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**The Right Discount Rate for Future Pecuniary Damages:
Is It 2.5% or Something Different?**

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Introduction

The discount rate is a critical determinant of the present lump-sum value of future pecuniary damages. In the absence of a mandated¹ discount rate, the real rate of return would usually be the most important assumption that an actuary would make in the context of an economic loss valuation.

As of October 1, 2014, parties to litigation in New Brunswick are permitted to lead evidence to establish a discount rate that is different from the default rate of 2.5% per year².

This paper provides an overview of the discount rates in use for personal injury and wrongful death litigation across Canada, discusses some of the considerations involved in putting forth evidence to support an alternative to the default rate, and addresses implications for your clients.

The New Brunswick Rule

As of October 1, 2014, Rule 54.10(2) of the *New Brunswick Rules of Court* has changed. The previous net discount rate of 2.5% has become the default rate rather than the required rate (see footnote 2). Parties are now permitted to lead evidence to establish a different discount rate.

Prior to October of 2014, Rule 54.10(2) read as follows:

54.10 Assessment of Damages and Discount Rate for Future Pecuniary Damages

(2) The discount rate to be used in determining the amount of an award in respect of future pecuniary damages, to the extent that it reflects the difference between estimated investment and price inflation rates, is two and one-half per cent per year.

Effective October 1, 2014, the rule is:

54.10 Assessment of Damages and Discount Rate for Future Pecuniary Damages

(2) In the absence of evidence to the contrary, the discount rate to be used in determining the amount of an award in respect of future pecuniary damages is 2.5% per year.

¹ To actuaries, the word “prescribed” has two possible meanings. Discount rates are *prescribed* by legislation. Other actuarial assumptions may be *prescribed* by the Standards of Practice of the Canadian Institute of Actuaries. To avoid confusion, actuaries generally refer to assumptions being *mandated* when prescribed by legislation and *prescribed* when prescribed by their professional Standards of Practice. I have adopted this convention in this submission, and therefore refer to mandated discount rates.

² It may be debatable whether or not the New Brunswick rule, as worded prior to October 1, 2014, would have allowed evidence to support a discount rate different from 2.5%. From a practical perspective, prior to October 1, 2014 the 2.5% discount rate was generally treated as being a required rate and I will refer to it as such in this paper. The 2014 amendment makes it clear that different rates may be advocated, based on evidence to be presented on the issue.

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This seemingly subtle change has the potential to impact plaintiff awards and defendant costs to a significant degree.

Some Useful Terminology

“Nominal” rates refer to the rates of return on investments (called “estimated investment rates” in the pre-October 2014 version of Section 54.10(2) of the *New Brunswick Rules of Court*).

“Real” rates refer to the difference between the investment rate of interest and the rate of increase in earnings and/or price inflation. A real rate of interest measures the extent to which the nominal rate of interest exceeds inflation. In New Brunswick, the rate of 2.5% that “reflects the difference between estimated investment and price inflation rates” in the pre-October 2014 version of Section 54.10(2) of the *New Brunswick Rules of Court*) was a real rate of return. Actuaries sometimes refer to “real” rates as “net” rates.

If one assumes a real rate of return of 2.5% per year (the formerly required, and now the default, discount rate in New Brunswick) and inflation of 2% per year, then one is implicitly assuming a nominal rate of approximately 4.5% per year³.

Elsewhere in Canada

Eight provinces and two territories have legislation to mandate the discount rate that is to be used for the assessment of future pecuniary damages in civil litigation. Only Alberta, Newfoundland & Labrador, and the Yukon do not have a mandated discount rate.

As Appendix A shows, most Canadian jurisdictions established their mandated discount rates 20 or more years ago. After many years of stability, three provinces (including New Brunswick) have changed their mandated discount rate rules since 2013. Nova Scotia may soon follow, as a review of their mandated discount rate for damages resulting from a motor vehicle accident is currently underway.

The current mandated rates range from a low of 0.3% per year for 15 years (and 2.5% per year thereafter) in Ontario to a high of 3.5% per year in Nova Scotia (for damages arising from a motor vehicle accident). For a given fact situation, these different discount rates result in significant variations in the lump-sum present value of pecuniary damages based solely on where the injury or death occurred – all other things being equal (see Appendices B and C).

