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REPORT TO
THE OFFICE OF THE ATTORNEY GENERAL FOR THE PROVINCE OF NEW BRUNSWICK
ON THE REVIEW OF
THE FINAL REPORT OF THE SELECT COMMITTEE ON PUBLIC AUTOMOBILE INSURANCE

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SECTION 1 INTRODUCTION

1.1 Purpose and Scope

Eckler Partners Ltd. was engaged by the Office of the Attorney General for the Province of New Brunswick ("OAG") to provide a review of certain specified portions of the Final Report on Public Automobile Insurance in New Brunswick (the "Report") prepared by the Select Committee on Public Automobile Insurance (the "Select Committee") and released in April 2004.

In particular, the focus of our review was

… on the portions of this report relating to the expected average premium levels and classification structure under the "Made-in-New-Brunswick Model" being proposed, in particular focusing on the completeness and reasonableness of the estimates being made. [Excerpt from letter of engagement with OAG]

It was explicitly agreed that our mandate was to review work already done, and not to undertake to do original analysis. The scope of our work also did not encompass verification of underlying data or calculations.

We were engaged by the OAG to facilitate its consideration of the recommendations contained in the Select Committee Report.

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1.2 Our Selection by the OAG

We were informed that we were selected for this work by the OAG because of our directly relevant experience in two key areas.

In our role as actuarial advisors to the New Brunswick Board of Commissioners of Public Utilities (the "PUB") for over ten years, we have gained extensive exposure to the automobile insurance environment in New Brunswick. This includes close scrutiny, on behalf of the PUB, of the two expert reports prepared in 2003 on the expected impact of the July 2003 tort reforms, and significant participation in the public hearing considering those expert reports.

In our role as actuarial advisors to the Manitoba Public Utilities Board for over five years, we have facilitated that Board's review of the annual General Rate Application submitted by Manitoba Public Insurance ("MPI"), the crown corporation monopoly provider of basic automobile insurance coverage in that province. MPI practices and experience are critical foundations to the recommendations in the Select Committee Report.

1.3 Background

In August of 2003, the New Brunswick Legislative Assembly appointed the Select Committee on Public Automobile Insurance

… to examine into and inquire on the most suitable form of public insurance system for New Brunswick should the province conclude that a public system is required. [Excerpt from Motion 30, moved and carried 5 August 2003]

In the course of examining the issues, the Select Committee engaged the services of Jon Schubert Consulting and Meyers Norris Penny LLP to facilitate its work. Two joint reports of these consultants were included in appendices to the Select Committee Report, and their work forms the foundation for many of the Select Committee recommendations.

The work of the Select Committee culminated with the release of its Report in April 2004.

1.4 Information Reviewed

Our review was limited to consideration of the following four documents:

- the Select Committee Report, and in particular Appendix K to the Report, entitled "Public Automobile Insurance Model Executive Business Plan" jointly submitted by Jon Schubert Consulting and Meyers Norris Penny LLP;
- the MPI 2004 General Rate Application submitted in June 2003, and in particular Section TI.20 to that report, entitled "Basic Autopac Program 2004/2005 Ratemaking Methodology" (the "2004 GRA");
- the report entitled "Impact of Proposed Tort Reform on Private Passenger Automobile Rates in New Brunswick" prepared by Claudette Cantin, FCAS FCIA MAAA and Jacqueline Friedland, FCAS FCIA MAAA of KPMG LLP and submitted 28 July 2003 (the "KPMG Report"); and
- the 2002 Automobile Insurance Experience Actual Loss Ratio Exhibit (Product AU10-D) for New Brunswick Private Passenger Vehicles ("2002 AIX Experience") released by the Insurance Bureau of Canada in June 2003.

In addition to this material, we were permitted access to Mr. Jon Schubert of Jon Schubert Consulting, who was able to expand on the explanations provided in his published materials and to provide background exhibits in support of some of his work. Mr. Schubert's assistance in this regard was significant and greatly appreciated.

