

CAC (MPI)

CAC (MPI) 3-1

Volume:	Volume II, RSR.1, RSR Appendix A PDF Page 2 and 4	Page No.:	3
Topic:	Rate Stabilization Reserve		
Sub Topic:	Accounting Treatment for the RSR		
Issue:	The International Financial Reporting Standards (IFRS) do not specifically provide guidance on how to report or present rate stabilization reserve account values on a company's public financial statements.		

Preamble: On page 3 of RSR.1 it states "There are no specific IFRS standards that deal with the treatment of rate stabilization reserves. In the absence of specific accounting standards, the Corporation has flexibility in how it reflects information on its RSR."

On RSR Appendix A, PDF page 2 it states "5. Accounting standards preclude the RSR rebuilding fee going directly into retained earnings. 7. There is no evidence on the record, one way or the other, as to whether consumers understand the purpose or the function of either the RSR or Retained Earnings."

On RSR Appendix A, PDF Page 4 it states "As it relates to the statement of operations presentation, under the current accounting rules there is not the ability to have an RSR charge not flow through the statement of operations."

Question:

- a) Please place on the record, the results of any MPI survey or focus group over the last 3 years which test consumers' understanding of the RSR or consumer viewpoints on the appropriate magnitude of the RSR.
- b) Please confirm, based on current accounting rules, that the PUB Board could rule on how to account for the RSR and Retained Earnings for rate setting purposes to provide greater understanding and appreciation to consumers of the purpose, use and function of the RSR and Retained Earnings. If this cannot be confirmed, please provide a detailed explanation and reasoning.

- c) Please explain the steps the Corporation would undertake in order to appropriate retained earnings to a specific capital reserve, such as the RSR.

Rationale for Question:

To clarify and understand the accounting treatments. It may be in the public interest to provide clarification on the use, purpose and function of the RSR and Retained Earnings.

RESPONSE:

- a) There have been no specific survey or focus group results over the last three years which specifically test consumers' understanding of the RSR or consumer viewpoints on the appropriate magnitude of the RSR.
- b) The Board's function is to review and approve proposed changes to rates charged for Basic insurance, which are proposed annually by Manitoba Public Insurance. The Board's mandate as stated in *The Crown Corporations Public Review and Accountability Act* and by the Court of Appeal does not include ruling "on how to account for the RSR and Retained Earnings". Matters of accounting policy are under the discretion of management and as stated in the *Responsibility for Financial Statements*, page 2 of the Universal Compulsory Automobile Insurance Annual Financial Statements, "the financial statements are the responsibility of management and are required to be prepared in accordance with International Financial Reporting Standards".
- c) The financial statements are approved by the Corporation's Board of Directors, which have overall responsibility for their contents. The Corporation's Board of Directors is assisted by its Audit Committee which has the statutory obligation to "review and advise the board (of Directors) with respect to the financial statements that are to be included in the annual report of the corporation". The Audit Committee and Board of Directors approve any appropriation of retained earnings to a special capital reserve. Any transfer would be disclosed in the Statement of Changes in Equity and the notes to the Financial Statements as was illustrated in the current year in both the Statement of Changes in Equity and

Note 19 of the Universal Compulsory Automobile Insurance Annual Financial Statements for the year ending February 28, 2015.

CAC (MPI) 3-2

Volume:	Volume II, RSR, Appendix B	Page No.:	3
Topic:	Rate Stabilization Reserve		
Sub Topic:	Determination and accounting of the RSR amount		
Issue:	Is there a difference in accounting for and meaning of the Rate Stabilization Reserve compared to equity and retained earnings for basic insurance?		

Preamble: On page 3 of Volume II, RSR (RSR Discussion Paper, Kopstein Report to 2015) it states “The Rate Stabilization Reserve (RSR) is the amount of assets the Corporation has in excess of its liabilities in the Basic line of business.”

Question:

- a) Please confirm that MPI does not, for Basic Insurance, draw a distinction among the accounting terms equity, retained earnings and Rate Stabilization Reserve—in other words, these accounting terms have the same meaning and the funds, if any, in these accounts can be used for the same purpose as it relates to Basic Insurance operations. If this cannot be confirmed please provide a definition for each account term and its operational use relating to Basic Insurance.
- b) Please elaborate and explain which accounting term in a) above would best describe the equity of MPI’s Basic Insurance operations in today’s environment.

Rationale for Question:

To clarify accounting terminology for Basic Insurance operations relating to the difference between assets and liabilities.

RESPONSE:

- a) Manitoba Public Insurance (MPI) does draw a distinction among the various accounting terms; an explanation of the various terms is outlined below. Retained Earnings has two components, the Rate Stabilization Reserve (RSR) and excess retained earnings. The RSR is the amount of retained earnings or equity that is segregated for capital reserve purposes up to the maximum targeted RSR level. Excess retained earnings are the amount of equity or retained earnings in excess of the maximum targeted RSR level. Total Equity includes the two components of retained earnings and accumulated other comprehensive income (AOCI) combined.
- b) The equity of MPI's Basic Insurance operations is retained earnings. Total Equity does not best represent the equity of operations in today's environment as it includes AOCI which is not realized income but rather unrealized investment movements and net actuarial gains and losses on employee future benefits and hence does not represent "operations."

CAC (MPI) 3-3

Volume:	Volume II, RSR, Appendix B	Page No.:	4, 22
Topic:	Rate Stabilization Reserve		
Sub Topic:	Purpose and use of RSR funds		
Issue:	There appears to be confusion relating to the purpose and use of RSR Funds		

Preamble: In the Conclusion it states “Predictable and stable rates are important to Manitobans. The purpose of the Rate Stabilization Reserve “is to protect motorists from rate increases made necessary by unexpected events and losses arising from non-recurring events or factors”. This purpose has not changed since its inception and there is no reason to change that purpose now.”

On page 4 it states “In reality, the forecasting of income and expenses is not 100% accurate; and, as a result, in any given year the Corporation will end up with either more or less money than it had forecast. When unexpected events or losses occur, the Corporation does not generate, in that year, the money it requires to meet the liabilities it incurred in that year. As such, the Corporation is required to spend money it did not bring in during the fiscal year. The Corporation has, since the inception of the RSR, used it to pay for these expenses.”

Question:

- a) Please define “unexpected events or losses”.
- b) Please identify if and when the RSR, since its inception to to-date, has been used to fund an unexpected event that was forecasted to occur once in 40 years.
- c) Please confirm that, since inception to to-date, the Basic Insurance RSR has been used to fund differences between annual forecasting and actual results.
- d) Based on the chart on page 5 of the report, please provide the detailed amounts (net income/ (loss), for each year, from 1998 to 2014 for forecast and actual.

