q$  is equal to  $ND$ . If all subscribers had identical incomes and tastes (or if the telephone company knew their tastes and were able to discriminate perfectly), a flat rate amount equal in area to  $pV_1$  plus  $(V_2 - V_1)(P/2 + x)$  could be charged, leaving consumers as well off as at  $J$ .<sup>5</sup> Correspondingly, under these assump-

<sup>5</sup> This assumes that the income effects of this increase in revenue can be ignored and further that each alternative is riskless. If the telephone company could force subscribers to accept EAS they could also capture the consumer surplus above  $p$  which equals:

tions, consumers behaving to maximise their utilities would be willing to vote for EAS if SNDO were less than RJDO. But obviously subscribers do not have identical telephonic preferences nor is the telephone company free to fix flat rate charges as it wishes. If the utility is seeking to increase profits directly from EAS it would avoid it whenever increased cost exceeds increased revenue, i.e., whenever SNGA is negative. Since realistically it can never persuade subscribers to pay as much as ODGA ( $ODGA \approx BCIO + CFE$ ) -- the socially desirable amount, it would under these conditions promote EAS to a less than socially desirable extent.<sup>6</sup> However, since EAS involves substitution of capital intensive transmission costs for labour-intensive commercial costs, any EAS will increase the rate base regardless of its social desirability. If monopoly revenues are less than fully exploited within the entire system, the utility will have an incentive to introduce undesirable and unprofitable EAS plans and maintain its permitted rate of return by increasing revenues from other subscribers.

To consider the role of subscriber balloting, we relax the assumptions of constant system size and of homogeneous consumer behaviour. If the telephone company were to levy additional flat-rate charges on all current subscribers just sufficient to offset each one's net gain from EAS, each subscriber would in general pay no less

---

$pV_1^2/2(V_2-V_1)$ . Note further that the consumer surplus captured must be summed over all distances from zero to the one under EAS consideration.

<sup>6</sup> In situations where demand is rising and new long-distance capacity is needed (with attendant high short-run marginal costs), EAS will be particularly attractive from the point of view of its direct effect on profits.

than before, and each would be as well off as before. Hence, no-one would leave the system. But some new subscribers might join the system -- finding the value of the old local service plus EAS (including long-distance at measured rates), worth more than the total new flat rate charge -- even though the value of old local service alone was less than the old flat rate charge. Since perfect discrimination is not possible, some subscribers may in fact leave the system even though the EAS charge fails to capture much of the net gain to consumers. Thus the effect of EAS on system size is indeterminate whenever the flat-rate charge for some subscribers rises as a result of EAS.

Each subscriber assessing a proposed EAS plan will consider his own individual demand for service to the EAS area (and any externalities in the form of additional calls expected to be received). Some will have no demand for such service and others will have demand curves similar to (but higher or lower) than in figure I. If EAS poses no increased risk, (assuming risk aversion) the  $i$ th consumer will rationally be willing to pay an additional flat rate charge for EAS equal to the area RJDO under his demand curve. The median RJDO, would have to exceed the actual flat rate increase in order for a majority to favour EAS. In fact, however, there are two risks: (a) the fixed cost to the consumer of a telephone is increased by the flat-rate charge, thus reducing the subscriber's flexibility in allocating his income; (b) even if no change in exchange classification (and hence no change in flat-rate) occurs, the size of the local calling area is greater and hence more vulnerable to future reclassification from alternative EAS's, normal growth, or change in the

system of classification.

Although subscriber approval of service changes has a long history in telephone regulation, its application is scarcely as straightforward as at first may appear.<sup>7</sup> Changes in telephone service affect not only subscribers who directly pay more or less and receive better or worse service, the entire system is affected if only because the excess net costs (or revenues) of a change must be borne by (or benefit) subscribers generally. If only those directly affected can vote, changes which confer modest direct benefits may be approved in spite of substantial indirect costs. Balloting inherently measures

---

<sup>7</sup> A digression on the referenda in the history of telephony may be warranted. In 1913 in Nova Scotia, the smaller classes of telephone exchange provided service only during the day and evening. Subscribers were given the opportunity by the Board to petition for reclassification (at higher rates) in order to secure better or continuous service. In a lengthy decision, "In the Matter of an Application by the MT&T Co. Ltd. for Approval of a Special Rate to be known as the 'Pony Farmers' Line Rate'" and "A.S. Burgess v. MT&T" (N.S. Board, Report 1913 at p. 73) the Board introduced the principle of expression of subscriber preferences:

"In the event of seventy-five percent of the subscribers in any exchange expressing their desire by written application to the company to be placed in an exchange of a class higher ... the company may apply to the Board to have such Application approved. On such application coming on for hearing, those subscribers who have not signed the application will be given an opportunity of being heard".

The principle was embodied in the tariff and reiterated in subsequent decisions (e.g., MacDonald et.al. v. MT&T; Report 1918 at pp. 56-61). A similar balloting principle is evident with the introduction of automatic (dial) service in 1927 for an increase in the monthly flat rate for primary service of twenty-five cents. Report 1927 at p. 207 and Report 1928 at pp. 240-245. The order in the latter reference reads in part.

"In the event of subscribers representing 60% of the main stations or trunk lines ... expressing their desire ... to be provided with automatic switching service ... [on approval such] service shall be furnished in such exchange within a reasonable time".

only the existence of preferences, not their strengths: a majority slightly benefited by a change outweighs a minority greatly burdened -- and vice versa. Moreover, in most cases the choice offered to the subscriber is binary. Alternative solutions to the exchange boundary problem are not offered on the ballot. For example, the possibility of sharply reduced charges for short long-distance calls, to bring them into line with marginal costs, would significantly affect an EAS referendum. A highly skewed distribution of telephone usage to the EAS area is likely to imply enormous benefits to a few and modest losses or gains to the remainder if a majority favours the proposal. But as we have seen, this can only occur if the EAS is very infra-marginal. Regulatory caution with respect to consumer referenda therefore appears well warranted.



The Spacial Dimension of Exchange Service Pricing:  
Optional EAS & WATS

The common characteristic of optional EAS, ZONE-PHONE and similar options such as ZENITH, CALLPAK, ORTS, Interexchange Short Period Service, Foreign Exchange Service, INWATS, and OUTWATS, is a reduction in unit long-distance charges to the individual subscriber who chooses the option (or reduction in long-distance tolls to those calling the individual subscriber). This reduction takes the form of a flat monthly rate for foreign exchange service. In other cases a measured use rate with a minimum-monthly charge is applied.<sup>1</sup> In some cases a minimum number or proportion of subscribers in a given exchange may be required before the service will be made available in order to avoid extreme excess capacity in the extra facilities needed. Nevertheless the essential difference between these options and general mandatory EAS is that the latter is available only on an all or nothing basis to an exchange while the former are available to individual subscribers. There are differences in the range, direction, extent, restrictions, and precise pricing of these options, but we shall not discuss these. Two aspects only are considered here: (a) the extent to which such arrangements are offered in the four provinces, and (b) the implicit discounts in long-distance rates which are involved and the likely effect of these discounts.

---

<sup>1</sup> The optional EAS between Bedford and Halifax which operated between 1949 and 1956 was essentially a commuted foreign exchange mileage charge. Since Foreign exchange service is only slightly developed, we confine our discussion to the other options. It is interesting to contrast the perfunctory approval accorded the Bedford-Halifax optional EAS (Report 1948, at pp. 431-33) with the detailed review of the general EAS proposal in 1956.

Province-wide WATS was introduced in New Brunswick in 1968 and INWATS in 1970.<sup>2</sup> Intra-provincial ZONE-PHONE (a zoned OUTWATS) and Province-wide INWATS were approved in Nova Scotia in 1973.<sup>3</sup> Zenith service is available in New Brunswick but not in Nova Scotia.<sup>4</sup> None of these services are offered in P.E.I. or Newfoundland, and NTC officials do not anticipate seeking to introduce them. Except for foreign exchange service and private line long-distance connections which are available in all jurisdictions,<sup>5</sup> the various types of optional EAS are also not available in the two island provinces.

Callpak (optional measured EAS) was introduced in New Brunswick in 1971 and implemented between the Hampton and Saint John exchanges and the Moncton and St. Antoine exchanges.<sup>6</sup> MT&T received general permission to introduce a different type of optional measured EAS in 1973 and hopes to implement it to connect French Village with Halifax in late 1974.<sup>7</sup> These plans are regarded by both utilities as suitable for exchanges where the community of interest is insufficient

---

<sup>2</sup> N.B. Department of Provincial Secretary, Annual Report 1968 at p.64 Annual Report 1970 at p. 51.

<sup>3</sup> N.S. Board, "Decision" In the Matter of the Public Utilities Act and in the Matter of an Application of MT&T for permission to amend its Tariff ...." dated 24 December, 1973.

<sup>4</sup> N.B. Telephone Co., General Tariff, dated 1970.

<sup>5</sup> Foreign exchange service has been available in Nova Scotia and New Brunswick for over 50 years, but was introduced in Newfoundland only in 1963. (Report 1963 at p. 94)

<sup>6</sup> N.B. Department of Provincial Secretary, Annual Report 1971 at pp. 55-56 and N.B. Telephone Co., General Tariff, dated 1972.

<sup>7</sup> See note 3 immediately above.

for general EAS.

The discounts in long-distance rates implied by WATS/ZONE-PHONE type offering are very modest -- so modest in fact that for unfavourably located businesses an increase in average calling costs might result. At a maximum for a business making very short duration calls only in daytime hours, savings might run at the order of 15 percent. For the optional EAS offerings, the savings are substantial however. Callpak reduces costs by a minimum of 25 percent, and for subscribers whose calls last an average of 20 minutes, a maximum of 88%. The savings under MT&T's optional measured EAS range from minus 35% for business users who normally call for long periods late at night to plus 90% for residential subscribers who reside less than 12 miles distant from the called exchange and who normally make many calls of extremely short duration. Probably average savings under either arrangement are in the range of 30 to 40 percent.<sup>8</sup>

In Nova Scotia one clear effect of the pricing of optional EAS relative to long-distance service is to increase the volume of daytime use of short-haul toll circuits since the prices do not vary by time of day as do tolls. In New Brunswick this effect will not occur because the long-distance tolls do not depend on time of day for distances up to 36 miles.

---

<sup>8</sup>At the 1973 hearing when optional EAS was approved, MT&T presented estimates of discounts which ranged from 47% to 54% and 31% to 39% respectively for residential and business subscribers.

The Spatial Dimension of Exchange Service Pricing:  
Expansion of Exchange Areas

Conceptually, implementation of general EAS differs from expansion of exchange areas in one key respect: each exchange in an EAS plan retains its identity -- in particular as a toll rate centre. Hence long-distance charges to exchanges adjacent to an EAS area may differ for different subscribers within that area. Moreover a given exchange may belong to more than one EAS; thus within a given EAS area some subscribers may pay long-distance charges to other exchanges while other subscribers do not pay these charges since they belong to a second EAS. While these differences are far from trivial, expansion of exchange area boundaries is sufficiently similar to general EAS that it does not require analysis at this point.

Differences among the four provinces with respect to modifying exchange boundaries are striking. In Prince Edward Island only two changes appear to have been made in the last twenty years -- both in 1964, when the Hillsborough exchange was closed -- it no longer serving as a useful central office for rural companies -- and the Georgetown exchange was separated from Cardigan, enabling both to remain classified in rate group I rather than moving up to rate group II. In New Brunswick, there appear to have been no expansions of exchange boundaries within the last two decades, but a very large number of new exchanges have been created.<sup>1</sup> Many of these have resulted from the absorption of former connecting companies. In broad outline however, the exchange boundaries still approximate those

---

<sup>1</sup> 42 in 20 years.

prevailing fifty years ago.

In Nova Scotia, the record reveals countless modifications to exchange boundaries: expansions, contractions, cancelations. But close inspection reveals that -- aside from the abolition of class H rural exchanges in 1952 -- almost all of these changes in exchange boundaries resulted from abandonment of service by rural and mutual connecting companies. It is obvious that the Board has striven to maintain the basic exchange structure which had been created earlier and in general expressed reluctance in making exceptions:

"In previous decisions the Board has made reference to the importance of maintaining and retaining exchange areas. Each ... has been designed to encompass an area adjacent to a populated centre or community and within which there is a community interest.... It is essential that the theory of exchange areas be retained and ... that when changes in existing boundary lines are made they must be based on a public benefit such as results from a change ... unforeseen at the time the ... boundary was established.<sup>2</sup>

Most of the exceptions dealt with service to Halifax or Sydney; there were in addition half a dozen cases in which an EAS type development occurred. For example absorption of Birch Cove into Halifax, Parkdale into the New Germany Exchange (1952), Alma into New Glasgow (1952), Sambro into Halifax (1953) Clyde River into Barrington (1955), part of Chezzetcook into Halifax (1961) and Northfield into Bridgewater (1962) all were accompanied by detailed surveys of subscriber sentiment and in some cases, closely-argued discussions of costs and community interest.<sup>3</sup> Three cases illustrate the painstaking micro-level efforts

---

<sup>2</sup> N.S. Board Report 1961 at p. -173.

<sup>3</sup> N.S. Board, Report 1950 at pp. 147-148; Report 1952 at pp. 371-373;

of Board and Company to determine customers' desires and establish conclusively the desirability of making an exception to the principle of inviolate exchange boundaries. The Clyde River case describes the problems created by ad hoc intermixtures of the lines of rural telephone companies and MT&T. The Board first determined that there were economic advantages to incorporating Clyde River into Barrington. Although there might be an adverse effect on single party telephone development, the Board reasoned

"that the fact that a rate for a particular service in a particular area has been approved does not mean that such service must be supplied regardless of cost.... The cost of supplying 1-party service would be unreasonable".<sup>4</sup>

Finally the Board tried to clarify the relationship between the Port La Tour Company and MT&T.

The Indian Harbour-Sherbrooke case resulted from subscriber demands in Port Bickerton for improved service. Several surveys revealed that this area differed from the Wine Harbour, Port Hilford area -- also within Indian Harbour -- in that it was self-contained, whereas the latter was tributary to Sherbrooke. Therefore the Board split the Exchange using the community of interest criterion.<sup>5</sup> In the same year,

---

Report 1953 at pp. 21-22; Report 1955 at pp. 302-311; Report 1961 at pp. 172-174; and Report 1962 at pp. 163-168. Although the decisions do not reveal it, similar evidence may also have been presented with respect to the amalgamation of Herring Cove into Halifax (Report 1951 at p. 108), Clifton into Truro (Report 1957 at p. 88), and Albany into Middleton (Report 1959 at pp. 10-11). Subscribers' views were also sought with respect to reclassification and elimination of the class H exchanges.

<sup>4</sup> N.S. Board, Report 1955 at p. 308.

<sup>5</sup> N.S. Board, Report 1962 at p. 20-22.



it made a more detailed review of evidence of costs in the Northfield case than in any EAS's earlier or later.<sup>6</sup>

On the other hand, however, no decision on boundary changes ever rejected an application by MT&T. For example, in dealing with a boundary extension of the Sydney exchange to include a portion of the East Bay exchange area in 1967 revealed that:

"Persons from the East Bay Area who attended the hearing suggested that the Sydney Exchange Area boundary should be extended an additional 2.9 miles.... Evidence given by the Applicant ... included the following points: that the incorporation of East Bay Exchange Area into the Sydney Exchange Area would require a capital expenditure of \$170,000 and would result in estimated annual revenue of only \$8,500; that mileage charges beyond Morley Road would result in a prohibitive rate for one-party service; that [re]location of the new Base Rate Area at East Bay will make one-party service within the [East Bay] Exchange Area available at modest cost ...; that it is technically and physically impossible to serve the communities on the western side of East Bay out of the Sydney Exchange and future planning dictates that the whole of the area ... be served [from] ... the community of East Bay; that existing plans provide for conversion of the East Bay Exchange Service to dial in 1971 and the provision of EAS between the Sydney and East Bay Exchanges. While the Board does not officially approve or accept the[se] points ... as a final determination of the manner in which improved telephone services are to be supplied ... [they] illustrate the degree of care and planning the Board requires the Applicant to exercise in the implementation of its announced policy [of] ... upgrading of services ... and modernization of its plant and service in the manner that is economically sound and in conformity with accepted

---

<sup>6</sup> Ibid, at pp. 163-168

"The Board is satisfied that the conversion of the facilities now serving the subscribers in Northfield Exchange Area to dial operation is desirable and that because of geographical proximity and community of interest, the Northfield Exchange area can conveniently be integrated ... as proposed ... the Board is satisfied that the improvement in both local and long distance service justifies the increased cost". (at p. 167)



telephony and engineering practices".<sup>7</sup>

In Newfoundland, the exchange areas inherited from the period prior to Confederation were not uniform; there were virtually no rural connecting companies to contend with and the more isolated portions of the Province were served by CN Telecommunications. Nevertheless, outside the immediate St. John's and Cornerbrook areas, population density in Avalon territory is very low, and there were a number of unserved communities a decade ago. These conditions have no doubt influenced development of exchange areas. During the 1950's exchanges and exchange boundaries changed little: although the number of dial exchanges quadrupled and common battery exchanges were eliminated, there were only 31 exchanges in 1961 against 29 a decade earlier, and the record of regulatory activity contains no mention of boundary changes.

In the following decade the number of exchanges doubled, with four of this total coming from the take-over of the rural telephone system on the Burin Peninsula from United Towns Electric Co. in 1962.<sup>8</sup> The Board required many of the new exchanges to be established in order to extend service to communities which previous had done without. And boundary extensions of other exchanges were often undertaken to the same end. Nevertheless, there are a number of changes in

---

<sup>7</sup> N.S. Board, Report 1967 at pp. 13-19.

