Investments, Rate Stabilization Reserve, and Capital Maintenance

October 2018

Manitoba Public Insurance

Agenda

1) Investments and the ALM Study
2) Rate Stabilization Reserve
3) Capital Maintenance Provision
4) Capital Management Plan

Investment and the ALM Study

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1) Investment Objectives
2) ALM Study
3) Implementation Plan
4) Interest Rate Forecast

Investment Objectives

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Investment Objectives
(MPI Board and Government)

- Reduced premium/rate volatility
- Directly match investments to liabilities
- Develop unique investment strategies for each portfolio
- Ensure that capital is available to pay claims when necessary
- Appropriate levels of risk for each portfolio driven by the purpose of each portfolio (as set out in the IPS and determined by the Board)

ALM Study Results and Actions

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ALM Study Background

- ALM Study was ordered by the PUB in PUB Order 162/16

  10.13: MPI obtain an updated ALM study to be filed in the 2018 GRA, which study shall address each of the 18 recommendations made by Mr. Viola, as set out in Appendix E hereto.

- Mercer was hired as the ALM consultant through an RFP process.
  - Phase 1 and Phase 2 was completed by December 2017
  - Phase 3 was completed January 2018

Key Recommendations from ALM Study

1. Segregate the assets of MPI's lines of business (Basic, SRE, EXT), RSR, & post-retirement benefits

2. Significantly de-risk the assets backing MPI's Basic liabilities (no equities or alternatives)

3. Diversify and lengthen MPI's fixed income portfolio

4. Diversify MPI's equity portfolio

5. Reduce MPI's allocation to Real Estate

Impacts of ALM Study

- **Overall Ratepayer impact:** Reduced risk and rate volatility for ratepayer over the long-term

- **2019/2020 Ratepayer Impact:** Minimal impact on 2019 breakeven AAP rate indication (0.2% rate increase)

- **Other Impacts:**
- Interest rate risk will be reduced by segmenting the portfolios
- Prudent asset mix in the RSR balances preservation of capital with opportunity to earn returns to enhance rate stability and/or lower rate indication

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ALM Asset Mix Changes

Current Allocation (Co-mingled)

– Growth assets include equities and alternative asset classes.

	Fixed Income	Growth Assets
Co-Mingled	70%	30%

***Growth assets include equities and alternative asset classes**

New Allocations (Separated Portfolios)

	Fixed Income	Growth Assets
Basic	100%	0%
RSR	50%	50%
Pension	40%	60%
Consolidated	84%	16%

Basic Claims Target Asset Mix

Asset Class	Target
Provincial Bonds	60%
Corporate Bonds	20%
Non-Marketable Bonds	20%
Total Fixed Income	**100%**
Total Public Equities	**0%**
Total Alternative Investments	**0%**

***Basic interest rate hedge ratio increases from 85% under the current allocation rules to 100% under the proposed policy.**

RSR Target Asset Mix

Asset Class	Current	Proposed
Provincial Bonds/(current: Government Bonds)	45%	20%
Corporate Bonds	5%	10%
Non-Marketable Bonds and Private Debt	20%	20%
Total Fixed Income	**70%**	**50%**
Canadian Equities	10%	12%
Global Equities/(current: U.S. Equities)	5%	13%
Global Low Volatility	n/a	10%
Total Public Equities	**15%**	**35%**
Canadian Real Estate	10%	10%
Infrastructure	5%	5%
Total Alternative Investments	**15%**	**15%**

New Asset Classes in RSR & Pension Portfolios

- **Private debt**
  - Investment grade North American debt
  - Less liquid than public debt, resulting in an increased yield over public debt by an estimated 0.75%.
- **Global Equities**
  - Includes developed market equities and emerging market equities
- **Global Equities (Low Volatility)**
  - Diversified developed market equities with return volatility about 25% less than standard global equity benchmark index.
  - Offsets some of the volatility associated with global equity

Rejected Asset Classes/Strategies

- Diversified Growth Funds
- Private Equity
- High Yield Bonds
- Emerging Market Debt
- Mortgages
- Leverage
- Real Return Bonds

Real Return Bonds Not Recommended

- Real Return Bonds (RRBs) real yields are relatively low (0.6% as of Feb 2018);
- MPI's basic liabilities assume a 2% inflation rate. RRBs will only be worth their cost if inflation is well in excess of 2% for a sustained period;
- Duration and dollar matching is challenging with RRBs;
- RRBs are linked to Canadian CPI, while Basic Liabilities are indexed to other drivers.