Please calculate the average annual difference between forecast and actual for years 1998 to 2014, including and excluding 2010 and 2011.

- e) Please explain the significant difference between actual and forecast for years 2010 and 2011.

Rationale for Question:

To clarify the purpose and use of the RSR funds. To obtain a sense for consumers of the historic magnitude of investment variations.

RESPONSE:

- a) Unexpected events or losses are not planned for, or not anticipated. They are events or losses that could not have reasonably been foreseen by management, or the quantum of the losses cannot be reliably forecasted (the future can be predicted, but not predetermined).
- b) It is not feasible to identify all instances of one in 40 year events since inception of the RSR. However, three recent examples include the increased volume experienced from severe winter conditions in 2012/2013 fiscal year, increased severity experienced from rising costs in 2013/2014 and the equity decline during the global financial crisis in 2008 and 2009.
- c) Confirmed. The Basic Insurance RSR has been used to fund differences between annual forecasting and actual results. The Basic Insurance RSR has also been replenished from differences between annual forecasting and actual results. As a result, both favourable and unfavourable difference between annual forecasted and actual results impact the Basic Insurance RSR.
- d) The average annual difference between forecast and actual for 1998 to 2014 is \$23. The average annual difference between forecast and actual for 1998 to 2014 excluding 2010 and 2011 is \$3.

(C\$000s)	Fiscal year ending February 28/29																
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Net Income / (Loss) - Forecast	18	17	18	44	(14)	10	(3)	(9)	54	24	19	(20)	10	14	16	(1)	(6)
Net Income / (Loss) - Actual	47	42	41	38	(12)	(30)	3	60	86	48	6	(8)	88	284	22	(63)	(69)
	29	25	23	(6)	2	(40)	6	69	32	24	(13)	12	78	270	6	(62)	(64)

- e) During 2010 fiscal year there was favourable loss development patterns specifically favourable PIPP runoff that were experienced and booked resulting in the difference between actual and forecasted results for that year.

Beginning in 2005, a new reserving method was implemented for older open PIPP claim files. Since the new reserving method was based on theoretical models that had not been empirically tested against Manitoba Public Insurance's emerging experience, the External Appointed Actuary was reluctant to fully reflect the results of the new method in establishing the reserves. In 2011, the External Appointed Actuary shifted to relying largely on the post-2005 claim development observations for all insurance years and this resulted in a decrease in claims reserves of approximately \$268 million in 2011 which explains the significant difference between actual and forecasted results for that year.

CAC (MPI) 3-4

Volume:	Volume II, RSR, Appendix B	Page No.:	17
Topic:	Rate Stabilization Reserve		
Sub Topic:	Moneys reclaimed by the government		
Issue:	To clarify moneys contributed and reclaimed by the government impacting Basic Insurance RSR.		

Preamble: On page 17 it states "e) In the mid-1990, government reclaimed in excess of \$50 million previously contributed to MPI to offset reinsurance assumed losses;"

Question:

Please explain how the government contributed and reclaimed (was there an actual payment from and to the government) in excess of \$50 million relating to reinsurance assumed losses and how did this transaction impact the Basic Insurance RSR.

Rationale for Question:

To clarify the government's reinsurance assumed losses transaction and the financial impact on Basic Insurance RSR.

RESPONSE:

As stated in the October 31, 1988 Financial Statements, the Province of Manitoba, in the Appropriation Act, 1988, authorized the funding of the October 31, 1987 deficits of the General Insurance Division's personal and commercial lines and discontinued reinsurance assumed operations in the amount of \$59,060,000. This amount was not paid to the Corporation from the Province of Manitoba at the time of the original authorization.

In the October 31, 1991 Financial Statements it was stated that the Corporation determined that the provincial funding will not be required and with the concurrence

of the Province of Manitoba removed the receivable and adjusted the General Insurance Division retained earnings accordingly.

As a result, the government agreed to contribute and then reclaimed the funding agreement. This did not impact Basic RSR directly as these transactions related to the General Insurance Division.

CAC (MPI) 3-5

Volume:	2016 Rate Application Rate Stabilization Reserve - RSR	Page No.:	4
Topic:	Rate Stabilization Reserve		
Sub Topic:	The Corporation's Position on the RSR		
Issue:			

Preamble: "Given the nature of the industry and the difficulty in predicting operating results, the RSR is often used from more than just offsetting extreme, one-time events, but rather absorbing the variances from plan each year . . . [T]he Corporation considers that the purpose is met pursuant to the manner in which the RSR is utilized and its accounting treatment is appropriate as indicated by the Corporation's external auditors."

Question:

- a) Please explain how MPI distinguishes between extreme one-time events and other demands on operating expenditures which would be covered by funds from the RSR.
- b) Please explain what criteria are used to determine that MPI has met the purpose of the RSR to restrict the usage of its funds to situations involving "unexpected events and losses arising from non-recurring events or factors."

Rationale for Question:

To clarify the Corporation's position.

RESPONSE:

- a) Extreme one-time events are items such as 1 in 40 year DCAT scenario type events or plausible adverse scenarios which are included in the DCAT modeling. Other demands on operating expenditures are unexpected and unplanned variances from budgets or forecasts not included in plausible adverse scenarios, such as large changes to pension expenses or pension valuations or changes in interest rates that would not be considered “extreme” but are none the less unexpected, unplanned and not budgeted or forecasted. Further discussion of unexpected and unplanned variances can be found in CAC (MPI) 3-3.
- b) Any variance from budget (either positive or negative) is unexpected and not expected to recur. These variances from budget will reduce or increase the RSR, up to the maximum targeted RSR range. Amounts greater than the maximum targeted RSR range are considered excess retained earnings (as defined in CAC (MPI) 3-2).

CAC (MPI) 3-6

Volume:	2016 Rate Application Rate Stabilization Reserve – RSR 1.2.1	Page No.:	5
Topic:	RSR Methodology		
Sub Topic:			
Issue:			

Preamble: “The Corporation is proposing to use two separate and distinct actuarially accepted industry standard methodologies for establishing the lower and upper targets of the RSR range.”

Question:

- a) Please confirm that the methodologies that determine the minimum and maximum of the proposed RSR range are unrelated and therefore inconsistent. If this cannot be confirmed, please explain why not.
- b) Please explain why MPI thinks that it is necessary to adopt inconsistent methodologies to determine the range of the RSR

RESPONSE:

The rationale for the Corporation’s RSR methodology for the upper and lower RSR targets has been well documented in previous applications and through the collaborative discussion process.