<sup>8</sup> Why this inadequate system had not been taken over earlier is obscure. United Towns and Avalon were corporate twins sharing shareholders, office space, management and work force until the Bell purchase of controlling interest in Avalon in May, 1962. This intimate corporate link (West Coast Power Company was also involved) was one of the reasons why Avalon found it so difficult to have a valuation carried out in the 1950's.

boundaries which do not appear immediately related to extension of service or the Burin take-over. For example, the Bay de Verde common battery exchange was set up in 1964 but absorbed into Old Perlican upon dial conversion in 1971.<sup>9</sup> Again, the Mt. Pearl exchange was set up in 1964 but was absorbed into St. John's in 1971,<sup>10</sup> common battery exchanges at Ferryland and Cape Broyle replaced the magneto exchange at Calvert in early 1965,<sup>11</sup> and the old magneto exchange at Heart's Delight was split into two dial exchanges in 1970.<sup>12</sup>

---

<sup>9</sup> Newfoundland Board, Report 1964 at pp. 20-21 and Report 1971 at p.43.

<sup>10</sup> Newfoundland Board, Report 1964 at pp. 81-33.

<sup>11</sup> Newfoundland Board, Report 1965 at p. 9.

<sup>12</sup> Newfoundland Board, Report 1970 at pp. 46-47. In this case, however, EAS between the two exchanges was promised as soon as possible.

## The Spacial Dimension of Exchange Service Pricing:

### Mileage Charges and Base Rate Areas

As noted earlier, mileage charges are levied on telephone subscribers who reside outside the base rate areas of an exchange. These charges were initially intended to recover from customers living in areas of low population density outside the centres of communities the extra capital cost of providing service. Hence they were (and are) graduated according to the type of service obtained -- with single-party subscribers paying approximately three times as much per mile as four-party customers. This has inhibited the development of telephone service in general in rural areas and in particular the development of single-party service.

A goal of regulatory Boards and utilities alike is to provide telephone service to rural areas. In Section III-C we comment on the reasons for this; at this point we merely note it. It is not surprising that one of the observable trends in telephony -- particularly in the last twenty years -- is a reduction in mileage charges. This may be accomplished in basically two ways: by expansion of base rate areas (BRA) toward the size of the exchange areas or by reduction of the unit charge per mile. In this sub-section we will briefly examine this process in the four Atlantic Provinces.

Mileage charges and the distinction between BRA and exchange area existed already at the inception of regulation in New Brunswick and Nova Scotia. Probably this was the case in Prince Edward Island,

too. In Newfoundland the 1952 Tariff reveals no mileage charges; it seems likely that they first were introduced in 1954.<sup>1</sup>

Initially the base rate areas were circles one-half mile in radius. But exceptions were made early for such exchanges as Halifax.<sup>2</sup> And variations by class of exchange in the size of the BRA were introduced in New Brunswick in 1923 when the radius was extended from 1.0 to 1.4 miles for exchanges in groups III through VI.<sup>3</sup> In 1945 in New Brunswick mileage charges on so-called "Farmer's lines" were eliminated completely.<sup>4</sup> In 1947-8 the BRA for Charlottetown was increased from ½ mile to 1 mile radius.

About 1950, modifications of BRA's and of unit mileage charges began to be introduced more rapidly and after 1960 this trend accelerated. P.E.I. increased to one mile the BRA radius in all rate groups and made provision for a 1.5 mile radius for Charlottetown upon dial conversion.<sup>5</sup> Nova Scotia geared size of BRA to exchange rate grouping in MT&T's 1952 Tariff, with radii of 1.0 and 1.5 mile in the smaller exchanges and ad hoc definitions in the larger. Unit mileage charges were sharply increased but by amounts less than proposed by MT&T.<sup>6</sup>

---

<sup>1</sup>Newfoundland Board, Report 1952 at pp. 8-12; Report 1954 at p. 9.

<sup>2</sup>The Halifax BRA was extended to the Halifax city limits in 1918 and to 1 mile radius in Dartmouth. (N.S. Board, 1918 Decision, at p. 23.)

<sup>3</sup>N.B. Board, Report 1924 at pp. 45, 54, 57-58.

<sup>4</sup>N.B. Board, Report 1945, at p. 12.

<sup>5</sup>P.E.I. Commission, Report 1951-1952 at pp. 67-72.

<sup>6</sup>N.S. Board, Report 1952 at pp. 149, 154-163, 167-172.

Newfoundland set BRA size at 3 miles radius in 1954 when mileage charges were introduced in 1954, significantly more than the prevalent size elsewhere.<sup>7</sup>

To describe exhaustively each change that has been introduced in the last two decades is unnecessary. We note instead three patterns of development: modification of base rate areas through locality rate areas and island base rate areas; ad hoc expansion of urban base rate areas -- mainly in Nova Scotia, and a double shift in policy in Newfoundland -- first toward establishing base rate areas much smaller than exchange areas, then toward the elimination of the difference between BRA and exchange area.

Locality Rate Areas were introduced in New Brunswick in 1962, in Newfoundland in 1963 and in Prince Edward Island between 1965 and 1971. Island base rate areas were introduced in New Brunswick in 1965 and in Nova Scotia in 1967.<sup>8</sup> Both concepts involve expansions of BRA -- in the former case setting up a quasi-BRA in which higher basic monthly rates are paid since mileage charges are reduced and made uniform but not eliminated, in the latter case establishing a second BRA within the same exchange area.

---

<sup>7</sup>Newfoundland Board, Report 1954 at p. 9.

<sup>8</sup>N.B. Board, Peat Marwick, Mitchell & Co. Examination and Report on Application for Increased Rates, June 1969, Appendix A; N. S. Board, Report 1967 at p. 215; Newfoundland Board, Report 1963 at pp. 88-89 and Prince Edward Island Reports 1965-1966 and 1970-1971 (Tariffs).

In Nova Scotia and Newfoundland there has been little direct use of these concepts. In Prince Edward Island precise population density requirements were set forth. Apparently a number of areas met these requirements because the number of exceptions to the standard circular BRA has doubled between 1965 and 1971 and again in 1973. About a third of the exchanges now have irregular shapes.<sup>9</sup> In New Brunswick BRA expansions were introduced annually for several years beginning in 1965. The result is that a high proportion of the exchanges have acquired irregularly shaped BRA's. In few cases however does BRA coincide with the exchange area.<sup>10</sup>

In Nova Scotia there were many extensions and changes in base rate areas, but those around the Halifax area illustrate both the frequency of change and the interaction of Board and Utility. In 1958 Fairview, Armdale and Spryfield were included in the Halifax BRA, but the decrease in revenue from the lessened mileage charges was recaptured by an ad hoc increase in the Halifax exchange rates much as had been done in New Glasgow a decade earlier. But this technique of forcing the exchange affected to absorb through increased monthly rates reduction in mileage charges was not repeated. In 1960 Rockingham and Birch Cove were added; in 1963 parts of Dartmouth; in 1967, Harrietsfield,

---

<sup>9</sup>ITC, 1972 Tariff

<sup>10</sup>Peat Marwick, Mitchell & Co. Op. cit. Appendix A. This policy must have led to negative consequences because the current NBTC Tariff laconically indicates that no new locality rate areas or island base rate area will be established after January 1972.

Herring Cove and Purcell's Cove, in 1969 another portion of Dartmouth. In addition there were extensions of the base areas of some of the EAS communities near Halifax -- Bay Road in 1967 and Bedford in 1969.<sup>11</sup>

The 1963 decision illustrates the Board's approach. The Board noted that prior to 1958 the Halifax BRA had been fixed for many years; then it was changed twice. MT&T had been ordered in 1958 to survey various areas in Dartmouth; subsequently it made additional surveys and had applied to extend the BRA. The decision outlines the procedures followed to determine cost but indicates no criteria by which one might judge the desirability of a BRA extension except the number of hours per extension mile in different areas. However in response to a complaint that the proposed extension was insufficient, the Board responded that the expansion of Dartmouth had

"created utility problems that must be solved and these problems will be solved in an orderly manner and in accordance with accepted utility principles. As planned and contiguous growth...is realized telephone service...will be extended and it may not be too many years before...a single basic rate will be substantially realized."<sup>12</sup>

"The Applicant will be expected...to make further surveys in these areas...with a view to further increasing the free mileage area [BRA]...in accordance with acceptable telephone utility practices. These practices are reflected in [Applicant's]...evidence:

'It is our obligation to reduce the mileage charge when we feel that conditions warrant. The charge is there...to compensate for extraordinary cost per telephone to provide urban type

<sup>11</sup>N.S. Board Report 1958 at p. 200, Report 1960 at p. 246, Report 1963 at pp. 227-234, Report 1967 at p. 217, and at p. 148, Report 1965 at p. 157, Report 1969 at p. 157 and at p. 34.

<sup>12</sup>N.S. Board, Report 1963 at p. 232.



service. When...this condition will no longer apply we feel obliged to reduce the mileage [charge]...

The Board agrees that there is no magic figure of house count... or density that can automatically determine...the free mileage area....Many other circumstances must be examined to form the basis of a judgement....The Board...believes...[the Company's] approach toward the gradual extension of free mileage urban areas to be a reasonable one."<sup>13</sup>

As the comparison of these four provinces reveals that "accepted utility practice" varies substantially, the N.S. Board's approach is to rubber stamp decisions of the Utility which are based on whatever reasonable elements of judgement the Utility's management chooses to employ.

In Newfoundland when significant numbers of new exchanges were set up or converted from magneto to common battery in 1963 and 1964, almost every one involved a defined BRA smaller than the exchange area.<sup>14</sup> As noted above, locality rate areas were approved in 1963 and they were introduced in some of these exchanges. From 1965-1969 few actions to vary BRA's were taken, and a new policy appears to have evolved. When exchanges including some of those set up in 1963-1964 were converted to dial and other exchanges established in 1970-1972, in almost every one the BRA equalled the exchange area.<sup>15</sup> The result of this change in policy is that in the majority of exchanges of Newfoundland Telephone Company there are no mileage charges -- a very different situation from any of the other provinces.

---

<sup>13</sup>Ibid, at pp.231-232.

<sup>14</sup>Newfoundland Board, Report 1963 at pp. 90-93, 100-101, 108-109; Report 1964 at pp. 9-10, 18-23, 25-27, 31-33, 36-38, 50-53, 95-96.

<sup>15</sup>Newfoundland Board, Report 1970 at p. 46; Report 1971 at pp. 39-43, 50, 63-64, 74-75, 77-78, 151; Report 1972 at pp. 20, 133 and 145.

### Summary

This rather lengthy examination of pricing policies started with a review of major rate decisions in the Atlantic Provinces which was summarized above on pages 3.47 to 3.49. Then we considered four aspects of pricing policy: rates for specialized equipment, installation charges, relationship of system growth and pricing, and the distance dimensions of local exchange pricing. This by no means exhausts the full range of pricing policies which could have been analysed. For example long distance, system service, multi-party service, business versus residential service, all might have been examined, as could have the relationship between technological innovation and pricing structure. The topics selected illustrate on the one hand a common pattern of discriminatory pricing practices, and on the other, significant variations in regulatory and company policies in dealing with common base rate area and exchange boundary problems; at the same time they provide a substantial record of activity which can be subjected to analysis.

Several specific features of regulation of telephone pricing stand out. As a method of securing informational input for regulation, (1) Adversary testimony is supplemented in Newfoundland and Nova Scotia at least, by canvasses of subscribers. Although it has been shown that the results of balloting are subject to manipulation through the effects of prices of alternatives not on the ballot, and further that ballots do not necessarily reflect consumer preferences correctly, the technique is undoubtedly useful.

- (2) The extent of the reluctance of regulatory bodies to intervene significantly in fixing pricing policies varies among the four provinces, but nowhere is it great. In the review we have made there is no record of rejection of a utility proposal for pricing special equipment, there are only two or three EAS requests that have been rejected -- and then only because of strong consumer opposition -- and a similarly low number of proposals for boundary changes have been refused or modified. The behaviour of the N.B. Board -- and to a lesser extent those in Nova Scotia and Prince Edward Island -- with respect to the marketing of telephone services by selective cutting of installation costs illustrates this laissez faire approach to regulation.
- (3) It takes little economic perspicacity to understand that over-expansion of capacity may occur, may be advantageous for the utility, and will be disadvantageous for most of the utility's customers. Yet the boards have shown little interest in investigating the intimate relationship between pricing policy and expansion of facilities and appear insensitive to the link between value-of-service pricing and monopoly exploitation.
- (4) Whether differences among the provinces with respect to treatment of the exchange boundary problem and the base rate area boundary problem reflect varied responses to varied geographical circumstances or different policies of the utilities, of the regulators, or of both is unclear. It is probable however that the major input is from the utilities.

- (5) Economic analysis of the costs and benefits of EAS -- to the utility, to subscribers involved, and to society in general -- reveals that each group will be affected differently. It is shown that the social net gain from EAS is (a) inversely -- not directly-- related to "community of interest", (b) directly related to the degree of monopoly pricing of short-haul long-distance calls, (c) directly related to the extent of economies of scale or excess capacity in transmission and switching costs and (d) directly related to the extent of existence of positive external effects arising from receipt of calls.

## Section III-C

EXTENSION AND UPGRADING OF SERVICE

At the inception of telephony in Canada

"Service was first provided in the more densely populated areas where larger numbers of subscribers could be obtained without the expense of providing lengthy wire connections.... Bell Telephone Company of Canada established service in all urban centers of any size... It was unable however to provide service in many rural areas because of the excessive cost. This led to the setting up of many small telephone systems and...in the West...to the entry of Provincial Governments into the field...with the intention of providing service to all who demanded it, whether located in urban or rural areas."

Although great technological changes have occurred in telecommunications in the century since Bell first spoke to Watson, the costs of providing service in areas of low density have remained well above the costs in areas of high density.<sup>2</sup> Although this is true to a lesser extent for wireless communication, it will no doubt continue to be a factor for the foreseeable future as telecommunicative innovations are introduced.

"Providing service to all who demand it" has a pleasant egalitarian ring, but demand for service depends on the terms on which

---

<sup>1</sup>TCTS, "History of Regulation and Current Regulating Setting", Telecommission Study 1(b), submitted March 1970 (Ottawa, Queen's Printer, 1971) at pp. 1-2.

<sup>2</sup>There have been successful attempts on the part of some telephone companies to confuse this issue -- notably by MT&T (ITC) in the late

service is offered and the incomes of those desiring service. This is true for individuals as well as societies. If cost were no object it would be entirely appropriate to provide the highest quality telephone system imaginable. To paraphrase a witness in the 1974 Bell hearings, under these conditions we would all drive Cadillacs and Rolls Royces. But if society and individuals must pay attention to expense, an adequate telephone system is appropriate, not a Rolls Royce telephone system.<sup>3</sup>

Under conditions where legislatures are sensitive to rural pressures, this conflict between economic imperatives and egalitarian principle is likely to generate confused public policy. This is even more true if some elements of cost averaging are inevitable for the public utility, which finds it to its advantage to extend and upgrade its services to the extent to which it is possible (or permitted by regulation) to squeeze monopoly revenues from its customers. We have seen earlier that public utility statutes prohibit undue discrimination. At the same time Rural Telephone Acts and the Federal Government (CN Telecommunications) subsidize rural telephone systems. This conflict was outlined nicely by the N.S. Board,

"Many of these rural and mutual companies are financially unable to improve their lines to give satisfactory service. In the opinion of the Board, telephone service is quite as essential to the rural communities as electricity. If adequate telephone service is to be given to these rural communities, either the government must come to their assistance or

---

1940's and early 1950's. A. M. MacKay succeeded in persuading both the N.S. Board and the P.E.I. Commission that the unit "costs of furnishing service in the larger exchanges is greater than in the smaller ones". See P.E.I. Commission, Report 1948-1949 at pp. 31-35 and N.S. Board Report 1952 at pp. 136-137.

<sup>3</sup> Dr. Myron Gordon, witness for Intervenor under direct examination, at p. 5129.

some (which service is important to the urban subscriber) new method for improving this service must be discovered."<sup>4</sup>

If extensions or improvements of telephone service for which incremental costs (including return on capital) are less than incremental gains it is clearly a question of public policy to determine who will bear the excess costs. And there should be clear and well understood criteria which are applied to individual cases so that they will be dealt with in a consistent and equitable fashion. It is precisely to prevent monopoly utilities from resolving such questions to their own advantage that regulatory bodies were set up.

---

<sup>4</sup>N.S. Board, Report 1946 at p. xvii.



### Experience in the Maritime Provinces

In the Atlantic Provinces there is considerable variation in this respect. In New Brunswick with the exception of the Cocagne case discussed above, the record reveals no regulatory initiatives in the last two decades to deal with inadequate or excessive service. But in 1952 there are two cases which show the Board passively reacting to situations on which it might have brought influence to bear.

In March, a resident of Acadieville complained that he was unable to secure telephone service from N.B. Tel. He was advised by the Company that "present planning is to proceed with [bringing service to this area] in 1953 and 1954, unless...more urgent projects force delaying this work." The Board merely suggested to the Company that the service should be furnished as soon as possible.<sup>1</sup> A similar response occurred to the formal petition from the Chamber of Commerce of the Islands of Shippegan and Miscou. These islands at that time had a population of about 6500. The petition alleged an extraordinary catalog of service inadequacies. The Company replied that "we cannot fully concur in all the assertions made by your Petitioner with respect to existing service facilities, but we do agree that the service presently being furnished is of a limited character as compared to the exchange type of service normally available..."<sup>2</sup> Then it put the

---

<sup>1</sup> N.B. Board, Report, 1952 at pp. 55-56.

<sup>2</sup> Ibid at pp. 60-61.

blame on the Federal Government for not supplying an improved cable connection to the mainland. Negotiations between Company and Federal Government continued, with the Board faithfully recording the exchange of correspondence and taking no formal action.

In other words, what the Company has proposed, the N.B. Board has disposed.<sup>3</sup> Since New Brunswick Telephone is 100% dial and there are no longer any rural companies (except the Fort Kent Company), this relaxed attitude may be less inappropriate than in Nova Scotia, for example.

The Prince Edward Island Commission on two occasions has refused to grant portions of rate increases on grounds of inadequate service.<sup>4</sup> And it took a hard line against rural telephone companies from 1955 onward. Moreover it insisted on ITC moving in promptly into about to be abandoned territories.

By way of contrast, policy of the Board in Nova Scotia toward rural and mutual companies has been relatively benign.<sup>5</sup> MT&T has not been pressed to extend service into rural areas other than on its own timetable. Moreover in at least three cases the Board has refused to order MT&T to supply improved service even after complaints.