Implementation Plan 2018/19

Asset Class	Action	Timing
Provincials	Sell Federal bonds and purchase Provincial bonds	Q1 2018/19
Corporate Bonds	Add 1-2 Mandates	Start manager search Q2/Q3 2018/19
MUSH	MUSH bonds mature and proceeds are used to fund other asset classes	Ongoing
Equities	Complete manager search for Global Equities and Global Low Vol	Q4 2018/19
Real Estate	Advise pooled real estate manager that sales are required	Q1 2018/19
Infrastructure	Begin process to liquidate some infrastructure in 2019/20	2018/19
Private Debt	Begin Manager Search Process	Q4 2018/19

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Implementation Plan 2019/20

Asset Class	Action	Timing
Provincials	Increase allocation on a proportionate basis	Q1 2019/20
Corporate Bonds	Increase allocation on a proportionate basis	Q1 2019/20
MUSH	MUSH bonds mature and proceeds are used to fund other asset classes	Ongoing
Equities	Liquidate U.S. equities and a portion of CDN equities to fund Global Equities, Global Low Vol	Q1 2019/20
Real Estate	Liquidate a portion of the real estate pooled fund to reach 4% consolidated target weight	Q1 2019/20
Infrastructure	Liquidate a portion of infrastructure to get to 2% consolidated target weight	Q1 2019/20
Private Debt	Complete search and fund private debt over a period of time	Substantially complete by the end of Q4 2019/20

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Rationale for Naïve Interest Rate

- Naïve interest rate provides a neutral, unbiased forecast
  - Going forward, the GoC 10 year bond could increase, decrease or remain flat
  - Naïve Forecast is a better predictor than 50/50, or SIRF
- Over the short term (1 to 1.5 years), the Bank of Canada overnight rate is not reliably predictive of the direction and magnitude of movements in the GoC 10 year bond rate.
- MPI's goal is to reduce pricing risk with the most accurate forecast

Conclusion

- Unique investment strategies are better aligned to the purpose and characteristics of the associated liabilities.
- Volatility of the Basic Claims portfolio will be reduced.
- Impact on rates is expected to be minimal (0.2%).
- The expected reduction in investment risk will have a positive impact on MPI's required capital.

Rate Stabilization Reserve and Capital Maintenance

Mr. Luke Johnston, FCIA
Chief Actuary, VP Product and Risk Management

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Agenda

1) What is the RSR
2) Why it Matters to MPI
3) Approaches to Calculating the RSR Targets
4) How MPI Compares to Industry
5) The Best Estimate Approach to DCAT
6) Reducing Risk
7) Capital Maintenance Provision
8) Capital Management Plan (Forthcoming)

Why Have a Rate Stabilization Reserve?

- Current definition of the Rate Stabilization Reserve (RSR):

  To protect motorists from rate increases that would otherwise have been necessary due to unexpected variances from forecasted results and due to events and losses arising from non-recurring events or factors

- Like any other insurer, MPI should have appropriate capital to manage the risks and volatility inherent in its business
- An appropriate RSR ensures that MPI can keep rates stable over time, rather than requesting funds from rate payers *after* an adverse event occurs

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What makes MPI different?

- The Basic monopoly has no risk of loss to market share
- However, other risks applicable to insurance companies still exist for Basic (e.g. assets, liabilities, operational, credit, etc.)
- Certain risks are *greater* for MPI than for a private insurer, including:
  - No profit provision increases probability of deficient premiums
  - Extremely low capital targets compared to Canadian Peers
  - PIPP program requires billions dollars for long term claims reserves

DCAT and MCT Methodologies

- **Dynamic Capital Adequacy Testing (DCAT)**
  - Assesses the financial condition by modeling plausible adverse scenarios
  - Withstanding all adverse scenarios means Satisfactory Financial Condition (simplified explanation)
  - Actuary sets assumptions on scenario modeling, management and regulatory actions, plausibility etc