³ This is an approximation. The technically correct equivalent nominal rate is 4.55% ($1.025 \times 1.02 = 1.0455$).

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Evidence to Challenge a Mandated Rate – Ontario Examples

Rule 53.09(1) of the *Ontario Rules of Civil Procedure* is identical in preamble to the pre-October 2014 New Brunswick rule:

Ontario: “The discount rate to be used in determining the amount of an award in respect of future pecuniary damages, to the extent that it reflects the difference between estimated investment and price inflation rates, is ...”

New Brunswick: “The discount rate to be used in determining the amount of an award in respect of future pecuniary damages, to the extent that it reflects the difference between estimated investment and price inflation rates, is ...”

Although the Ontario rule is (like the pre-October, 2014 New Brunswick rule was) generally treated as requiring the mandated rates to be used, there have been a few decisions in recent years in which Ontario courts have accepted evidence in support of an adjusted or modified discount rate. These decisions offer some insights to some of the evidence that might be introduced in support of an alternate discount rate in New Brunswick.

a. Gordon v. Greig and Morrison v. Greig (Ontario Superior Court of Justice, 2007)

Cory Greig was the driver and Derek Gordon and Ryan Morrison were passengers in a truck that was involved in a motor vehicle accident. In the accident, Mr. Gordon sustained a severe brain injury and Mr. Morrison sustained a spinal injury that left him a paraplegic.

In the decision related to Mr. Gordon, the mandated discount rates were accepted in respect of the lump-sum present value of lost earnings and future care costs (paragraph 71). In the decision related to Mr. Morrison, a discount rate of 1% less than the mandated rate was accepted in respect of the lump-sum present value of future attendant care (paragraphs 170 to 177).

b. Ligate v. Abick (Ontario Court of Appeal, 1996)

Mr. Ligate suffered a severe brain injury in a motor vehicle accident. This resulted in cognitive deficits and a changed personality. The trial judge accepted the expert actuarial testimony that Mr. Ligate’s future earnings if not for the accident were expected to have increased at a rate higher than general inflation. The mandated discount rate of the day was reduced to take this into account. The Court of Appeal upheld the trial judge’s decision.

c. Walker v. Ritchie (Ontario Court of Appeal, 2005)

Stephanie Walker was catastrophically injured in a collision between the car she was driving and a tractor-trailer truck. The trial judge accepted expert testimony that the cost of professional services were expected to increase at rate higher than general inflation. The mandated discount rate was reduced to take this into account. The Court of Appeal upheld the trial judge’s decision (paragraphs 88 to 91).

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It should be noted that, in each of the above decisions, the accepted discount rate differed from the mandated discount rate because the annual losses or costs were expected to increase at a rate higher than the inflation rate implicit in the mandated discount rate. In New Brunswick, in today's economic environment, the argument is as likely to be that the expected investment earnings of the plaintiff are expected to be lower (at least in the near term) than the nominal investment rate of return implicit in the default discount rate of 2.5% per year.

Recent Changes in Other Jurisdictions

a. Ontario

The province of Ontario adopted a formula-based approach to its mandated discount rate in 1999. The discount rate used during the first 15 years after the valuation date is based on the current economic environment. An eventual reversion to "historical norms" is assumed, and so the mandated discount rate for the period after 15 years from the valuation date is fixed at 2.5% per year. The variable discount rate is updated once per year, based on then-current real return yield rates.

The mandated discount rates apply for trial dates (valuation dates) in a given calendar year, and are determinable about 4 months in advance. For example, one will be able to calculate the mandated discount rates for 2016 at the end of August, 2015.

The first discount rate review since 1999 was completed in 2013. It resulted in changes which became effective for 2014 trial dates. In addition to relatively minor changes to the mandated formula, the revised rule introduced a minimum discount rate of 0% for the first 15 years after the valuation date. The discount rate for 2013 trials was -0.5% for the first 15 years, a result that likely was not envisaged as possible when the initial formula was established in 1999!

b. British Columbia

The province of British Columbia initiated a review of its mandated rates early in 2013. British Columbia, like all Canadian jurisdictions except Ontario, has fixed discount rates. It differs from New Brunswick in that it has two different discount rates:

- One for losses related to earnings (the plaintiff's lost earnings capacity or lost dependency, and also the "services" component of future care costs)
- One for the "goods" component of future care costs

The review included two rounds of submissions from interested parties, as well as a hearing in front of the Chief Justice of British Columbia in April of 2014. The review resulted in a significant decrease in the level of both mandated discount rates. The changes were effective April 30, 2014.