Yarmouth residents petitioned for dial service in 1951 to replace their fully depreciated common battery system which was installed

---

<sup>3</sup> The Board did reject a part of the 1969 application for a rate increase.

<sup>4</sup> P.E.I. Commission, Report 1965-1966 at pp. 25-26 and Report 1970-1971 at pp. 17-18.

<sup>5</sup> See Chapter II, note 5. There are exceptions of course. For example, in the New Tusket Rural Telephone Case (Report 1961 at pp. 153-157) the Board refused to grant a rate increase sufficient to permit New Tusket to finance improvements out of revenues.

in 1932. MT&T highhandedly failed to submit the petition to the Board as required by regulation and indeed added additional manual equipment in the interval of over two years before the matter finally came to be heard. The Board found no evidence of inadequate or unreasonable service and stated "that the manual equipment is capable of giving good service for some years, and there is no indication of imminent inadequacy or congestion."<sup>6</sup> The Board abdicated its responsibilities to the Company:

"The obligation of a Public Utility is to furnish service and facilities reasonably safe and adequate and in all respects just and reasonable. The service needs of the public must be determined by the public utility and the public utility must meet them if they can be reasonably met. The quality of the service to be provided must be related to the ability of the public to pay and the ability of the public utility to finance."<sup>7</sup>

Again in the lengthy Clyde River decision a year later the Board expressed its sense of cost imposing a limit on service, the determination of which could best be judged by the Utility. It refused to order the supply of one-party service:

"The extent to which revenue from toll services and services in larger exchange areas must support services in the small exchange areas cannot be exactly defined but...the rate schedule of the Applicant is predicated upon...circumstances which are normal and reasonable. The fact that a rate for a particular service in a particular area has been approved does not mean that such service must be supplied regardless of cost and other considerations.... The Board is compelled to agree with the Applicant that...a central

---

<sup>6</sup> N.S. Board, Report 1954 at pp. 51-55.

<sup>7</sup> Ibid at p. 54. There was never a question about willingness to pay nor ability to finance. The issue was investment priorities and how they were to be determined.

office in the present Clyde River Exchange Area would be difficult to justify and that the cost of supplying one-party service by circuits out of Barrington...would be unreasonable." <sup>8</sup>

This passive approach contrasts sharply with that which has prevailed in Newfoundland. We turn now to consider it.

---

<sup>8</sup>N.S. Board, Report 1955 at pp. 307-308. Essentially the same finding was made again ten years later in the Margaree case. This took two years to come before the Board. (Report 1965 at pp. 354-364.)

### The Newfoundland Experience

Although the most sparsely settled parts of Newfoundland are served by the Federally-regulated CN Telecommunications, Avalon's territory includes settled areas where no telephone service was available prior to 1973. The present chairman of the Newfoundland Board of Commissioners of Public Utilities took office in October 1957. Since that time that Board has vigorously pressed Avalon to improve the quality and extent of service supplied. The result has been a friendly confrontation which lasted for fifteen years and undoubtedly accelerated and modified significantly the investment plans of the Company. Such an experience is, unfortunately, infrequent in the annals of regulation, so it is worth recording in detail.

The opening round was low-key, a note appended to the 1958 annual report:

"Preliminary Orders were also issued during the year on the Avalon Telephone Company to satisfy the petitions of residents of the following settlements for the extension or improvement of telephone services:- Cavendish, Islington, Whiteway, Heart's Delight and Heart's Desire in the district of Trinity South; Benoit's Cove, Bay of Islands; The Goulds, near St. John's; Pasadena-Midland, Humber District; Port-au-Port and Aguathuna, also on the West Coast."<sup>1</sup>

These preliminary orders were followed by four hearings in 1959 at which the Board ordered extension of up-to-date telephone service to all of the named communities by specific deadlines in 1959 and 1960.<sup>2</sup>

In 1962 Avalon purchased from the United Towns Electric Co. the

---

<sup>1</sup>Newfoundland Board, Report 1958 at p. 44.

<sup>2</sup>Newfoundland Board, Report 1959 at pp. 16-17, 22-25.

rudimentary system of about 1200 telephones which had been serving the Burin Peninsula. And in 1962 Avalon itself was purchased by Bell Canada. A prospective application for a rate increase was intimated to the Board shortly thereafter and eventually came to hearing on December 7, 1964. In the meantime communities on the Burin peninsula had petitioned the Board to investigate and order Avalon to furnish reasonably adequate services and facilities on the Burin Peninsula. Petitioners and Company agreed that both applications be heard concurrently, and the Board arranged to hold further hearings in February and March 1965 on the Burin Peninsula and at other locations in the Province.

The Board concluded that "the standard of service provided by Avalon was not reasonably adequate," and therefore deferred ruling on the rates application "until the reconstruction program of Avalon had been substantially completed."<sup>3</sup> It firmly set aside the Company's argument that rates and service were separate issues there being specific provisions in the Act for dealing with complaints

"The Agreement under which Avalon was granted a franchise... requires Avalon to provide prompt and satisfactory telephonic communication between its subscribers at all times in St. John's and at all reasonable times elsewhere. The Public Utilities Act provides that all public utilities shall furnish service and facilities reasonably safe and adequate and in all respects just and reasonable. The intention of the Legislature was to give Avalon a monopoly for the purpose of securing adequate telephone service at rates that are just and reasonable. It is possible to have adequate service at a rate that is not reasonable but the Board was unable to conceive of reasonable rates for inadequate service."<sup>4</sup>

The Board also rejected the "chicken and egg" argument. How

---

<sup>3</sup>Newfoundland Board, Report 1966 at pp. 115-116.

<sup>4</sup>Ibid.

could the Company, it was contended, raise the necessary capital with which to improve its service without a rate increase which would enable it to secure capital at a reasonable rate?

"Neither did the Board accept the argument that Avalon, which is a wholly owned subsidiary of the Bell Telephone Company, would be unable to raise the capital required to complete their reconstruction program unless they were allowed to increase their rates." <sup>5</sup>

By September 1966 the Company had by its deeds and promises satisfied the Board that

"...adequate telephone service is now provided to the great majority of Avalon's customers and in areas where services are not yet satisfactory, programs to bring them up to a reasonable standard are either under way or have been approved by Avalon's Directors." <sup>6</sup>

Service on the Burin Peninsula was dealt with in a separate decision wherein the Board concluded that reasonable adequacy had not been achieved:

"Evidence disclosed that service to the area has been improved since 1962....On the other hand, evidence also showed that telephone service provided by Avalon on the Burin Peninsula is not adequate to meet the reasonable demands of the customers for the following reasons: (1) magneto telephones do not provide adequate service in industrial areas; (2) there are insufficient toll circuits to meet the needs for long distance telephoning; (3) there are insufficient switchboards; (4) service is not provided on a 24-hour basis in some places, and (5) service failures are too frequent." <sup>7</sup>

The Board ordered improvements over a 40 month period including dial conversions in all exchanges, and it specifically ordered quarterly progress reports from the Company. <sup>8</sup> It did not however require

---

<sup>5</sup> Ibid.

<sup>7</sup> Ibid. at p. 133.

<sup>6</sup> Ibid. at p. 120

<sup>8</sup> Ibid. at p. 135



extension of service to Point May, concluding that it

"would not be compensatory at the present time and that the capacity of the Lamaline exchange is not adequate to serve customers in Point May. An extension to Point May will be reviewed by the Board while the [dial] conversion of the [Lamaline Exchange] is being carried out."<sup>9</sup>

It is apparent that the 1964-1966 hearings were the forum for a conflict in the expectations of the Company and of the Board. The Board wanted long term commitments to improvements in service which it thought would flow from the Bell acquisition. On the other hand the Company, which was financially weak, saw the hearings as an opportunity to improve its financial position through a revision of rates which, in turn, could be used as a basis for future improvements. The new management team which had been installed by Bell no doubt expected from experience elsewhere that their viewpoint would easily prevail and were genuinely surprised at the tough attitude of the Board. And there was more to come.

By December 1968, Avalon had met the timetable of work ordered, and it requested deletion of the requirement to undertake the four remaining dial conversions scheduled for 1969. The main thrust of Avalon's argument was that this requirement disproportionately burdened the 1969 construction budget of the Company and would be detrimental to improved service elsewhere in Avalon territory. The Board's response was that it -- not the Company -- set investment priorities.

"The Applicant's main contention is that capital is scarce and expensive. Because of this the Applicant's Board of Directors decided to limit capital expenditure in 1969 to \$6,000,000. This limitation makes it necessary for the Applicant to assign priorities....The Applicant assigned higher priorities to other

---

<sup>9</sup>Ibid at p. 134.

exchanges than to the conversion to dial telephone of the Burin, St. Lawrence, Lamaline and Garnish exchanges. No evidence whatever was submitted to show why higher priority should be assigned to other exchanges....Order No. 73 (1966) established top priority for the provision of adequate telephone service in the Burin Peninsula exchanges. Evidence submitted by the Applicant does not establish that this priority should be reduced...[and] does establish that the Applicant can provide the capital to enable it to comply with Order No. 73 (1966). The Board finds therefore that Order No. 73 (1966) should stand." <sup>10</sup>

Other arguments were put forward by the Company. It was suggested that the service provided by an efficiently operated manual system was quite comparable to a dial system and, indeed, had certain advantages.<sup>11</sup> This patronizing argument was tersely rejected by the Board which characterized the prevailing service as "completely inadequate": "Subscribers are the best judges of their own needs and the Applicant has a duty to supply it provided the subscribers are willing to pay the rates approved by the Board for the class of service demanded." <sup>12</sup>

It was also contended that the dial conversion "would not promise to be compensatory within a reasonable time" and was therefore contrary to statutory intent. The Board rejected both parts of this argument:

"The Board regards the conversion to dial of all the exchanges specified...as one undertaking but now that the larger exchanges have been converted...Applicant asks to be relieved of his obligation to convert the remaining exchanges....The

---

<sup>10</sup>Newfoundland Board, Report 1969 at p. 16.

<sup>11</sup>(i) faster service on local calls, (ii) rarity of nuisance calls, (iii) more personalized and simpler to use (iv) more efficient handling of emergency calls, (v) jobs and income for the community. Ibid at p. 10.

<sup>12</sup>Ibid at p. 14. Note the contrast to the Clyde River decision in Nova Scotia, discussed above.

Board finds that it is not proper for the Applicant to break down the capital cost of implementing Order No. 73 (1966) into separate exchanges for the purpose of escaping from the obligation to upgrade service in exchanges in which it is claimed the return on the additional investment would not be compensatory. The Board also finds that conversion to dial telephone does not constitute an extension of lines or service within the meaning of Section 72(2) of Act and therefore this section does not apply." <sup>13</sup>

Privately, members of the Board were convinced that the dial conversion would prove to be compensatory and that the Company's estimates of revenue were based on Upper Canadian rather than local experience. Time has apparently proven the Board correct and Company wrong.

Later in 1969, the Board awarded Avalon an increase in rates substantially more than requested on the condition that Avalon expand its construction program by \$3.5 million to provide service to 65 unserved and non-compensatory communities. The Board clearly wanted Avalon to get on with its service obligations:

"The Board is mindful of the fact that this is a time of high material and interest costs. It will take only four years, however, to complete the program so that at most a quarter of the work will be performed at current costs. If costs decrease rates can be speedily adjusted accordingly; if costs continue to rise the earlier the work is started the better." <sup>14</sup>

But this generosity did not bring the Board-Utility confrontation to an end. Already six months earlier the Board had acted on a complaint of inadequate service from residents of Trinity South -- some

---

<sup>13</sup>Ibid at p. 15. A year later the Act was amended at the Board's request (Stats. N. 1970, c. 45 s.8) to delete the requirement that extensions of service must promise to be compensatory within a reasonable time.

<sup>14</sup>Ibid at p. 115.

of the same communities provided service 10 years earlier. The Board reacted in a manner which was to serve as a prototype for a series of such actions in the ensuing months. It found the application of such a nature as prima facie to admit of relief, and ordered Avalon to install dial service by the end of 1970 or else answer the complaint.<sup>15</sup> Fourteen similar orders were issued during the early part of 1970, of which the Company chose to answer eight.<sup>16</sup> In all of these eight cases the Company explained its timetable for providing service and outlined the criteria for scheduling investment projects which had been employed. In one case a public hearing was held, but the reasonableness of the Company's priorities was upheld as in other cases which were contested. 1971 and 1972 yield no evidence of further complaints or Board actions to force the Company to improve or extend service, so it may be presumed that 1970 marked the end of the conflict between regulator and regulated.

---

<sup>15</sup>Ibid at p. 61.

<sup>16</sup>Newfoundland Board, Report 1970 at pp. 13-17, 19-24, 33-34, 39, 58-62, 90-93.

APPENDIX

Significant Events in  
Atlantic Telecommunications  
Development

## APPENDIX

Significant Events in  
Atlantic Telecommunications  
Development

Index

All references are to the Annual Reports of the Public Utility Boards or Commissions except for post-1963 in New Brunswick where reference is to individual Board decisions. The 1918 Nova Scotia Rate Decision was not included in the Annual Report but is bound with it in the Law Library, Dalhousie University.

This Index is more complete than the summary on a province by province basis which follows.

- |                     |   |
|---------------------|---|
| Antigonish          | -M.T. & T. refused discriminatory rate increase set in response to increased municipal taxation: N.S. 1940 p. 112.  |
| Area Paging Service | -See, "Bellboy", below.   |
| Arichat             | -Complaint regarding adequacy of telephone service: N.S. 1970 p. 263.   |
| Bell Contract       | -With M.T. & T. Dealt with in rate hearing: N.S. 1952 p. 131.<br>-With N.B. Tel. Dealt with in rate hearing: N.B. 1948 p. 197.  |
| Bellboy Rates       | -N.B. Tel. establishes rates for area paging system. <u>In the Matter of the Filing by N.B. Tel. of Rate for a New Service, January, 1974.</u> And see, Transcripts of Hearing, February 7, 1973, April 11, 1973. |
| Bell Ownership      | -Avalon. Effect of on ability to provide improved service: Nfld. 1966 pp. 115-116 (and see, "M.T. & T. Ownership", below).  |

- Benoit's Cove** -Complaint regarding adequacy of telephone service:  
Nfld. 1959 p.16.
- Bond Issue** -M.T. & T. criticized for not calling tenders:  
N.S. 1955 p.120.
- Burin Peninsula** -Avalon purchases telephone system on Burin Peninsula from United Towns Electric Co.:  
Nfld. 1962 p.7.
- Avalon acquired by Bell:  
Nfld. 1962 p.8.
- Plans for modernization of plant and upgrading of service announced by Avalon:  
Nfld. 1963 p.7.
- Establishment of Burin Exchange Area given interim approval:  
Nfld. 1964 p.9.
- Complaint as to service by Burin municipalities-- extensive improvement in service ordered by Board:  
Nfld. 1966 pp.133-135.
- Application to amend 1966 Order rejected by Board:  
Nfld. 1969 pp.7-17.
- Busines/Residential Rates** -Differential first recognized:  
N.S. 1918 Rate Decision pp.1-26
- Differential ruled too high:  
N.S. 1948 p.208
- Differential justified:  
P.E.I. 1947 p.35; 1965 p.27.
- Cable Television** -Rates set for "closed circuit television":  
Nfld. 1969 pp.36-39
- Board does not have jurisdiction to regulate pole access rights between N.B. Tel and cable operator:  
N.B. 1970, In the Matter of H & B Communications and the New Brunswick Telephone Company.
- Classification of Exchanges** -Rationalization of exchanges:  
N.S. 1918 Rate Decision pp.4-8, 1948 p.3, 1958 p.200; Nfld. 1954 p.6, 1963 p.88; N.B. 1952 pp. 72-81.
- Cocagne** -Successful complaint by subscribers as to change in exchange area:  
N.B. 1973, In the Matter of an Application by N.B. Tel. for Approval of certain Matters related to the Establishment of a New Exchange at Cocagne.



- Comparison of Rates with Other Companies - Mobile Exchange Service Rates:  
 N.S. 1969 p.100.  
 -Importance of comparison in rate case:  
 1968 Nfld. pp.28-32.  
 -N.B. Tel. Radio Mobile System:  
 N.B. 1961 pp. 86-94.
- Comparison of Service with Other Companies - Need for standard of service to measure up to that available in other parts of Canada:  
 P.E.I. 1965 p.24; Nfld. 1968 pp.28-32.
- Confidentiality - See, "Bellboy" above.
- Cost Separation, Regulated/Unregulated - Need for separation:  
 Nfld. 1969 pp.49-54, Nfld. 1970 p.88; N.B. 1961 86-94, N.B. 1969 pp.1-10.
- Cost/Value - Both cost and value to be used in calculating rates:  
 N.S. 1918 Rate Decision pp.1-26.  
 -Increased value as justification for increased rates in larger exchanges:  
 N.S. 1918 Rate Decision pp.7-8; P.E.I. 1947 p.35.  
 -Relationship in rate making:  
 P.E.I. 1970 pp. 17-18.
- Cross-Subsidization - And pay phones:  
 N.S. 1954 p.130.  
 -Mobile Exchange Service:  
 N.S. 1969 p.100.  
 -Need for in order to get service to non-compensatory areas:  
 Nfld. 1969 p.106; N.S. 1918 Rate Decision pp.19-20.  
 -Possible by telephone subscribers of unregulated mobile radio system:  
 N.B. 1961 pp.86-94.  
 -Possible by telephone subscribers of area paging service:  
 See, "Bellboy" above.
- Deferred Taxes - How should this be dealt with:  
 Nfld. 1966 p.119, 1968 pp.10-22.
- Depreciation - Principles to be followed:  
 N.S. 1931 p.146, p.161, N.S. 1937 p.126, N.S. 1946 p.186, N.S. 1953 p.263, N.S. 1959 p.5, p.67, N.S. 1963 p.100, N.S. 1966 p.32, N.S. 1969 p.44, p.235; Nfld. 1951 pp.8-9, Nfld. 1952 p.7, Nfld. 1966 pp.117-119, Nfld. 1968 pp.22-24, pp.35-38; N.B. 1924 p.59, N.B. 1945 p.18, P.E.I. 1948-9 pp.27-29, 1951-52 pp.48-49.

