A JUST AND REASONABLE BALANCE CLOSING ARGUMENT OF THE PUBLIC INTEREST LAW CENTRE ON BEHALF OF THE CONSUMERS' ASSOCIATION OF CANADA (MANITOBA BRANCH)

2017/2018 MPI GRA

November 2, 2016

CAC Manitoba

- Over two decades of rate hearings
- Core Consumer Rights:
  - to be informed
  - to choose
  - to be heard
  - to consumer education

The Test

- MPI Onus

- Just and Reasonable Rates
  - *PUB Act*, s. 77
  - *CCPRAA*, s. 26 (4)
  - *Order 98/14*, p. 28

Setting Just and Reasonable Rates

- Forecasts reasonably reliable
- Actual and projected costs – necessary and (required)
- Reasonable revenue needs of an applicant in the context of its overall general health (including reserves)
- Appropriate allocation of costs between and within classes
- Just and reasonable rates in accordance with statutory objectives.

Order 98/14, p. 28

In determining a just and reasonable rate, how does the PUB best balance the interests of consumers and the Corporation?

Two sharply contrasting approaches

MPI

- focus investment strategy on the short term goal of avoiding rate volatility
- mischaracterize (inadvertently) the investment risk by failing to fully capture the magnitude and volatility of market risk
- highly constrain investment portfolio design – accepting undue risk and constricting return
- put significant pressure on current and future costs by accepting higher than average ratios for Information Technology FTES
- commit to major and relatively high risk information technology expenditures without appropriate business cases (PDR)

MPI

- set BI3 case reserves which may fail to reflect MPI risk exposure
- employ a rate setting methodology that is not consistent with accepted actuarial practice and which incorporates excessive interest rate volatility that is not related to the accident year
- rely on the Interest Rate Forecast Risk Factor
- Recommend an excessive RSR that would serve to enable inefficiency as well as shield against forecast variance and extreme events

CAC (Manitoba)

- re-focus investment strategy on the portfolio's long term sustainability
- capture the magnitude and volatility of the market risk associated with the investment portfolio
- take a holistic approach to investment portfolio (the ultimate team game) involving risk budgeting, consideration of the Minimum Risk Portfolio and a healthy application of modern portfolio theory
- ensure that all information technology investments are subject to a stringent business case based on total cost of ownership and including the application of appropriate metrics
- require MPI to demonstrate that its investments in information technology can be justified both at a specific project and the portfolio level
- insist on frequent reporting of the high risk elements of the PDR project

CAC (Manitoba)

- explore the implications for claims liability forecasting of ongoing challenges with BI3 case reserving and case duration management
- progress towards evidence based road safety and loss prevention portfolio management aimed at tangible fatality and collision reduction/elimination objectives
- employ a rate setting methodology consistent with accepted actuarial practice and which eliminates the impact of interest rate volatility that is not related to the accident year
- reject the impoverished analysis of Dr. Cleary and the Interest Rate Forecast Risk Factor
- recognize that Interest Rate Forecasts have significant (and at times countervailing) impacts on the bottom lines of Crowns such as MPI and Manitoba Hydro and undertake a truly collaborative technical workshop on interest rate forecasts in early 2017 involving stakeholders as well as Crowns such as MPI and Hydro
- adopt an evidence based RSR setting methodology

Whack-a-mole vs a sheet of plywood

Recommended findings regarding Investments

- Mr. Viola's findings regarding the MPI investment portfolio should be given heavy weight based upon experience and analytic integrity
- The 2014 ALM study has limited utility in making efficient portfolio decisions given its return/risk metrics and excessive constraints
- The higher risk element of the MPI portfolio looks very different from other portfolios in a manner that cannot be explained by evidence based risk tolerances
- The weight assigned to Canadian equities as compared to other equities is not consistent with evidence based risk tolerances or the historic advice of experts
- Losses related to Canadian equities were a major driver of the 2015/16 loss

Recommended findings regarding Investments

- There are grounds to be concerned that the MPI portfolio is inadequately protected against real interest rate risk
- The Corporation's primary focus on short term rate stability comes at the expense of the long term interests of ratepayers and contributes to the acceptance of an excessive level of risk for the return gained
- The Corporation's selection of risk/return metrics (inadvertently) leads to an understatement of the market risk faced by the Corporation
- In terms of their risk profile, the pension liabilities are inherently different than the claims liabilities
- The composition of the investment portfolio has implications for the overall health of the Corporation including the RSR

Investment Income is Vital

"Investment income is a vital source of revenue for rate making and rate volatility stability. A shortfall in investment income to budget can have an impact on rates charged to Manitoba motorists."

CAC (MPI) 1-74 c, Attachment B, p. 1 see also HR, Oct 19, 839/840

The PUB has recognized the importance of the Investment Portfolio to the Rate Setting Process (Order 98/14)

- [During the 2014 GRA], Mr. Gibson also testified that triggering a portfolio review (in terms of asset mix) is MPI's decision to make, as opposed to that of the Department of Finance, and in Order 151/13, the Board directed MPI to do so. The Board expressed some concerns over MPI's partial withdrawal from U.S. markets and lack of investment in foreign markets. Given the size of the Corporation's portfolio ($2.3 billion), the Board expressed the view that all investment options should be considered seriously, particularly given the changes in interest rate environment over the last five years. (emphasis added) p. 50.
- The Board finds, however, that it can require the provision of information regarding MPI's investment portfolio in its assessment of determining just and reasonable Basic Rates. The Board must have regard to whether MPI's investment income forecasts are reasonably reliable and whether the reasonable revenue needs of Basic are met, in the context of the Corporation's overall financial health, and with regard to the volatility of the investment income which may be derived from MPI's large investment portfolio. (emphasis added) p. 52.

The PUB has recognized the importance of the Investment Portfolio to the Rate Setting Process (Order 98/14)

- Given the importance of investment income to the Corporation's forecasted net financial result for rate setting purposes, and the significant impact that the portfolio mix has upon MPI's investment income, the Board requires that a response to the Information Requests be provided. p. 122
- Pursuant to evidence presented to the Board in the past, the practical reality is that the Corporation has significant input into the management of its investment portfolio, while ultimate control lies with the Department of Finance. In addition, i<u>mpaired investments can impact significantly the overall fiscal health of the Corporation, including Basic</u>.
  (emphasis added) p. 123

Portfolio Theory 101

- adding assets to a diversified portfolio that have correlations of less than one (1) with each other can actually decrease portfolio risk without sacrificing return. *HR, Oct 19, 842/843*
- the optimal portfolio chosen by any particular investor or corporation is determined by that individual's preference for trading off greater return against more risk, assuming a rational investor. *HR, Oct 19, 847/848*
- a rational investor would only choose a portfolio from among those that are efficient. *HR, Oct 19, 846*

holland park

SYMPTOMS VS PROBLEMS

SYMPTOMS	SHAKY GOALIE	**No Real Return Bonds** • Poor liability protection against unexpected inflation, real rate risk • Less effective duration management
	PUCK HOG	**Canadian Equities** • Larger-than average home bias • Concentrated sectors/stocks
	SHORT-HANDED	**No International Equities** • Missed opportunities to add value, diversify portfolio

PROBLEMS	FOCUS	**Short-term Rate Stability** • At cost of lower long-term level
	PROCESS	**"Smoothed" Accounting** • Rather than "volatile" market value **Asset-Based Rebalancing** • Rather than risk **A-L Studies Every 4 Years** • Rather than annual/quarterly risk-informed discussions
	BARRIERS TO EXCELLENCE	

REMEDIES →

FRAMEWORK

RISK BUDGETING

MPI Portfolio Accepts Undue Risk for Inadequate Return

- Understating Risk
- Underachieving Potential
- Smoothing the Wrong End (investment portfolio rather than rate setting methodology)

A Puck Hog Who Plays Short Handed

- <u>Portfolio Highly Constrained by Order of the ICWG</u>
- In terms of the portfolio, 80 percent was constrained in terms of these minimums
  HR, Oct 19, 850
- Of the total portfolio, 10 percent had to be devoted to Canadian equities *HR, Oct 19, 850*
- The minimum/maximum constraints, were directed by the Investment Committee Working Group
  HR, Oct 19, 851

Excessive Weight to Canadian Equities Not Consistent with Expert Advice

Mercer in its 2003 report, Aon in its 2008 report, and Hum and Simpson in their 2010 report were recommending that less weight be given to Canadian equities and more to non-Canadian equities.

HR, Oct 19, 853 and (CAC (Manitoba)/MPI-I-69(b), Attachment C, p. 9-10)

AON 2014 - not asked for opinion on Over-weight to Canadian Equities

19 In undertaking

20 the 2014, two zero one four (2014), asset -- asset

21 liability management -- ALM study, excuse me, did

22 Manitoba Public Insurance ask Aon to opine to offer an

23 opinion on the relative weight given to Canadian

24 equities versus other equities?

25 MS. HEATHER REICHERT: I'm not sure if

1 we asked them to opine. I believe that we did

2 indicate that we had a desire -- a home bias, if you

3 will, to invest in Canadian equities, and -- and then

4 that is one of the constraints that they -- they were

5 given as part of the study analysis that they did.

(emphasis added) *HR, Oct 19, p. 854-55*

But AON warns of the Constraints

- Aon observed that the minimum constraints imposed to allocations to Canadian equities, real estate, and infrastructure leave limited room for other asset class -- classes, especially at large levels of fixed income allocation. *HR, Oct 19, p. 852*
- Aon noting that it should target about 15 to 30 percent inflation-sensitive assets, but that that might not be feasible while respecting the other constraints. *HR, Oct 19, p. 852*

Separation Theorem: The Red Bucket of Risk

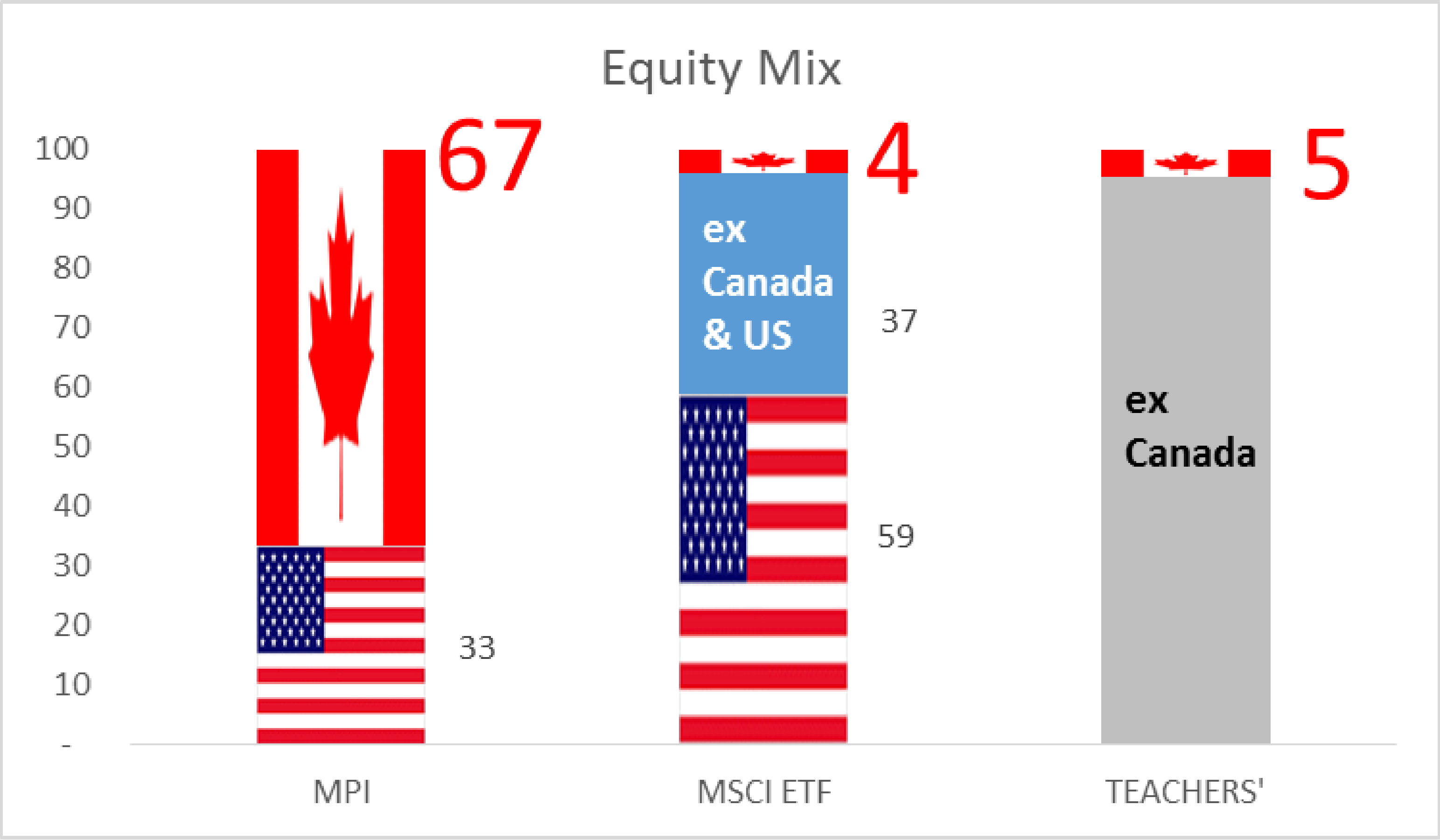
You and I may differ because we have different tolerances on how much to put in the risk- free asset versus how much to put in the risky red bucket. But theory would suggest other things equal, without making a lot of assumptions, if you looked into the risky bucket, you might have a bigger bucket in mine, you might put all your money in the risky bucket, in which case, it's pretty full, I might have just a tiny one.