1.5 Limitations on Accuracy of Results
Our mandate was limited to reviewing and commenting on work already done. However, it is still important to understand the inherent uncertainty in that work. Section 2.2 of Appendix K to the Select Committee Report describes this uncertainty.

Fundamentally, there is uncertainty in any estimation process, made all the greater here by the lack of any directly relevant experience on which to base those estimates. It should be recognized that future experience may deviate significantly from these estimates.

1.6 Confidentiality
Having been engaged by the OAG, our report is accordingly addressed to the OAG, and intended solely for its use. However, we understand that the OAG may choose or be required to place our report in the public domain. No persons other than the OAG may rely upon, or use for any purpose, our report without our prior written consent.

All users of this report should understand that this report has been prepared solely in connection with our mandate with the OAG, and is not intended, nor is it necessarily suitable, for any other purpose. This report should be distributed in its entirety rather than any excerpt thereof.

SECTION 2 OBSERVATIONS

The nature and extent of the information made available in support of the expected average premiums under the Made-in-New-Brunswick model presented in the Select Committee Report was quite limited. Accordingly, given our mandate, the depth of our actuarial review was also necessarily limited. Without undertaking independent analysis, we find there is very little in the Select Committee Report of a specific quantitative nature on which to comment. There are however, a number of mostly qualitative observations that arose from our review, which we summarize under the following eight headings, and discuss in the sections that follow:

- Current Street Rate
- Risk Classification in Transition
- Premium Dislocation in Transition
- Classification Equity
- Assignment of Claims Costs by Vehicle Type
- Basis of Estimated Average Premium
- Financial Forecast – MPI Costs
- Financial Forecast – Retained Earnings

We are available to the OAG on request to further discuss the findings of our review, or to undertake a more detailed review of specific areas of the Select Committee Report.

2.1 Current Street Rate

The Select Committee Report makes reference to a "current average street premium in New Brunswick of $1,212". The source for this statistic is identified as the KPMG Report. We confirmed with Mr. Schubert that this actually corresponds with the $1,209 estimated current average street premium developed in the KPMG Report, the derivation of which was heavily dependent upon several significant assumptions.

As developed in the KPMG Report, this average premium is an estimate of the average Private Passenger premium actually being charged to New Brunswick policyholders for compulsory coverages, plus a representative collection of optional coverages, as at 30 June 2003, just prior to the implementation of whatever rate changes were approved by the PUB to reflect the expected impact of the tort reform effective 1 July 2003, and whatever further rate changes were otherwise approved to move towards rate adequacy. It is a matter of public record that these approved changes were predominantly downward.

The KPMG Report goes on to develop corresponding required average premiums after recognition of the 2003 tort reform and providing for a reasonable target return on equity. The Select Committee Report then notes that this estimated post-reform required average premium is approximately the same as the estimated pre-reform average street premium, and goes on to infer the post-reform average street premium would be about the same as well. This inference is not supported by the facts. The Select Committee Report then compares the $993 estimated average required premium for the recommended Made-in-New-Brunswick model with this $1,212 pre-reform average street premium to reflect an expected level of savings in average premium under the proposed model. This comparison is not valid.

In general, in a relatively stable, regulated, competitive insurance environment, subject to generally upward cost pressures, street rates will tend to fall below required rates, i.e., rates that cover expected loss and expense costs and provide for a reasonable target return on equity. This happens in part involuntarily due to the lag in updating rate level indications and in seeking the necessary approvals to implement changes, and in part voluntarily because of competitive pressures. This situation, combined with the fact of the predominantly downward rate level changes approved by the PUB retroactively to 1 July 2003, means the Select Committee Report overstates the expected savings, if any, under the recommended Made-in-New-Brunswick model, assuming the proposed public insurer charges required rates.

In any case, this comparison of estimated average premiums is clouded by the fact that it fails to separately account for the component contributions to that change in average premium arising from the recommended benefit changes vs. the recommended delivery system changes.