- Depression -Effect of on demand for telephone service,  
see, "Price Elasticity", below.
- Discrimination -Utility cannot charge different rate to one  
municipality in response to increased taxation:  
N.S. 1940 p.112.
- Ellerslie-Conway Telephone Co. -Complaint regarding adequacy of telephone  
service:  
P.E.I. 1962 pp.29-30.
- Extended Area Service -Bedford-Halifax, first of many E.A.S.  
applications:  
N.S. 1956 p.196.  
-St. John-Rothesay:  
N.B. 1957 p.82.  
-Principles to be applied in E.A.S. applications:  
N.S. 1964 p.43.  
-Cocagne Exchange Case (see above).
- Extension of Service -Burin Peninsula:  
Nfld. 1966 pp.133-135, 1969 pp.7-17.
- Financing -Stock/bond, which appropriate?  
N.S. 1962 p.155.  
-Financing to be only by common stock:  
N.B. 1925 p.29, N.B. 1930 pp.8-9,  
N.B. 1946 p.47.  
cf. N.B. 1948 pp.124, 193, N.B. 1952 p.67.  
-Extent of debt financing by Avalon:  
Nfld. 1966 pp.26-27.  
-Factors in Debt/Equity financing:  
N.B. 1953 p.129-132.  
-Who decides (Board or Company) as to whether  
financing should be by stocks or bonds?  
N.B. 1953 p.130.
- Foreign Attach-ments -Amendment to M.T. & T. General Tariff:  
N.S. 1951 p.111.
- Grand Manon Tele- phone Co. -Relations with N.B. Tel.:  
N.B. 1947 p.99.
- Iona Rural Telephone Co. -Complaint regarding adequacy of telephone  
service:  
P.E.I. 1962 p.24.
- "Island" Contract -Between M.T. & T. and Island Tel.:  
N.S. 1952 p.129.

- Jurisdiction**
- Mobile radio systems not subject to regulation:  
N.B. 1961 pp. 86-94.
  - Extent of unregulated activities (particularly extra-provincial long distance):  
N.B. 1969 pp. 1-10.
  - Board does not have authority to regulate pole access rate between N.B. Tel. and cable operator:  
N.B. 1970, In the Matter of H & B Communications and the New Brunswick Telephone Company.
- Labour Relations**
- See, "Salaries and Wages", below.
- Labrador**
- See, "Newfoundland Labrador Telephone Co.", below.
- Luxury Equipment Pricing Policy**
- Handset:  
N.S. 1928 pp. 45, 130.
  - Night-light telephone, etc.:  
N.S. 1958 p.184.
  - Princess Phone:  
N.S. 1960 p.269.
  - Coloured Phone Handsets:  
N.S. 1961 p.53.
  - Rate of return expected on such items:  
N.S. 1962 p.384.
  - Principles to be applied:  
N.S. 1962 p.472, 1964 p.3.
  - Touch Tone:  
N.S. 1968 p.6; Nfld. 1966 p.30.
  - Contempra Telephone:  
N.S. 1969 p.261; Nfld. 1969 p.82.
  - Criterion used in setting rates:  
P.E.I. 1970 pp.17-18.
- Margaree**
- Complaint regarding adequacy of telephone service:  
N.S. 1965 pp.354-364.
- M.T. & T. Ownership**
- Significance of ownership of Island Tel.:  
P.E.I. 1954 pp.43-44.
- Measured Service**
- Not originally applied in Nova Scotia:  
N.S. 1918 p.24.
  - Introduced in Halifax for business lines:  
N.S. 1918 Rate Decision pp.12-15.
  - Extended to residential:  
N.S. 1919 p.84.
  - Objection to measured service by Halifax Board of Trade:  
N.S. 1919 p.123.
  - Measured service for business abandoned for Halifax:  
N.S. 1965 p.58, 1966 p.49.

- Morgan Case** -Complaint alleging discrimination by N.B.Tel. in the provision of mobile radio systems:  
N.B. 1961 pp.22, 45, 86-94.
- Newfoundland Labrador Telephone Co.** -Rate base and rate established to yield net loss to Company:  
Nfld. 1965 p. 61.
- New Tusket Rural Telephone Co.** -Complaint regarding adequacy of telephone service:  
N.S. 1961 p.153.
- New Waterford** -Complaint concerning lack of dial service from M.T. & T.:  
N.S. 1937 p.67.
- Overlapping Service** -Policy statement regarding:  
N.S. 1915 pp.4-14.  
-Reluctance to authorize:  
P.E.I. 1962 p.29.
- Pay Phones** -Criteria to be applied in setting rates:  
N.S. 1954 p.130.
- Price and Income Elasticity of Demand** -Impact of Depression:  
N.S. 1933 pp.18, 149.  
-Impact of 1960's recession:  
Nfld. 1966 p.10.  
-Selective use of rate reductions to stimulate demand:  
N.B. 1961 p.120.
- Rate Hearings** -M.T. & T.: N.S. 1918 Rate Decision pp.1-26.  
N.S. 1919 pp.84-103; 121-133.  
N.S. 1934 pp.151-155, N.S. 1952 pp.107-197 (This includes a very useful discussion of the applicable principles).  
N.S. 1966 pp.49-161.  
N.S. 1970 pp.18-58.  
-Avalon/Newfoundland  
Tel.: Nfld. 1952 pp.7-12.  
Nfld. 1954 pp.6-9.  
Nfld. 1966 pp.114-124, 126-127.  
Nfld. 1968 pp.8-31.  
Nfld. 1969 pp.106-117.  
  
-Newfoundland/Labrador  
Tel.: Nfld. 1965 pp.59-62.

-N.B. Tel.: N.B. 1920 pp.11-12.  
 N.B. 1949 pp.196-212.  
 N.B. 1951 pp.29-33.  
 N.B. 1952 pp.105-109.  
 N.B. 1956 pp.13-16.  
 N.B. 1958 pp. 100-109.  
 N.B. 1969 pp.1-10.

-Island Tel.: P.E.I. 1948-9 pp.21-38  
 P.E.I. 1951-2 pp.36-66  
 P.E.I. 1965-6 pp.21-29  
 P.E.I. 1970-71 pp.12-19.

Rate of Return -Amendment to P.U. Act removing 8% rate of return:  
 N.S. 1943 p.xii.  
 -Discussion of appropriate principles to be  
 applied in determining:  
 Nfld. 1966 p.121  
 N.B. 1952 p.109  
 P.E.I. 1947, pp.29-30, 1952 pp.39-42.

Recession -Impact of 1960's in Newfoundland, see  
 "Price Elasticity", above.

Rural Telephones -Rural Telephone Act to encourage:  
 N.S. 1913 p.70.  
 -Rural telephone companies no longer providing  
 adequate service:  
 N.S. 1946 p.xvi.  
 -Government assistance to rural companies:  
 N.S. 1949 p.xiii.  
 -Interconnection with N.B. Tel.:  
 N.B. 1922 p.8, 1947 p.99.  
 -Importance of at beginning:  
 P.E.I. 1947 p.36.  
 -Inadequacy of service:  
 P.E.I. 1954 pp.55-6, 1955 p.23, 1962 pp.24, 29-30.

Salaries & Wages -Must be competitive with mainland:  
 P.E.I. 1952, p.55, 1954 pp.43-44, 1965 p.23,  
 1967 pp.17, 20.

Service -Complaints as to inadequate:  
 New Waterford, N.S. 1937 p.67.  
 Yarmouth, N.S. 1954 p.51.  
 New Tusket, N.S. 1961 p.153.  
 Margaree, N.S. 1965 pp.354-364.  
 Arichat, N.S. 1970 p.263.  
 Benoit's Cove, Nfld. 1959 p.16.  
 -Inadequacy of service led to deferral of rate  
 increase for Avalon:  
 Nfld. 1966 pp.115-116.

- Complaints of inadequate service, Burin Peninsula:  
Nfld. 1966 pp.133-135.  
Nfld. 1969 pp.7-17.
- Relation of service to rates:  
P.E.I. 1952 pp.45-46, 54-55, 1962 p.23, 1965 p.25, 1970 p.17.
- Shares
  - Issuance at par rejected by Board:  
N.S. 1931 p.119.  
N.S. 1948 p.383.
  - As compared with bonds as appropriate means of raising capital:  
N.S. 1962 p.115; N.B. 1953 pp.129-132.
- Souris
  - No rate increase respecting due to poor service:  
P.E.I. 1970 p.17.
- Trans Canada Telephone System
  - Impact of rates:  
N.S. 1936 p.50; N.B. 1941 p.7.
  - Board will not question inter-provincial tolls set by T.C.T.S.  
N.B. 1969 pp.1-10.
- Valuation of Plant and Equipment
  - M.T. & T.: N.S. 1914 p.83, 1918 p.24, 1934 p.42.
  - Avalon: Nfld. 1963 p.8.
  - Island: P.E.I. 1949 p.52.
- Vertical Integration
  - Extent of in M.T.& T.:  
N.S. 1952 p.126, 1965 p.43.
- Yarmouth
  - Complaint against M.T.& T. for failing to install dial:  
N.S. 1951 p.51.

Significant Events in AtlanticTelecommunications Development:Nova Scotia

1913 -- flat rate charges for exchange service pricing in effect at this time. (p. 70)

-- passage of Rural Telephone Act to encourage the extension of telephone service in sparsely settled district.

1914 -- valuation of plant and equipment of Maritime Telegraph and Telephone Company ordered by the Board. (p. 83)

1915 -- statement of policy by the Board re the number of companies allowed to serve a given territory. (pp. 4-14)

1918 -- hearing on the valuation of Maritime T. & T. plant and equipment; Maritime T. & T. not permitted to carry large stocks of inventory for inclusion in its rate base. (p. 24) Concept of measured service at that time was rejected.

-- rate hearing. The Board approved a schedule of rates for Maritime T. & T. to yield revenue which would cover (a) the cost of operation including taxes, (b) the annual depreciation in plant and (c) in accordance with the Public Utilities Act, a return of not less than 8% on the invested capital in property used and useful in connection with the furnishing of telephone service. Rates were established on assigned cost basis. (p. 3 of Decision insert at end of annual report)

A significant development was the approval of measured service for business lines in the Halifax Exchange Area. In designing



the schedule of rates the Board not only considered the cost of the service but also the extent of the service and its value to the subscriber. The Board acknowledged and approved of cross-subsidization. (pp. 1-25 of Decision insert)

The Board also approved a schedule of blocks of messages which could be contracted for in advance at reduced rates. (p. 24 of Decision insert)

1919 -- rate hearing - application by Maritime T. & T. for a general rate increase to cover increasing operating costs and to maintain the statutory return of 8% on its rate base. The Board declined to approve a general increase in rates at that time and strongly suggested that the shareholders of the Company absorb a part of the war burden deficits regardless of whether the Company was entitled by law to a return of 8%, to which the Company assented. The Board did approve, however, for the first time, an installation charge in addition to the existing removal charges for telephone stations. All lines, both residence and business, in the Halifax Exchange Area originating more than a specified number of calls per day for five consecutive days were to be transferred to measured service. This was done to improve telephone service by eliminating "unnecessary" calls and to increase revenues. To enable Maritime T. & T. to meet their deficits incurred during the war years, the Board approved a procedure by which Maritime T. & T. could make transfers from its depreciation reserve to a special reserve for the equalization of return, upon approval by the Board. (pp. 84-103)

-- application by Maritime T. & T. for approval of the transfer of \$200,000 from its depreciation reserve to the special reserve for the equalization of return was granted by the Board. (p.111)

-- application by the Halifax Board of Trade to have the initiation of measured service in Halifax suspended because it would place an unfair burden on the business community was rejected by the Board. (p. 123)

-- Maritime T. & T. given permission by the Board to draw upon the special reserve fund to be applied toward the equalization of Maritime T. & n.'s rate of return. (p. 247)

1921 -- the Board questioned fully the morality of Maritime T. & T. seeking full equalization of return which was lower than the prescribed 8% during the war years. (p. 25)

1925 -- application by M.T.& T. to set a rate for foreign mileage to cover distances over thirty miles and up to thirty-five at a rate of \$4.20 per fifth mile or fraction thereof approved by the Board. (p. 49)

1928 -- application by Maritime T. & T. for approval of a rate for a hand-set type of telephone, based on cost plus a reasonable return was approved by the Board. (p. 45)

1930 -- application by Maritime T. & T. for certain rate reductions received approval. (p. 24)

1931 -- application by Maritime T. & T. to issue common shares to the Barrington Township Telephone Company, at par, to

purchase the latter was denied, because the market value of the shares was greater than the purchase price at par. (p. 119)

-- application by Maritime T. & T. for a revision of their depreciation allowances, stemming from a study which was begun in 1928, was examined at length by the Board and given approval. The Board outlined the principles to be followed in establishing depreciation rates for a telephone utility. The Board intimated in the course of their decision that in both the interest of the public and the public utility, Maritime T. & T.'s rates of depreciation should be subject to review at the expiration of a five year period. (p. 146)

1933 -- Maritime T. & T. suffered both a reduction in the number of stations connected and a diminution in local and long distance toll business as a result of the Depression. (p. 18)

-- application by Maritime T. & T. for permission to withdraw from its special reserve for the equalization of return was approved by the Board. The application was due to the serious falling off in both exchange and long distance business. (p. 149)

-- the Board approved a revision of Maritime T. & T.'s depreciation allowances, five years having elapsed since the then present rates were established. Certain temporary reductions in the amounts set aside were approved as a result of the then existing economic conditions. (pp. 161-162)

1934 -- Maritime T. & T. reported a substantial increase in revenue, station connections and long distance business. (p. 17)

-- Maritime T. & T. applied for an order permitting it to set up on its books the full value of its stores and supplies which would be included in the rate base. The Board once again refused to allow the full amount as it found such a course not to be in the public interest. (p. 42)

1935 -- application by Maritime T. & T. for a revised schedule of toll charges including a new station-to-station service, person-to-person service and the initiation of night rates was approved by the Board. (p. 92)

1936 -- night rates for toll service became effective on Sunday as well enabling Maritime T. & T. to be in keeping with the other members of the Trans-Canada Telephone System. (p. 50)

1937 -- complaint by the residents of New Waterford against Maritime T. & T. that their service was inadequate which resulted in the installation of dial service for their exchange. (p. 67)

-- revision of Maritime T. & T.'s rates of depreciation, five years having elapsed since the then present rates were set up. (p. 126)

-- reduction in rates of Maritime T. & T. for handset telephones. (p. 130)

1940 -- application by Maritime T. & T. to increase exchange rates in the Town of Antigonish to meet the increased assessment imposed upon the Company within the Town. The Board refused to approve the application as taxes were properly chargeable to the whole telephone system and that it would be discriminatory to consider only one exchange or a town within an exchange. (p. 112)

1942 -- Maritime T. & T. began to experience substantial increases in business due to the War. (p. xiii)

1943 -- significant amendments to the Public Utilities Act, the more important of which resulted in a shift from accounting on the basis of reproduction cost to accounting on the basis of prudent original cost and, deletion of the 8% rate of return, enabling the Company to earn such return as was deemed just and reasonable by the Board. (p. xii)

1944 -- Maritime T. & T. was unable to meet demands for telephone service because of shortages in the supply of telephone equipment brought about by excess demand during the war. (p. xvi)

1946 -- the Board held that if adequate telephone service was to be given rural communities, either the provincial government must come to the assistance of the rural telephone companies, or some new method for improving the service must be discovered. This marked the beginning of the decline of the rural companies and their subsequent takeover by Maritime T. & T. (p. xvi)

-- revision of Maritime T. & T.'s depreciation rates.  
(p. 186)

1948 -- classification of exchanges on the basis of the number of lines and simultaneous switched connections was changed to a classification of exchanges on the basis of the number of subscribers' stations. (p. 3)

-- application by Maritime T. & T. for permission to issue 148, 920 common shares. The Company submitted that the shares be issued at par to the shareholders as had always been the practice and

custom. The Board held that the sale of shares at par (\$10) could not be authorized when their current market value was \$20.00 as it was obvious that the sale of shares at a premium was advantageous to the telephone subscribers. Accordingly, the Board approved an issue price of \$14.00 per share. Further, the premium on the sale of the shares was not permitted to be distributed to the shareholders but was to be deposited in a "premium account" to be drawn upon by the Company only with the approval of the Board. (p. 383)

1949 -- increased financial assistance given the small mutual telephone companies by the Provincial government assisted in the improvement of rural service. (p. xiii)

1951 -- amendment to Maritime T. & T.'s General Tariff regarding Foreign Attachments was approved by the Board. (p. 111)

1952 -- 70.9% of the phones operated by Maritime T. & T. were operated in Dial Exchange Areas. (p. xiv)

-- long distance service was established between Newfoundland and Nova Scotia. (p. xiv)

-- application by Maritime T. & T. for approval of a general rate increase was granted by the Board which resulted in substantial increases in both exchange service rates and toll service rates. The rates in effect prior to the application were those established in 1919. The principle that higher rates should be charged to business telephones than should be charged to residence telephones was maintained and measured service rates were revised upward. In the decision there was an excellent presentation by the Board of the general

principles of rate-making which they applied. (pp. 107-152)

-- the "Island" Contract. (p. 129)

-- the "Bell" Contract. (p. 131)

-- extent of vertical integration. (p. 126)

1953 -- revision of Maritime T. & T.'s rates of depreciation. (p. 253)

1954 -- a complaint was filed by the Town of Yarmouth respecting the failure of Maritime T. & T. to supply dial service in Yarmouth Exchange Area. After a public hearing the Board filed an order refusing to require the Company to take immediate steps to supply and install dial service in the Yarmouth Exchange Area. (p. 51)

-- application by Maritime T. & T. to raise the rates charged on coin box public telephones from 5¢ to 10¢ per call, which was standard all across Canada. The Board refused to approve the application, and in view of the nature and purpose of public telephone service the Board could not subscribe to the principle that "public pay stations should stand on their own feet". (p. 130)

1955 -- Maritime T. & T. criticized for not calling tenders on a bond issue that year which instead was offered by Maritime T. & T. to only one company, W. C. Pitfield. The Board was compelled to conclude that if the issue had been handled on an agency basis or additional offers had been sought, an increase in the net amount to the Company might have been realized. (p. 120)

1956 -- Extended Area Service between the Bedford and Halifax Exchanges approved. This was the first of many such applications, many



of which were established at a net loss to the Company. (p. 196)

1957 -- application by Maritime T. & T. to provide a monthly rate for coloured telephone handsets was approved in addition to the basic service rate. (p. 251)

1958 -- introduction by Maritime T. & T. of automatic telephone answering service, night-light telephones and speaker-phone, all at rates designed to cover their capital and operating costs plus a reasonable return. (p. 184)

-- application by Maritime T. & T. for approval of an extension of the free mileage boundary of the Halifax Exchange Area and of an amendment to its General Tariff whereby rates for the Halifax Exchange be increased 25¢ per month for residence telephones and 50¢ per month for business telephones so as to recover the losses sustained in making the extension, was approved by the Board. These rates were applicable to a new rate group X in which would be the Halifax-Dartmouth Exchange. (p. 200)

1959 -- review by the Board of Maritime T. & T.'s rates of depreciation. (p. 5 and p. 67)

1960 -- application by Maritime T. & T. for approval of rates and regulations for the Princess telephone in addition to all other charges was granted by the Board. The Board further expressed the opinion that a rate differential should be maintained unless and until demand for coloured sets equalled the demand for black sets and would be valid in regard to Princess telephones. (p. 269)

1961 -- application by Maritime T. & T. to reduce the monthly rate for coloured telephone handsets was approved by the Board. (p. 53)

-- the Board indicated dissatisfaction with the New Tusk Rural Telephone Company and directed the Company to make immediate arrangements to supply telephone service to all those requiring such service in its territory or, in the alternative, finalize negotiations with Maritime T. & T. with a view to abandonment of the territory. (p. 153)

1962 -- controversial application by Maritime T. & T. to issue stock. Argument centred on whether stock or bonds were the most appropriate method of raising capital at that time. The Board approved the former. (p. 155)

-- in an application by Maritime T. & T. concerning Home Interphone Equipment, the Company stated that they had established a percentage rate of 30.56% of its capital stock invested in plant in order to take care of its revenue requirement. (p. 384)

-- statement by Maritime T. & T. of a significant error in its introduction of automatic answering and recording equipment. The Board stated that it had always endeavoured to adhere to the principle that rates for special equipment should be self supporting and that the subscriber desiring the use of such special equipment should pay for the same without assistance or support from general service subscribers. The Board also felt it equitable and fair that the subscriber using such special equipment should pay no more than is necessary to take care of carrying costs, depreciation, operating costs and a comparable return related to such equipment. (p. 472)

1963 -- introduction by Maritime T. & T. of Direct Distance Dialing, established first in the Sydney Exchange Area.