But I look down from the top and I looked at the composition, if it were a pie chart, the pie chart should be roughly the same, other things equal. So that's an important -- that's called a separation theorem.

We may decide to have different allocations, from zero to a hundred percent between those two (2) buckets, but when you look inside the risky bucket you should see the same mix, the same mix between Canada, US international equities, other things equal.

VV, Oct 28, p. 1841-42 (see also unsuccessful cross challenge p. 1885-87)

BUT MPI DOES NOT LOOK LIKE OTHER PORTFOLIOS
GLOBAL EQUITY MARKET CAPS: 59/37/4 US/INTERNATIONAL/CANADA



Source: Graphed using data from Teachers' 2015 Annual Report, page 71 and iShares MSCI World Index ETF (Oct 18, 2016) on next page holland park

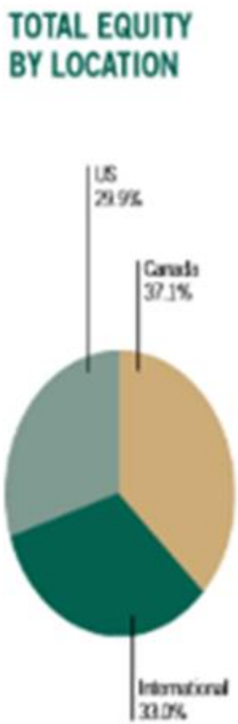
BUT MPI DOES NOT LOOK LIKE OTHER PORTFOLIOS NO INTERNATIONAL EQUITIES

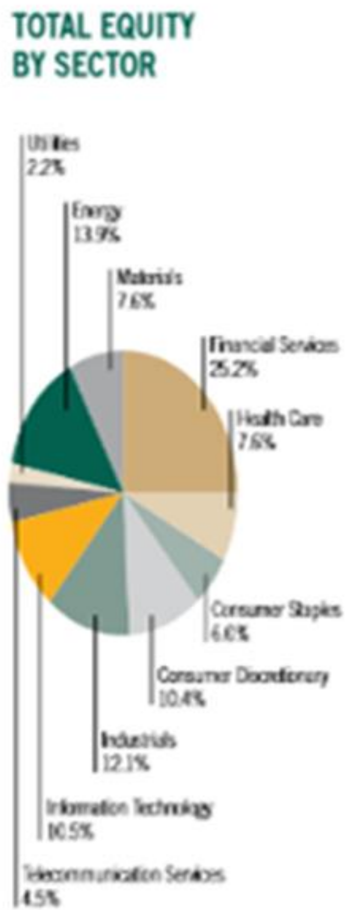
having no exposure to International … should be reconsidered, given … large size of … foreign markets, … return opportunities … and … diversification …	
Portfolio Theory	• Theory: funds should be close to global market cap
Unique Allocation	• Most investors have significant International • SGI: ~ ¼ of public equities • PIAC > ⅓ of equites • See next page

Public Equity Mix	**MPI**	**SGI**	**Diff**
Canadian Equity	67	47	20
US Equity	33	31	2
International Equity	-	23	- 23
	100	100	-

Public Equity Mix	**MPI**	**PIAC**	**Diff**
Canadian Equity	67	24	42
US Equity	33	38	- 5
International Equity	-	37	- 37
	100	100	-

But MPI Does Not Look Like Other Portfolios





Manitoba's TRAF (Teachers' Retirement Allowances Fund), for example, has a higher allocation of equities in International Equities (33%) than US Equities (30%) and a combined foreign exposure (63%) that is two times higher than in Canada (37%), as illustrated on the far left. TRAF's allocation by sector (near left) shows a more diversified portfolio on a sector basis as a result of having more foreign exposure.

TRAF's annual report

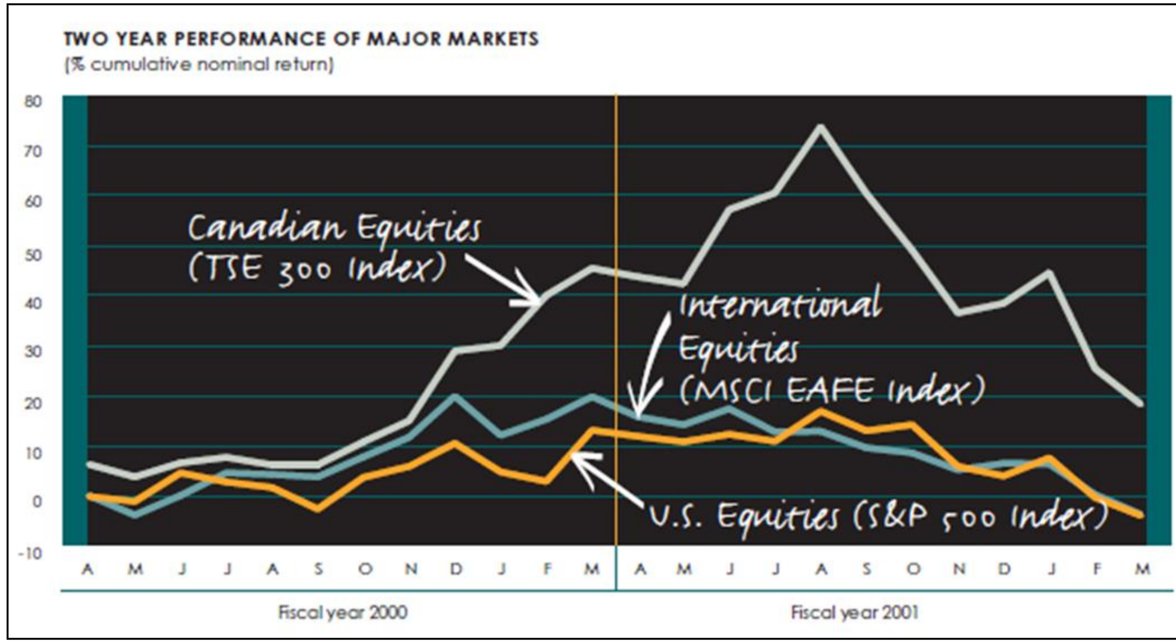
Failure to Adhere to the Separation Theorem Does Not Suggest Lower Risk Tolerances

Overweight to Canadian equities suggests an unreasonable and excessive assumption of risk

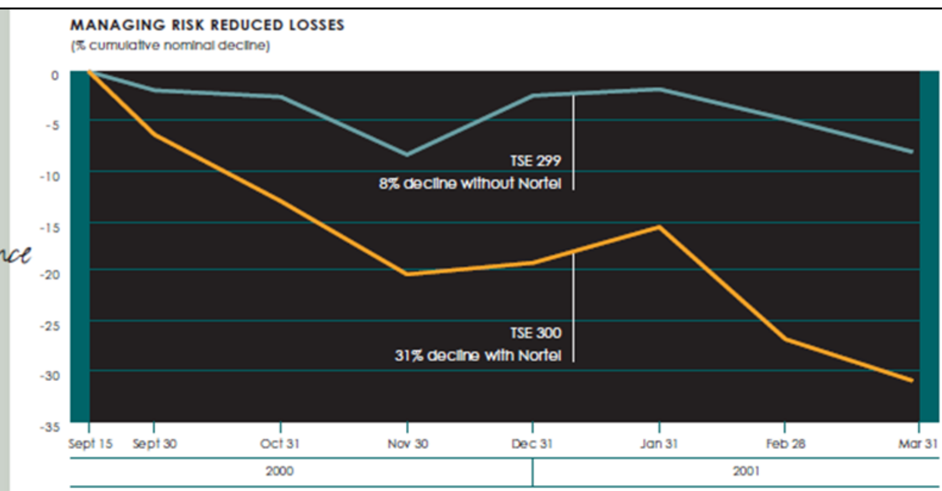
Remember Nortel

CANADIAN EQUITY CONCENTRATION

%	Fiscal year 2001
ACTUAL RESULTS	
Canadian equities	(7.7)
Foreign equities	(17.5)
Total portfolio	(9.4)
BENCHMARK RESULTS	
Canadian equities	(18.6)
Foreign equities	(18.2)
Total portfolio	(17.8)
Chief actuary's assumption	6.6
Long-term required return	7.9



Our first active investment decision avoided $535 million in losses – the difference between the TSE 299 and TSE 300 performance.



Source:
CPPIB's Annual Report (March 2001), pages 6, 15, 18

Canadian Market Heavily Concentrated in Three Sectors

the financial, energy, and material sectors typically represent a relatively large proportion of the TSX market cap, TSX being Toronto Stock Exchange

JS, AON, Oct 25, p. 1267

Canadian Market took Big Hit in 2015

in 2015, the Canadian economy suffered significant stresses in part related to significant declines in oil and gas prices *JS, AON, Oct 26, p.1269*

We had a permanent impairment of some Canadian equities in the oil and gas sector that resulted in a $33 million loss.

MR. BYRON WILLIAMS: And for the Basic side, it was about a $28.5 million loss?

MS. HEATHER REICHERT: It would have have been about 84/85 percent of the 33 million.

Oct 18, p. 721/722

MPI has a Focus Problem

And we can really only have one (1) primary goal, or we should at least identify what that primary goal is. Everything else is either a secondary, tertiary goal or constraint. And I -- I believe strongly that the focus on short-term rate stability is at the expense of long-term lower premium rate levels potentially through that focus.

(emphasis added) *VV, Oct 28, p. 1825*

Short term Volatility not Primary Concern for some other funds

MR. BYRON WILLIAMS: I'm suggesting to you that not every fund that you have consulted with has identified short-term volatility of the premium rate requirement as a primary concern?

MS. JULIANNA SPIROPOULOS: Not every fund.

(emphasis added) *JS, AON, Oct 25, p. 1272*

MPI Has a Process Challenge
PROCESS!
WHY RISK BUDGETING MATTERS

PROBLEMS

PROCESS

"Smoothed" Accounting

- Rather than "volatile" market value

Asset-Based Rebalancing

- Rather than risk

A-L Studies Every 4 Years

- Rather than annual/quarterly risk-informed discussions

BARRIERS TO EXCELLENCE

REMEDIES →

FRAMEWORK

RISK BUDGETING

The Wrong Metrics can drive the Wrong Portfolio Selection

MR. BYRON WILLIAMS: And so the efficient frontier flowing -- conclusions flowing from your report represent the efficient portfolios for those chosen risk and reward variables, taking into account any constraints imposed by MPI?