The maxim “you get what you pay for” comes to mind when comparing expected prices under different benefit schemes. While No Fault has decided advantages in bringing the potential of greater control to escalating claims costs, it does so while also bringing the potential for significant decreases in indemnification levels in certain instances.
The public’s appetite for the extent of these changes in indemnification levels must be assessed and addressed to successfully meet a goal of long term public satisfaction.

2.2 Risk Classification in Transition

Under the recommended public plan, “rates would be based on New Brunswickers’ individual driving records, comprehensive claims experience, vehicle usage, vehicle make/model and optional coverage purchased.” Driving record appears to encompass both the at fault accident record for ten years, and the traffic offence conviction record for ten years.

The process of translating a targeted average premium into a schedule of rates to be charged to individual operators and non-owner drivers, necessarily involves making assumptions about the distribution of business across the rating cells and coverages purchased. Such an exercise underlies the illustrative rating examples included in the Select Committee Report in Appendix L, in this instance using a number of distributional assumptions. The accuracy with which these distributional assumptions reflect current New Brunswick conditions is largely unknown. This, in turn, introduces a potential to fail to realize the overall average premium, perhaps by significant amounts, which could lead to significant deviations from budgeted revenues.

From discussions with Mr. Schubert, it is not clear that currently available public data sources will necessarily provide a sufficient and accurate history of driving record information, as driving record is defined for rating under the recommended public plan. Similar challenges may arise with respect to aspects of some or all of the other dimensions of the recommended rating structure.

In the absence of reliable historical data at start-up for the entire vehicle and driver population in New Brunswick, this misestimation risk can be mitigated by devising a transitional rating structure that relies only on currently available data, pending collection of the necessary additional data during the initial years of operation of the recommended public plan.

2.3 Premium Dislocation in Transition

Current rating practices in today’s competitive insurance market are highly refined and diverse. Drivers in particular are subject to a multi-dimensional risk classification process that has evolved over years of open market competition, generally with the objective of refining rates for individuals to be closer in line with the expected cost of claims for those individuals. This commonly includes use of age and territory as rating criteria, both of which are statistically based and allow for a wide range in resulting premiums, based on the Benchmark rates approved by the PUB.

By contrast, the recommended public plan has a comparatively simpler classification scheme, particularly with respect to driver classification, as described in Section 2.2 This includes the elimination of age and territory as rating criteria.

Based on the illustrative premiums shown in the Select Committee Report, and our general familiarity with current market premium diversity, the range of premiums from lowest to highest rated under the recommended public plan will be significantly reduced compared to current market practices.

A consequence of simplifying the classification plan is premium changes or dislocation caused by the transition to initial rating under the new plan. This dislocation will be both upward and downward depending on the individual's circumstances, and in some instances will be very significant. The fact that much of the insured population tends to be concentrated around current market rates at the lower ranges will likely result in significant downward dislocation being much more common than significant upward dislocation.

It is possible that identifiable segments of New Brunswick society will tend to be similarly affected by this premium dislocation. For example, the elimination of age as a rating criterion will tend to exert some upward pressure on the rates for mature drivers, and somewhat more downward pressure on the rates for youthful drivers, because there are relatively fewer youthful drivers to share the benefit from the shift in mature drivers rates.

2.4 Classification Equity

Governing statutes in many jurisdictions address the concept of classification equity in insurance rating by prescribing conditions which insurance rates must meet to be acceptable. For example, with respect to the powers of the PUB, Section 267.5(1) of the New Brunswick *Insurance Act* states:

> *Where at any time the Board considers that the rates charged or proposed to be charged by an insurer may be excessive, inadequate or discriminatory, the Board may investigate those rates.*

Classification equity is also fundamental to actuarial ratemaking work. The Statement of Principles Regarding Property and Casualty Insurance Ratemaking of the Casualty Actuarial Society, which is relevant to an actuary's work in Canada, states in part:

> *Principle 4: A rate is reasonable and not excessive, inadequate or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer.*

Fairness in rating, or classification equity, entails setting rates to be commensurate with the expected costs an individual risk presents. Failure to achieve classification equity implies there is cross-subsidization in the rates, i.e., the rates for some classifications are higher than needed to offset the underpriced rates for other classifications.