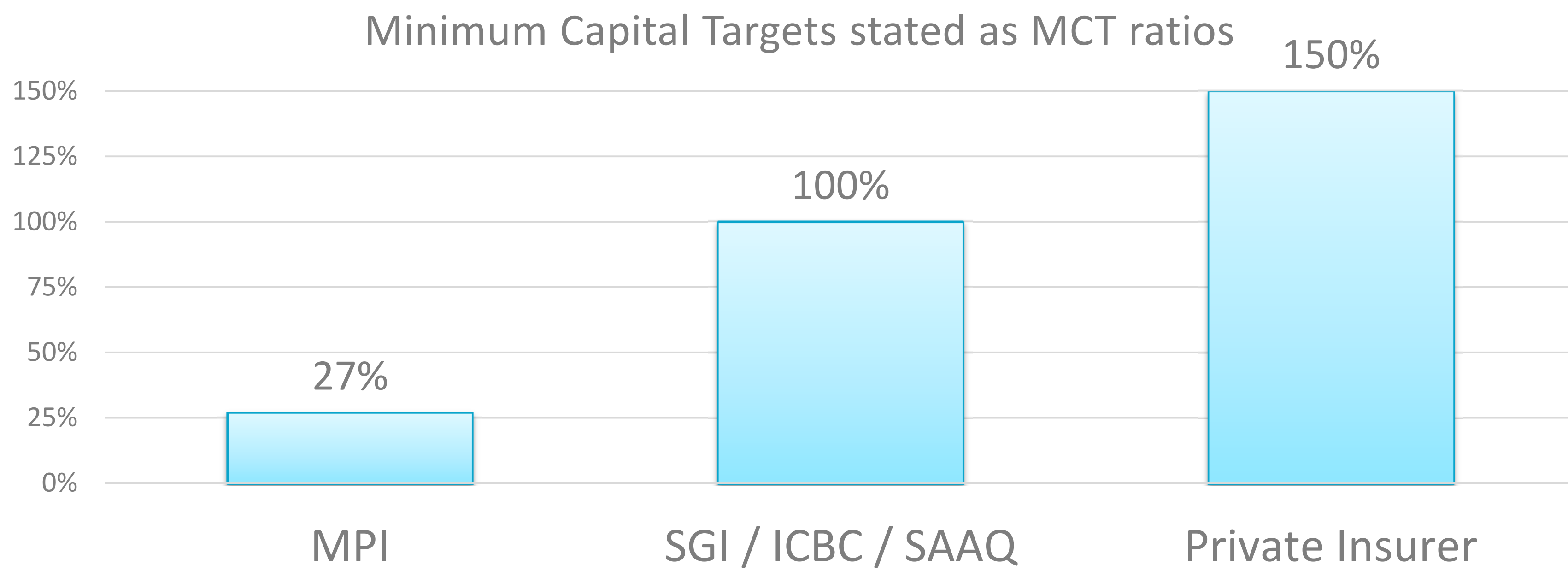
- **Minimum Capital Test (MCT)**
  - Standardized test of capital adequacy used by all insurers in Canada
  - Completely objective, with risk margins set by OSFI using assessment of risk from industry information
  - Measures Risks faced by all insurers, public or private

Reducing Risk Lowers the RSR Range

- Basic RSR (Total Equity) balance of $211 million or a 44% MCT ratio, at February 28, 2018
- Risk reduction measures through ALM significantly reduced DCAT based RSR Targets and 100% MCT

($millions)	2018 GRA		2019 GRA	
Target	Total Equity	MCT Ratio	Total Equity	MCT Ratio
Lower RSR Target (PUB)	$180	31%	$120	27%
Upper RSR Target (PUB)	$325	72%	$251	69%
100% MCT	$438	100%	$358	100%

Context: Capital Targets of MPI & CDN Peers



Modified DCAT
- Unique to MPI
- Significant subjectivity in assumptions
- Assumes capital transfers

MCT Based Targets
- Industry standard
- Objective, comparable
- Incorporates depth and breadth of Cdn industry experience

Satisfactory Financial Condition Cannot Assume Capital Transfers

- Basic's Lower RSR target is/should be an indicator of risk faced by Basic line of business.
  - Establishes the minimum level of capital required for satisfactory financial condition
- Modifying the DCAT to assume transfers from other lines, into Basic 'blurs' the assessment of risk facing basic
  - Risk assessment not consistent over time
  - Not prudent to assume transfers of funds (that may not exist)
- Without $214 million of transfers from Extension, Basic Total Equity would be <$0 (all else equal).
- Consideration of how/when to use transfers would be an important part of the Capital Management Plan.