MS. JULIANNA SPIROPOULOS: Yes.

(emphasis added) *JS, AON, Oct 25, p. 1270-71*

The Wrong Metrics can drive the Wrong Portfolio Selection

And the reason you selected volatility of retained earnings as a risk factor was the indication by Manitoba Public Insurance to you that short-term volatility of the premium rate requirement was a primary concern, agreed?

MS. JULIANNA SPIROPOULOS: Yes.

(emphasis added) *JS, AON, Oct 25, p. 1269*

OCI and AOCI excluded from metrics

JS, AON, Oct 25, p. 1276

The Exclusion of Market Risk Matters

I just need to be transparent and help the committee understand and appreciate the fact that **the accounting treatment is driving the portfolio design.**

(emphasis added) *VV, Oct 28, p. 1881*

But Market Risk is Indifferent to Celsius or Fahrenheit

What I worry about is the -- when -- again measuring risk doesn't create it and not measuring risk doesn't make it go away, but the reality is it's human nature to see a reported metric and -- and say, Risk has gone up or down because the number has changed even though nothing has really changed.

(emphasis added) *VV, Oct 28, p. 1953*

But Market Risk is Indifferent to Celsius or Fahrenheit

The thing that comes to mind when I think of that is when we went to the metric system when I was kid. All of a sudden 32 degrees got very hot, using the Celsius -- the -- using the -- the Celsius thermometer instead of Fahrenheit. We put a new thermometer in the room but the temperature didn't change. So we wouldn't want people to use a thermometer that isn't as accurate, and make real decisions based on a new thermometer, or a different thermometer, better or worse, when the economic temperature of the room didn't change. put on a sweater just because -- or take one (1) off just because the temperature number has differed.

(emphasis added) *VV, Oct 28, p. 1953*

Don't Forget the Shaky Goalie

- poor liability protection against unexpected inflation – real rate risk
- less effective duration management
- Real Return Bonds should at least be part of benchmark portfolio (Minimum Risk Portfolio)
- PIAC – 3%   RRB

RRBs Play Good Defence and Enable Better Offense

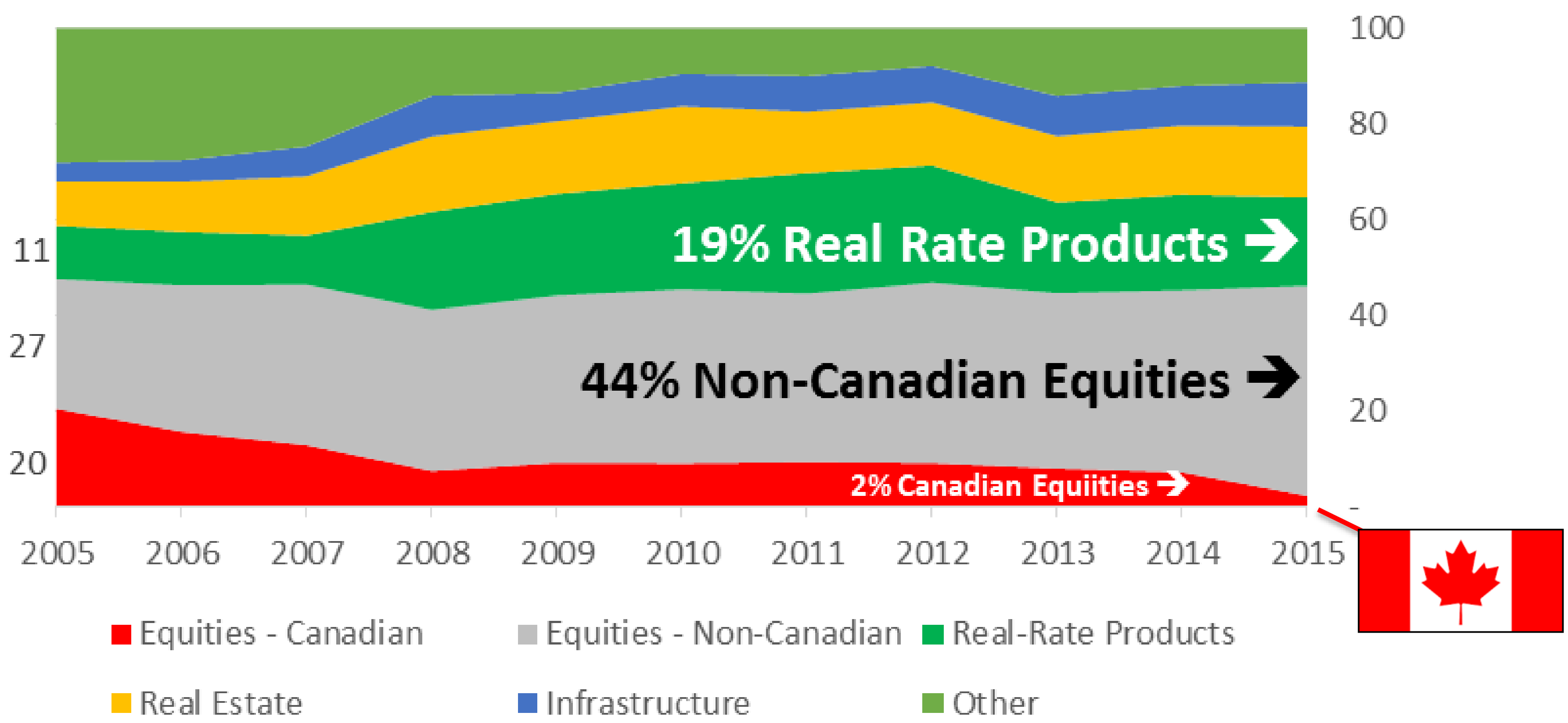
So the reality is, in a team sport, if you think about basketball -- I played a lot of basketball. Order of magnitude, I'm 6 feet. Would you rather have five (5) Valter Violas all 6 feet, or would you like that 5-foot guard who's really good at picking the ball off and the 7-foot lanky guy who can score? Doesn't play any defence. I'd rather have the 5-footer and the 7-footer, one guy's really good on defence, like the specialist, and another guy can put the ball in the net, than five (5) Valters at 6 foot.

(emphasis added) *VV, Oct 26, p. 1839*

- endorsed by both Hum and Simpson (2010) and Mercers (2003) CAC 1-69

RRBs can be an Important Element of Top Ranked Portfolios

Teachers' RRBs = 19%, Non-Canadian Equities = 44%, Canadian Equities = 2%



Source: Graphed using data from Teachers' 2015 Annual Report, page 71

Pension Liabilities are Inherently Different from Claims Liabilities

the nature of the claims liabilities is inherently different from the nature of the pension liabilities in the duration of the liabilities and the sensitivity to different factors such as inflation and interest rates

JS, AON, Oct 25, p. 1286/87

With a longer duration, those liabilities would be more sensitive to interest rate fluctuations?

MS. JULIANNA SPIROPOULOS: Yes.

MR. BYRON WILLIAMS: And with a longer duration, those assets would be more sensitive to inflation?

MS. JULIANNA SPIROPOULOS: Yes.

(emphasis added) *JS, AON, Oct 25, p. 1287*

pension assets are co--mingled with insurance assets

JS, AON, Oct 25, p. 1287

There is Merit in a Distinct Consideration of the Risks of Pension Liabilities

MR. BYRON WILLIAMS: Given the inherent differences in the liabilities that we've just discussed, Aon would see value in investigating whether it would be appropriate to develop an investment policy that considers the risk and return characteristics of -- of assets specific to pension plan liabilities. Agreed?

MS. JULIANNA SPIROPOULOS: Yes.

JS, AON, Oct 25, p. 1288

- Mr. Viola agrees

Different Approaches may Better Serve the MPI Rate Stability Objective

And we suggested that that would be another way of sort of managing the volatility of the rates, is by changing the mechanism to which premium rates are -- are calculated.

MR. BYRON WILLIAMS: Okay. Thank you. And that's recognizing the fact that **even with your lower risk portfolios you were still observing significant volatility?**

MS. JULIANNA SPIROPOULOS: Yes.

MR. BYRON WILLIAMS: So your conclusions were that the -- **the tools related to asset liability management in and of itself might not be enough to deliver the rate -- rate smoothing or the absence of rate volatility that MPI was seeking?**

MS. JULIANNA SPIROPOULOS: Yes, except that it also relates to how much return they want in the portfolio.

(emphasis added) *JS, AON, Oct 25, p. 1292*

Recommended Order relating to Investment Portfolio

- Adopt the recommendations of Mr. Viola (see Attachment A)
- Order a new ALM to be guided by those recommendations.
- Find that RSR not intended to protect against investment portfolio selections at odds with best evidence

Recommended Findings Regarding Information Technology

- Information Technology staffing and capital expenditures are a significant driver of cost pressures
- Significant challenges still exist with the 2010 BI3 roll-out:
  - After six years, MPI is not confident that BI3 driven case reserves reflect risk exposure
  - Duration benchmarks still exceed pre-BI3 benchmarks
  - Primary savings from BI3 were to flow from "leakage savings" based in large part on duration expectations

Recommended Findings Regarding Information Technology

- MPI is not walking the Value Management talk:
  - MPI experiences challenges in supplying business metrics and demonstrating it is actually employing them
  - new Value Management sounds promising (CAC 1-37) but little evidence of portfolio management
- The original design of PDR suffered from failure to follow the Value Management gate keeping process
- Fundamental concerns remain about PDR including:
  - business case does not inspire confidence
  - return on investment calculation excludes operating costs
  - same budget for significantly reduced functionality

Recommended Findings Regarding Information Technology

- Significant risks PDR
  - FNOL and Advanced Analytics are not mature technologies
  - will oversight approach be effective in the face of a significantly different business model and changed negotiating power flowing from industry concentration

Significant Compound Annual Growth Rate in IT Amortization

In the 2016 GRA, Manitoba Public Insurance (MPI) expected total amortization expenses to be approximately $16 million at the end of the forecast period (2019/20) whereas in the 2017 GRA, MPI expects total amortization expenses to be approximately $32 million at the end of the forecast period (2020/21). This drives the CAGR increase from 2.5% to 7.2%. The increase in amortization expenses is primarily attributable to the Technology Innovation, Technology Risk Management, and Physical Damage Re-engineering (PDR) projects.

(CAC 1-45)

High Compound Growth Rate IT FTES

we've actually increased the -- the number of FTEs in IT by 6.4 percent compounded year over year

(from 2010/2011 to 2014/'15).

(emphasis added) *MG, Gartner, Oct 26, p. 1463*

IT Staff Levels Higher than Peers

For 2014/15 year:

- Despite a small drop in the IT to company FTE (17.2% to 16.6%) Personnel spending and staff levels remain higher than peers (320 FTEs vs 310)
- MPI spends 63 percent of its IT budget on personnel versus 44 percent of its peers
- 34 percent of its IT staff is made up of contractors, at least in 2014, versus 17 percent for its peers

Gartner Group – presentation to MPI Board of Directors CIO Scorecard and IT Infrastructure Benchmark, see also *DG, Oct 19, p. 802/803*

IT FTEs Expected to Outpace 2014/15 Baseline

along the line for '15/'16 through '18/'19, the total number of internal FTE and consultants for MPI related to IT is higher than that 2014/'15 base in all four (4) years.

DG, Oct 19, p. 805 see also *PUB(MPI) 1-27*

Laptop refresh contributes to 3.9% increase in normal corporate expenses

normal corporate operating expenses forecast period from 2016 through 2018/'19 reflects an overall average increase of 3.9 percent

corporate expenses, p. 42

- in looking at that increase, the Corporation observes that, apart from the CPI increases, the increase is <u>primarily driven by the expected laptop refresh</u> in 2017/'18, as well as the computer and monitor refresh in the subsequent year, agreed?