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c. Nova Scotia

Since 2003, Section 4(1) of the *Nova Scotia Automobile Insurance Tort Recovery Limitation Regulation* has provided for a mandated discount rate of 3.5% per year when determining the lump-sum present value of pecuniary damages in respect of injury or death related to a motor vehicle accident. In contrast, Nova Scotia's *Civil Procedure Rules* provide for a discount rate of 2.5% per year if the injury or death is the result of something other than a motor vehicle accident.

Interestingly, Section 4(2) of the *Tort Recovery Limitation Regulation* appears to provide for an alternate (formula-based, like Ontario) discount rate effective as of January 1, 2005. In today's low-interest economic environment, the Section 4(2) discount rate is much, much lower than the Section 4(1) discount rate of 3.5% per year.

For almost ten years, there was uncertainty about the applicability and the correct interpretation of Section 4(2). During that period, it was not unusual for actuaries and other economic loss experts to illustrate the lump-sum present value of pecuniary damages using both the Section 4(1) and 4(2) discount rates. The Supreme Court of Nova Scotia considered the issue for the first time late in 2013 (*Brocke Estate v. Crowell*, 2013 NSSC 344) and determined that Section 4(1) must apply. In the court's view, the intent behind Section 4(2) was that the government would review and declare a discount rate, based on the Section 4(2) formula, each year. In the absence of such a review and declaration of a Section 4(2) discount rate, the Section 4(1) discount rate of 3.5% per year must apply.

Shortly after the Brocke Estate decision, the Nova Scotia Superintendent of Insurance (whose office is responsible for the *Tort Recovery Limitation Regulation*) initiated a review of the mandated discount rate rule. That review is currently in progress. Changes, if they occur, will apply only to damages arising from injuries or death related to a motor vehicle accident.

Background to the Recent Changes across Canada

In recent years, mandated discount rates in New Brunswick and most other jurisdictions in Canada have diverged materially from the discount rates that actuaries and other economic loss experts would use in the absence of those mandated rates. In today's economic environment (with the investment return and inflation trends described below), it may be argued that a discount rate lower than 2.5% per year should be used – at least for the near term.

In the early 1980s when the New Brunswick mandated net discount rate of 2.5% was being developed, both nominal rates of return and inflation rates were much higher than today.

However, for almost 20 years now, inflation rates have been lower and relatively stable. In 1991, Canada became the second country in the world (after New Zealand) to adopt an inflation-targeting framework for its central bank monetary policy. The framework has been reviewed and renewed on a regular basis since then, most recently in 2011. The next review will occur in 2016. Since 1995, the Bank of Canada's goal has been to keep the Consumer Price Index close to 2% and within the control range of 1% to 3%. For the most part, that goal has been achieved on a consistent basis.

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Nominal rates of return have also decreased materially since the early 1980s. For example, the Government of Canada benchmark long-term nominal bond yield (series V122544) was only 2.5% in November of 2014.

In recent years, there has been a general narrowing of the spread between nominal rates of return and inflation rates, and thus a decline in the real rate of return (which is typically defined as the difference between, or a ratio involving, the nominal rate of return and the inflation rate):

Year	Long-Term Government of Canada Bond Yield ⁴	Total CPI ⁵	Difference
1977	9.2%	8.0%	1.2%
1978	10.0%	8.9%	1.1%
1979	11.6%	9.3%	2.3%
1980	13.0%	10.0%	3.0%
1981	15.5%	12.5%	3.0%
1982	11.9%	10.8%	1.1%
1983	12.3%	5.9%	6.4%
1984	12.0%	4.3%	7.7%
1985	10.0%	4.0%	6.0%
1986	8.9%	4.2%	4.7%
...
1991	9.0%	5.6%	3.4%
...
1996	5.7%	1.5%	4.2%
...
2001	4.1%	2.5%	1.6%
...
2006	4.1%	2.0%	2.1%
2007	4.2%	2.1%	2.1%
2008	3.5%	2.4%	1.1%
2009	4.1%	0.3%	3.8%
2010	3.5%	1.8%	1.7%
2011	2.5%	2.9%	-0.4%
2012	2.4%	1.5%	0.9%
2013	3.2%	0.9%	2.3%
2014	2.5%	2.0%	0.5%