The DCAT-based minimum RSR target is an internal assessment of the risks to Basic insurance along with the assumed management and regulatory actions that would occur for a compulsory, monopoly program. The Corporation recognizes that Basic does not operate in a competitive environment, and therefore, the capital requirements for Basic should be lower than a private insurance company. However, there are still significant risks that are involved in the operation of an insurance company and it is important to have a minimum capital target for Basic that is both financially prudent and protects rate payers per the purpose of the RSR. The

minimum RSR target indicated in the DCAT analysis has, as expected, been consistently and significantly lower than the capital targets that are required by a private insurer in a competitive environment. The Corporation has worked in extensive collaboration with stakeholders to develop the assumptions utilized in the DCAT report.

While the DCAT is a Manitoba-specific solution to the question of the minimum RSR target, there remains the issue of determining an appropriate RSR range. The Corporation has proposed that the upper target of the RSR be based on a Minimum Capital Test (MCT) ratio of 100%. The MCT is utilized by virtually all P&C companies in Canada, including SGI and ICBC, as the basis for their minimum capital requirements. Although the Board did not specifically endorse the MCT test for determining RSR targets, we believe both MPI and the Board recognize the value provided by a standardized, independent, objective, and industry comparable test. While other companies use the MCT as their *minimum* capital requirement (e.g. SGI and ICBC use MCT at 100% MCT as their minimum capital target), the Corporation is proposing that 100% MCT be the *maximum* RSR.

Private insurance companies also utilize the MCT and DCAT for capital setting purposes. While the MCT is the basis for the minimum capital requirements of federally regulated insurers, the DCAT may be used to determine internal capital requirements beyond the regulatory minimum. Using these two different methodologies would not be considered “inconsistent” for these insurers.

CAC (MPI) 3-7

Volume:	2016 Rate Application Rate Stabilization Reserve – DCAT Report	Page No.:	8-9
Topic:	Upper (Maximum) Total Equity Target		
Sub Topic:			
Issue:			

Preamble: “Based on the year end 2014/15 results, a 100% MCT score is equivalent to an upper target of \$366 million . . . Although the upper Total Equity target is not a direct output from this DCAT report, the Chief Actuary has agreed to provide the *implied* probability level of an adverse event that would cause a reduction in Total Equity equivalent to the proposed MCT-based upper target . . . [W]e can approximate that such an adverse scenario would be expected to occur at a frequency of less than 1-in-200 years. We made this conclusion by applying the assumed maximum 5.0% per year rate increase to policy years 2017/18 through 2019/20 in all of our Combined scenario simulations. None of our 5000 simulations resulted in a Total-Equity balance of less than zero over the forecast period under these conditions.”

Question:

- a) Please confirm that the absence of a negative Total Equity balance in 5000 simulations implies that, in the absence of any other evidence, the adverse scenario is likely to occur at a frequency of less than 1-in-5000 years.
- b) Please confirm that a 1-in-5000 years event is far less frequent than the upper standard of 1-in-200 years in the DCAT report.
- c) Please confirm that a 1-in-5000 year event corresponds to an adverse event beyond the 99.9998 (1-1/5000) percent tail of the probability distribution of events.

Rationale for Question:

To properly characterize the upper bound of the proposed RSR target.

RESPONSE:

- a) Because only 5000 simulations were simulated for the Combined scenarios, the Corporation is unable to confidently say that the most adverse scenario of the 5000 simulations is an accurate representation of what a 1-in-5000 year or a 99.98th percentile Combined scenario is like. It is unclear how many more simulations would be needed to accurately (within +/- \$1 million) determine where the 100% MCT scenario would lie.

- b) Confirmed.

- c) A 1-in-5000 year event corresponds to an adverse event in the 99.98th percentile of the probability distribution of events, not the 99.9998th.

CAC (MPI) 3-8

Volume:	2016 Rate Application Rate Stabilization Reserve – DCAT Report	Page No.:	26
Topic:	Economic Assumptions in the Base Scenario		
Sub Topic:			
Issue:			

Preamble: “Projected Manitoba and Canadian Consumer Price Inflation (CPI) are forecasted at . . . 2.4% and 2.3% respectively in 2016/17. Thereafter, both CPI forecasts are projected at 2.0% per year.”

Question:

- a) Please confirm that these inflation rates are applied to the adverse scenarios.
- b) If these inflation rates are not implied to the adverse scenarios, please indicate what inflation rates are applied to the interest rate and combined scenarios.

Rationale for Question:

To clarify the assumptions employed.

RESPONSE:

- a) Confirmed.
- b) The inflation rates are applied.

CAC (MPI) 3-9

Volume:	2016 Rate Application Rate Stabilization Reserve – DCAT Report	Page No.:	35
Topic:	Equity Decline Scenario, Selected Adverse Scenarios by Percentile and Return Period (Cumulative)		
Sub Topic:			
Issue:			

Question:

- a) Please confirm that the change in returns from the third to the fourth year is larger than in any other year (first to second year or second to third year), i.e. +14.5% for the 0.5th percentile, +12.6% for the 1st percentile, etc..
- b) Please indicate whether the change in return from the third to fourth year constitutes a significant rebound in equity returns associated with an adverse equity decline

Rationale for Question:

To examine the validity of the equity scenario.

RESPONSE:

- a) Confirmed.
- b) With an adverse equity decline, the change in return from the third to fourth year does not constitute a significant rebound in equity returns. This was the case in October 1976 where the three year cumulative return was only -14.5% and the following year a rebound of only 3.3% occurred. This created a four year cumulative return of only -11.7% in October 1977.

CAC (MPI) 3-10

Volume:	2016 Rate Application Rate Stabilization Reserve – DCAT Report	Page No.:	39
Topic:	Equity Decline Scenario, Results with Management and Regulatory Action		
Sub Topic:			
Issue:			

Preamble: “The most adverse 1-in-40 probability level scenario after management action is the three-year scenario.”

Question:

- a) Please confirm that the three-year scenario ignores the performance of equities from year three to year four.
- b) Please confirm that the rebound in equity returns from an adverse equity decline is largest from year three to year four.

Rationale for Question:

To test the validity of the equity scenario.