It is not uncommon for public policy considerations to be in conflict with the principle of classification equity. For example, the PUB frequently imposes limitations on the extent to which average premiums (for a given type of vehicle and coverage, in a given rating territory) can change in a single step, choosing instead to spread this premium impact over a longer period, but as a result departing from the objective of equity in classification.

The Select Committee's recommended public plan raises issues of classification equity in two important respects. First, with respect to the proposed driver rating scale and discount structure, and second with respect to the elimination of rating criteria that are known to be statistically justified indicators of significantly diverse expected costs.

The Select Committee Report proposes a premium discount/surcharge scheme (or bonus/malus scheme) that attempts to take elements of such schemes from public auto insurance plans currently in effect in Canada. In discussion with Mr. Schubert, he confirmed that the recommendation is judgmentally based, and the Select Committee Report explicitly states "the precise rates paid by individual vehicle owners requires an actuarial rate making exercise, which was not included in the mandate of this report." The unknown here is the extent to which the proposed rating structure is, or will be, justified by experience, the analysis of which the Select Committee Report indicates is needed. The same could be said for other rating factors that are proposed to be initially adopted from those based on Manitoba's experience.

This same issue has arisen on several occasions in deliberations between MPI and the Manitoba Public Utilities Board with respect to MPI's bonus/malus scheme. Officials of MPI have stated that while its bonus/malus scheme may not be statistically or actuarially justifiable, public policy considerations outweigh the desire for classification equity in this area.

We also have identified the elimination of age and territory as rating criteria as giving rise to classification equity issues in the recommended public plan. Both of these rating criteria have many years of statistical evidence demonstrating the validity and significance of the rating distinctions necessary to achieve classification equity. Imposing public policy considerations to eliminate these criteria will create cross-subsidization between identifiable segments of the driving population.

This underlines the importance of making classification design decisions only with the benefit of fully understanding the implications of overriding equity in favour of public policy considerations.

2.5 Assignment of Claims Costs by Vehicle Type
A No Fault insurance scheme does not imply the absence of any consideration of fault in rating. The reference to No Fault addresses only the fact that indemnities are paid without consideration of fault. The bonus/malus scheme of the recommended public plan clearly includes consideration of fault, as described previously.

Quite naturally, the focus of the Select Committee Report is on Private Passenger Vehicles, which represent the vast majority of insured vehicles in the province. However, there are several other types of vehicles for which rates will be required. The recommended public plan proposes use of Manitoba-based ‘‘Major Use’’ classifications for purposes of categorizing and rating these types of vehicles. The details of this proposal are not addressed in the Report.

A feature of the Manitoba model that has been quite controversial is the manner in which claims costs are assigned by Major Use classification. In Manitoba, claims costs are assigned by vehicle type without regard to fault, which implies that premiums for each type of vehicle should cover all of the costs of indemnifying drivers of each such type of vehicle. The consequence of this approach has been very significant for the Motorcycle classification, whose riders tend to be more severely injured when involved in accidents than would be the case for vehicles offering more protection to its occupants. The cost of these claims is fully attributed to the relatively small population of motorcycles, with the result being significantly higher than average target rate levels for motorcycles compared to other types of vehicles. The history in Manitoba has been a very long road of transition to adequate rate levels for the Motorcycle classification, a transition that is still underway today, having starting with the introduction of No Fault in that province in 1994.

A similar situation was averted in Ontario when a partial No Fault competitive insurance scheme was first introduced in 1990. Public policy considerations in Ontario led to the creation of a loss transfer provision in the governing legislation, which provides an opportunity for the insurer of a severely injured motorcyclist to subrogate against the insurer of an at fault party responsible for the injury, thereby often transferring the claims costs away from the motorcycle class.