MS. HEATHER REICHERT: Yes.

(emphasis added) *HR, Oct 19, p. 806*

Laptop refresh contributes to 3.9% increase in normal corporate expenses

would it be
fair to suggest that, given the other cost pressures
and revenue pressures the Corporation is under, that
it's considering deferring the laptop refresh?
MS. HEATHER REICHERT: Not at -- not
at this juncture, no.

(emphasis added) *HR, Oct 19, p. 806*

Significant challenges still exist with the 2010 BI3 roll-out

<u>PIPP key factor in 2015/16 budget variance</u>

MR. BYRON WILLIAMS: And a third key factor in terms of the variance from budget to actual for '15/'16, was higher non-interest rate related PIPP claims relating t(o) BI other indexed and BI WI, agreed?

MS. HEATHER REICHERT: I seem to recall that, yes.

MR. BYRON WILLIAMS: And subject to check, in the range of 34/$35 million higher non-interest PIPP claims, agreed?

MS. HEATHER REICHERT: Sounds right.

HR, Oct 18, p. 722

Significant challenges still exist with the 2010 BI3 roll-out

Seventy-five percent of 70 M IBNR adjustment driven by PIPP IBNR Adjustments

PIPP related to IBNR changes amounts to about 75 percent of that 70.74 million total

LJ, Oct 18, p. 730

see also CAC (MPI) 1-11

After six years of BI3, MPI is not confident that BI3 driven case reserves reflect risk exposure

one of the reasons for the significant adjustment to the IBNR was that there was some discomfort with the development in terms of case reserving in the 2013 through '15 years.

LJ, Oct 18, p. 736

The reason I'm selecting 2010 is because the **new case management** system was **implemented in that year,** and so there -- we're aware that there was a change to reserving practices at -- at that time.

LJ, Oct 18, p. 732

After six years of BI3, MPI is not confident that BI3 driven case reserves reflect risk exposure

BI3 changes to reserving practices:

- in the initial reserving,
- in the subsequent reserving changes to align with rehab planning,
- in the step reserving permitted for the first twenty-four (24) months, and
- after twenty-four (24) months using the reserving calculator.

LJ, Oct 18, p. 737

See also CAC (MPI) 2-8

After six years of BI3, MPI is not confident that BI3 driven case reserves reflect risk exposure

the lower-case reserves are not necessarily translating into lower overall exposure,

LJ, Oct 18, p. 738

MR. BYRON WILLIAMS: So at this point in time, it's not clear to you that the lower BI3 reserves are actually reflecting the risk exposure being faced by the Corporation?

MR. LUKE JOHNSTON: Yes, that's fair that I'm not convinced that lower-case reserves under BI3, particularly in the most recent years, represent lower exposure. From what we've seen from 2010 to -- to date -- obviously the 2010, '11, '12 loss years are more developed than the more recent years -- the lower-case reserves do not appear to represent lower exposure relative to pre-2010.

LJ, Oct 18, p. 738-39

BI3 Duration Benchmarks still exceed Pre-BI3 Benchmarks

see PUB (MPI) 1-50

very good indicator of exposure would just be how many claims are still open and receiving payments. And if the new era, if we can call it that, has the same amount of claims open at particular points in time, that would be one (1) indication that I shouldn't expect the ultimate to be different than it was before.

LJ, Oct 18, p. 739

BI3 Duration Benchmarks still exceed Pre-BI3 Benchmarks

to the extent that claims
actually have a longer duration, that would reinforce
your -- your concerns that the BI3 reserving practices
may not be fully reflecting risk exposure?
MR. LUKE JOHNSTON: Yes, to the extent
they're higher and you have more claims open, you'd
expect more exposure.

LJ, Oct 18, p. 740

Primary source of BI3 savings was to be leakage

- in terms of cost savings a <u>primary source</u> was expected to be claims savings from the avoidance of <u>claims leakage</u> (which was) expected to save in the range of $33 million over seven (7) years

DG, Oct 19, p. 782

- decision and rehabilitation duration management,

DG, Oct 19, p. 782-83

- case management performance against duration guidelines.

DG, Oct 19, p. 783

Gartner Group note lag in Business Process Management and need for Business Cases

- business process management maturity remains generally low at 1.6

DG, Oct 19, p. 803

Gartner group has suggested to MPI that:

- The increased use of business cases will help hold business stakeholders and IT accountable for achieving projected benefits and values.

DG, Oct 19, p. 803-04

What would reasonable and prudent IT management look like?

What would reasonable and prudent IT management look like?

<u>Good gatekeeping</u>

10 moving from gate to

11 gate before we spend -- been spending more and more

12 money only as you have greater and greater confidence

13 that you're going to get your benefits.

MG, Gartner, Oct 26, p. 1471

<u>Benefits realization</u>

15 would be to have improved and more mature benefits

16 realization metrics, so understanding kind of what

17 your baselines are so that you can determine what kind

18 of benefits that you're -- you're getting.

MG, Gartner, Oct 26, p. 1471

What would reasonable and prudent IT management look like?

<u>Use of Business Cases</u>

So should business cases be prepared for all major projects before spending commences?

MR. MARTIN GEFFEN: Yes. When -- our expectation would be that, you know, in -- in our -- in our experience, we see organizations that have, you know, ranges of -- of levels of complexity and detail, depending on the -- the size and scale of a project and also depending on which gate you're -- you're at. But if you would think that -- that <u>as you move beyond specific gates you get more and more detailing in structuring a business case.</u>

(emphasis added) *MG, Gartner, Oct 26, p. 1475-76*

What would reasonable and prudent IT management look like?

Evaluate Total Cost of Ownership

MR. MARTIN GEFFEN: So total cost of ownership is something that Gartner has been espousing for quite a while, that it is, in terms of taking a technology-based transformation project, understanding what the total costs are for that -- that -- the overall investment. So it's -- it's not just what it takes to build and implement the -- the solution, but what it would take to actually operate them and maintain the solution going forward. And so it is -- it looks at both current costs but also ongoing costs. It looks at infrastructure costs, software costs, and resource costs -- human costs, as well.

(emphasis added) *MG, Gartner, Oct 26, p. 1541-42*

What would reasonable and prudent IT management look like?

<u>Evaluate Total Cost of Ownership</u>

21 MR. BYRON WILLIAMS: And -- and, sir,

22 I'll -- I'll go farther than you and suggest it's also

23 an important potential element in decision making to

24 have a full understanding of -- of what this type of

25 investment is delivering but also what it's costing.

1 MR. MARTIN GEFFEN: Correct.

MG, Gartner, Oct 26, p. 1543-44

Key Questions in Terms of Management of Portfolio

<u>Portfolio Management</u>

1 in overseeing its IT portfolio, it -- these are

2 some of the key questions that must be addressed?

3 MS. HEATHER REICHERT: Absolutely.

HR, Oct 19, p. 796-97

Key Questions in Terms of Management of Portfolio

1. What are we spending our available resources on now?

(This gives some indication of priority, and a fairly good indication of resource allocation.)

2. Who are we and what are we trying to accomplish?

(This indicates the level of business-IT alignment.)

3. What are the investments that will provide the greatest leverage?

(This is where the "rubber hits the road" in using agreed measurements and metrics of project value and balancing this with good business and technology judgment and leadership.)

4. How many investments can we successfully take on at a given time?

(This indicates the level of discipline of resource planning and budgeting.)

5. How will these investments interact?

Is MPI walking the IT Value Management Walk?

Mr. Guimond denies value management is new

we've always done value management.

DG, Oct 19, p. 789

He is contradicted by past practice

CAC (MPI) 2-29

the ITO Program was intended to address technology obsolescence. This was a risk based initiative that was undertaken for the reasons detailed in CAC (MPI) 1-43. As such, identifying financial measures to justify the ITO Program was not a priority for the project development in 2011.

He is contracted by MPI's own words

- Reporting and tracking occurs through the Value Management process, which is new, and metrics are being refined. Initial metrics have focused on one-time and annual (recurring) dollars saved.

(CAC 1-44 a) and b))

- MPI has recently launched a new Value Management process which has several quantitative measures included in it (please see CAC (MPI) 2-22) which will be considered in the selection process going forward.

CAC 2-20

- To clarify, the Value Management process operates within the Finance Division and is organizationally separate from the Business Transformation Office (BTO). . . . . As noted, it is a new process and the process measures are being applied to new projects this fiscal year.

CAC 2-22

He is contradicted by the Gartner Group's analysis of PDR

Value Management Gating did not Apply to PDR

MR. BYRON WILLIAMS: And you make no
comment in terms of whe -- whether the upfront gating
process to the degree contemplated in the value
management process was applied to PDR?

MR. MARTIN GEFFEN: So it was not --
it did not exist when PDR started, and so that -- that
-- it just did -- that did not -- not apply.And that
kind of goes to the previous counsel's question about,
you know, what could we have done better.
Had that gating process been in place,
you know, we would have probably had fewer delays and
fewer changes in direction.

(emphasis added) *MG, Gartner, Oct 26, p. 1539-40*

see also *MG, Gartner, Oct 26, p. 1498-99*

He is contradicted by current reality.

He is contradicted by current reality related to the Technology Modernization Program

Technology Modernization

- roughly $40 million of expenditures between '16/'17 and 2019/'20

HR, Oct 19, p. 798

- No quantitative financial metrics such as internal rate of return in business charter for the Technology Modernization Program (PUB 2-16)

HR, Oct 19, p. 798

He is contradicted by current reality related to the Technology Modernization Program

MR. BYRON WILLIAMS: So, Mr. Guimond, are there financial metrics for the oversight of this program and the oversight of the -- in comparison to the rest of the budget that you're able to share? And could you file those by way of undertaking?

MR. DAN GUIMOND: Yeah, we'll -- we'll get back to you.

I'm asking for the quantitative financial metrics in support of the Technology Modernization Program charter.

MR. DAN GUIMOND: Yeah, we -- we can provide that.

DG, Oct 19, p. 800

He is contradicted by current reality related to the Technology Modernization Program

MPI Exhibit 67

- This undertaking sought the financial metrics for the Technology Modernization program. The Program is unique from other Information Technology (It) programs . . .

He is contradicted by current reality related to the Technology Modernization Program

urge you to examine MPI Exhibit 67

- try to reconcile with description of value management process provided in CAC 1-37
- search in vain for the financial metrics highlighted in CAC (MPI) 2-22

CAC MB is still awaiting those financial metrics

He also is not supported by the current evidence in support of the Finance Re-Engineering Project?

<u>Financial Re-engineering project (13 M)</u>

- in business charter, no quantitative financial metrics related to:
  - internal rate of return,
  - payback period,
  - return on investment, or discounted payback -- payback period.

HR, October 19, p. 793

- to be provided for next GRA

The Never Ending Journey - Seeking Business Metrics for IT

CAC (MPI) 1-35, b) c)

b) Please describe the current process that MPI uses to select new IT proposals, as well as to prioritize ongoing projects. Please provide evidence of such MPI management processes.

c) What are the criteria, either quantitative or qualitative, used for determining which investments to include in MPI'S Information Technology investment portfolio?

The Never Ending Journey - Seeking Business Metrics for IT

CAC (MPI) 1-40

a) How does MPI measure Total Cost of Ownership for its IT portfolio investments?

CAC (MPI) 1-42

a) What further detailed description is available that quantifies the specific deliverables associated with each initiative?

c) How are these individual initiatives linked to MPI's strategic business priorities?

The Never Ending Journey - Seeking Business Metrics for IT

CAC (MPI) 1-44

a) How will MPI be able to identify when and how specific IT initiatives generate actual cost savings?

b) What are the metrics that will be used to capture and track cost containment successes, attributable to specific major IT initiatives?

c) How would MPI be able to show that any previous challenges in their ability to accurately forecast IT spend can now and in the future be addressed by quantifiable means/measurements?