-- review and revision of Maritime T. & T. depreciation rates. (p. 100)

-- application by Maritime T. & T. for a rate applicable to the new Ericofon telephone, in addition to all other charges, was approved by the Board. (p. 549)

1964 -- application by Maritime T. & T. for a reduction in the service connection charge for Call Director Sets from \$30 in each case to \$10. The former was established on a theoretical basis as the Company had had no experience with this type of service and the Company acknowledged that they had inadvertently misled the Board and therefore requested the revision which the Board approved. (p. 3)

-- statement by Maritime T. & T. of the conditions required before making application for permission to give Extended Area Service. In the same application the Board enunciated the principle that it is not enough for the Board to satisfy itself that a proposed E.A.S. plan is favored by a majority of the concerned subscribers, but that its responsibility required the determination of whether or not the proposed plan is one which the Company should be permitted to carry out in the overall public interest. (p. 43)

1965 -- Maritime T. & T. acquired various assets from two of its wholly owned subsidiaries, Atlantic Utilities Ltd. and Eastern Electric Ltd., consisting of garage tools and work equipment, print shop equipment and furniture. (p. 43)

-- application by Maritime T. & T. for permission to amend its General Tariff to provide for non-optional flat rate business service in all exchanges classified as Group VI. The Board directed that

the Company complete a study of the matter of "measured service versus flat rate service" to business subscribers within six months and then make further application. (p. 58)

-- complaint by Mr. K. Mackenzie that the rates, regulations and facilities applicable in the Margaree Forks Exchange of Maritime T. & T. were in some respects unreasonable, unjustly discriminatory, and insufficient and inadequate. After examination the Board dismissed the complaint as being unfounded. (p. 354)

1966 -- review and revision of Maritime T. & T.'s depreciation rates. (p. 32)

-- rate hearing. Application by Maritime T. & T. for a general increase in rates was approved by the Board. The main features of the revised General Tariff included a reduction in the number of Exchange Groups from 10 to 8 and substantial changes in the station limits of these groups, changes in the availability of Exchange services including the cancellation of non-optional message rate business services and the provision of flat rate business service in all rate groups with an optional message rate business service in groups having 15,000 or more subscribers' stations, and substantial revision of the method of determining system service rates. The majority of rates, tolls and charges for both exchange and long distance services were increased. (p. 49)

1968 -- of the phones operated by Maritime T. & T., 90.2% were now in Dial Exchanges and 62.3% of telephone subscribers served by Maritime T. & T. now had access to Direct Distance Dialing. (p. xxxviii)

-- application by Maritime T. & T. to establish rates

and regulations in respect to the provision of Touch Tone Service at \$2.00 per month for residence subscribers and \$2.50 per month for business subscribers was given interim approval by the Board. (p. 6)

-- initiation of Mobile Exchange service by Maritime T. & T. at a rate of \$42.00 per month and a \$50.00 installation charge was given interim approval by the Board. (p. 17)

1969 -- review and revision of Maritime T. & T.'s depreciation rates. (p. 44)

-- application by Maritime T. & T. for approval of its interim rates for Touch Tone Service. Costs of the service were lower than had been originally estimated and therefore the return slightly higher. By the end of the year the gross rate of return was expected to climb from 22.1% to 30.9%. This return was justified on the grounds that the service is basically a luxury service comparable to Ericofon and Princess telephones and was required by the Company in order to produce a total Company average in the vicinity of 22% in view of the very inadequate rates of return on connecting company takeovers and dial conversions. The Board accepted these arguments and approved the application. This was, however, contrary to the general principle that had been adopted by the Board in regard to luxury items; i.e., that rates for such items were only to be compensatory so as to not place a burden on other subscribers, not confiscatory. (p. 14)

-- application by Maritime T. & T. for approval of their interim rates for mobile exchange service. Costs had increased substantially for this service since its initiation. The Company

considered the rate of return at present rates to be too marginal and that when the service was improved serious consideration should be given to changing the rate. However, the Company recommended that the present rate stand as it was, about as high as any other Company was charging for equivalent service and that while such service could be provided by someone other than the Company, the provision of this type of service was a responsibility of the Company and it was undesirable to commence giving the service at a rate which would deter development. The Board did not express approval or disapproval of the rate but ordered that the Company report back to the Board regarding this service before the end of 1970. (p. 100)

-- application by Maritime T. & T. for permission to establish rates and regulations relating to the Contempra Telephone at \$1.75 per month. It was estimated by the Company that the gross rate of return on this luxury item would be in excess of 100% per year. This was justified by the Company on the grounds that this new type of phone should not be permitted to speed obsolescence of the Company's standard telephones. The Board accepted this argument and approved the proposed rate. (p. 261)

1970 -- rate hearing. Application by Maritime T. & T. for a revision of its General Tariff in the form of a general rate increase was approved by the Board. There was no change in the design of the new General Tariff from that used in the design of the General Tariff established in 1966. No changes were made in either the number of rate groups or station limits of the groups established in 1966. In the

Exchange Rate Tables the approved increases were proportionate generally throughout the Table and the proportions between residence and business services were maintained almost exactly as in the 1966 Tariff. The general increase in exchange rates for business and residence phones was slightly in excess of 11%.

Although there was no serious change in the design of the new Tariff, the approved Long Distance Service Rate Schedule contained some significant changes. These were: no change in the existing rate steps; retention of the initial 3-minute period for both station-to-station and person-to-person day, evening and Sunday service in rate steps not over 30 miles; the introduction of an initial 2-minute period in a new station-to-station service identified as Late Evening Daily 10 p.m. - 6 a.m., in rate steps 30 miles and over. There was no increase in existing station-to-station rates under 30 miles; station-to-station initial 2-minute day and evening rates in all rate steps above 30 miles were established at approximately one-third to one-half of existing initial 3-minute rates. These were the major changes in a substantial revision of long distance rates.

Rates for special equipment and services were also increased.  
(pp. 18-58)

-- formal complaint by the subscribers of the Arichat Exchange that the telephone rates, service and other facilities supplied by Maritime T. & T. in a part of its Arichat Exchange Area was in some respects unreasonable, inefficient and inadequate. The Board issued an order directing Maritime T. & T. to proceed with the implementation of



its conversion and upgrading of service plans with a view to completing the conversion of the Arichat Exchange to dial service together with appropriate revisions to base rate area treatment by November 21, 1971 (p. 263)

Significant Events in AtlanticTelecommunications Development:Newfoundland

1951 -- application for rate increase in St. John's Exchange Area by Avalon turned down because of inconsistent accounting procedures. (p. 2-7)

1952 -- Avalon made application again and the rate increase was approved. Depreciation rate was set at 3.3% per year on Avalon's property and assets on straight line method. (p. 7)

1954 -- application by Avalon approved for a New Schedule of Rates providing for Exchange Rate Groups and rates for each group which increase as the number of stations on the Exchange increases. Applications made so as to be in keeping with the pattern generally followed in Canada. (p. 6)

1957 -- application by Avalon to change St. John's from Rate Group 4 to Rate Group 5 refused on grounds that Avalon was not entitled to include stations at Pepperrell Air Force Base in its station count as there was no charge made by Avalon for each station at the Base and Avalon did not have the right to call on such stations to render service to the subscribers of Avalon. (p. 27)

1958 -- Avalon renewed its application to change the St. John's Exchange from Rate Group 4 to Rate Group 5, having established that the Company had reached the required number of subscribers' stations without reference to the Exchange at Fort Pepperrell; the application was approved. (p. 10)

1959 -- application of residents of Benoit's Cove requesting an up to date telephone service resulted in an order from the Board directing Avalon to proceed to extend their telephone services to the residents of Benoit's Cove and to provide an up to date telephone service to the residents of Benoit's Cove. (p. 16)

-- application by Avalon for permission to add (1) Multi-Party Rural Dial Service and (2) Extended Area Service to its Rate Schedule approved. (p. 10-11)

1962 -- Avalon purchased the telephone system on the Burin Peninsula from the United Towns Electric Company, Limited. (p. 7)

-- introduction of Operator Toll Dialing facilities between Newfoundland and the mainland was of major importance to long distance service. (p. 7)

-- acquisition of Avalon by the Bell Telephone Company in May. (p. 8)

1963 -- the transfer to military and civilian use of the properties on the former Fort Pepperrell Base in St. John's severely strained the Company's resources in meeting a sudden and unexpected demand for service in the area. (p. 8)

-- to meet the requirements of the Public Utilities Act in connection with the determination of a rate base, a physical inventory of Avalon's properties was completed during the year. (p. 8)

-- application by Avalon for the establishment of (a) Basic Rate Areas within new telephone exchange areas, with mileage charges beyond the boundaries of the Basic Rate Area; (b) Locality Rate Areas which are within Exchange Areas but outside Basic Rate Areas

and in which new rates to be approved by the Board would apply, was approved. (p. 88)

-- additional long distance facilities were provided to interconnect a number of other Avalon Company Exchanges, through the uses of both land lines and radio equipment, and additional circuits were leased on the C.N.T. cross-Island microwave route to substantially improve service to mainland points. While new long distance facilities were provided between centres on the Burin Peninsula, plans for modernization of exchange plant on the Peninsula were delayed or modified pending co-ordination with the program of the power company to reconstruct their pole lines in a standard manner for joint telephone and power purposes. (p. 7)

1964 -- the Radio system between St. John's and Freshwater was ready for service in August providing Long Distance circuits between the above points, for the Burin Peninsula, and between St. John's and Harbour Main. The new system replaced Leased Circuits, provided for additional growth and permitted the Avalon Company better control on these important routes. Another Radio system connecting St. John's, Cape Brogle and Trepassey was brought into operation. In the Western area, a Radio link was established between Port-aux-Basques and Rose Blanche. (p. 7)

-- since the completion of Trans-Atlantic Telephone No. 1 overseas cable approximately eight years ago, most of the telephone traffic of Eastern Newfoundland was carried to and from the mainland on this facility with connections at Clarendville. In September, this business was rerouted to Corner Brook, and "Off Island" connections were

established at Wild Cove, Bay of Islands, and Red Rocks near Port-aux-Basques. (p. 7)

-- application for the establishment of the Burin Exchange Area was given interim approval. (p. 9)

-- application by Avalon for a reduction in the rate charged for equipment known as 3A Speakerphone given interim approval.

--- issue by Avalon of 1,500,000 ordinary shares, bought by Bell, for the purpose of redeeming all of the outstanding preference shares of the Company. (p. 92)

1965 -- Newfoundland Labrador Telephone Company rate base and rates were established and approved by the Board to yield the Company a net loss. (p. 61)

1966 -- there was a severe recession in two areas during the year; Bell Island, which showed a decrease of 405 telephones, and Stephenville, a decrease of 914 telephones. (p. 10)

-- the Board approved monthly rates for Touch-Tone Telephones:

Business	\$2.50	
Residence	1.75	(p. 30)

-- near the close of 1964 Avalon made application for approval of a rate base and schedule of increased rates. After extensive travel and investigation by the Board during 1965, the Board came to the conclusion that the standard of service provided by Avalon was not reasonably adequate which was contrary to the intention of the Legislature and the Public Utilities Act; the Board was unable to conceive of reasonable rates for inadequate service. The Board would not

accept the argument that Avalon, a wholly-owned subsidiary of the Bell Telephone Company, would be unable to raise the capital required to complete their reconstruction program unless they were allowed to increase their rates and accordingly a ruling on the application was deferred until the reconstruction program had been substantially completed. (pp. 115-116)

In September of 1966 Avalon applied to re-open the hearing for the purposes of moving that the schedule of rates proposed in 1964 be withdrawn and submitted evidence to bring their rate base up to June 30, 1966, showed the improvements in service resulting from the additional investment in plant since June 30, 1964, and showed the rate of return required. (p. 116)

It will be recalled that in 1952 the Board approved an increase in rates and ordered that the annual rate of depreciation of Avalon's property and assets be 3.3% calculated by the straight line method. The depreciation rates proposed by Avalon at this time were developed by the Bell Telephone Company from information obtained from Avalon records and where this was not complete recourse was had to records of the New Brunswick Telephone Company and the Maritime T. & T. Company. From this study it was concluded that as of June 30, 1966 the estimated depreciation reserve requirements were \$5,187,000. Avalon's books as of June 30, 1966 showed a depreciation reserve of \$1,797,000, and this amount they proposed using in calculating the rate base. No evidence was offered to show that Avalon made any effort between 1952 and 1962 to have an appraisal made during this period or

to take annual depreciation at the rate of 3.3% by the straight line method. The amount of depreciation taken each year was determined by the judgement of management. The Board concluded and ordered Avalon to increase the depreciation reserve to \$5,187,000, leaving a deficiency of \$3,390,000. (pp. 117-119)

The Board also considered the treatment of the accumulated deferred income tax and reconsidered its practice of allowing public utilities to use straight line depreciation for determining the rate of return on the rate base while the reducing balance method of depreciation is used for calculating taxable income. Under this practice the amount collected from subscribers for corporate income taxes exceeded the amount actually paid by the utilities as long as the investment in plant grows or remains constant. The amount accumulated in this way was deducted from the rate base and the subscribers benefited because if this money were not collected from them it would have to be provided by the investors and a return would have to be earned on it.

The justification for this practice was that while reducing balance depreciation reduced taxes below normal in early years, there would be no net overall reduction. By accumulating a deferred income tax reserve in early years when taxes were low, the increase in taxes in later years need not be passed on to subscribers; taxes could be normalized.

However, the Board found that the increase in taxes in later years under reducing balance depreciation of Avalon's telephone plant was only theoretical because taxes would never be greater than normal



as long as the investment in plant increased or even remained constant due to the replacement of worn out and obsolete equipment. Taxes would only be greater than normal if Avalon's telephone plant went into a decline. The Board could not foresee a time when this was likely to occur and therefore proposed to allow only actual income taxes paid as expenses in the calculation of the rate of return. As of June 30, 1966, Avalon had a deferred income tax reserve amounting to \$1,673,000 and this was ordered to partially offset the depreciation deficiency. (p. 119)

During the hearing Avalon applied for a rate of return of 7% on the average rate base in the test year. As the Public Utilities Act provided no guide to the Board as to what constitutes a just and reasonable return prescribed in the Act, the Board had recourse to the decisions of the courts and regulatory commissions in other jurisdictions and compiled a summary of the prevailing legal tests of fairness and reasonableness of the allowed rate of return for a public utility as follows: (1) The rate of return should be similar to the return in businesses having similar or comparable risks. (2) The rate of return is partly a function of local conditions and should be commensurate with the return being earned by comparable companies at the same time and in the same general part of the country. (3) The return ought to be sufficiently great to assure confidence in the financial condition of the utility. (4) The return should also be sufficient to allow the utility to maintain and support its credit and should enable it to attract the capital necessary for the proper discharge of its duties. (5) The return should not be as high as that earned in highly profitable or speculative ventures.