RESPONSE:

- a) Confirmed. The Chief Actuary has been very clear that the adverse scenarios must be tested at the 1-in-40 probability level at each return period of 1, 2, 3, and 4 years. If, for example, there was a 1-in-40 three-year event that caused Total Equity to fall below zero at the end of year three, then this would result in Basic not having satisfactory financial condition regardless of what happens in year four.

- b) Any rebounds in equity returns from an adverse scenario from year three to year four are captured in the four year equity decline scenarios. It is not necessarily the case that a significant rebound will occur in the third to fourth year as was the case in October 1976 to October 1977.

CAC (MPI) 3-11

Volume:	2016 Rate Application Rate Stabilization Reserve – DCAT Report	Page No.:	39
Topic:	Equity Decline Scenario, Results with Management and Regulatory Action		
Sub Topic:			
Issue:			

Preamble: “The most adverse 1-in-40 probability level scenario after management action is the three-year scenario.”

Question:

- a) Please confirm that all other adverse scenarios (the high loss, interest rate decline and combined scenarios) are based on a four-year scenario
- b) Please justify the inconsistency in choosing a three-year scenario for the equity decline scenario rather than the four-year scenario chosen for all other adverse scenarios.

Rationale for Question:

To understand the MPI rationale for deviating from its practice.

RESPONSE:

- a) The most adverse scenarios at the 1-in-40 probability level are the four-year scenarios for the High Loss Ratio, Interest Rate Decline, and Combined scenarios.
- b) The selected adverse scenarios are consistent with the methods outlined in the 2015 DCAT Report. The Corporation selects the most adverse 1-in-40 probability level scenario with respect to Total Equity from the four different return periods of 1, 2, 3, or 4 years.

CAC (MPI) 3-12

Volume:	2016 Rate Application Rate Stabilization Reserve – DCAT Report	Page No.:	46,49
Topic:	Interest Rate Decline Scenario, Interest Rate Floor Assumption		
Sub Topic:			
Issue:			

Preamble: P.46: “The methodology for setting the interest rate floor has not changed; however, the floor has been lowered from 1.68% in last year’s report to 1.25% in this year’s report.”

P.49: “The interest rate floor of 1.25% is based on the lowest monthly GoC 10 year bond yield from 1989 to present.”

Question:

- a) Please explain why **monthly** rates are used to calculate the interest rate floor for scenarios that are **annually** based, i.e. 2016/17 through 2019/20 fiscal years
- b) Please provide the annual (12-month) and the four-year (48-month) minimum 10-year GoC yield between 1989 and the present.
- c) Please confirm that a 1.25% interest rate floor implies a -1.15% real interest rate (1.25% less 2.4% projected for Manitoba) for 2016/17 and a -0.75% real interest rate (1.25% less 2% projected) for 2017/18 through 2019/20 in the adverse interest rate and combined scenarios.
- d) Please indicate when **negative** real interest rates (interest rates below the rate of inflation of CPI) were last observed in Canada for one year and for four years.

Rationale for Question:

To examine the plausibility and probability of the scenario.

RESPONSE:

- a) The purpose of the floor is to determine the lowest interest rate that occurred at any point in the historical data period. Using annual data removes 11 out of 12 possible data points per annual period. Using the most recent annual data point, as of February 28, 2015 the GoC 10 year bond rate was 1.30%. This yield is close to the interest rate floor of 1.25%.
- b) The minimum 1 year average GoC 10 year bond yield is 1.63% and the minimum 4 year average yield is 1.99% using data from June 1988 to August 2015.

The Interest Rate Decline Scenario (page 46 to 55) is an adverse scenario. As a result, a 1 or 4 year averages would not be used to determine the lowest level of interest rates over this historical time period for this adverse scenario. Please note that the 1 year and 4 year average yield is not reflective of current market conditions. As of July 31, 2015 and August 31, 2015, the GoC 10 year bond rate was 1.44% and 1.49% respectively, which is lower than the 1 year minimum average yield of 1.63%.

- c) A 1.25% interest rate floor implies a -1.12% real interest rate in 2016/17, not -1.15%. A 1.25% interest rate floor implies a -0.74% real interest rate in 2017/18 through 2019/20, not -0.75%. Please see below for the Fisher equation.

$$(1 + \text{Real Interest Rate}) = (1 + \text{Nominal Interest Rate}) / (1 + \text{Inflation Rate})$$

- d) Negative real interest rates were last observed in Canada for one year in February 28, 2014 when the one year average real interest rate was -0.02%. There are 12 instances of when the one year average real interest rate was negative in the past 5 years.

Negative real interest rates were never observed in Canada for four years. However, the lowest four year average real interest rate was 0.07% which occurred in March 31, 2015.

CAC (MPI) 3-13

Volume:	2016 Rate Application Rate Stabilization Reserve – DCAT Report	Page No.:	50
Topic:	Interest Rate Decline Scenario, (1-40 Year Scenarios Without and With 1.25% Floor)		
Sub Topic:			
Issue:			

Question:

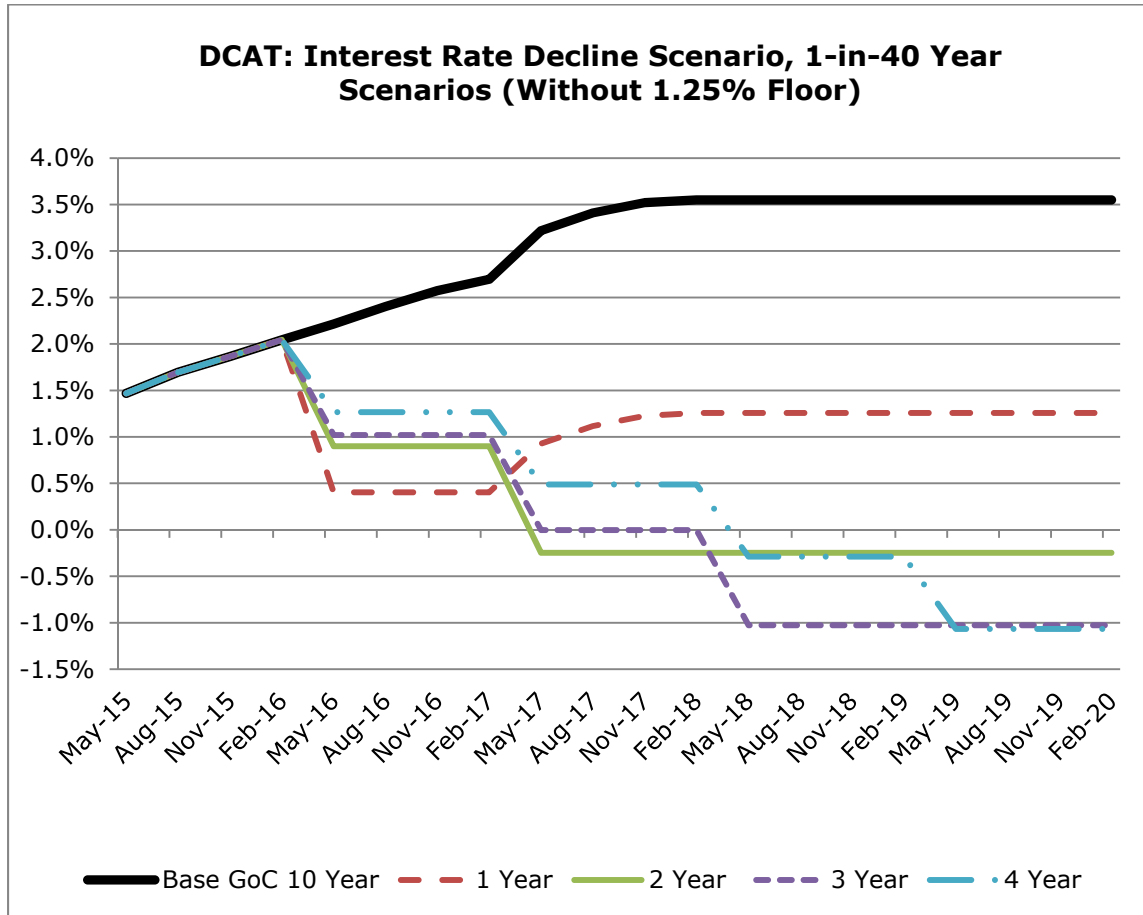
- a) Please confirm that the graphs of interest rate movements with and without the interest rate floor differ for all years (1-4), i.e. the interest rate floor is an effective constraint on interest rate movements in all years (from 2016 to 2020).
- b) Please explain how, in the presence of the interest rate floor, the interest rate decline scenarios can still be described as 1-in-40 year events.

Rationale for Question:

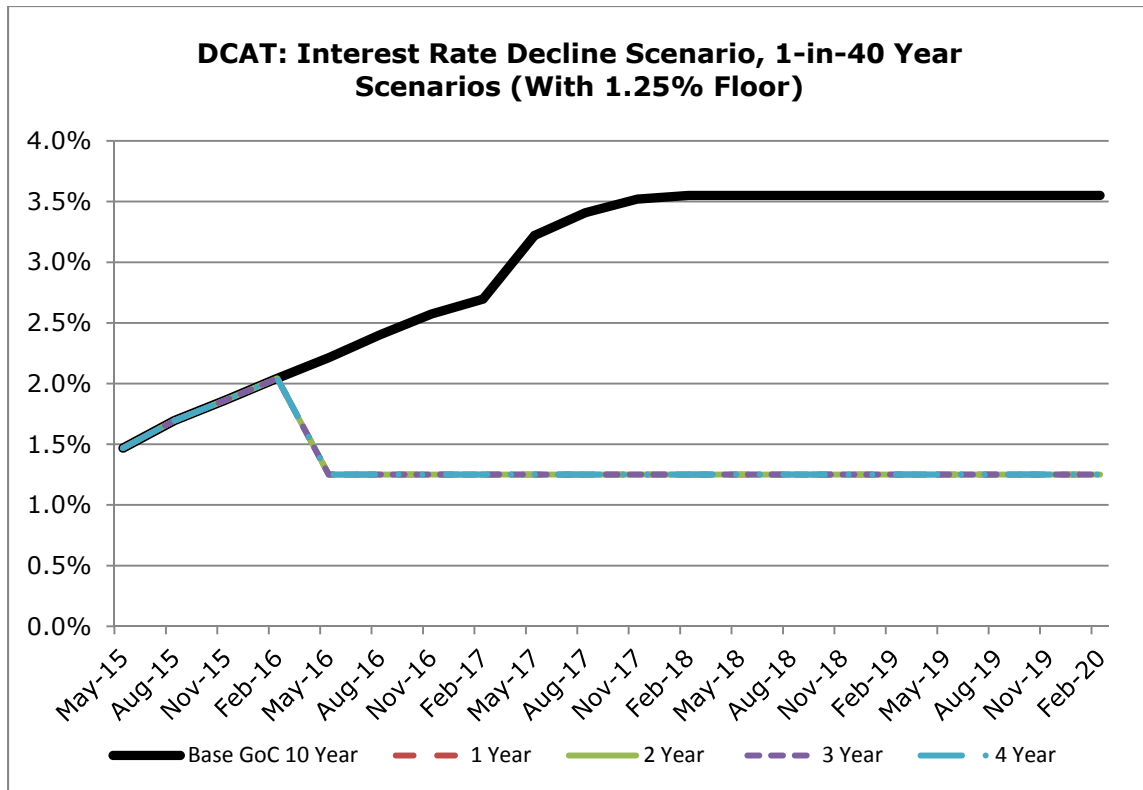
To examine the probability claims alleged for the interest rate scenario.

RESPONSE:

a) As shown in the graphs below, the interest rate movements without the interest rate floor differs for all years.



However, all of the 1-in-40 probability level scenarios fall below the interest rate floor of 1.25%. The interest rate movements with the interest rate floor do not differ from each other as shown in the graph below.



b) The Government of Canada 10 year bond rate was 1.30% as of February 28, 2015. This low initial interest rate relative to the 1.25% floor will cause most interest rate decline scenarios to have interest rates remain below the interest rate floor over the forecast period. However, in future years when interest rate decline scenarios are run and the initial GoC 10 year bond rate starts at a higher level (i.e. 3.0%) then there will be a difference between the 1-in-20, 1-in-40 and 1-in-100 year events. It is important to maintain consistency in methodology whether or not interest rates remain below the floor or not over during the scenario’s forecast period.

CAC (MPI) 3-14

Volume:	2016 Rate Application Rate Stabilization Reserve – DCAT Report	Page No.:	57
Topic:	Combined Scenario, Scenario Justification		
Sub Topic:			
Issue:			

Preamble: “The interest rate ‘floor’ methodology . . . was again used when modeling interest rates.”

Question:

- a) Please confirm that a 1.25% interest rate floor implies a -1.15% real interest rate (1.25% less 2.4% projected for Manitoba) for 2016/17 and a -0.75% real interest rate for 2017/18 through 2019/20 in the adverse interest rate and combined scenarios.