Although there has been a general trend to lower real rates of return in recent years (the right-hand column of the table above), significant year-over-year fluctuations continue to occur.

⁴ Bank of Canada benchmark yield for long-term nominal Government of Canada bonds (series V122544) as of December of each year shown (as of November for 2014, December not yet available).

⁵ Average total CPI for each calendar year.

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Implications for Clients

At any time, the financial impact of using mandated discount rates that are inconsistent with the current economic environment is significant. The impact of New Brunswick's default discount rate of 2.5% per year is arguably adverse for plaintiffs at present, but also potentially for defendants at some future date.

In today's economic environment, one would expect that the evidence of an independent expert actuary might support a discount rate lower than the default rate. If the courts accept evidence that justifies a discount rate lower than the default rate, then the plaintiff will benefit.

At some future date, in a different economic environment – one in which the spread between nominal returns and inflation is wider (either as interest rates and fixed income investment returns increase, or inflation rates decrease, or both), the actuary's evidence may lead the court to accept a discount rate that is higher than the default rate. Defendants would then benefit, all other things being equal.

Considerations

Four key considerations, if one wishes to present evidence to support a discount rate different from the default, are as follows:

- Should one adopt a stepped rate format that reflects the current economic environment for a fixed number of years and anticipates an eventual return to historical norms? Or, should one assume that the current economic environment will continue indefinitely by adopting a level rate format that is highly dependent on current rates?
- What are the expected future interest rate and inflation trends?
- What investment vehicles should we assume for the plaintiff?
- Are the annual losses or costs being valued expected to increase in future in line with general price inflation, or at a rate greater than or less than general price inflation?

a. Stepped or Level Rate Format?

In Alberta and Newfoundland & Labrador, where there are no mandated discount rates, the courts appear to sometimes prefer a stepped rate approach to the discount rate and sometimes prefer a level rate:

- Stepped: Palmquist v. Ziegler (Court of Queen's Bench of Alberta, 2010)
Driscoll v. Morgan (SC of NL Court of Appeal, 2007)
- Level: Schmolzer v. Higenbottam (Court of Queen's Bench of Alberta, 2009)
Courtney v. Cleary (SC of NL, 2010)

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b. Interest Rate and General Inflation Trends

In a speech in September of 2014⁶, Carolyn Wilkins, Senior Deputy Governor of the Bank of Canada, discussed issues related to the pace of the Canadian economy's recovery from the financial crisis of 2008.

Some of her presentation focused on the "neutral" or "natural" rate of interest. This is the "real risk-free rate of interest that enables the economy to operate at full capacity with stable inflation after cyclical forces have dissipated. It is the interest rate that generates just enough savings to finance investment in the long-run." With regards to the neutral rate of interest post-2008, Ms. Wilkins stated the Bank of Canada's view as follows:

"All told, we think that the neutral rate of interest is lower than it was in the years leading up to the crisis because of We estimate that the real neutral policy rate is currently in the range of 1 to 2 per cent. This translates into a nominal neutral policy rate of 3 to 4 per cent, down from a range of 4 1/2 to 5 1/2 per cent in the period prior to the crisis."

"Given the headwinds faced by the Canadian economy, shorter-run measures of neutral in Canada would currently be well below the 3 to 4 per cent range for longer-run neutral rates."

Trends in the general economy and the Bank of Canada's inflation-targeting framework (discussed on page 5) will influence the actuary's assumption of an appropriate discount rate.

c. Preferred Investment Strategy

Historically, most economic loss experts have argued in support of the plaintiff investing in government bonds or other highly secure fixed-income investments. This is a conservative investment strategy that ensures protection of principal and little risk of negative returns. Other experts may argue that the plaintiff should invest in a diversified portfolio that includes some stocks and other equity investments. This type of investment strategy may offer the possibility of higher returns, but also the risk of a loss of some of the original principal.