This underlines the importance of giving careful consideration to details of the application of the recommended public plan to types of vehicles other than Private Passenger.

2.6 Basis of Estimated Average Premium
The Select Committee Report presents an estimate of the expected average Private Passenger premium of $993 under the recommended public plan as at 1 July 2003. This amount is comprised of an estimate of $945 for the actual average premium, plus a 5% loading to make provision for repayment of the start-up loan from the province and accumulation of retained earnings in the first few years of operations.

The $945 estimated average premium draws heavily on the 2004 GRA, MPI’s June 2003 submission to the Manitoba Public Utilities Board for approval of rates to be charged for the year commencing 1 March 2004. This amount is comprised of estimates of the component parts, as follows:

Select Committee Report Estimated Average Private Passenger Premium

Category	**Amount**	**Source**
Claims	$672.11	See Next Table.
Claims Expenses	104.88	MPI Exponential Forecast
Road Safety	9.91	MPI Exponential Forecast
Operating Expenses	59.06	MPI Exponential Forecast
Reinsurance	7.74	MPI Exponential Forecast
Fleet Rebates	8.41	MPI Exponential Forecast
Premium Tax	28.74	Set to 3% of Premium, Reflecting Current %
Commission	67.05	Set to 7% of Premium, Reflecting Recommended Plan
Trend Adjustment	(33.79)	Adjusting Amounts Above to 1 July 2003
Health Care Levy	74.63	Maintaining Current Level of Total Government Levy
Service Fees	(22.99)	MPI Exponential Forecast
Investment Income	(30.51)	Approximately 50% of MPI Exponential Forecast
Total	**$945.24**	

The coverage composition of the above-noted claims component is as follows:

Select Committee Report Estimated Average Private Passenger Claims Cost Per Vehicle

Coverage	**Amount**	**Source**
Injury (incl. Bodily Injury)	$338.62	MPI Exponential Forecast + 20%
3rd Party Property Damage	72.00	New Brunswick Experience
Optional Physical Damage	261.49	50/50 Average of New Brunswick Experience and Adjusted MPI Exponential Forecast, +5%
Total	**$672.11**	

The significant extent of the reliance on Manitoba experience is evident from the sources identified in the two preceding tables. In the absence of further information to demonstrate the relevance of Manitoba experience to the New Brunswick context or the appropriateness of the judgmental loadings applied to Manitoba experience to allow for provincial differences, it is not possible to comment on the specific reasonableness of the approach. This issue was discussed with Mr. Schubert, who indicated that their estimate was not the result of an actuarial analysis, but instead was in keeping with their mandate to provide a high level illustrative costing.

If the time comes for the new public insurer to seek approval from the PUB of its inaugural rates, the PUB would likely require a more rigorous analysis, an example being to employ a number of approaches to develop independent estimates to better address the significant uncertainty that always exists when dealing with a change in insurance environment.

Without undertaking original analysis, it is not possible to assess the reasonableness of the component estimates made. We do observe that the approach followed does appear to be complete, in that it follows closely the approach used in Manitoba, which has been accepted by the Public Utilities Board there, and it does address the conventional component parts of a pricing estimate (claims and claims-related costs, non-claims-related costs, and a recognition of the time value of money).

There are a number of reasons why differences might be expected in the claims experience between the two jurisdictions. Manitoba has eliminated the right to sue for any bodily injury related to the operation of a motor vehicle. This, and the long history of the No Fault claims environment in Manitoba, has created a claims environment this is unlikely to emerge on day one in New Brunswick. The 20% loading on expected injury costs incorporated in the Select Committee Report analysis attempts to account for this, based in part on consideration of each province's claim frequency levels for workers' compensation claims. The physical damage coverages in Manitoba are not optional, but rather are part of the basic insurance coverage package.
Since the recommended public plan for New Brunswick maintains the optional nature of these coverages, it is difficult to assess to what extent this will change the propensity to make a claim. It is also worth noting that Manitoba is the leading user of after market and recycled parts in collision repairs, a practice which will at least take time to replicate in New Brunswick, if desired.