The Board reached the conclusion that a reasonable return for Avalon lay between 6 1/2% and 7% on the average rate base. (p. 121)

As a result of the hearing the Board issued orders establishing the average rate base of Avalon for the purpose of the Public Utilities Act; that Avalon make a depreciation study on or before December 31, 1968 to be submitted to the Board for consideration; that depreciation reserve as at June 30, 1966 be \$5,187,000, and that the deficiency of \$3,390,000 be charged against the deferred tax credit of \$1,673,000 and that the balance of \$1,717,000 be set up as a special account to be amortized over a period of 20 years commencing on January 1, 1967; that Avalon, in computing their net earnings and rate of return for the purposes of the Public Utilities Act, would be allowed as an operating expense the income tax that would be payable if Avalon in calculating their taxable income took advantage of all provisions of the Federal Income Tax Act, which minimizes the tax attracted; and, that a just and reasonable rate of return for Avalon lay between 6 1/2% and 7% on the average rate base, and that Avalon should file with the Board a new schedule of rates, tolls and charges designed to yield a return within those limits. (pp. 123-124)

-- pursuant to the above order Avalon applied for an order approving a schedule of rates which were submitted to the Board. After examination of the proposed rates the Board approved the application. (p. 126)

-- Avalon submitted to the Board certain Rules and Regulations that related to the schedule of Rates and descriptions of the Exchange and Basic Rate Boundaries of the Company to which the Rates,

Rules and Regulations applied, all of which received the approval of the Board as constituting the Tariff of the Company. (p. 127)

-- application by certain municipalities on the Burin Peninsula petitioning the Board to: (a) investigate the services furnished by Avalon on the Burin Peninsula; (b) order Avalon to furnish reasonably adequate services and facilities, and (c) to make such order as the Board deems meet.

Evidence disclosed that service in the area had been improved since 1962 when the system was purchased from United Towns Electric Company by Avalon, but that telephone service provided by Avalon on the Burin Peninsula was not adequate to meet the reasonable demands of the customers for reasons which were outlined by the Board. Evidence was also given on the public necessity of a telephone service to Point May and the Board was urged to order Avalon to provide it. The Public Utilities Act authorized the Board to require public utilities to construct reasonable extensions of lines or service that promised to be compensatory within a reasonable time, but investigation satisfied the Board that an extension would not be compensatory at the time and that the capacity of the Larnaline exchange was not adequate to serve customers in Point May. Avalon, however, was ordered to convert the Larnaline exchange from magneto to dial and an extension to Point May would be reviewed by the Board while the conversion was being carried out.

In accordance with its finding, the Board ordered extensive improvements in telephone service on the Burin Peninsula each to be completed by a prescribed date and that Avalon should report to the

Board not later than 30 days after March 31, 1967, and each succeeding quarter the progress that had been made toward complying with the Order. (pp. 133-135)

1968 -- application by Avalon for a revised rate base and rate of return. A controlling issue in this rate application was whether Avalon would be permitted to return to a system of deferred tax credits and the Board, relying on expert evidence, laid out the arguments both for and against allowing deferred tax credit accounting for regulatory purposes. The Board believed that the accounting profession was well aware of the different pricing techniques of non-regulated and regulated companies and it was mainly for this reason that tax allocations were not recommended for regulated companies. It was well recognized too that regulatory boards have the statutory right to prescribe the accounting methods which regulated utilities will use as well as the power to review and revise the rate structure. The Board concluded that it was not reasonable and prudent to allow Avalon to charge today expenses which would not become payable until many years in future and would not become payable **at** all unless Avalon's plant growth fell below some rate which was not determinable at the time. Further, the Board did not believe that the provision for deferred taxes was a reasonable and proper expense of Avalon because it would be a customer contribution towards the capital funds of Avalon but accounted for as if it were operating revenue. Therefore the Board would not allow Avalon to use the tax allocation method of calculating the annual income tax expense when there were long term differences between the time when Avalon would charge the expense and

the time when Avalon might be required to pay it. Tax allocation would be permitted, however, when the tax liability was known and the deferment was for a short period. (pp. 10-22)

Avalon also claimed relief from the Board's order in 1966 which required it to charge the deficiency of \$3,390,000 in the depreciation reserve against the deferred tax credit of \$1,673,000, and applied for an order declaring that the accumulated deferred tax credit be restored and that the full deficiency in the depreciation reserve be amortized for rate-making purposes. The Board refused this request on the grounds that it was not merely the right of public utilities to charge depreciation at the rate ordered by the Board but that they were under a duty to do so. Because Avalon had failed to perform this duty and had charged a lesser amount, the loss, was its own. The Board on reconsideration, however, concluded that the balance of the depreciation deficiency in the amount of \$1,498,500 should be included in the rate base and that Avalon would be permitted to earn a return on this amount while it was being amortized. (pp. 22-24)

It is interesting to note that Bell's willingness to match equity with debt was one of the reasons and perhaps the only reason Avalon was able to raise \$3,000,000 of a \$5,000,000 issue of bonds in 1967. (p. 26)

Finally Avalon applied for a revision upward in its allowed rate of return citing the examples of other public utilities; Avalon did not, however, apply at this time for an increase in rates. The Board, while agreeing that Avalon's shareholders were entitled to the opportunity to earn a return on equity equivalent to that earned by

shareholders of New Brunswick Telephone and Maritime T. & T., the Board was also of the opinion that Avalon's customers were entitled to service at the equivalent rates to those charged by the above companies for service of the same description. The rates of the three companies were comparable at the time. After carefully explaining their reasons, the Board concluded that a rate of return up to a maximum of 8% of the rate base on a tax payable basis was just and reasonable. The Board issued an order accordingly. (pp. 28-32)

During the hearing it was pointed out that Avalon was earning very little on its equity capital and that no dividends had been paid for the last four years. Avalon barely covered its interest charges from 1964 to 1966. The return on equity was 0.5% in 1964; 1.9% in 1965 and 0.7% in 1966. The debt equity ratio was 64:36 when it was estimated that it should have been 40:60. Avalon was also going through a period of rapid expansion at the time. (p. 27)

-- Avalon given authority to include in its Tariff a provision for connecting telephones provided by customers to its equipment and wiring. (p. 55)

-- application by Avalon for permission to reduce its rates, tolls and charges in respect of toll service between any of the rate centres as defined in its Tariff on the Island of Newfoundland from 12 midnight to 6 A.M. was given interim approval. (p. 65)

1969 -- the name of Avalon Telephone Company was officially changed to Newfoundland Telephone Company effective January 1, 1970. (p. XIII)

-- microwave systems were placed in service between

Marystown and Freshwater, P.B., St. John's and Bay Roberts and Marystown and Larnaline. (p. XIV)

-- computerized data service was introduced during the year with two units installed in 1969 and ten additional planned for 1970. All billing for long distance messages was now done by I.B.M. computer. (p. XIV)

-- application by Avalon to amend the order relating to the Burin Peninsula which was issued by the Board in 1966. By December 31, 1968, the Company had completed the work which it had been ordered to perform by that date but on September 30, 1968, applied for an order of the Board modifying the 1966 order for the purpose of deleting the requirement to convert the exchanges at Burin, St. Lawrence, Larnaline and Garnish to dial telephone on or before December 31, 1969. The Company argued that it could not be foreseen when the 1966 order was issued that a severe shortage of capital available for borrowing was developing which made long term financing difficult to obtain and extremely costly at that time; if the Company were required to complete its obligations under the 1966 order it would be expending the sum of \$1,506,000 or 40% of the total amount of capital available in 1969 for specific construction expenditures on the Burin Peninsula; if the Burin Peninsula was converted to dial service, the annual cost of operations for 1969 would exceed the annual revenues by \$65,000 as dial conversion in these communities would not be compensatory at the time. The Company outlined many other reasons as well. The Board also heard extensive evidence from the representatives of the communities on Burin Peninsula.



The Board concluded that the evidence established beyond any doubt that the subscribers desired that the present telephone system be replaced by a dial telephone system. The Board rejected entirely the contention of the Company that manually operated telephone service would be comparable to dial telephone service and that subscribers were the best judges of their own needs and the Company had a duty to supply it provided that the subscribers were willing to pay the rates approved by the Board for the class of service demanded. The Board found that a dial telephone system was required to provide a reasonably adequate telephone service in the Burin Peninsula.

The Company claimed that if they were compelled to complete the conversion it would have to defer extensions and expansion in other areas where the work would be compensatory. As the Company did not specify the other areas or produce figures to show that these other areas would yield a reasonable return on the additional investment in them, the Board rejected the claim.

The Company argued that the conversion would not be compensatory within a reasonable time and was therefore contrary to the intention expressed in Section 72(2) of the Public Utilities Act. The Board found that it was not proper for the Company to break down the capital cost of implementing the 1966 order into separate exchanges for the purpose of escaping from the obligation to upgrade service in exchanges in which it is claimed the return on the additional investment would not be compensatory. The Board also found that the conversion did not constitute an "extension" of lines or of service within the meaning

of Section 72(2) of the Act, but was rather an "improvement" of lines and service, and therefore the Section did not apply, so that the project in this instance was not required to be compensatory, as it was only "extensions" that must promise to be compensatory.

The limitation on the amount of capital available made it necessary for the Company to assign priorities to the different exchanges included in its capital works program. The Board found, however, that no evidence was submitted to show why higher priority should be assigned to other exchanges over those in the Burin Peninsula. The Board concluded that top priority had been established for the provision of adequate telephone service in the Burin Peninsula by its order in 1966 and that it could see no reason why this priority should be reduced in favor of other exchanges. As the Company could provide the capital to enable it to comply with the 1966 order, the Board found that the order should stand. (pp. 7-17)

-- application by Avalon for approval of rates for closed circuit T.V. which would cover the cost of the service as well as yield the applicant a return in excess of 10% was approved by the Board. (pp. 36-39)

-- application by Avalon for a revision of its rate base and rates of depreciation was approved by the Board which resulted in upward revisions of both items. The Board also ordered the Company to separate the amounts recorded in each of its accounts into two categories, one in respect of services to which the Public Utilities Act applies, and the other in respect of services to which the Act does not apply, and submit the results to the Board not later than December 31, 1970. (pp. 49-54)

-- application by Avalon for a rate for Contempra telephones at \$1.75 per month was approved by the Board. (p. 82)

-- application by Avalon for a general rate increase approved by the Board which would enable the applicant to meet its allowable operating expenses, raise the capital required to carry out a capital construction program of \$29,700,000 over the period 1970-1973 and provide an opportunity to earn 8% of its rate base on a tax payable basis. The Board found that an additional gross operating revenue of approximately \$1,800,000 from rates subject to regulation would be required for these purposes.

The Company had proposed a capital construction program over the next four years of \$26,000,000 but the Board ordered an additional program of \$3,500,000 to serve 65 communities not provided for in the proposed program be carried out also. The Board realized that this would make it necessary for subscribers in compensatory areas to pay higher telephone rates in order to make the service available in non-compensatory areas. On the other hand these subscribers would obtain the advantage of telephoning to areas which could not then be reached. At the same time residents of the unserved areas, the majority of whom were primary producers, would have better access to markets. This would assist them to increase their sales and thereby the general economy as well.

One of the main features of the new schedule of rates was that the present dial rate groups were reduced from six to four, the effect of which was to make bigger increases for the small exchanges than for the large ones. This was justified by the Company on the grounds that

customers who were living in small communities were demanding and receiving the same high quality of telephone service as was being provided in the cities. Under these circumstances it was thought to be more logical that more of the burden of paying for dial services in such communities be borne by the customers who benefited from them. The Board held, however, that some of the increase proposed for some of the rate groups was excessive and that the increase in basic telephone rates for any rate group should not exceed 25% and on P.B.X. trunk lines 33 1/3%. The Board found that the trend towards more uniform rates was just and reasonable.

The approximate effects of the rate increase were that basic exchange service revenues increased 14.9% and intraprovincial toll revenues increased 15.2%. The overall increase in revenues was estimated to be 11.7%. (pp. 106-117)

1970 -- introduction of Direct Distance Dialing by Newfoundland Telephone Company so that approximately 51% of all telephone subscribers had the service. There was substantial growth during the year in the form of Extended Area Service introductions, dial conversions, major extensions, and increased toll facilities. (pp. IX-XI)

-- application by Newfoundland Telephone for rate grouping revisions of the Burin and Marystown Exchanges as a result of completion of all improvements ordered by the Board in 1966, was approved by the Board. This resulted in increased rates for subscribers in the above exchanges. (pp. 44-45)

-- order by the Board prescribing the Books, Accounts,

Papers and Records to be kept and returns to be filed with the Board by Newfoundland Telephone. (p. 52)

-- application by Newfoundland Telephone for an extension of time to complete a separation of its accounts was approved by the Board because the matter was under study by a Federally appointed Telecommission and the findings of the Telecommission could have an important bearing on the matter of separations. An extension of time was therefore granted to December 31, 1971. (p. 88)

1971 -- substantial growth and improvement in the Newfoundland Telephone Company system in the form of new dial offices, dial conversions, extended area service, and direct distance dialing introductions. (p. VII-VIII)

Significant Events in Atlantic  
Telecommunications Development:  
New Brunswick

1920 -- application by N.B. Tel. for a general increase in rates. (p. 11)

1922 -- rural company refused connection for long distance with N.B. Tel. because it failed to establish that it would be in the public interest to allow such interconnection. (p. 8)

1924 -- rate reduction scheme implemented for N.B. Tel. as company was deemed to be earning a rate of return in excess of what was fair and reasonable.

-- government telephones given special reduction from standard rates. (p. 60)

1925 -- N.B. Tel. applied for authority to issue capital stock not to exceed \$500,000 but was given permission only to issue \$150,000. "The Board might easily be persuaded that a larger immediate issue be authorized, but feels that it is in the best interests of the Company and the stability of its stock, that a larger issue is not advisable. Mr. Mildram, an expert employed by the Board, testified in effect that the best form of public utility financing is to have but one class of security outstanding, namely common stock, which is balanced by an equivalent plant investment upon which money has to be earned to meet reasonable dividend requirements upon the outstanding common stock..." (p. 29)

1930 -- N.B. Tel. applied for permission to issue an

additional \$500,000 in common stock to pay off back loans and for further capital expenditures. The application was opposed by a subscriber who contended that the expenditure should be met by a bond issue. This, it was claimed, would be less expensive, and would not place a permanent burden on the present stockholders.

It was held: "This Board has adopted the principle of not encouraging utility companies to issue more than one class of security, and the N.B. Tel. Company has only one class, namely, common stock. There are other reasons why a bond issue is objectionable, and to order the Company to issue bonds would be unfair and would serve no useful purpose". (pp. 8-9)

1937 -- agreement between N.B. Tel. and C.P.R. for connection of C.P.'s private lines with N.B. Tel. with appropriate compensation and rate changes. (p. 21)

1940 -- similar agreement to above with C.N.R. but to be used in emergency only and to terminate with war. (p. 7)

1941 -- application for change in rates respecting long distance toll rates to bring N.B. Tel. rates into line with those established in the Schedule of Long Distance Toll Rates as established from time-to-time by the Trans Canada System and the International Schedule of Long Distance Telephone Rates and the Schedule of Overseas Telephone Rates. (p. 7)

1945 -- Depreciation set out for different classes of equipment as approved by Board. (p. 18)

1946 -- It is apparent that the Board's decision on raising



capital only by the issue of common shares is still in effect even though this was no longer the case for other utilities regulated by the Board. (p. 47)

-- special rates for working and retired employees.  
(p. 49)

1947 -- a good presentation by the Grand Manon Telephone Company of the plight of a typical rural telephone company and its relations with N. B. Tel. (p. 99)

1948 -- First issue by N.B. Tel. of other security than common shares. No reasons given by Board to explain this major change from the strongly held policy (see 1925, 1930 and 1946 above) of allowing common shares only. It is of interest to note that favourable interest rates (3-3/8%) were available at this time for 25 year debentures. (p. 124, 193)

1949 -- General rate increase application by N.B. Tel.  
Extensive summary of arguments pro and con.

-- Relations with Northern Electric were of some prominence. The prices paid by the Company for material of N.E. manufacture were the prices paid by Bell plus 5%. This contract was attacked as being improvident but the evidence was that the Company had saved a considerable sum on the purchases it had made during the time the contract had been in effect.

-- special reductions on the standard rates (see, 1924 above) given to government bodies to be discontinued.

-- strong dissenting opinion on the rate increase by Commissioner Robichaud.

-- good comparison of financial statistics between Bell, M.T. & T. and N.B. Tel.

-- Criticism made of manner in which rates raised; should be all across board and not just certain segments. Board disallowed high rise in business rates. (pp. 197-208)

1951 -- It is of interest to note that in the rural telephone companies there is sometimes no rate differential between residence and business telephones and sometimes residence phones are charged more. (p. 3)

-- application for final approval of rate increases originally applied for in 1949. (p. 43- )

1952 -- application for the issue of \$3,500,000 debentures. Because of sharp increase in demand for service during this period it was impossible to finance expansion from retained surplus and continued issue of capital and hence the increased reliance on the issue of debentures and bonds as the main vehicle for securing funds for capital expansion. (p. 67) This development may be usefully contrasted with earlier decisions (1925, 1930, 1946 and 1948).

-- rationalization of rates. Application by N.B. Tel. for changes in existing rates and regulations as well as a complete revamping of classification into rate groups. Approved by Board. (pp. 72-81)

-- N.B. Tel. advised Board that rates would have to be considered and probably raised in the near future. Investigation of Company's financial status ordered by Peat, Marwick, Mitchell & Co. (p. 85)

-- formal application made for above rate increase.

(p. 105)

-- rate increase with only a few changes approved.

Very strong dissent by Commissioner Robichaud.

What is meant by: "fair rate of return". "Finally, as to the rule that the Company should be allowed to earn a fair return on its investments, I hold that this rule is well observed so long as a company of a monopolistic nature, as in this case, is provided with sufficient income not only to take care of all its fiscal needs, but also to lay aside the reasonable surplus which would be allowed under my decision." (p. 109)

1953 -- useful financial analysis of capital stock as opposed to funded debt. (pp. 129-132)

-- submission by A. N. Carter on behalf of the Company in applying for permission to issue shares. "May I add that it has been my strongly expressed and consistently held view during the last 28 years while I have submitted 17 similar applications to the Boards that the determination whether a public utility should issue stock or bonds is one which, under the law, is for the Directors to decide in their business judgment and their decision is not subject to review by the Board". (emphasis added) (p. 130) (cf. 1925, 1930, 1946, 1948, 1952)

-- issuance of stock at par instead of at market value argued to be legal and the prevailing custom in the industry.

1958 -- application for general rate increase. Reasons quite fully set out. (p. 101)

1959 -- Note that the rates applied for by the Kingston Peninsula Telephone Company are 15% less than N.B. Tel. rates for the same type of rural service.