To date, the Canadian courts have not explored the issue of appropriate investment strategy and acceptable level of risk in great depth.

d. Plaintiff-specific Inflation Assumptions

With regards to future earnings, studies indicate that, over the long run, average wages and salaries for the economy as a whole have increased at a rate faster than general inflation due to promotions and productivity increases. On the other hand, in recent years, earnings levels in some sectors have been frozen or have increased at a level lower than general inflation. This trend has been more pronounced since the financial crisis of 2008.

⁶ Full text at <http://www.bankofcanada.ca/wp-content/uploads/2014/09/remarks-220914.pdf>.

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With regards to future care costs, experts have testified that health care costs have exceeded general price inflation rates in the past and are expected to continue to do so in the future. The two Ontario decisions cited earlier reflect the court's acceptance of such evidence.

Perspective of the Canadian Institute of Actuaries

The Canadian Institute of Actuaries (CIA) is the national organization of the actuarial profession in Canada. It holds the duty of the profession to the public *above* the needs of the profession and its individual members.

In the past two years, the CIA has made submissions to the governments of British Columbia (April of 2013, March of 2014)⁷ and Nova Scotia (January of 2015) in relation to reviews of mandated discount rates in civil litigation. Although the position of the CIA is not binding on individual actuaries, its recommendations may be instructive in anticipating the expert evidence that actuaries might present in New Brunswick in the coming months and years.

The key recommendations of the CIA's submissions to British Columbia and Nova Scotia were as follows:

- a. Introduce a formula-based approach and an automatic "periodic reset" of the mandated discount rates.
- b. Adopt a stepped rate format to replace the current level rate format.
- c. Carefully consider the structure and number of mandated rates—for example, is it best to mandate "real" discount rates, or instead mandate a nominal discount rate and a separate inflation assumption? Is it best to mandate different discount rates for different heads of damage, or instead mandate the same discount rate for all heads of damage?

The purpose of the first two CIA recommendations is to permit the mandated discount rates to reflect the current economic environment at any point in time, while anticipating an eventual return to historical norms. The CIA further observed that adoption of a level mandated discount rate that reflects the perceived current economic environment is conceptually equivalent to an assumption that the current economic environment will continue indefinitely into the future without change.

The purpose of the CIA's third recommendation was to invite government policy-makers to consider alternative approaches to the mandating of discount rates. For example, adoption of a nominal discount rate and a separate inflation assumption would ensure that both indexed losses and non-indexed losses (for example: disability benefits, some pension benefits, income tax gross-ups) would be valued using consistent economic assumptions.

⁷ The BC submissions can be found at:

<https://www.cia-ica.ca/docs/default-source/2013/213039e.pdf?sfvrsn=0> (2013) and
<https://www.cia-ica.ca/docs/default-source/2014/214028e.pdf?sfvrsn=0> (2014).

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The CIA also attempted to highlight the importance of considering the objectives that underlie the mandated discount rates in a specific jurisdiction before making a decision on changes to the current regime. For example:

- Is the primary goal to achieve equity between the parties? If yes, then an unbiased estimate derived from a technical actuarial/economic analysis will be the preferred result. This would almost certainly include an automatic reset mechanism and a stepped rate structure. It should also be noted that “equity” may be defined differently by different stakeholders. Different assumptions concerning the appropriate risk/reward balance (investment strategy, asset mix, reinvestment, and duration) will yield different results in terms of an unbiased estimate. This is a highly complex issue.
- If the answer to the above is no, then is the primary goal either the protection of the interests of possibly financially unsophisticated plaintiffs/victims or the control of insurance claim costs? Mandated discount rates that differ from the theoretical unbiased estimate are needed to achieve one of these goals.
- To what extent, if any, should the discount rates recognize potential future “productivity” effects?
- Should the discount rates include or exclude a margin to provide for investment management costs?

Conclusion

At present, the change to New Brunswick’s Rule 54.10(2) is likely to benefit plaintiffs more often than not. However, in a future different economic environment, the opposite may be true and defendants may benefit.