- b) Please explain how the presence of the interest rate floor in the combined scenario affects the results for the Combined Scenario Total Equity (p.58).

Rationale for Question:

To examine the plausibility and probability of the combined scenario.

RESPONSE:

- a) Please see CAC (MPI) 3-12(c).

- b) In the 1-in-40 probability level scenarios, interest rates do not fall below the interest rate floor of 1.25%. If the interest rate floor was removed, the more adverse scenarios would become more severe. However, it’s not the case that they would remain at their respective probability level.

CAC (MPI) 3-15

Volume:	DCAT Report	Page No.:	27 and 32
Topic:	Investment split between equities and fixed income and its impact on the adverse scenarios		
Sub Topic:			
Issue:	The investment mix		

Preamble: The target asset allocation was changed from 60% fixed income/20% equities/20% alternatives to 70% fixed income/15% equities/15% alternatives. The Interest Rate Decline and Equity Decline scenarios have the most adverse impact on total equity other than the combined scenario.

Question:

- a) Has the Corporation completed an analysis of the impact of further reducing the allocation to equities in favor of fixed income on both the adverse scenario results and the amount of investment income?
- b) If so, please provide this analysis. If not, would the Corporation consider this type of analysis in order to perhaps reduce the impact of the Equity Decline and Interest Rate Decline adverse scenarios?

Rationale for Question:

To see if the adverse nature of the Equity Decline and Interest Rate Decline scenarios can be reduced for the Corporation.

RESPONSE:

- a) No, the Corporation has not completed an analysis of the impact of further reducing the allocation to equities in the scenario results.
- b) The Corporation would not consider this type of analysis for two reasons. First, the minimum and maximum Canadian and U.S. equity allocation is strictly determined by the Investment Policy Statement asset allocation guidelines.

Allocations of Canadian or U.S. equity outside of these tolerance bands would not be allowed.

Second, assuming the proposed scenario kept the Canadian and U.S. equity allocation within their minimum and maximum ranges, the model matches the dollar value of the claims liabilities to the total fixed income portfolio on an annual basis. Any surplus (or deficit) between the fixed income portfolio and claims liabilities is transferred to (or funded from) Canadian and U.S. equities. If the level of equities were held artificially lower in this scenario, the surplus (or deficit) would be required to be transferred to (or funded from) the real estate or infrastructure asset classes. Using these two asset classes for funding a deficit would not be realistic since these asset classes are relatively illiquid. For further information see INV.10.2 *This Year's Rebalancing Assumptions*.

CAC (MPI) 3-16

Volume:	DCAT Report	Page No.:	47
Topic:	Interest Rate Base Forecast		
Sub Topic:			
Issue:	Base forecast for Interest rates seems high		

Preamble: The base forecast for interest rates seems high given how much lower the actual interest rates compared to forecast were from 2008 to 2015.

Question:

Does the Corporation feel that their base forecast for interest rates shown on Page 47 of the DCAT report are realistic given the history shown on the graph on the same page?

Rationale for Question:

To ensure the base forecast is reasonable.

RESPONSE:

The base forecast is developed on a best estimate basis based on the average interest rate forecast from the five major Canadian banks and Global Insight. For discussion on the interest rate methodology for the base scenario, please see 2015 GRA Vol II Investment Income II.1.3 on Interest Rate Methodology.

The Corporation does not have in-house interest rate forecasting expertise similar to the 5 major banks and Global Insight. If the average forecast from these reputable sources indicates a rising interest rate forecast, then this average forecast can be considered “realistic”. However, it is also possible and “realistic” that interest rates could remain close to current levels or only increase by half of the forecasted increase over the next few years.

CAC (MPI) 3-17

Volume:	DCAT Report	Page No.:	35
Topic:	Equity Decline Selected Adverse Scenarios		
Sub Topic:			
Issue:	Equity Decline seems unrealistic		

Preamble: The historical period used to determine the selected adverse scenarios is 59 years. The selected adverse scenario seems unlikely to occur, thereby making it implausible.

Question:

In the historical data used in the selection of the equity decline adverse scenarios please give the year and data where the adverse scenario chosen, shown on page 35 of the DCAT report, actually occurred or where the actual situation was worse.

Rationale for Question:

To ensure the adverse scenario is plausible.

RESPONSE:

The selected adverse scenarios are from the fitted distributions of the historical 1, 2, 3, and 4 year equity returns as outlined on page 35. However, in October 1976 the cumulative three year return was -14.5% which is the same as the selected adverse scenario.

CAC (MPI) 3-18

Volume:	DCAT Report	Page No.:	37
Topic:	Equity Decline Adverse Scenarios – Impairment Rules		
Sub Topic:			
Issue:	Impairment rule seems harsh		

Preamble: The conditions given for impairment seem harsh, causing the adverse scenario to be more adverse than would be the case with more lenient impairment rules.

Question:

The impairment rules given for the Equity Decline adverse scenario on page 37 are much harsher than most private companies would use. Please quantify the impact if there was no second rule and the first rule was changed to read:

1. If the market value falls below 70% of book value at fiscal year end, impairment is recognized.

Rationale for Question:

To find out what the impact is of the impairment rules on the results of the Equity Decline adverse scenario.

RESPONSE:

The impairment rules follow what is required for financial reporting purposes as per the IFRS guidelines. The results for the requested scenario is provided for information only.

Please see below for the updated tables under the new hypothetical impairment rules provided. In this case, none of the scenarios trigger impairment. This new rule does not change the selection of the most adverse 1-in-40 probability level scenario.

**Decline in Equity Markets Scenario
Retained Earnings (in millions)**

Probability	Return Period	2016/17	2017/18	2018/19	2019/20
1-in-200	1 year + base	\$179	\$157	\$135	\$133
1-in-100	1 year + base	\$182	\$167	\$146	\$147
1-in-40	1 year + base	\$187	\$180	\$162	\$165
1-in-20	1 year + base	\$191	\$190	\$174	\$180
1-in-200	2 year + base	\$192	\$166	\$139	\$135
1-in-100	2 year + base	\$194	\$173	\$148	\$146
1-in-40	2 year + base	\$196	\$184	\$162	\$162
1-in-20	2 year + base	\$198	\$193	\$174	\$177
1-in-200	3 year + base	\$197	\$188	\$160	\$153
1-in-100	3 year + base	\$198	\$194	\$168	\$163
1-in-40	3 year + base	\$200	\$201	\$179	\$178
1-in-20	3 year + base	\$202	\$206	\$188	\$190
1-in-200	4 year	\$201	\$205	\$186	\$182
1-in-100	4 year	\$202	\$206	\$189	\$186
1-in-40	4 year	\$202	\$209	\$193	\$193
1-in-20	4 year	\$203	\$211	\$197	\$199
Base		\$210	\$227	\$228	\$249