The Never Ending Journey - Seeking Business Metrics for IT

CAC (MPI) 1-47

a) What metrics does MPI propose to employ to support and demonstrate how IT

Value Realization can be captured/measured?

How will these metrics demonstrate business value for IT investments?

CAC (MPI) 1-48

How will MPI hold itself accountable for demonstrating and achieving value for IT investments?

The Never Ending Journey - Seeking Business Metrics for IT

CAC 2-22

a) Please provide specific project example(s) that shows both the quantitative and qualitative financial and/or operational measures and resulting benefits that were tracked via BTO's Value Management process?

b) How does MPI ensure that it gets the best price from its vendors and suppliers in order to manage and minimize the unit costs of IT services?

The Never Ending Journey - Seeking Business Metrics for IT

CAC (MPI) 2-27

How does MPI measure the total cost of ownership for IT investments?

CAC 2-22 does provide metrics but where do they appear in business charters and where are the business cases?

It is much easier to find the business plans for road safety investments than IT investments

Simply look to CAC 1-109 for road safety business plans

MPI has not satisfied its onus

Talks the talk of value management and portfolio management

- But where is the proof that it walks the walk?
- where are the financial metrics actually applied?
- where is an overview of the portfolio and its trade-offs ?
- where are reliable metrics for keystone projects such as PDR?

The Cost Benefit Analysis of PDR does not inspire confidence

<u>Discount Rate is Admittedly Arbitrary</u>

4 MS. KATHLEEN MCCANDLESS: How did

5 Gartner select the 3 percent discount rate?

6 MR. MARTIN GEFFEN: We needed to pick

7 a <u>discount rate</u>, and I picked something that was

8 something close to the cost of living or -- or that –

9 that was -- it was really kind of a<u>n arbitrary rate</u>

10 that we picked to kind of give you a baseline.

MG, Gartner, Oct 26, p. 1501

The Cost Benefit Analysis of PDR does not inspire confidence

<u>Ongoing Maintenance Not Included in Calculation</u>

14 MS. KATHLEEN MCCANDLESS: **What is the**
15 range of ongoing maintenance costs per year?
16 MR. MARTIN GEFFEN: Ongoing
17 maintenance costs per year? So that's a really
18 interesting question. The -- what we see for a piece
19 of software that's acquired in -- in -- or built -- we
20 often see in maintenance costs are usually in -- in
21 the range of 18 percent to 20 percent for -- per year.
22 That's kind of an -- an industry standard mark.
23 MS. KATHLEEN MCCANDLESS: Thank you.
24 And **does the cost benefit analysis include any costs**
25 for maintaining the system?
1 MR. MARTIN GEFFEN: **At this point, it**
2 does not include those costs.

(emphasis added) *MG, Gartner, Oct 26 p. 1501-02*

The Cost Benefit Analysis of PDR does not inspire confidence

MS. KATHLEEN MCCANDLESS: So with respect to the ongoing maintenance costs per year, you gave the figure of an estimate of 18 to 20 percent. Would that be on an annualized basis?

MR. MARTIN GEFFEN: Yes. So that's an -- actually a very interesting question that you asked. So we -- we would expect that on an ongoing basis there would be for -- there -- there's a range of different kinds of -- of systems if you just think about the technology over here. So there will be sys -- there will be -- software is a service type sys – of solutions that you'll be purchasing -- that MPI will be purchasing from -- from Mitchell, and then there will be other systems that will be -- are being built to -- on an on -- to operate it.

And those should be incl -- those – those actually should be -- be addressed in some kind of a total cost of ownership analysis and, you are right, we have not included those.

(emphasis added) *MG, Gartner, Oct 26, p. 1502*

The Cost Benefit Analysis of PDR does not inspire confidence

<u>No Total Cost of Ownership Analysis Undertaken</u>

MS. KATHLEEN MCCANDLESS: So that would not be included in the net present value then?

MR. MARTIN GEFFEN: It has not been including in -- in this calculation, correct.

MS. KATHLEEN MCCANDLESS: Has Gartner done a calculation on total cost of ownership?

MR. MARTIN GEFFEN: We have done toast -- total cost of ownership on this project, <u>no.</u>

(emphasis added) *MG, Gartner, Oct 26, p. 1502-03*

Significant Loss of Functionality - the Original Plan

2014 rather than the Mitchell solution, the expectation at this time is to use the skill set and the learnings from FINEOS on the bodily injuries side and migrate some of that to the physical damage module

MG, Gartner, Oct 26, p. 1525

the hope was that there would be a common platform for both bodily injury and physical damage claims, being FINEOS

MG, Gartner, Oct 26, p. 1525

Significant Loss of Functionality - the Original Plan

MR. BYRON WILLIAMS: And -- and again a hope that this would strengthen the integration between estimates and -- and adjusting and improve the overall claims processing, agreed?

MR. MARTIN GEFFEN: Yes. The -- the overall -- the -- one of the overall objectives of FINEOS was to improve those processes, improve that integration for -- for the property damage process, yes.

(emphasis added) *MG, Gartner, Oct 26, p. 1525*

Significant Loss of Functionality – the Scope Retreat

So that's June of 2014. By sometime early in 2015 we're at the stage where we're no longer using FINEOS for F-N-O-L, or first notification of loss?

MR. MARTIN GEFFEN: Correct.

MR. BYRON WILLIAMS: We're no longer expecting a common platform for the physical damage and the personal inj -- injury sides of the business, agreed?

MR. MARTIN GEFFEN: Yeah.

MR. BYRON WILLIAMS: And we're no longer expecting a CARS replash -- replacement?

MR. MARTIN GEFFEN: That's correct. The -- after -- after the revisioning process, that - that is the -- that was a change in direction, yes.

(emphasis added) *MG, Gartner, Oct 26, p. 1526*

Significant Functionality was Lost

with the Claims Administration & Reporting System (CARS) replacement removed from the program scope, <u>much of the originally anticipated functionality from the first notice of loss (FNOL) and the adjusting process was removed from scope</u>. (emphasis added)

CAC 2-51, see also *MG, Gartner, Oct 26, p. 1530-31*

Same Budget – Less Functionality

if we compare the original $65 M budget to where we are today, while it is of the same magnitude, it <u>excludes the replacement of CARS</u>

MG, Gartner, Oct 26, p. 1534-35

CARS Replacement will be added to a different budget

The replacement of CARS has been removed from the PDR program and the new functionalities listed above are expected to be realized with <u>CARS replacement now envisioned to be part of the Corporation's technology refresh initiative</u>.

MPI Exhibit 80

How is this the same budget?

- Stays at $65 M but lose CARS replacement and significant functionality
- Then add CARS replacement to another budget line

Significant Risk 1 – Reliant on Technology that is not Mature (Trough of Disillusionment and Hype Cycle)

DE will only be feasible with the first notice of loss customer self-service model.

MG, Gartner, Oct 26, p. 1510-11, Gartner Report, p. 13

consumer adoption remains low for these mobile apps

MG, Gartner, Oct 26, p. 1546

12 MR. BYRON WILLIAMS: -- thank you.

13 And -- and if we move down that curve to the right

14 towards the Trough of Disillusionment --. . .

Significant Risk 1 – Reliant on Technology that is not Mature (Trough of Disillusionment and Hype Cycle)

MR. MARTIN GEFFEN: Right. So right now, mobile claim apps, again, are kind of -- they're no -- no longer seen as kind of the silver bullet, the next great thing. People are kind of saying that, you know, it's good. It's -- it's -- you know, <u>people are having concerns about adoption.</u>

(emphasis added) *MG, Gartner, Oct 26, p. 1555*

Significant Risk 1 – Reliant on Technology that is not Mature (Trough of Disillusionment and Hype Cycle)

25 You'll -- the -- but it will then -- it

1 will move through that process where people will be

2 quite negative. Some organizations might be quite

3 negative about it. Is it actually delivering -- the -

4 - the kinds of questions that you get is, you know,

5 did we do the wrong thing, did we waste our money?

6 And, frankly, our advice based on this

7 model is, in general, <u>you need to actually push</u>

<u>8 through that Trough of Disillusionment</u> because you

9 will get -- you will get value out of it, but you kind

10 of need to push through -- through that period where

11 you actually -- kind of the dark days in -- in a

<u>12 technology where it's kind of not delivering what you</u>

<u>13 expected it to deli -- deliver</u>.

(emphasis added) *MG, Gartner, Oct 26, p. 1555-56*

Significant Risk 1 – Reliant on Technology that is not Mature (Trough of Disillusionment and Hype Cycle)

advanced analytics at the hype cycle

MG, Gartner, Oct 26, p. 1554

so we expect maturity to happen within 2 to 5 years.

MG, Gartner, Oct 26, p. 1555

18 the commercial offerings in the space are -

19 - have some features but are not necessarily very easy

20 to use from a user basis.

21 They might not have deep levels of --

22 of analytics or algorithms built into them.

MG, Gartner, Oct 26, p. 1552

Significant Risk 2 – Will Oversight be Effective

Industry Dramatic Consolidation

you're suggesting that of the two hundred and sixty-six (266) accredited rep -- repair shops there is rou -- less than half, being one hundred and ten (110) that currently do enough volume, being five (5) repairs a week, to -- to continue in the -- the new world order of PDR?

MR. DAN GUIMOND: Yes, to keep up with the investments that the manufacturing are -- are requesting in terms of tools, training, facilities.

(emphasis added) *DG, Oct 19, p. 815*

Significant Risk 2 – Will Oversight be Effective

even amongst that one hundred and ten (110) there are -- there are a smaller number that are really gearing up in -- in terms of doing distributed estimating.

Is that correct, sir?

MR. DAN GUIMOND: Correct.

MR. BYRON WILLIAMS: And do you have any sort of estimate of what -- what that number is?

MR. DAN GUIMOND: In the pilot – right now we have about seventeen (17) shops that are in the pilot.

(emphasis added) *DG, Oct 19, p. 816-17*

Significant Risk 2 – Will Oversight be Effective

As much as 75% of estimates no longer done by MPI staff

But eventually, out of the ninety-three thousand (93,000) vehicles that we have repaired per year, it should be around 70 to 75 percent.

MR. BYRON WILLIAMS: So the expectation is that 70 to 75 percent of the vehicles for which estimates are performed will be done by distributed estimating?

MR. DAN GUIMOND: When the program is in the mature state, yes.

(emphasis added) *DG, Oct 19, p. 821*

Leakage Reduction is Key

13 MR. BYRON WILLIAMS: And the concern

14 from the Corporation's perspective there, sir, being

15 that while there are opportunities with distributed

16 estimating there are also risks in the sense that the

17 corpor -- **the firms undertaking the distributed**

18 estimating might have some incentive to puff up their

19 estimates.

Leakage Reduction is Key

MR. DAN GUIMOND: Yes, the -- the distributed estimating program -- we've looked closely at what ICBC has been doing for many years but you're quite right that you **need to put processes in place through key performance index,** earn authority in terms of how much they can approve on their own, having people on site, quality control programs, quality assurance programs have to be in place, and you have to have really -- you have to -- you have to really assure yourself that -- that the processes that you have in place, and you have to have really -- you have to -- **you have to really assure yourself that -- that the processes that you have in place can mitigate potential leakage, yes.**

(emphasis added) *DG, Oct 19, 819/820* (see also *DG, 812)*

Recommendations on IT

- find significant concern whether BI3 case reserves reflect risk exposure
- find BI3 not currently meeting pre-BI3 benchmark durations
- File Value Management analyses for completed IT projects, including BI^3 that demonstrates realized financial benefits in line with expectations.
- find MPI has not demonstrated business case for PDR or that significant risks outweighed by potential rewards
- file proper PDR business case taking into account operating costs and addressing total cost of ownership
- File Evaluation of DE after completion of pilot in terms of reducing both incurred claims and
- claims expenses, repair shops reduce the administrative expenses, improve customer services,
- and repair cycle times being faster.