Plaintiff lawyers will almost certainly want to explore the question of alternate discount rates with the expert actuary they have retained. Defendant lawyers will almost certainly want to retain their own expert to explore counter-arguments to the proposed discount rate if it is lower than 2.5% per year.

Acknowledgement

Some of the analysis presented in this paper was performed in support of submissions made to various government entities by the Canadian Institute of Actuaries and its Committee on Actuarial Evidence. I thank my fellow actuaries on that committee for their contributions to that analysis.

Appendix A

Summary of Provincial and Territorial Legislation Pertaining to Discount Rates for Civil Litigation

Province	Mandated Rates as of 2015	Date of Most Recent Change	Reference / Background
Alberta	No mandated rate	n.a.	n.a.
British Columbia	Loss of earnings: 1.5% Future Care/Other Damages: 2.0%	2014 Note: Prior to April 30, 2014, the mandated rates were: Loss of earnings: 2.5% Future Care/Other Damages: 3.5%	Law and Equity Act, R.S.B.C. 1996, c. 253, s. 56 Law and Equity Regulation, BC Reg. 352/81
Manitoba	3.0%	1993	Court of Queen's Bench Act, S.M. 1988-89, c. 4 (C.C.S.M. c. C280), s. 83(2) S.M. 1993, c. 19, s. 5.
New Brunswick	2.5% is the default rate, but evidence can be led that another rate is more appropriate.	2014 Note: Prior to October 1, 2014, 2.5% had been the required rate since at least 1986.	New Brunswick Rules of Court, N.B. Reg. 82-73, Rule 54.10(2)
Newfoundland and Labrador	No mandated rate	n.a.	n.a.

Province	Mandated Rates as of 2015	Date of Most Recent Change	Reference / Background
Nova Scotia	<p>NOT a motor vehicle accident (non-MVA): 2.50%</p> <p>MVA: 3.50%. However the regulation provides that, effective January 1, 2005, the discount rate for each calendar year <u>may</u> be based on the difference between the rate set for Government of Canada bonds and the consumer price index for the previous 12 months.</p>	<p>Non-MVA: 1980</p> <p>MVA: 2003</p> <p>Notes: Prior to November 2003, the mandated rate for MVAs was 2.50%.</p> <p>The MVA mandated rate rule is currently under review.</p>	<p>Civil Procedure Rules r. 70.06(1)</p> <p>Insurance Act s.113C</p> <p>Automobile Insurance Tort Recovery Limitation Regulations O.I.C. 2003-457, N.S Reg. 182/2003, s. 113c.</p>
Northwest Territories	2.50%	Could not confirm	Judicature Act, R.S.N.W.T. 1988, c. J-1, s. 57(1)
Nunavut	2.50%	1998	Judicature Act, SNWT (Nu) 1998, c 34 s 1, s. 57(1)