**Decline in Equity Markets Scenario
Total Equity (in millions)**

Probability	Return Period	2016/17	2017/18	2018/19	2019/20
1-in-200	1 year + base	\$64	\$74	\$70	\$85
1-in-100	1 year + base	\$84	\$96	\$93	\$110
1-in-40	1 year + base	\$114	\$128	\$127	\$147
1-in-20	1 year + base	\$140	\$155	\$156	\$178
1-in-200	2 year + base	\$148	\$65	\$58	\$73
1-in-100	2 year + base	\$159	\$84	\$79	\$95
1-in-40	2 year + base	\$175	\$113	\$110	\$129
1-in-20	2 year + base	\$189	\$140	\$140	\$161
1-in-200	3 year + base	\$181	\$125	\$62	\$77
1-in-100	3 year + base	\$189	\$142	\$84	\$101
1-in-40	3 year + base	\$202	\$167	\$119	\$138
1-in-20	3 year + base	\$212	\$188	\$149	\$170
1-in-200	4 year	\$210	\$183	\$143	\$119
1-in-100	4 year	\$214	\$190	\$153	\$132
1-in-40	4 year	\$219	\$202	\$169	\$154
1-in-20	4 year	\$225	\$213	\$185	\$176
Base		\$257	\$278	\$288	\$318

CAC (MPI) 3-19

Volume:	DCAT Report	Page No.:	42 and 43
Topic:	High Loss Ratio Scenarios – Four year scenarios are most adverse		
Sub Topic:			
Issue:	Clarity on Results		

Preamble: It would seem intuitive that a four year scenario would be more adverse than a one year scenario because the simulations of ultimate loss costs would of course show worse experience over four years.

Question:

The most adverse high loss ratio scenarios are the four year scenarios as shown on page 42 and 43 of the DCAT report.

- a) This would be intuitive because the simulations of ultimate loss costs would be worse over four years, rather than one. Does the Corporation agree that this is intuitive, given an understanding of simulations?
- b) Given the thought above does the Corporation feel that four year scenarios are plausible for the High Loss Ratio adverse scenarios?

Rationale for Question:

To ensure understanding of the high loss ratio adverse scenarios and question the use of four year scenarios for this risk.

RESPONSE:

- a) On a cumulative basis the ultimate loss costs of a four year scenario would be more adverse than a one year scenario. However, on an annual basis this is not the case. A one year scenario would have a more adverse year than the average year in a four year scenario of a given probability level.

- b) The High Loss Ratio scenarios tests a variety of different situations. For example, the one year scenario tests the Corporation's equity level from a large one time impact like that of a large hailstorm. The four year scenario tests the Corporation's equity level from a series of less adverse years, but overall more adverse cumulatively. The Corporation has to react differently to these situations which is why a one, two, three, and four year ultimates are simulated.

CAC (MPI) 3-20

Volume:	DCAT Report	Page No.:	56 and 57
Topic:	Combined scenario – correlation between equity returns and interest rate movements		
Sub Topic:			
Issue:	Clarity on Assumptions		

Preamble: The most recent 10 years of data were used to determine the correlation between equity returns and interest rate movements while other assumptions (equity declines and interest rate declines) have been made with data from 1956 to present.

Question:

Page 56 and 57 of the DCAT report indicate that the most recent 10 years of data were used to determine the correlation between equity returns and interest rate movements while other assumptions (equity declines and interest rate declines) have been made with data from 1956 to present.

Why does the Corporation feel that the 10 years of history is a better indicator of correlation between equity returns and interest rate movements? The correlation between equity returns and interest rate movements is widely felt to be positive in the longer term (over 1 one year), which is shown in the results using 1956 to present data.

Rationale for Question:

To understand the reason for the use of a shorter time period in the determination of the correlation assumption between equity returns and interest rate movements.