This potential for differences between the two jurisdictions underlines the significant uncertainty inherent to the estimated average premiums contained in the Select Committee Report.

2.7 Financial Forecast – MPI Costs
The Select Committee Report includes a five year financial forecast of results of operations for the recommended public plan, including a number of simplifying assumptions to maintain amounts expressed in constant 2003 dollars throughout the forecast period. Included within that financial forecast is provision for certain costs to be incurred in the pre-operating period, and amortized over a longer period, arising from a proposed arrangement with MPI to provide a policy management and vehicle registration system, and conversion support related to that system. Appendix M to the Select Committee Report is a letter from MPI outlining the scope of this proposal in general terms, and indicating an expected cost of $7 to $9 million.

Mr. Schubert indicated that the financial forecast anticipated MPI providing these services at the quoted price, and that there would be no need for substantive overhaul of this legacy system at least within the first five years of operations. How completely the MPI systems will meet the needs of a New Brunswick public insurer, and what other significant systems development will be necessary either in other areas (e.g., claims, finance), or in maintenance of the MPI system, are significant unknowns in this financial forecast. The estimate provided by MPI has now reportedly been acknowledged by MPI as being understated, perhaps by as much as 100% of the original estimate. The costs, and the uncertainties of those costs, are both very significant to the financial forecast.

2.8 Financial Forecast – Retained Earnings
A conventional private enterprise insurance company in Canada is required by statute and

regulation to start with, and maintain, certain minimum levels of capitalization and surplus. Apart from capital injections, surplus grows or shrinks in step with the results of operations, as a contribution to retained earnings. Among other things, one purpose of surplus is to allow an enterprise to survive unexpected adverse deviations from expected operating results, possibly due to catastrophic claims or significant adverse development on old claims. A public insurer is no exception, needing some level of surplus as a shock absorber to the unexpected. In the absence of surplus, a public insurer would be constantly facing the risk of insolvency, or calls on the public purse to avoid insolvency.

The Select Committee Report cites $993 as the expected average Private Passenger premium under the recommended public plan, which includes a 5% loading to make provision for repayment of the start-up loan to the province, and accumulation of surplus. The tie-in between the assumptions underlying this estimate and those underlying the financial forecast were not reviewed by us (out of scope), but Mr. Schubert indicated that at least the revenue components of the financial forecast were consistent with the $993 average premium estimate.

In Manitoba, the issues of appropriate target levels of surplus, appropriate uses of surplus in operations, and appropriate strategies for rebuilding a depleted surplus or releasing an overabundance of surplus, have all been subject to extensive debate, on the public record. If anything is clear from this debate, it is that there is no definitive correct answer to each of these questions.

In Manitoba, the surplus account is referred to as the Rate Stabilization Reserve (the "RSR"). The Manitoba Public Utilities Board has declared a suitable target range for the RSR is currently between $50 and $80 million. MPI's Board of Directors has adopted a higher range, with $80 million as its lower bound. At $80 million, the RSR would represent approximately 15% of net written premium at current levels.

The financial forecast included in the Select Committee Report anticipates accumulation of $31.5 million of retained earnings at the end of five years of operation, all amounts being expressed in constant 2003 dollars. That forecast includes the 5% loading on premiums noted above. If the natural forces of claims and expense inflation are recognized in the financial forecast, then either the ending retained earnings balance will be lower than shown in the Report, or a compensating assumption for rising average premium levels throughout the forecast period will be necessary.

The relevance of the financial forecast to the OAG's deliberations is whether or not the forecasted level of surplus, and the pace of achieving this level, are acceptable. The Select Committee Report is silent on these issues. Since the people of New Brunswick ultimately must stand behind a public insurer, the tolerance for the risk of insolvency needs to be assessed, and target levels of surplus must be set and achieved azaccordingly.