Recommendations on IT

- file business case for current and ongoing IT projects as part of MFR file plan to improve IT FTES against industry
- file explanation and concrete examples of portfolio management
- Finance Re-engineering at a cost of about $14 million (CAC 1-63 and 2-33). Before embarking on this project, file a detailed cost benefit analysis with the PUB.
- Technology Modernization Program (PUB 2-16) at a cost of $40 million. Recommendation:file an analysis, by operating system, of the IT programs that will be modernized in the next 2 to 3 years, including a quantification of the costs realized and/or avoided.

Recommended findings regarding claims incurred

- because the PIPP program dates back only to the 1990s, MPI lacks sufficient years of experience to estimate the duration of long term claimants on the program
- actual terminations are moving at a faster pace than the expectations of the mortality table
- Like SGI before, MPI will benefit from examining the experience of the SAAQ whose no fault program began in 1978

Terminations faster than Expected

because Manitoba Public Insurance has only twenty-two (22) years of no-fault experience, it does not have enough claim history on its own to estimate with confidence how long persons will rely on this program.

LJ, Oct 18, p. 752

even taking into account of relapses, the actual terminations continue to outpace the current table's expectations, agreed?

MR. LUKE JOHNSTON: Agreed.

LJ, Oct 18, p. 756

MPI has not followed up with SAAQ

8 Societe de

9 l'assurance automobile du Quebec has been offering no-

10 fault since on or about 1978,

LJ, Oct 18, p. 758

insurers such as SGI have gone to the SAAQ for assistance in developing their expectation of the pattern of termination of long-term claimants

LJ, Oct 18, p. 758

MPI has not followed up with SAAQ

in last year's Board order MPI was asked to seek to gain insight in terms of longer tail experience from 2 outside Manitoba and, in particular, with the SAAQ
LJ, Oct 18, p. 758-59

to date, MPI has not reached out to the SAAQ
LJ, Oct 18, p. 759

MPI has not followed up with SAAQ

MPI intends to do so prior to the next GRA:

24 if you have hundreds of lifetime claimants and you're considering implementing

25 a change in your mortality assumptions, that could

1 cause extreme changes to your results and potentially

2 make your past experience not irrelevant but maybe not

3 as useful as they used to be because you're on a --

4 using a different table.

5 So we would be in a position to provide

6 our analysis from that study or research but not

7 prepared to implement it, which I think would be fair

8 to all parties here to understand what that would be

9 expected to do before such a change is made.

LJ, Oct 18, 760-61

Recommended Order Regarding Claims Incurred

File update on dialogue with SAAQ and SGI regarding terminations and long term claimants including implications for liabilities and forecasts if any

Recommended findings regarding road safety

- as compared to other Western Crowns, MPI is playing catch up when it comes to cost benefit analysis and portfolio optimization
- at the time Ms Kroeker-Hall prepared her research, there was insufficient evidence to draw conclusions on whether MPI was optimizing its road safety program
- MPI has made sincere efforts to improve road safety and loss prevention business case development and portfolio management as evidenced by the response to CAC 1-109
- the portfolio checklist is still in progress

Cost benefit analysis and cost effectiveness analysis are key tools in the decision making process for road safety

- There is not an unlimited pot of money *JKH, Oct 24, p. 1086*
- Criteria are needed to establish clear guidelines for funding decisions given limited resources as well as competing priorities *JKH, Oct 24, p. 1087*
- effective planning requires clear criteria for:
  - 1) justifying resource use
  - 2) appraisal of alternative measures, and
  - 3) prioritizing selected activities *JKH, Oct 24, p. 1087*

Cost benefit analysis and cost effectiveness analysis are key tools in the decision making process for road safety

- we also want to ensure that we're having a significant impact in reducing the number and severity of collisions and fatalities

JKH, Oct 24, p. 1087

- in terms of assessing the utility and efficiency of expenditures in road safety two (2) key assessment methods are cost benefit analysis and cost effectiveness analysis

JKH, Oct 24, p. 1088 see also *JKH, Oct 24, p. 1090*

MPI is playing catch up with ICBC in terms of cost benefit analysis and portfolio optimization

- ICBC incorporates an element of cost-benefit analysis or cost-benefit effectiveness analysis

JKH, Oct 24, p. 981-82

- It has a well-earned reputation in terms of the rigour that it brings forward in terms of cost-benefit analysis and cost-benefit effectiveness analysis

JKH, Oct 24, p. 981-82

MPI is Playing Catch up with SGI

- SGI uses cost benefit analysis to estimate both the impact of individual safety programs and to assist in guiding program selection

JKH, Oct 24, p. 1090-91

- SGI examines programs from both the overall societal costs as well as claims costs paid by SGI

JKH, Oct 24, p. 1091

CBA and Cost effectiveness tools were not available for the JKH optimization analysis

at the time of Ms. KH's review of the portfolio of Manitoba Public Insurance cost-benefit and cost-effectiveness analysis was under development at MPI

JKH, Oct 24, p. 1092-93

CBA and Cost effectiveness tools were not available for the JKH optimization analysis

in terms of the very key methodologies for assessment that you've identified, at the time of review, there wasn't enough information to form a considered opinion about how those specific tools were being used within the Corporation?

MS. JENNIFER KROEKER-HALL: Not as to how they were being used, but a reference to their use in terms of decision making and prioritizing.

JKH, Oct 24, p. 1093

For the next GRA, MPI hopes to present an assessment of road safety and loss prevention programs as a portfolio

- using a dashboard and a scorecard it intends to bring together the road safety and loss prevention programs as a portfolio. *WK, p. 1083*
- IBM recommended using a return on investment criteria as a common indicator, at least for all loss prevention programs *WK, p. 1096*
- MPI attempting to build a fluid model that takes into consideration changes in priorities, and changes in programming that may produce the greatest benefit in terms of the overall portfolio *WK, p. 1097*
- the model is in development and pilot execution *WK, p. 1098*

Recommended Order Regarding Road Safety

- no final determinations can be made in terms of whether the expenditures are being optimized at this point in time
- in consultation with stakeholders, MPI should adopt an aspirational target for reduction/elimination of fatalities and collision which should drive its loss prevention and road safety programming
- rather than set a hard budget limit or cap, expenditures should be optimized with reference both to claims costs and societal costs

Recommended Order Regarding Road Safety

- find while important strides made not yet optimizing programming from portfolio perspective
- do not accept JKH as portfolio review – CBA not even in place at time of reviewed
- targets useful seeking reductions of deaths and collisions
- budget cap or target not useful – portfolio should be optimized using CBA/CBE
- portfolio analysis present information both on claims costs implications of programing and societal costs
- MPI report back on efforts to leverage other stakeholders to invest

Recommended findings regarding Interest Rates

- interest rate forecasting has been particularly challenging in the aftermath of the 2008 financial crisis
- interest rate forecasting is important both to MPI and Manitoba Hydro consumers
- a sustainable interest rate best estimate is in the interests of MPI and Hydro consumers
- the naive forecast should not be adopted as a sustainable best estimate
- MPI has been unable to identify an existing precedent for its 50/50 recommendation
- based on the record of this proceeding the 50/50 recommendation of MPI should be rejected in favour of the consensus forecast

Recommended findings regarding Interest Rates

- Dr. Cleary's evidence should be given limited weight given the absence of statistical tests, the truncated time frame for analysis, the impoverished literature review and the analytical inconsistencies with the authorities cited
- while Dr. Simpson was not retained to provide comment on the predictive accuracy of interest rate forecasts, he offered a number of evidence based and concrete recommendations which deserve significant weight
- given the interests of consumers as well as MPI and Manitoba Hydro in restoring confidence in interest rate forecasting a truly collaborative technical workshop should be held prior to the hearing of the next Hydro GRA and the filing of the next MPI rate application
- the August 2016 workshop does not reflect good practice collaboration

Interest Rate Forecasts are Important to Other Crown Utilities

- MPI consumers are not the only monopoly consumers whose rates are affected by interest rate forecasts

- the over or underestimation of the cost of debt can have a material impact on MB Hydro revenue requirements

Interest Rate Forecasts are Important to Other Crown Utilities

- for example between IIF 14 and IFF 15, there was a forecast $757 M decrease in interest costs over the next 10 years due to lower than forecast interest rates (*Order 59/16, p. 16*)

- the methodology chosen to set interest rates for Manitoba Public Insurance may be viewed as a precedent for the methodology selected for Hydro

No Witness in this proceeding appears to suggest that the Naive Forecast is a Best Estimate

- Dr. Cleary rejects the naive forecast as the best forecast going forward *SC, Oct 27, p. 1660-61*
- While Dr. Simpson was not retained to assess the predictive power of interest rate forecast methodologies, he clearly prefers the consensus forecast to the naive forecast on a going forward basis *WS, Nov 1 p. 2085-86*
- Both MPI and Dr. Clearly anticipate a diminished role for the naive forecast going forward

HR, p. 378-79 and SC, p. 167

The Most Recent Decision of the AUC appears to reject the Naive Forecast

AUC, Oct 7, 2016 CAC 21, paras 131, 132

21 MR. BYRON WILLIAMS: **A general**

22 expectation that interest rates will rise during the

23 '16/'17 period would be inconsistent with the

24 expectation of the Naive -- Naive forecast.

25 Agreed?

DR. SEAN CLEARY: Yes.

(emphasis added) *SC, Oct 27, p. 1701*

Recent Empirical Evidence from Europe – Rejects the Naive Forecast

Relying Upon a Naive Forecast Would be a Major Mistake

CAC Exhibit 22, 'Performance of Survey Forecast', by Kunze

MR. BYRON WILLIAMS: And they test for structural breaks for crises-related changes, and the corresponding forecast errors. Agreed?
DR. SEAN CLEARY: Yes.

SC, Oct 27, p. 1717

Relying Upon a Naive Forecast Would be a Major Mistake

One observation that at least these authors seem to make as -- that it would be -- a noteworthy result of their findings was that **relying on a simple Naive forecast would be major mistake**. Agreed?

DR. SEAN CLEARY: Yeah, that's exactly what I was saying earlier, as well.

MR. BYRON WILLIAMS: And they also suggest that professional forecasters might have earned their keep during the financial crisis. And you may not agree with them on that point?

DR. SEAN CLEARY: Well, I -- I would like to say that I -- I would like to agree with that statement in general, even though the briefs in evidence suggest they didn't.

(emphasis added) *SC, Oct 27, p. 1718*

There are suggestions of more confidence in the Standard Interest Rate Forecast

<u>The AUC cites the consensus forecast in its findings relating to an expected increase in interest rates</u>

AUC, Oct 7, 2016 CAC 21, paras 131, 132

- the Commission observed that experts had formed an expectation supported by Consensus forecasts that interest rates were likely to rise by the end of the 2016/'17 period.

SC, Oct 27, p. 1699-1700

- but differences on the speed and magnitude of any interest rate increase in the short term

SC, Oct 27, p. 1699-1700

- the Board determined that general expectations are that interest rates will rise during the '16/'17 period.

SC, Oct 27, p. 1700

There are suggestions of more confidence in the Standard Interest Rate Forecast

<u>Dr. Cleary cites the consensus forecast in Newfoundland proceedings</u>

Although he does not offer a robust empirical analysis, Dr. Cleary did suggest

1 before the Newfoundland Board of Commissioners,

2 it was your view that it would be

3 reasonable to assume that bond yields would increase

4 slowly in the coming months

SC, Oct 27, p. 1694

21 in

22 presenting that view, you noted that this seemed to be

23 the <u>consensus view of most economists</u> in January of

24 2016?

25 DR. SEAN CLEARY: Yes, that's correct.

SC, Oct 27, p. 1694

There are suggestions of more confidence in the Standard Interest Rate Forecast

<u>Recent Bank Estimates appear more Tempered</u>

Although he does not offer a robust empirical analysis, Dr. Cleary does suggest

more recent forecasts are much <u>more tempere</u>d, and I think they're getting away from this idea that ten (10) year yields have to go to *5* percent, which I don't think they are going to go to *5* percent over the next decade.