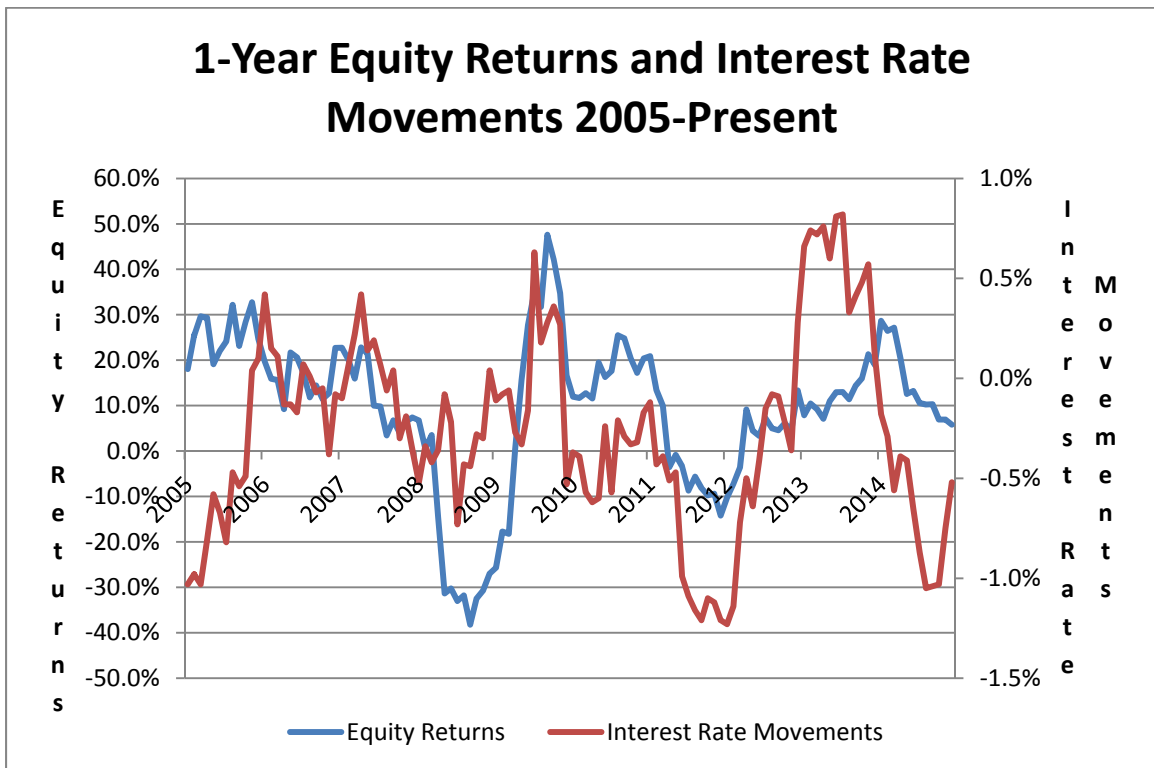
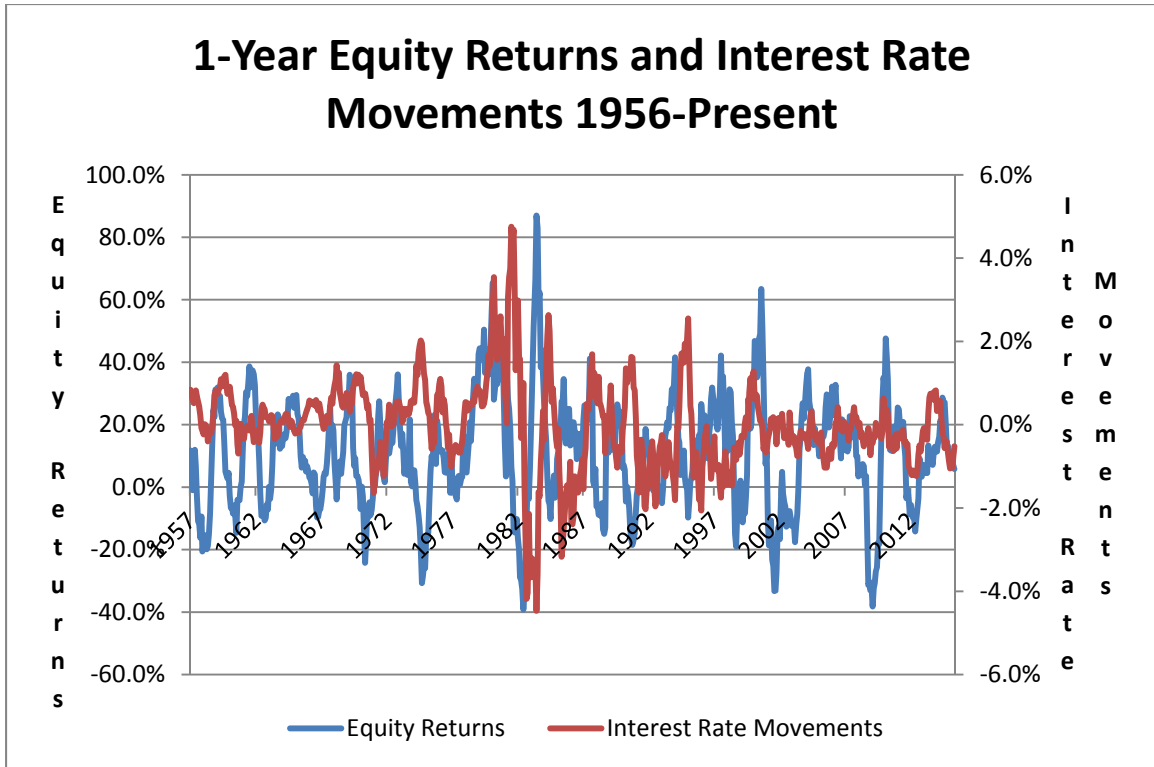
RESPONSE:

The Corporation looks at both long term and more recent correlations of equity returns and interest rate movements. What the Corporation has observed is that data from 1956 to present show correlations not statistically different from 0, with the exception of 1-year. However, more recent data suggests that equity returns and interest rate movements are more correlated as the 1-year, 2-year, and 3-year correlations are all statistically different from 0. With this information, the Corporation decided to use the last 10 years of data to model equity and interest rate correlations as was the method used in the 2014 DCAT Report.

The following table shows the correlations between equity returns and interest rate movements. The bolded figures are statistically different from 0 at the 0.10 significance level.

Correlation between Equity Returns and Interest Rate Movements

	2005 to Present	1956 to Present
1-Year	0.26	-0.12
2-Year	0.15	0.03
3-Year	-0.21	0.04
4-Year	-0.03	0.05



CAC (MPI) 3-21

Volume:	DCAT Report	Page No.:	59
Topic:	Combined scenario – Difference in Assumptions to independent scenarios		
Sub Topic:			
Issue:	Clarity on Assumptions		

Preamble: Page 59 of the DCAT report indicates that the assumptions used for Loss Ratios, Equity Returns and Interest Rates are different from the independent adverse scenarios.

Question:

Page 59 of the DCAT report indicates that the assumptions used for Loss Ratios, Equity Returns and Interest Rates are different from the independent adverse scenarios. Why is this the case?

Rationale for Question:

To understand the reason for the use of different assumptions.

RESPONSE:

Page 59 of the DCAT report does not make this statement. The method in which the combined scenarios are produced is described on pages 56 and 57 of the DCAT report. No assumptions have been changed from the independent adverse scenarios.

CAC (MPI) 3-22

Volume:	RSR	Page No.:	4
Topic:	Rate Stabilization Reserve		
Sub Topic:			
Issue:	Clarity on the Purpose of the RSR		

Preamble: The purpose of the RSR has been stated several times by both the Board and MPI. The statement quoted in the question below could indicate the Corporation wishes to change the stated purpose of the RSR.

Board Order No. 151/13 (as well as several other Orders) states:

“The stated purpose of the Rate Stabilization Reserve (RSR) is to protect motorists from rate increases made necessary by unexpected events and losses arising from nonrecurring events or factors.” (Page 33)

Page 4 of the RSR section states “And as stated in the November 18, 2014 letter from PWC (attached as Appendix A); “Given the nature of the industry and the difficulty in predicting operating results, the RSR is often used for more than just extreme, one-time events, but rather absorbing the variances from plan each year.””

Question:

Is the Corporation suggesting that they would like to change the stated purpose of the RSR? If so, please explain the rationale?

Rationale for Question:

To clarify the purpose of the RSR.

RESPONSE:

Manitoba Public Insurance (MPI) is not suggesting that there should be a change to the stated purpose of the RSR. MPI has provided clarification to the purpose of the RSR by clarifying that unexpected events and losses arising from nonrecurring events or factors would be charged to the RSR to protect motorists from rate increases. As discussed in CAC (MPI) 3-3 and CAC (MPI) 3-5, nonrecurring events and factors can include variances from plan each year.