Province	Mandated Rates as of 2015	Date of Most Recent Change	Reference / Background																																																																																																						
Ontario	<p>For Trials Commencing After January 1 of:</p> <table border="1"> <thead> <tr> <th data-bbox="445 321 548 345">Year</th> <th data-bbox="548 321 709 345">Select (1)</th> <th data-bbox="709 321 879 345">Ultimate (2)</th> </tr> </thead> <tbody> <tr><td>2000</td><td>3.00%</td><td>2.50%</td></tr> <tr><td>2001</td><td>2.75%</td><td>2.50%</td></tr> <tr><td>2002</td><td>2.50%</td><td>2.50%</td></tr> <tr><td>2003</td><td>2.50%</td><td>2.50%</td></tr> <tr><td>2004</td><td>2.25%</td><td>2.50%</td></tr> <tr><td>2005</td><td>1.50%</td><td>2.50%</td></tr> <tr><td>2006</td><td>1.00%</td><td>2.50%</td></tr> <tr><td>2007</td><td>0.75%</td><td>2.50%</td></tr> <tr><td>2008</td><td>0.75%</td><td>2.50%</td></tr> <tr><td>2009</td><td>0.75%</td><td>2.50%</td></tr> <tr><td>2010</td><td>1.25%</td><td>2.50%</td></tr> <tr><td>2011</td><td>0.50%</td><td>2.50%</td></tr> <tr><td>2012</td><td>0%</td><td>2.50%</td></tr> <tr><td>2013</td><td>-0.50%</td><td>2.50%</td></tr> <tr><td>2014</td><td>0.30%</td><td>2.50%</td></tr> <tr><td>2015</td><td>0.30%</td><td>2.50%</td></tr> </tbody> </table> <p>(1) Select Rate applies for the 15-year period from the start of the trial (2) Ultimate Rate applies thereafter</p>	Year	Select (1)	Ultimate (2)	2000	3.00%	2.50%	2001	2.75%	2.50%	2002	2.50%	2.50%	2003	2.50%	2.50%	2004	2.25%	2.50%	2005	1.50%	2.50%	2006	1.00%	2.50%	2007	0.75%	2.50%	2008	0.75%	2.50%	2009	0.75%	2.50%	2010	1.25%	2.50%	2011	0.50%	2.50%	2012	0%	2.50%	2013	-0.50%	2.50%	2014	0.30%	2.50%	2015	0.30%	2.50%	<p>Annual review.</p> <p>Current rule was introduced beginning with 2014 trials.</p> <p>From 2000 to 2013, a different rule for automatic annual reset was in place.</p> <p>Between 1980 and 1999, the mandated rate was 2.5% for all periods.</p>	<p>Rules of Civil Procedure, R.R.O. 1990, Reg. 194 r. 53.09(1)(b)</p> <p>Ontario also mandates inflation rates for income tax gross-up calculations as follows:</p> <p>For Trials Commencing After January 1 of:</p> <table border="1"> <thead> <tr> <th data-bbox="1404 500 1507 524">Year</th> <th data-bbox="1507 500 1669 524">Select (1)</th> <th data-bbox="1669 500 1934 524">Ultimate (2)</th> </tr> </thead> <tbody> <tr><td>2000</td><td>2.25%</td><td>2.75%</td></tr> <tr><td>2001</td><td>3.00%</td><td>3.50%</td></tr> <tr><td>2002</td><td>3.25%</td><td>3.25%</td></tr> <tr><td>2003</td><td>3.00%</td><td>3.25%</td></tr> <tr><td>2004</td><td>3.00%</td><td>2.75%</td></tr> <tr><td>2005</td><td>3.50%</td><td>2.50%</td></tr> <tr><td>2006</td><td>3.50%</td><td>2.00%</td></tr> <tr><td>2007</td><td>3.75%</td><td>1.75%</td></tr> <tr><td>2008</td><td>3.50%</td><td>1.75%</td></tr> <tr><td>2009</td><td>3.25%</td><td>1.50%</td></tr> <tr><td>2010</td><td>2.75%</td><td>1.25%</td></tr> <tr><td>2011</td><td>3.25%</td><td>1.25%</td></tr> <tr><td>2012</td><td>3.25%</td><td>1.00%</td></tr> <tr><td>2013</td><td>3.00%</td><td>0.00%</td></tr> <tr><td>2014</td><td>2.30%</td><td>0.10%</td></tr> <tr><td>2015</td><td>2.40%</td><td>0.20%</td></tr> </tbody> </table> <p>(1) Select Rate applies for the 15-year period from the start of the trial (2) Ultimate Rate applies thereafter</p>	Year	Select (1)	Ultimate (2)	2000	2.25%	2.75%	2001	3.00%	3.50%	2002	3.25%	3.25%	2003	3.00%	3.25%	2004	3.00%	2.75%	2005	3.50%	2.50%	2006	3.50%	2.00%	2007	3.75%	1.75%	2008	3.50%	1.75%	2009	3.25%	1.50%	2010	2.75%	1.25%	2011	3.25%	1.25%	2012	3.25%	1.00%	2013	3.00%	0.00%	2014	2.30%	0.10%	2015	2.40%	0.20%
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Province	Mandated Rates as of 2015	Date of Most Recent Change	Reference / Background
Prince Edward Island	2.50%	<p>Not since 1994</p> <p>PEI adopted the Ontario Rules of Civil Procedure in 1990 but does not seem to have harmonized subsequent to Ontario's 1999 changes.</p>	Prince Edward Island Rules of Civil Procedure, r. 53.09(1)
Québec	Loss of earnings: 2.00% Future Care (Goods): 3.25% Future Care (Services): 2.00%	Act: 1991 Regulation: 1997	Civil Code of Québec (S.Q., 1991, c. 64.) Regulation under article 1614 of the Civil Code respecting the discounting of damages for bodily injury, RRQ, c. CCQ, r. 1,
Saskatchewan	3.00%	Could not confirm	Saskatchewan Queen's Bench Rules, r. 284B(1)(b)
Yukon	No mandated rate	n.a.	n.a.