(emphasis added) *SC, Oct 27, p. 1661*

There are suggestions of more confidence in the Standard Interest Rate Forecast

Recent Bank Estimates appear more Tempered

Although he does not offer a robust empirical analysis, Dr. Cleary does suggest

So I would say the S-I-R-F as is presently constructed seems to me to be a reasonable forecast. The reason I don't think it's the best estimate is just because it's very difficult to forecast interest rates.

(emphasis added) *SC, Oct 27, p. 1644*

Banks place heavy reliance on the SIRF as a best estimate

Dr. Simpson's view

While not retained to address the predictive power of interest rates, Dr. Simpson noted:

- interest rate forecasts are integral to the banks business model
- they have developed sophisticated algorithm over time that will be adjusted in the face of shortcomings during the financial crisis
- there is reason to regard their estimates on a prospective basis as a sustainable best estimate notwithstanding clear challenges with forecasts in the midst of the financial crisis and recession
- *WS, Nov 1, p. 2080-82*

Banks place heavy reliance on the SIRF as a best estimate

<u>Dr. Cleary</u>

8 MS. KATHLEEN MCCANDLESS: Can you

9 think of a reason that the banks and Global Insight

10 would publish interest rate forecasts that are not

11 best estimates?

12 DR. SEAN CLEARY: I -- I can't really

13 think of any reasonable good reason they'd have for

14 doing that.

SC, Oct 27, p. 1646

7 but I

8 would generally consider that the -- the public

9 forecasts are what they're using internally as well,

10 to the best of my knowledge, I should qualify.

SC, Oct 27, p. 1647

MPI has been unable to identify an existing precedent for its 50/50 recommendation

MS. CANDACE GRAMMOND: Can you comment on whether to the Corporation's knowledge any other organizations use an interest rate forecast that's the same as or similar to the 50/50 proposal?

MS. HEATHER REICHERT: To our knowledge, no. There's isn't any other jurisdiction that -- that has the same -- same situation that -- that we are facing here in Manitoba. So we are not aware of anyone that has an interest rate forecasting risk factor or has proposed it as -- as we have. We believe these are unique -- unique circumstances facing -- facing Manitoba Public Insurance.

(emphasis added), p. 385

50/50 did not perform best over the sample period

Although he does not conduct a robust and measured empirical analysis, Dr. Cleary observes that the 50/50 approach:

14 So it -- it did not perform the best over this sample

15 period.

SC, Oct 27, p. 1665

8 How do you know that the choice of

9 50/50 weights actually minimizes forecasting error?

10 DR. SEAN CLEARY: I can't say for

11 certain that the 50/50 weights will do that.

SC, Oct 27, p. 1667

50/50 did not perform best over the sample period

MS. CANDACE GRAMMOND: Okay. So I -- I I'm going to circle back on that point in a moment. just want to ask one (1) question first. So the -- the Corporation has come forward with this 50/50 approach. **Can you talk to us about why it's 50/50 that's a best estimate as opposed to 60/40 in favour of the Naive or 60/40 in fav -- in favour of the -- the Standard?**

MR. LUKE JOHNSTON: There's no correct answer to that question. Like, it's a -- it's a selection that we have to make.

(emphasis added) p. 380-81

Challenges with the Evidence of Dr. Cleary

a report clearly done in haste in an area (*SC, Oct 27, p. 1706*) where he has not performed peer reviewed work (*SC, Oct 27, p. 1604*) or demonstrated a research focus (*SC, Oct 27, p. 1632-33*)

Challenges with the Evidence of Dr. Cleary

- unlike the scant authorities he cites, did not perform standard statistical tests for:
  - bias
  - predictive accuracy
  - structural breaks *SC, Oct 27, p. 1712-13*
- modest sample size and contrary to advice of Dr. Simpson to examine longer term patterns *WS, Nov 1, p. 2084 and 2100-03*
- Weights all observations equally – no heavier weighting for recent experience *SC, Oct 27,p.1639*

Challenges with the Evidence of Dr. Cleary

- literature review at best described as selective:
  - only 2 sources
  - none more recent than 2008
- does not cite post financial crisis studies SC, p.1707
- inconsistent with the characterization of the literature by others (ie Dr. Villadsen as cited by the AUC in CAC 21)
- claim that the literature was not robust (SC, p. 1707) repudiated by a simple review of the discussion in Kunze, CAC 22

Challenges with the Evidence of Dr. Cleary

his assertion of a likelihood of mean reversion is undermined by one of the individuals he relies upon as an authority (Spiwok) who describes a Robust Tendency to Status Quo Bias (2008 and both 2011 studies) *SC, Oct 27, p. 1713-15*

Challenges with the Evidence of Dr. Cleary

Is **the general premise that there is a robust tendency towards a status quo bias towards recent forecasts** -- or recent -- would that be fair, sir?
That's his conclusion whether you agree with it or not.

DR. SEAN CLEARY: **Yes, that is his conclusion. And I don't agree with some of the things, the way he's interpreted things.**

(emphasis added) *SC, Oct 27, p. 1715*

Challenges with the Evidence of Dr. Cleary

A disappointing and "light" report to which limited weight should be offered

Note Simpson very different retainer

not retained to address

- in a few scant minutes, articulated a far more rich understanding of proper evaluation of predictive accuracy including the use of time series regression

Note Simpson very different retainer

- The forecasts are based on a long period of historical data and forecasting accuracy should be judged in that context, i.e. by comparing the forecast to actual outcomes (e.g. just the mean absolute value of the differences between the forecast and actual outcomes) over the course of the period of the data or at least over the course of the last half of the data.
- there are ways to test to see whether the structure of the models producing the forecasts has changed over time as well, although six years (2010-16) would be a fairly short period to test for this sort of structural change.
- And you couldn't just use the last six years to develop a forecast because there are too few observations (e.g. only 24 if quarterly data) to develop statistically reliable results.

WS, Nov 1, p. 2084, 2100-03

Note Simpson very different retainer

Note Dr. Simpson did offer short reports in his areas of analysis – risk analysis but those reports built on a foundation of 4 prior reports in 2007, 2013, 2014 and 2015

The August 2016 Workshop does not represent good practice collaboration

- collaborative process announced before stakeholders invited
- no discussion with stakeholders about terms of reference or information they would have appreciated
- treated as a product pitch
- lacked even proper literature review
- no follow up

Interest Rate Forecast Recommendations

- Reject IRFRF as best estimate
- Hydro/MP/Intervenor Workshop (Feb 2017)
  - proper literature review
  - proper review of regulatory practice

Recommended Findings Regarding Actuarial Rate Making

- MPI's current process does not follow accepted actuarial practice.
- This adds unnecessary volatility by introducing prior year case reserve and IBNR adjustments and the inclusion of investment income on a calendar year basis
- The impacts of the transition from the current approach to accepted actuarial practice cannot be determined in the absence of certain adjustment including more robust trending practice and improved treatment of reinsurance

The Fiscal Year Approach Introduces Unnecessary Volatility

- Principle 1: A rate is an estimate of the expected value of future costs."
- Sherry, CAC 25, slide 3, From the Casualty Actuarial Society, Statement of Principles Regarding Property and Casualty Insurance Ratemaking
- Using fiscal (calendar) year results in ratemaking introduces prior year case reserve and IBNR adjustments. Sherry, CAC 25, slide 3
- Inclusion of investment income on a calendar year basis through the pro forma financials is unneccessary. Sherry, CAC 25, slide 3

Simplification with the same result over time

- Would simplify MPI's process
- Accurate actuarial ratemaking will lead to a break even position over time

(*Sherry, CAC 25, slide 2*)

Improvements are required

Requires improvements in:

- trend analysis
- treatment of reinsurance

(*Sherry, Nov 1, p. 2090-91*)

Recommended Order on Actuarial Ratesetting

Implement actuarial indicated rate recognizing potential transition issues

Recommended Findings
Rate Stabilization Reserve

- If a test walks like a solvency test and talks like a solvency test, it is probably a solvency test
- A Crown Monopoly is not at risk of insolvency
- The Rate Stabilization Reserve is not about solvency – it relates to the mitigation of rate shock
- The DCAT is responsive to risk and tailored for the mitigation of rate shock purpose
- Depending upon the magnitude of the reserve, a RSR that is too large may raise issues of inter-generational equity for today's consumers of basic and extension service

The Central Issue:

- Use a test that is responsive to the risk faced by the Corporation or use a test expressly developed for a different purpose and that does not respond appropriately to risk

MCT is a solvency test

- MCT is a solvency test not a risk test

PUB-18, a Canadian Vision for Property and Casualty Insurer.

- "The MCT is a <u>harmonized capital adequacy solvency test</u> that is intended to apply throughout Canada for property and casualty (P & C) insurers."

CAC 17

MCT is a solvency test

"The Superintendent's Guideline is not applicable to the following types of insurance companies: life insurers; fraternal societies; reciprocal insurance exchanges; and farm mutual insurers that are members of the Fire Mutuals Guarantee Fund. Reciprocal insurance exchanges and farm mutual insurers are exempt from complying with the MCT because they have either a subscribers' agreement (reciprocals), or membership in the Fire Mutuals Guarantee Fund (farm mutuals) to provide <u>support for their capital.</u>"

(emphasis added) CAC 17

Mr. Johnston agrees the MCT is a solvency test

would it be fair to consider the MCT as a solvency assessment, sir?

MR. LUKE JOHNSTON: That's fair.

LJ, Oct 19, p. 835-36

the superintendent again describes the MCT as a harmonized capital adequacy solvency test?

MR. LUKE JOHNSTON: I see that.

MR. BYRON WILLIAMS: And you -- you agree with that observation, sir?

MR. LUKE JOHNSTON: I do.

LJ, Oct 19, p. 837

There is good reason to employ a solvency test for private insurers in a competitive marketable

in a competitive marketplace if a firm has enough unhappy customers who go elsewhere and its pockets are not deep enough to endure the revenue loss, there is a risk it could go broke.

LJ, Oct 19, p. 829-30

MPI Monopoly Over Basic and De Facto Monopoly over Competitive

MPI's operations are divided into two main segments:

a) Basic, that is regulated compulsory insurance, operated as a monopoly; and

b) Unregulated and so-called "competitive" lines of business (Extension, SRE and DVL).

MPI has over 95% of the Extension market, giving the Corporation what has been described by Intervener's and the Board in prior Orders and GRA proceedings as a "near" monopoly.

Although MPI's operation of non-Basic lines of business is dependent on its Basic platform, the Board's jurisdiction over rates is currently limited to Basic compulsory insurance.

Order 162/11, p. 6:

In terms of its Basic program, Manitoba Public Insurance enjoys a legislative monopoly.

LJ, Oct 19, p. 831

MPI Monopoly Over Basic and De Facto Monopoly over Competitive

MPI having in excess of 90 percent of the extension market, the Public Utilities has -- Public Utility Board has observed that it has what some might describe as a near monopoly, agreed?

MR. LUKE JOHNSTON: Agree with the reference that you've stated, and I can tell you that the -- our -- our makeup of that market continues to be at approximately that 95 percent range.

LJ, Oct 19, p. 831

MPI does not face insolvency risk

MR. BYRON WILLIAMS: And you'll agree as -- as a company enjoying a monopoly in -- in the provision of Basic insurance, as well as a near monopoly in the provision of extension insurance, Manitoba Public Insurance does not face the same, in quotation marks, "insolvency risk" as insurers in a competitive marketplace, agreed?

MR. LUKE JOHNSTON: Okay, so the important point -- I -- I get where -- where we're going with this. **So I agree that the risk to MPI from losing business, or having large swings in their premium base, is non-existent for -- for Basic.** That's clear.

LJ, Oct 19, p. 831-32

MPI does not face insolvency risk

MR. BYRON WILLIAMS: And, sir, for the purposes of your DCAT analysis, I'm not going to take you there, but you concluded that:

"As a monopoly insurance provider of compulsory auto mobile insurance, premium risk is not a significant risk factor for Manitoba Public Insurance Basic."