1961 -- Morgan Complaint: charge of discrimination in the supply of mobile radio systems by N. B. Tel. Company policies criticized as being unsound business practices. (p. 22)

-- additional complaints of poor business practice by N.B. Tel. (p. 22)

-- submission on behalf of N.B. Tel. in this matter of mobile radio systems. Recommended that they should not be regulated. If they were to be regulated at all the whole field of private mobile service should be regulated. (p. 45)

-- Morgan Complaint--Decision

It was held: "It is my view that public utilities are subject to regulation only for service to the public. I find that private mobile radio service is not a public utility operation as it is provided for private internal use by customers. In my view the powers of this Board extend only to public utilities, and having found that private mobile radio service is not a public utility as contemplated by the Act, this Board has no jurisdiction to regulate private mobile radio service, and I do so find...

Unless and until private mobile service is replaced in the General Tariff on the N.B. Tel. Co. Ltd., this Board has, in my view, no jurisdiction to consider whether the Company charges a reasonable rate for such service except insofar as the rates for such service adversely affect subscribers to ordinary telephone service.

There has been no evidence adduced by the Complainant to show that ordinary telephone subscribers are adversely affected at this time by the Company's practices in private mobile service. There is evidence that the rates charged by N.B. Tel. in the field of private mobile services compare very favourably with the rates charged by competitors in the same field...

I find that no cause has been shown to this Board why the latter should investigate, at this time, the commercial practices of the N.B. Tel. Co. in the field of private mobile service, or interfere in any way with the internal management of the Company regarding private mobile radio service." (emphasis added)

Other issues of interest in the Morgan Complaint were, inter alia:

-- Onus of proof of subsidization of competitive service by telephone services both onerous and squarely placed on complainant who must adduce "positive evidence".

-- Evidence that private mobile service in other provinces was unregulated of great importance.

-- Comparison of rates with that charged by other telephone companies accepted without any evidence that these rates investigated by appropriate authorities and actually found to be compensatory.

-- Despite lack of separate accounting records evidence by Company as to lack of subsidy accepted. No suggestion made as to how a complainant could show subsidy absent separate accounting records. Here the onus question is, again vital.

(pp. 86-94)

-- Ex parte application by N.B. Tel. for a rate reduction. This was necessary because the net rate of return would be significantly above that of the approved rate set by the Board. Reduction would be on residential rates and amount to \$515,000 per annum. However, price and income elasticity in residential rates was such as to cushion the Company. As a spokesman explained, "...the Company considered that it could make the proposed reduction without financial risk owing to the expected stimulation in business resulting therefrom." (p. 120)

1962 -- denial of service. Wife denied regular service as an ordinary customer because of business debt owed by her husband to the Company. Company offered to reconnect if wife paid her own account which was \$10.92 in arrears and make a deposit of \$20.

It was held that "...as long as the rules of the General Tariff were followed and in accordance with the Company's standard business practice and as such were matters of internal management with which the Board should not interfere". (p. 125)

-- further rate reductions granted in a routine fashion. (p. 147)

1963 -- application by N.B. Tel. to issue 400,000 shares of capital stock to defray in part the cost of the capital construction of the additional facilities during the year 1963 to meet demand for services.

1969 -- application by N.B. Tel. for a general rate increase, the first since 1958.

Two strong interventions, one by New Brunswick Hotel-Motel

Association and the other by Pye Electronics Ltd.

Highlights from these briefs included:

-- As 43% of N.B. Tel.'s revenues are derived from non-regulated services and as the Company had not adduced any evidence to show what proportion of its total capital investment was utilized to produce that revenue, only the net investment for producing the regulated service should be included in the rate base.

-- The applicant should be required to allocate its investment in plant, expenses and revenues between regulated and un-regulated services in such a way as to permit the Board to determine the actual net rate of return for each service.

-- Employee discounts discriminatory and in contravention of Public Utilities Act.

-- Relationship with Bell Canada must be clarified.  
"One must be very wary therefore of for whom the Bell really tolls!"

-- Hotels really act as agents for the telephone company and perform a service by generating extra demand, particularly during off-peak hours. The hotels should be paid for this service rather than be faced with a sharp increase (89%!) which will have to be passed on to the consumer.

-- Before the Company is allowed to enter a new field and into competition with other communications companies, it should be required to show affirmatively that it is not relying on cross-subsidization to muscle into market. (See, above, 1961, Morgan Complaint.) Company asserted that it had only limited opportunities for further development in the communications field particularly in such non-



regulated areas as radio & television transmission, paging systems, mobile telephones and data transmission.

-- Rate of Return. "N.B. Tel. Co. petitioned in its application that the proposed new rates should be judged by considering the reasonableness of the rate of return on the Company's investment which such rates produce, stating that it is of relatively little consequence whether such rate of return is measured against the net assets rate base, or the invested capital rate base (aggregate value of outstanding long term debt, outstanding common stocks, premiums on such stocks, and retained earnings) since one approximates the other".

It was held that:

As to rate base, "...the 'net asset rate base' is the appropriate base upon which the applicant's rate of return should be assessed..." (p. 5)

As to earnings, "...we concur that to raise funds in today's capital markets, N.B. Tel. requires a higher rate of earnings but the present application from 6.81% to 8.26% is considered to be excessive and that a rate of return to 7.58% will meet the applicant's present needs...This will give a return on equity of 9.19%. (p. 7)

As to unregulated revenues, "...we note the increased revenues from interprovincial tolls...The buoyancy of these revenues combined with the exercise of stringent control over expenditures will in the opinion of the Board offset the adverse conditions which could result from the continuing inflation". (p. 8)

As to hotels, while the Board rejected the "agency" argument

the sharp increases in rates requested were disallowed. (p. 10)

As to cost separation regulated/unregulated the Board noted the valiant attempts of the C.T.C. in this regard. The matter could be divided into two different headings--inter-provincial tolls and certain items of intra-provincial service.

As to inter-provincial tolls, these are "...governed by agreements negotiated by the concerned utilities. These agreements must be reached between utilities, each of whom has the maximization of revenues from this service as its best interest. No evidence is available to the Board as to what other arrangements, more beneficial to N.B. Tel. could be made to fix the tariffs and divide the revenues and we, therefore, propose no change at this time but will continue to study the problem in the light of current developments in this field referred to by the interveners".

As to intra-provincial tolls and certain items of intra-provincial service, the Board directed N.B. Tel. to make "... a study to show the extent to which the revenues derived exceed the incremental cost of supplying each service". Note: This study has now been made and lodged with the Board.

1970 -- Pole rental and cable television. Issue was whether the Board had jurisdiction to regulate the pole access rates charged by N.B. Tel, and, if it did, whether the rates were fair and equitable.

It was held that "...the Board has no jurisdiction in this case to regulate the pole attachment rates charged by the respondent to the complainant on the ground that this does not come within the scope of the respondent's regulated public utility function as

envisaged by the Act".

1973 -- The Cocagne Decision. This was an application by N.B. Tel. for the provision of E.A.S. between the Shediac exchange and an exchange to be formed from portions of the existing Buctouche and Shediac exchanges and for the provision, on a trial basis, of Callpack service between this new exchange and Moncton exchange.

There was considerable opposition to this proposal which would have meant that a number of subscribers would have lost E.A.S. with Moncton. A petition was launched against the proposal and it was signed by more than 400 subscribers in the affected area.

A preliminary hearing in November, 1972 made it clear to the Board that a majority of subscribers in the proposed new exchange "... were diametrically opposed to the discontinuance of extended area service with Moncton". The Company was called on to present a modified plan and did so in February, 1973. The meeting was heavily attended and the Board was "...convinced that a great majority of those attending were telephone service subscribers who came within the boundaries of the proposed Cocagne Exchange. A fair calculation would be that they represented more than 50 percent of the subscribers in the area".

In addition to this striking evidence of subscriber involvement and participation, the decision is of considerable interest with respect to two other matters, namely, the Board's strong reaction to the Company's somewhat cavalier attitude in going ahead without getting clearance from the Board and the importance to be attached to community of interest in E.A.S. matters. In view of the obvious importance of this decision an extended extract is included.

"Callpak is a service regulated by the Board as to the rates to be charged. Before it can be offered in any exchange, formal application for approval of the offering and the rates to be charged must be made to the Board and approval had by way of an Order. At the time this letter was sent to the Cocagne area subscribers, the Board had no knowledge of any intention of the Company that it was going to make such an application. Between the time of the receipt of the Petition and the time of the filing of the February 7 application of the company, the Board learned unofficially that the company officials were discussing different variations of Callpak but it was presumed that the subscribers concerned were advised that a Callpak offering could only be made to them, if approved by the Board. The Company should also have known at the same time that the discontinuance of extended area service between Cocagne and Moncton, affecting as it would so many subscribers, should also be made the subject of an application to the Board.

"The Board considers that the Company erred in circulating the letter of July 14, worded as it was, to its subscribers who would be brought into the proposed Cocagne Exchange. It is assumed that the composer of this letter was either unfamiliar with the jurisdiction of the Board or deliberately ignored it. It is to be hoped that the first assumption is the correct one.

"The principal consequential effect of the granting of the Company's application would be as set out therein: 'Approximately 500 customers who will be in the Cocagne Exchange but who are at present in the Shediac Exchange would no longer have extended area service with

the Moncton or Cap Pele Exchanges'.

"There was little or no objection before or during the hearing to the discontinuance of extended area service between the proposed Cocagne Exchange and Cap Pele. All of the many strong objections stemmed from the proposed discontinuance of the extended area service between the Cocagne area and Moncton.

"Whatever may have been the community of interest between Cocagne and Moncton in 1963, the Company nevertheless at that time saw fit to provide extended area service between the two points. If it was not significant at that time it has obviously grown to much greater proportions during the intervening years. Those of the subscribers who asked questions and made statements at the hearing came from all walks of life - a cross-section of citizens of the area. As was pointed out at the hearing, several hundred citizens of the area work in Moncton full time or on a seasonal basis. Some of these are on call: in one particular instance a nurse who is often on call, in another a worker who benefits from overtime and so on along the line.

"There was evidence given at the hearing concerning the representatives of the Company who followed up the July 14, 1972 letter by making personal calls on the subscribers. The results of these calls seemed to be that the majority of those subscribers who would be within the new exchange were prepared to accept the changes described to them. The Board is convinced, however, from the delayed reaction of these subscribers that the full implication of the discontinuance of the extended area service with Moncton was not fully or adequately explained to them or that many of them misunderstood the explanations or were

confused by them. This is borne out by the Petition referred to earlier which was received in August 1972 and which in itself might not have a great bearing on the Board's decision had it not been followed up by the attendance of so many of the signatories at the February 17 hearing. The Board does not wish to infer, however, that any attempt to deliberately mislead the subscribers was made by the company representatives.

"The Board is also convinced that extended area service enjoyed by the concerned Cocagne area subscribers over the years has been an important factor in the economic, social and cultural pattern of its development. The citizens of the area, generally, have come to consider themselves a part of the greater Moncton area: relying on that city for their health, economic needs and professional services as well as the center of their social and cultural activities. A letter addressed to the Board by the president of the Greater Moncton Board of Trade under date of February 14, 1972 notes with some concern the proposed reduction in the extended area service as a result of the establishment of the Cocagne Exchange. He goes on to state: 'The geographic size of the Greater Moncton Extended Area Service has been, and continues to be, one of the factors which influences our commercial and retail development.'

"The Board can only conclude that the Company, by introducing the extended area service in 1963 and by continuing it over the past decade is largely responsible for the significant community of interest which has developed between Cocagne and Moncton.

"The unanimous decision of the Board is, therefore, that the

Company shall continue to provide extended area service with Moncton for those subscribers of the Cocagne area who are presently enjoying it and who will come under the proposed Cocagne Exchange: it being understood, of course, that the Company shall be permitted to charge the subscribers the rates applicable to the Moncton Rate Group."

-- The Bellboy Case. Here, N.B. Tel. sought to establish a rate for an area paging service. The rate was strenuously opposed by Air Page Answering Service Ltd. who provided a similar service. The issue was, of course, whether or not the basic telephone system was being called upon to subsidize the service offered by N.B. Tel.

At the hearing counsel for the Company said that he was willing to reveal some of the more general cost information sought by the intervener.

The company is quite willing to talk about costs in the aggregate. It is quite willing to talk about expenses in the aggregate, revenues in the aggregate, although that gets very close to the market information question. It is ready to talk about rate of return.

Transcript of Hearing, February 7,  
1973 In the Matter of the Filing by  
N.B. Tel. of a Rate for a New Service  
(Bellboy) at p. 58.

There was, however, some information he was not willing to reveal unless ordered by the Board to do so.

Now my submission, first of all, is that at some level -- some layer of detail and precision it becomes in some cases irrelevant and in other cases confidential. Now I am going to come to that; but first I think we can save some time - and I did communicate this information to my learned friend: there are only 4 categories of information that I am going to be arguing about. I had hoped by that telling him the categories which we had



hoped not to have to give detail on we could solve the whole problem, but he doesn't agree. So the categories are the following: the charge paid to Bell Canada for the use of that computer -- that digital computer, which charge includes a -- the getting from the Quebec border to Montreal. Second category is the allocated portion of the capital cost.

CHAIRMAN: More slowly please.

MR. CASE: The allocated portion of the capital cost of the direct distance dialing network from here to the Quebec border; and the capital cost of the -- sorry -- third category, capital cost of the dedicated facilities from Saint John to Fredericton, Saint John to Moncton, and Saint John to Shediac. So that is the -- sorry -- and a fourth category which I guess I think of differently. That has to do with market forecasting.

Ibid., pp. 30-31.

The Company's concern was with competitors only as it was at pains to point out.

MR. CASE: I should make one thing absolutely clear. There is no information which the company is not prepared to disclose in confidence to the Board. I want that clear for the record.

Ibid., p. 29

The intervener asserted that if he were denied these vital details in cross-examination he would be effectively prevented from presenting his case.

We know what the service is. We know what the rate is being charged; but unless we are entitled to have a right to cross-examine -- unless we are able to see the documentary evidence - the memorandum that is being filed, there is no way we can effectively make our case clear to you. In fact, there is no way that we can even say whether the rate may be justifiable, unless we see the make-up of it.....

We did not opt to bring in this service. It was the N.B. Tel Company, and knowing that they must be regulated by the Utilities Act. It may be in the interests of confidentiality, albeit. I am against excluding the press, and it would be that maybe we could go into some form of in camera session where we would have an opportunity to review the material and also the right of cross-examination; but I would strenuously object to any material coming in that we

did not have an opportunity to review and question on, or having any limitations other than ones of relevancy imposed with respect to the witnesses.

Ibid., pp. 50-51, 53

The Public Utilities Act was silent on the issue of confidentiality and counsel for the Company was forced to analogize to the decision of the Canadian Transport Commission under s. 331 of the Railway Act. In the face of the normal requirement of full disclosure in rate hearings the analogy was not of much help.

MR. MURPHY: Can you give us any authority either in the Telephone Company's Act - the N.B. Tel Act - the Board of Commissioners of Public Utilities - we have the right to exclude normal cross-examination?

MR. CASE: Can I give you specific authority? No, Sir. I should state at the outset, unfortunately we are operating under a relatively ancient statute as far as communications are concerned.

Ibid., pp. 55-56

Commissioner Murphy perceptively summed up the dilemma facing the New Brunswick Board of Commissioners of Public Utilities.

I realize the problem you have here -- I mean the Telephone Company shouldn't have to disclose all its inner workings. Yet at the same time I can't find any authority, nor do I know of any authority where we have a choice to exclude certain evidence. I haven't made a research of this, but right off the -- right from the beginning I am concerned about this. I don't want to go to the Appeal Court and have them say -- have those very able men learned in the law say: Well the Board should have known better than not to allow the natural justice. We are faced with the position where I am not unsympathetic to you. I understand your problem of disclosing all the inner business of the Telephone Company. Yet, on the other hand, I can't do anything but give very deep consideration to Mr. Turnbull's argument. You just told me you haven't any legislative authority to quote me.

Ibid., p. 56.

The Board eventually ruled in favour of disclosure subject only to a residual limitation on cross-examination.

After giving a good deal of study to this particular question of the extent of the cross-examination on the part of the intervener, the Board has decided that we will proceed and allow cross-examination in the interests of natural justice; but if at any point we find that there is evidence which may be required to be given which would adversely affect to a serious extent the information available from the telephone utility, which might in turn affect adversely the subscribers to the telephone company, then we may very well consider restricting the cross-examination.

Transcript of Hearing, April 11,  
1973 In the Matter of the Filing  
by N.B. Tel. of a Rate for a New  
Service (Bellboy) at pp. 1-2.

The rate proposed by the Company for the Bellboy service was approved, without reasons, in January, 1974.

An amendment to the Public Utilities Act dealing with the issue of confidentiality was introduced by the government early in 1974, Bill No. 40, An Act to Amend the Public Utilities Act, 4th Sess. 47th Leg. Ass. 23 Elizabeth II, 1974 s.2.

Significant Events in AtlanticTelecommunications Development:Prince Edward Island

1947 -- major rate case. Dealt with whole question of rates with reference to revised exchange classifications and particular reference to Charlottetown.

-- lack of regulatory experience. The Board acknowledged that in utility regulation matters it must look to the example of the "experienced" Board in Nova Scotia, to the Company's officials who are "experienced in Public Utility transactions". (pp. 28-29)

-- financial return to the Company. "In our midst we look with approval on persons and corporations, which, in a competitive enterprise, have expanded their undertakings out of earnings in recent years. And if, as a regulatory body, we should deny the similar right, within limits, to a 'controlled monopoly', and, as mentioned above, we would rob the industry of any inducement toward increased investment". (pp. 29-30)

-- telephones and the "law of increasing returns".  
"It is an elementary principle of economics that, in the production of most commodities and in the furnishing of most services by the law of increasing returns, the greater the production the less proportionately become the cost of production. However we must confess that we were greatly surprised to learn that it is recognized over the Public Utility world that the law of increasing returns cannot be applied to the supplying of telephone services." (emphasis added) (p. 31)

-- rates to be charged in Charlottetown Exchange.