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MPI Collaboration on the Setting of Capital Targets

- MPI has collaborated with the PUB to create RSR targets based on a modified (iterative) DCAT approach
- 2019 GRA capital targets based on this methodology, ***except*** for the portion of the methodology that does not attempt to use 'best estimate' forecasting.

($millions)	2018 GRA		2019 GRA	
Target	**Total Equity**	**MCT Ratio**	**Total Equity**	**MCT Ratio**
Lower RSR Target (MPI)	$201	37%	**$143**	**34%**
Upper RSR Target (MPI)	$438	100%	**$305**	**85%**
Lower RSR Target (PUB)	$180	31%	$120	27%
Upper RSR Target (PUB)	$325	72%	$251	69%

Keeping Risk Low

Government View and MPI Board Actions

- The MPI Board has taken actions to significantly reduce the risk of Basic operations (mostly through investment portfolio)
  - Consistent with MB Government's desire for reduced volatility

MPI has taken significant steps in recent years to reduce risk, including:

- Segregated investment portfolios will reduce risk in 2019/20
- Accepted Actuarial Practice
- Improved Value Management Process
- Heightened importance of Risk Management in Organizational Structure
- Centralized PIPP Reserving
- Reinsurance (with more options being investigated for further risk reduction)

Keeping Risk Low (Cont'd)

Lower RSR Target is the Absolute Minimum for Basic

- 34% MCT (Best Estimate) > 27% MCT
- Further reducing the Lower RSR Target below satisfactory financial condition counteracts the risk reduction benefits of the Board's actions

Moving Forward

- MPI and PUB must work together to determine appropriate capital management framework given government's low appetite for risk

Capital Maintenance Provision

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Capital Maintenance Provision (CMP)

- A CMP is an additional amount applied to the rate indication in order to ensure capital is maintained (as a % of MCT) over the rating period
- That Mechanism is called the 'Net CMP'
  - 'Net' because it accounts for investment income on the RSR
- The Net CMP in the 2019/20 GRA is +2.1%.

Base Forecast ($millions)		2018/19	2019/20	2020/21	2021/22
With CMP	Total Equity	$254	$280	$307	$318
	MCT Ratio	70%	70%	70%	70%
Without CMP	Total Equity	$254	$258	$262	$250
	MCT Ratio	70%%	64%	58%	52%

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Why does MPI need a Net CMP?

- With no natural means for Basic to maintain its capitalization level over time, Basic requires a mechanism in its rate setting methodology to maintain capital
- The Net CMP is the first component of an effective capital management plan.
- The Net CMP ensures that the ratemaking structure has a natural mechanism built in to maintain capitalization at current levels.
- The concept of *incremental* capital maintenance is consistent with MPI's break-even mandate for Basic insurance.

Beyond the 2019 GRA: Capital Management Plan

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Capital Management Plan

- A capital management plan would include the following components:
  - Minimum, maximum, and/or target capital level for all lines of business
  - A capital maintenance provision build into ratemaking
  - A capital build and release methodology based on the capital targets
  - Clearly defined policy-based constraints on the speed and magnitude of the combined rate impact of rate changes, capital maintenance, capital build, and capital release provisions.
  - Clearly defined rules on the transfer of capital from other lines of business
  - Possibly other considerations

An Effective Capital Management Plan

What makes for an effective Capital Management Plan?

- Stable capital target methodology (e.g. 100% MCT target)
- Stable rate setting methodology (e.g. AAP, CMP, etc)
- Stable profit targets for all LOBs
- Stable constraints and rules for the operation of the Capital Management Plan
- Objectives measures, not forecasts (e.g. actual MCT score)
- Unbiased forecasting
- Transparency - including disclosure of capital management plans for other lines of business

Conclusion

- Basic is De-risking through various means
  - Mostly through new Investment Portfolios
- DCAT Based RSR Targets need to accurately reflect risks
  - Must use Best Estimate Assumptions
- Capital Maintenance Provision prevents natural deterioration of Basic's Capital
  - Important First Step to Capital Management Plan