Appendix B

Illustration of the Effect of Different Mandated Discount Rates across Canada – Loss of Earnings

Present value of a loss of \$50,000 per annum until age 65, to a male, mortality decrement only (Statistics Canada 2009-11 Life Table)

	Discount Rate	Valuation age 12 Commencement age 25	Percentage of Current	Valuation age 40 Commencement age 40	Percentage of Current
New Brunswick (default)	2.5%	\$893,000	100%	\$904,000	100%
Alberta	-	-	-	-	-
British Columbia					
• Previous	2.5%	\$893,000	100%	\$904,000	100%
• Current	1.5%	\$1,200,000	134%	\$1,009,000	112%
Manitoba	3.0%	\$775,000	87%	\$857,000	95%
Newfoundland & Labrador	-	-	-	-	-
Nova Scotia (2014)					
• Non-MVA	2.5%	\$893,000	100%	\$904,000	100%
• MVA Reg 4(1)	3.5%	\$675,000	76%	\$814,000	90%
• MVA Reg 4(2)	1.94%	\$1,052,000	118%	\$961,000	106%
Northwest Territories	2.5%	\$893,000	100%	\$904,000	100%
Nunavut	2.5%	\$893,000	100%	\$904,000	100%
Ontario					
• 2013 trials	-0.5% for 15 years, then 2.5% thereafter	\$1,391,000	156%	\$1,213,000	134%
• 2014 and 2015 trials	0.3% for 15 years, then 2.5% thereafter	\$1,235,000	138%	\$1,118,000	124%
Prince Edward Island	2.5%	\$893,000	100%	\$904,000	100%
Quebec	2.0%	\$1,033,000	116%	\$955,000	106%
Saskatchewan	3.0%	\$775,000	87%	\$857,000	95%
Yukon	-	-	-	-	-

Appendix C

Illustration of the Effect of Different Mandated Discount Rates across Canada – Future Care Costs (Goods)

Present value of a loss of \$20,000 per annum for life, to a male, mortality decrement only (Statistics Canada 2009-11 Life Table)

	Discount Rate	Valuation age 12 Commencement age 12	Percentage of Current	Valuation age 40 Commencement age 40	Percentage of Current
New Brunswick (default)	2.5%	\$647,000	100%	\$500,000	100%
Alberta	-	-	-	-	-
British Columbia					
• Previous	3.5%	\$516,000	80%	\$425,000	85%
• Current	2.0%	\$735,000	114%	\$547,000	109%
Manitoba	3.0%	\$576,000	89%	\$460,000	92%
Newfoundland & Labrador	-	-	-	-	-
Nova Scotia (2014)					
• Non-MVA	2.5%	\$647,000	100%	\$500,000	100%
• MVA Reg 4(1)	3.5%	\$516,000	80%	\$425,000	85%
• MVA Reg 4(2)	1.94%	\$747,000	115%	\$553,000	111%
Northwest Territories	2.5%	\$647,000	100%	\$500,000	100%
Nunavut	2.5%	\$647,000	100%	\$500,000	100%
Ontario					
• 2013 trials	-0.5% for 15 years, then 2.5% thereafter	\$931,000	144%	\$702,000	140%
• 2014 and 2015 trials	0.3% for 15 years, then 2.5% thereafter	\$843,000	130%	\$639,000	128%
Prince Edward Island	2.5%	\$647,000	100%	\$500,000	100%
Quebec	3.25%	\$545,000	84%	\$442,000	88%
Saskatchewan	3.0%	\$576,000	89%	\$460,000	92%
Yukon	-	-	-	-	-