The rate must take into account the extra cost of furnishing service in larger exchanges and the increased value to the subscriber of the service. "It follows then, that, since the subscribers in the Charlottetown Exchange have access to more than three times as many people as have those of the Summerside Exchange, they should be prepared to pay extra for that added service when extra revenue must be provided for the Public Utility supplying it." (p. 35)

-- residential/business rates. A significant differential was justified. A residence phone is to be classed as a "convenience" while a business phone "...has become absolutely indispensable and invaluable to the business world". (p. 35)

-- billing and accounting. An intervenor claimed that it should be done on the Island. "Realizing that the matter is within our jurisdiction to determine, we have decided to leave it for further consideration".

-- dial service. "While the question of installing Dial Service has been urged, the commission agrees with the Company's argument that no change should be made until the present switchboard is more fully depreciated, thus saving considerable expense to the subscribers". (p. 36)

-- independent telephone companies. "While independent Telephone Companies in earlier days did much to contribute to telephone service in the Province it has been found that many of those companies now do not provide a service comparable with that provided by the Island Telephone Company. The chief reason being that the smaller

companies have come to realize those facts and have entered into negotiations with the Island Telephone Company to have that Company take over the operation of their lines, the chief among which being the Cavendish Rural Telephone Company, Limited, with several other applications pending due to the shortage of materials and equipment of a type required to bring the lines up to the standards of the Island Telephone Company Limited.

1949 -- rural telephone companies. There was a number of hearings to deal with complaints of inadequate service. (See 1947, above)

-- meeting between P.E.I. Federation of Agriculture and Board at Board's initiative. The Federation strongly urged the continuation of rural telephone companies and urged the appointment of a telephone inspector. The Federation was opposed to the Island Company taking over and operating all the telephones. "Commissioner Brennan, speaking for the Commission, explained that inquiries had been made concerning conditions in other Canadian Provinces as well as in some of the States of the United States, and that the appointment of Telephone Inspectors had not met with success in any known case elsewhere, and consequently there was no reason to expect any greater success here. The delegation was informed that the Rural Telephone Companies had the remedy in their own hands, but the cost to insure adequate service would be, in the main, more costly than that furnished in rural areas by the Island Telephone Company."

1952 -- major rate application. In its 30 page judgment the Board dealt with the whole range of regulatory matters, including,

inter alia:

-- basis of regulation. "The public utilities under the control of this Commission are privately owned and therefore branches of free enterprise, subject, of course, to the regulatory powers of the Commission. And being privately owned the capital required for the operation must be supplied by the investing public. And no investor will be interested in placing his money in any project unless it is to him financially attractive....It is the duty of the Regulatory Body to see that a public utility is permitted to earn such fair return as will insure financial stability as to existing capital and that the required willing investors will be found to furnish such capital. On the other hand, however, those who use the service provided must also be protected so that they are compelled to pay no more for service than the reasonable and fair requirements of the public utility demand." (emphasis added) (pp. 39-40)

-- Current return on Earnings Base only 4.55% and thus "...consideration must be directed in particular to the program of expansion now necessary to permit the Company to render sufficient and adequate service in this Province affected as it is by the forces of inflation which tend to strangle development in public utility expansion". (emphasis added) (p. 42)

-- billing in Halifax. Cost clearly greater if done in Charlottetown. "Desirable" that it be done locally but no change ordered.

-- relationship of service and rates. It was argued that there should be no rate increase until quality of service improved



to which the Company replied that service could not be improved without a rate increase. In dealing with this classic "cart and horse" regulatory conundrum, the Commission cited a number of American cases and concluded that any increase granted should be accompanied by an order for improvement of service. (pp. 45-46)

-- computation of "Earnings Base". The most accurate method would be to appraise the entire property of the Company used and useful in furnishing service less depreciation. "This would be a very costly procedure, the expense of which we do not believe to be warranted for the reason that the Company is now and has been operated in a manner almost identical with the Maritime Telegraph and Telephone Company which is required [by the Nova Scotia Board] to keep an historical record of items of plant representing capital investment." Therefore the Commission adopted the Company's figures and "...no serious objection was raised to their accuracy...". (p. 49)

-- depreciation rate. That set by the N.S.B.P.U.C. in regard to M.T. & T. (p. 49)

-- importance of comparisons of rates with other Atlantic Provinces. (p. 53)

-- dial service and improvement of service in Charlottetown. Company was not in a position to provide dial service although their application for a rate increase was predicated upon the provision of such service. The Commission as a result refused to grant higher rates and granted only an interim rate increase until dial service installed.

The Commission explained that it had not sought dial service

in Charlottetown at an earlier date in order to allow for the maximum depreciation of existing manual equipment. "We feel that, apart altogether from the necessity of having our service in line with advancing times, the course being followed is in the best interests of sound economy and therefore of the subscribers of the exchange generally". (emphasis added) (p. 54)

-- relationship between rates and service. Throughout this judgment there is a strong emphasis on an improved service commitment as an essential element for a rate application. This was brought out clearly at the close. "The subscribers are entitled to have the service for which they pay and the Company's only business is to provide service. Therefore this rate increase is granted on the EXPRESS understanding that efficient and adequate service shall be furnished in all exchanges throughout this Province and failure on the part of the Company may be treated as sufficient ground for reduction in rates accordingly." (emphasis in original) (pp. 54-55)

-- salary and wages. While denying any jurisdiction to govern wages as such the Commission viewed with alarm the rate of loss of qualified people to other Provinces because of uncompetitive salaries. Therefore, "in the interests of efficient and adequate service" the Board urged that salaries be made competitive. (p. 55)

1953 -- dial installation for Charlottetown Exchange. Almost complete. "The operation of this new equipment will certainly give greatly improved telephone service, which for some time past has been far from good owing to the overcrowding of existing switchboard." (p. 9)

1954 -- trade union dispute. Under the Trade Union Act a labour dispute involving a public utility could be referred to the Commission. In cases of this nature three matters had to be inquired into. (1) Were the employees in need of a wage increase, and if so how much? (2) Is the Company in a position to meet the added cost of a wage increase out of the revenues to be derived from the existing rate structures? (3) And if not, what effect would a general rate increase have on the revenues of the Company?

-- The Commission restated its views as to loss of skilled employees as set out at page 55 of the 1952 Rate Case. (See above)

-- relationship to M.T. & T. One suggestion made to the Commission was that as a subsidiary of the Nova Scotia company funds would be forthcoming from that source. This notion was firmly rejected. "One cannot imagine the Board of Commissioners of Public Utilities of Nova Scotia permitting the Maritime Telegraph and Telephone Company to divest from its earnings any sum of money by way of subsidy to the Island Telephone Company operating outside Nova Scotia, and that very charge was made before the Nova Scotia Board at a recent Telephone Rate Hearing. But even if it were permitted, it would not be fair to the shareholders of [M.T. & T.] to have their profits in Nova Scotia syphoned off to make up for deficiencies in this Province...The Nova Scotia shareholders, would doubtless insist that the non-paying project be abandoned. And history will affirm that Island owned and controlled public utilities have not in general met with any reasonable share of prosperity." (pp. 43-44)

-- rural telephone companies. Still cannot provide adequate service and inherently lack the ability to do so. In the "better areas" local companies are transferring their lines to Island Tel. "...which immediately proceeds to improve service". (pp. 55-56)

1955 -- regulation without tears. "In so far as contentious matters with the Island Telephone Company Limited were concerned, the year closed was the quietest since the present Commission assumed office. Of the minor matters which did arise a telephone conversation was all that was required to bring about adjustment or settlement. (p. 22)

-- rural telephone companies. Still a source of trouble and "...as previously reported the Commission is generally powerless to provide any remedy due to the fact that those responsible are unwilling to raise the funds necessary to meet the requirements". (p. 23)

1956 -- ice damage. Island Telephone had to cover some \$350,000 in storm damage during 1956 by way of a special issue of preference shares of company stock. (p. 13)

1958 -- service - Island Telephone. "Throughout the year the service rendered by Island Telephone Company to its subscribers on calls within the province continued to be of a reasonably satisfactory nature. However, the matter of both inter-provincial and international long distance calls has been the subject of complaints and we have been advised that the Company is directing its efforts towards improvement in those matters and that satisfactory results may be expected before

the end of 1959." (p. 27)

-- service - rural telephone companies. It continues unsatisfactory. "With the advancement of the rural electrification program the improper design of many rural telephone company lines has resulted in much electrical interference on them which can only lead to the further deterioration of the service. Problems of this nature can only be resolved by competent engineering personnel which the companies are financially unable to provide." (p. 27)

1960 -- first introduction of plowed cable in Prince Edward Island. "This departure from former methods is of great significance in future plans for this Province". (p. 70)

-- joint use of poles. A set of principles to cover these arrangements was drawn up by the Commission and under their terms several projects of joint use have been carried out. The terms of these agreements are set out in the Report. (p. 71)

-- rates set for coloured handsets and Princess telephones. (p. 72)

1961 -- rural telephone companies. The rapid rate at which Island Telephone taking over outlined. (pp. 13-14)

1962 -- rural telephone companies. "The coverage of telephone service within this Province by Island Telephone Company Limited continues to grow as more and more rural telephone companies surrender their franchises to accept service from the Island Telephone Company Limited." (p. 23)

The following decision dealing with a stubborn rural company shows the determination of the Commission to rationalize service in the

hands of Island Tel.: The Iona Rural Telephone Service--"The service to the Iona area was originated many years ago by the local merchant and the Parish Priest. After years of operation the parties passed along and the service was allowed to deteriorate. A few years ago, with approval of the Commission reluctantly given, a new group commenced service. This venture was never wholly successful and rapidly deteriorated to a point where complaints were being made repeatedly. After much delay occasioned through inability to get the required preliminary steps taken by the complainants, the matter was set down for public hearing on the 23rd day of January, 1963.

"After hearing the evidence of witnesses both against and for the existing service, the Commission intimated to the owners of the existing system that improved service would have to be provided in the area and adjourned the hearing until 6 February 1963, when a report would be given. When the hearing was resumed, efforts were being made to reach a settlement and on 11 February 1963, the Commission received a release of the area to Island Telephone Company Limited conditional on the existing line being returned to its owners when the latter Company would install its own system for the area. This was approved and Island Telephone Company Limited was authorized to enter the area and serve customers therein. As a result thereof, that Company is now providing service to the area." (p. 24)

-- rural expansion programme. With the decline in the number of rural companies Island Tel. has embarked on extensive expansion programme in rural areas. Buried cable was used extensively (see, above, 1960) and new service provided as well as covering areas

previously served by rural companies. (p. 24)

-- rural telephone companies. The Commission handed down another strong decision in a case involving the Ellerslie-Conway Telephone Company Limited. The company claimed that it could provide adequate service despite the complaints levelled against it at a public hearing. The Commission concluded that service was inadequate "...the lines are old and in a sad state of disrepair. No proper system of maintenance is in effect, and evidence was given that barb wire had been used to make some repairs".

To the Commission the only question was whether the existing utility should be allowed to continue or be replaced by another (Island Tel.). The matter could not be resolved simply by taking a vote of shareholder/subscribers. "If the majority of shareholders voted to retain the existing service, the rights of the minority to have adequate service would still be thwarted and under utility regulation the rights of minorities are to be protected." (emphasis added) (p. 29)

The Commission expressed the view that it could allow in Island Tel. to provide an alternative service in the area. Rather than do this the Commission set out strict requirements for the rural company to follow. "However the Commission is always reluctant to interfere with the operations of public utilities as long as a possibility remains of satisfactory service being provided by the existing utility. Therefore, the decision is that an opportunity be given to the present utility to decide at its next annual meeting, or at a general meeting to be called for such purposes, within one month from this date, whether it will undertake to up-grade the telephone service in the area



"in accordance with the following requirements:--

(1) To furnish this Commission for approval beforehand blueprints and plans for the construction of lines adequate to serve the area, all construction to conform with modern engineering practices;

(2) To construct such lines and install such equipment as will be readily useable on conversion to dial service;

(3) To restrict the number of box-holders on any line to a maximum of ten, with provision for future expansion and additional customers;

(4) To use only such equipment as will match with other telephone equipment as prescribed by Section 3 of The Electric Power and Telephone Act;

(5) To keep adequate books and records in accordance with the uniform system of accounting as prescribed by the National Association of Railroad and Utility Commissioners;

(6) That all moneys of the utility be kept in a bank account entered in the name of the utility.

"The Commission feels that by the 15th day of November, A.D. 1963, the utility will have had sufficient time to make its decision known to this Commission, and unless assurance is given by that time that the foregoing requirements will be met within a reasonable time, it will be necessary to order that alternate service be provided for the area." (pp. 29-30)

Such was the decision of the Commission and it is not surprising to find the following by way of a postscript to the decision:

"Following the foregoing decision, and within the time limit therein prescribed for action, the Commission was formally notified of the release of franchise by Ellerslie-Conway Rural Telephone Company Limited. Following this, approval was given to Island Telephone Company Limited to enter the area and it now serves the area."

1965 -- general rate increase. Matters of particular interest include:

-- lack of public interest. Notice of Hearing widely, but unsuccessfully, advertised to public. This was considered to have an adverse affect on the workings of the regulatory process for "...although the interested public were invited to attend and be heard, the public demonstrated little interest. Consequently, the Commission had been deprived of such assistance as might have been given to it by an interested public, and is placed in the unfortunate role of being both judge and advocate." (p. 22)

-- labour costs. "...an examination of the labour costs of the Public Utility in question will show that great strides have been made by it to bring its weekly wage to staff from a position far below mainland figures to a position of relative equality, thus adding greatly to the expenses arising from the normal wage increases. It should be pointed out, however, that efforts to place company wages on relative equality with mainland rates were imperative for otherwise the company would continue to serve only as a training school for staff to be lost immediately to higher paying jobs on the mainland." (See, above, 1952 and 1954)

-- necessity to maintain nation-wide standards of service. "However, the transfer to Dial Service will not be the sole cause of additional capital outlay. Media of news communication are changing rapidly, and there is no such thing as a telephone utility retaining the status quo. It is true that this Commission has the legal power to restrain capital expenditures. But to do so would be to deny the persistent demands of the telephone subscribers for improvements in service which are constantly becoming available through improvements in telephone equipment designed to meet the demands of a competitive world of business. We feel that to do so would leave the subscribers in this Province with telephone facilities unworthy of the Province's status in the Nation. Our duties, as we see them, under the existing legislation, do not permit us to take this negative stand. On the contrary we deem it our duty to see that the telephone services within this Province, as well as the facilities for communications with places beyond Provincial limits, are reasonably on a par with those which subscribers enjoy elsewhere in the Country. But, we also realize that it is our responsibility to see that the rates which subscribers are required to pay for such service and facilities are fair and reasonable in the light of all relevant factors." (emphasis added) (p. 24)

-- rates and service. Commission reminded the Company that for 13 years it had been in violation of a regulation limiting the number of subscribers on multi-party lines to 16. "While the Commission is not unaware of the applicant's many problems in the administration of its telephone system, it is now felt that the continued

ignoring of the service regulations laid down in 1952 can no longer be overlooked and it must now be insisted that steps be taken to upgrade multiparty service without any undue delay." (p. 25)

No rate increase would therefore be granted for those subscribers and \$10,000 p.a. involved. In so doing the Commission turned Mr. Waller's words back on him that "service is all that the Company has to sell". (p. 26)

-- business/resident rate differential. The Commission noted that "additional value" is the acknowledged ground used to justify this differential but went on to concede that the exact amount of differential is a matter of judgment to be left to the Company. "That no exact formula has yet been devised for the determination of rate differentials can cause no surprise to anyone. For what possible method could be invoked to determine that in a given exchange group a business telephone can be worth \$1.00 or any other figure more than the same equipment would be to a private residence? It would seem then that while the factor of the value to the subscriber is certainly a recognizable one, it cannot be ascertained with certainty, but must be arrived at in an arbitrary manner after considering all the additional cost of supplying the service. However, while recognizing that no formula can be applied to determine the proper differential, we are unable to say that the proposed ones are out of line when viewed in relation to known factors." (emphasis added) (p. 27)

1966 -- Plowed Cable. It is of interest to note that in the revised depreciation rates of 1966, Aerial Cable was put in at 3.5% and Underground Cable at 2.7%. (p. 18)

-- rural telephone companies. There were only a "very few" now left in operation, in fact, 4 companies with 83 subscribers. (p. 19)

1967 -- labour relations. Hearing held to resolve dispute. "In this regard, the Island Telephone Company Limited made an ample presentation of their side of the case. No evidence as to the employees' case was presented. This decision on the part of the employees to refuse to make a case presented the Commission with a difficult problem..." (emphasis added) (p. 17) As a result the Commission concluded that it could not make a decision until it heard from the Union. (p. 20)

1969 -- hotel and motel charges. These are regulated private branch exchange service. April, 1969 hearing held, and the local message rate increased from 10 cents to 15 cents. (p. 13)

Note: This is a sharp about face by the Commission. In 1965 the Commission had firmly rejected any notion of a similar rate increase. "We have given consideration to this matter and we are not convinced that representatives on behalf of the Innkeepers' Association have substantiated need for such increase. We think that telephone service in hotels and motels, should, at least partially, be treated as an inducement to travellers to avail themselves of the better class accommodation for which they are required to pay substantially higher rates." (1965 pp. 27-8)

1970 -- general rate application. The decision deals generally with the need for a rate increase in conventional terms (cost of capital, investor confidence, forces of inflation, demand for improved

service, etc.) but there are a number of issues of interest:

-- multiparty line service. Very considerable improvement since 1965 Hearing (see above).

-- Souris Exchange. Strong complaint made concerning service. This exchange will not be included in rate increase until service switched to dial. (p. 17)

-- special request charges (luxury items). Very substantial increases. Evidence of Mr. Waller as adopted by the Commission included the following: "None of our rates are based on costs. They recognize to the best of our ability relative costs and relative values of service and so on...what we are applying for really...is what we consider to be a reasonable increase in the source of revenue that we generate in service request charges, but not to the point of making it a prohibitive rate." (emphasis added) (pp. 17-18)





85114

JANISCH, HUDSON N.  
-- A CRITIQUE OF PROVINCIAL  
REGULATION OF TELECOMMUNICA-  
TIONS IN THE ATLANTIC PROVINCES

P  
91  
C655  
J36  
1974

Date Due

DEC 1 1977

MAR 4 1981

SEP 10 1981

16 FEB 1988  
FEB

JUL 22 1992

FEB 9 1994

FORM 109