MR. LUKE JOHNSTON: Agreed. There's - premium risk is really, in the absence of rate changes, tied to our annual volume growth and upgrade factor, and those are very stable items.

LJ, Oct 19, p. 832-33

The Relationship between MCT and Risk

- The MCT has no direct link to any specified risk scenario at any specified tolerance range in the DCAT report
- Unsubstantiated by evidence of a specified risk

CAC 26, slide 4

The Relationship between MCT and Risk

<u>Impacts of IRFRF on MCT:</u>

It is the Corporation's strongly held view that the rate increase related to the IRFRF and the revised interest rate forecast would significantly reduce the risk of adverse financial outcomes for Basic over the forecast period

HR, Oct 19, p. 785

When the DCAT model was rerun the Corporation's recommendation regarding the bottom end of the RSR target was lowered *HR, Oct 19, p. 785-86*

The hundred percent MCT target was also changed *HR, Oct 19, p. 786*

MCT target, actually increased from 404 million to 411 million *LJ, Oct 19, p. 786*

Dynamic Capital Adequacy Test (DCAT) – Rigour and Risk

- Requires specific risk scenarios
- Requires empirical justification (insofar as that is possible)
- Involves specification of a reasonable risk tolerance, i.e. what probability of occurrence of an event is tolerable, e.g. 1-in-40 years (2.5% probability of occurrence) CAC 26, slide 2

RSR Based on Specified Range of Risk Tolerances for Combined Scenario Around a 1-in-40 Target

Illustration

Probability Range	Values Range
Wide Range: [1-in-10, 1-in-200]	[$152M, $268M]
Narrow Range: [1-in-20, 1-in-100]	[$185M, $249M]

Range Midpoint (Target) in Each Case is $220M

Range Maximum far Below 100% MCT ($404M)

Range Closer to POP Range of [$93.2M, $186.4M]

CAC 26, slide 8

RSR Based on Specified Range of Risk Tolerances for Combined Scenario Around a 1-in-40 Target

Do Manitobans need rate shock protection against more than 1/200 or 1/5000 events or would they prefer to self insure?

- DCAT report results from extensive collaborative effort to use the DCAT methodology generally practiced in property and casualty insurance to deal with risk as the basis for determination of an RSR to mitigate rate shock
- DCAT Report identifies the three most important risk factors, including the interest rate decline scenario
- risk associated with "**interest rates [that] decline or remain at sustained low levels over the forecast period**" (Vol. II, RSR-2, P.37)
- scenario considers sustained low interest rates relative to a base consensus bank forecast (p.22) as in the IRFRF
- important component of the 2-year combined scenario ultimately used to justify an RSR minimum target level of $181 million

CAC 26, slide 12

Distinguishing Manitoba from other jurisdictions

- Our RSR is set by an independent tribunal
- PUB can choose the appropriate methodology
- -not dictated by legislation
- -no special direction
- RSR set independently in MB

LJ, Oct 19, p. 834-35

Certain Insurers in Ontario Exempt

insurers in Ontario are exempt from complying with the MCT.

Will you accept that -- that, sir?

MR. LUKE JOHNSTON: Yes, I will.

MR. BYRON WILLIAMS: And the reason for that by virtue of the Ontario guidelines is because they have other venues in terms of capital support, whether that is membership in -- in farm mutuals or participation in reciprocal agreements.

Would that be fair, sir?

MR. LUKE JOHNSTON: That's fair, and although I don't understanding of how those necessarily operate, but I accept that.

LJ, Oct 19, p. 836-37

MCT in BC set by politicians

in British Columbia, there has been special direction, being Special Direction IC2 (phonetic) to the British Columbia Utilities Commission directing that it adopt the MCT, sir?

MR. LUKE JOHNSTON: Yes, that's my understanding.

LJ, Oct 19, p. 837

MCT in BC set by politicians

Insurance Corporation Act;
Utilities Commission Act

SPECIAL DIRECTION IC2 TO THE
BRITISH COLUMBIA UTILITIES COMMISSION

Note: Check the Cumulative Regulation Bulletin 2015 and 2016
for any non-consolidated amendments to this regulation that may be in effect.

[includes amendments up to B.C. Reg. 215/2016, August 25, 2016]

MCT — 2016 rates

1.2 For rates effective November 1, 2016, despite any other provision of this Special Direction, the capital available used in the determination of the MCT under section 1.1 must be $99 million higher than the capital available set out in the data described in section 1.1 (a).

Recommended Order on RSR

- Recommendation: Set the RSR range based on the DCAT plausible adverse scenarios to be internally consistent with DCAT methodology.

Recommended findings regarding Overall Rates

- status quo or actuarial indicated
  - if actuarially indicated this year/or next GRA
  - if actuarially indicated this year, should it be phased in
- assuming indicated rate setting methodology consistent with accepted actuarial practice
- in the range of 3% to allow for transition
- assuming no IRFRF with DCAT absorbing best estimate interest rate forecast risk
- opportunities for cost efficiency as demonstrated by IT discussion

Recommendations—Operational Efficiency

- Preamble: Service Fees (CAC 1-104) amount to about $23 to 25 million for the rating years (Vol II Pro-Formas Page 3). The service fees charged by MPI for various services are a major source of revenue and represent, in terms of rates, about 2% to 3% of revenue requirements. The fee structure has not been reviewed and justified for a number of years and from a public interest and good governance perspective it may be time to undertake this review.
- Recommendation: MPI to file a detailed analysis of the various fees charged and provide the cost benefit justification for each fee.
- Preamble: Consultants (PUB 2-13). MPI has indicated that consultants will start to be moved to internal staff which is to result in cost savings.
- Recommendation: MPI to provide a detailed analysis of cost savings achieved by moving consultants into staffing positions.

Recommendations on Future Collaborations

- consult before announcing
- consult outside rate setting processes
- engage stakeholders in setting the agenda
- provide independent expert well researched materials
- one meeting does not equal collaboration

Thank you

Valter's Recommendations

1. Clarity of Accounting Choices

MPI should clarify what flexibility it has regarding the accounting for assets and liabilities, while remaining GAAP-compliant, and the factors it takes into account in electing to use one method/assumption over others.

2. Adoption of More Comparable Accounting Principles

In measuring its investment portfolio and liabilities, MPI should consider adopting accounting principles, where GAAP allows MPI to make such elections, that reduce the discrepancy between net income and comprehensive income (as these terms are currently defined by MPI), to improve comparability across all assets as well as liabilities. Comparability would be improved, for example, by accounting for more assets in a way that is consistent with the treatment of financial assets and liabilities at fair value through profit or loss (“FVTPL”).

3. AFS and HTM Accounting

Unrealized gains and losses for AFS assets (~ 20% of assets), for example, are reported as “other comprehensive income (OCI)” and are excluded from net income until realized, making the net income recognition for unrealized gains on equities (~ 18% of assets) inconsistent with FVTPL assets. The treatment of HTM Bonds (25%), recorded at amortized cost, should also be re-considered.

Market valuations are generally more comparable, relevant, transparent, understandable and subject to less potential bias than valuations in reports that are based on MPI’s current accounting practices.

4. Pension Liability Accounting

Reconsideration should also include the remeasurement of employee benefits (~ 15% of liabilities and equities) which is considered OCI. The remeasurement of employee benefits is large (given the long duration of pension liabilities), but OCI arising from changing interest rates that impact the value of pension liabilities is not recognized through transfers to net income under current practices.
Please see responses above related to accounting generally.

5. Return/Risk Definitions for Asset Mix Decision

MPI should re-define return/risk used to inform its long-term asset mix decisions to be based on valuations that reflect market values, rather than accounting ones (which may be materially different).
At a minimum, net income should be replaced by comprehensive income in the numerator (return) and retained earnings should be expanded to include accumulated other comprehensive income (AOCI) in the denominator (risk).

In the long term, market returns and market risks will determine average long-term premium rates, regardless of how assets and liabilities are accounted for under GAAP.

6. De-Linking Discount Rates

For purposes of long-term asset allocation decision-making, MPI should consider “breaking the link” (recursive) between liability valuations and the yield on some of its assets. Economic theory suggests this approach is more appropriate.

7. Min/Max Asset Class Constraints

The minimum/maximum and other constraints imposed on the portfolio (e.g., when asset-liability studies are conducted) should be reviewed and relaxed, to avoid costly constraints (lower risk-adjusted returns).

The rationale for imposing any such constraints should be made explicit.

8. Evolved Risk Framework

An evolved risk framework should be considered to improve portfolio/risk measurement, management and/or governance.

9. Explicit Risk Management Goals

Among other things, the risk framework could include explicit goals related to market risk management (as well as goals related to other types of risk if those require enhancement). One goal might be to avoid “undue risk”, which is risk that is taken:

- unknowingly, not having been identified (unaware); or
- knowingly, but which:
    - cannot be managed prudently, given current capacities (ineffective);
    - exceeds risk tolerances (prohibited);
    - is higher than it needs to be (inefficient); or
    - is not understood (uninformed).

Another goal might be to get paid better/well for those risks that are desired, with incentive systems that encourage desired behaviours that achieve desired outcomes and controls that monitor compliance with limits that discourage/prevent undesired behaviours and prevent undesired outcomes.

10. Minimum Risk Portfolio

A minimum risk portfolio (for market risk) should be clearly defined. It should be aligned with the interests of relevant stakeholders, with clarity regarding the short-term and long-term factors that impact rate sustainability and other important outcomes.

11. Canadian Equities’ 10% Minimum Allocation

The appropriateness and prudence of having a 10% minimum weight to Canadian Equities ("to retain a meaningful exposure to home markets") should be reconsidered, given the different interests of different stakeholders (e.g., employees through the pension plan), the concentrated nature of Canada's equity market, and other such relevant considerations.

12. No International Equities

The appropriateness and prudence of having no exposure to International Equities should be reconsidered, given the large size of non-US foreign markets, the return opportunities that are potentially available from those missed opportunities and the effects of increased international diversification on long-term market risks.

13. No Over-Reliance on Quantitative Modeling

MPI should be vigilant about its potential over-reliance on quantitative considerations, given the high sensitivity of optimal asset allocations to seemingly small changes in capital market assumptions (returns, volatilities and correlations) and the large number of inputs.

14. Exclusion of Real Return Bonds

The role that RRBs can play in effectively managing relevant risks should be discussed, with consensus achieved regarding the effectiveness of RRBs from a risk management perspective (i.e., independent of the cost of any "insurance" as measured by RRB yields and their expected returns).

15. Effectiveness of Duration Policy

The effectiveness of the duration policy should be reviewed, given the inherent risks of changing real interest rates and unexpected inflation arising from MPI's liabilities, and exposure to changes in nominal interest rates in the MPI portfolio (i.e., nominal bonds without inflation protection). More specifically, MPI should re-assess the effectiveness of its duration-matching strategy since inflation (actual and/or expected) may differ from current expectations.

16. Integration of Real Estate/Infrastructure Liabilities in Duration Management

MPI should consider the liabilities arising from all sources (i.e., including real estate and infrastructure) in its interest rate risk management practices (duration), to be consistent with its management of risks arising from insurance, pension and other liabilities.

The financial leverage assumptions used in Asset-Liability Studies that support long-term asset mix decisions should be made consistent with the leverage actually used in the portfolio, removing the ~ 4% difference related to real estate debt.

17. Removal of 105% Rule in Investment Policies

MPI should remove from its Investment Policies the ability to request external managers to realize gains (losses) ("105% Rule"), which MPI says "is no longer relevant".

This would remove an ability by MPI to cause a manager to realize gains (losses) for the sole purpose of having an impact on net income, without yielding any economic value, reducing risk or otherwise conferring another benefit on MPI.

<u>18. Pension Fund</u>

The interests of all relevant stakeholders should inform decisions regarding both the accounting for and management of the assets and liabilities related to the pension plan and other employee benefits. A desirable outcome is to have greater clarity around the appropriateness and prudence of maintaining different types of assets and liabilities commingled in one fund.