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MANITOBA PUBLIC INSURANCE
2019/2020 GENERAL RATE APPLICATION

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LEGAL APPLICATION

2019 GENERAL RATE APPLICATION

June 15, 2018

Manitoba
Public Insurance

LEGAL APPLICATION

Manitoba Public Insurance (the Corporation, or MPI) hereby applies to the Public Utilities Board (the PUB, or Board) for approval of the Corporation's premiums charged with respect to compulsory driver and vehicle insurance (rates for service), in accordance with the provisions of *The Crown Corporations Public Review and Accountability Act* and *The Public Utilities Board Act.*

In the 2019 General Rate Application (GRA) for Basic Autopac the Corporation is requesting that the PUB approve the premiums charged with respect to compulsory driver and vehicle insurance (rates for service) effective March 1, 2019, including:

1. A 2.2% overall increase in Basic vehicle premium revenue (including Vehicles for Hire rates for service) comprised of:

    i. 0.1% increase to the break-even cost of policies
    ii. 2.1% increase for a Net Capital Maintenance Provision to maintain MPI's capital position through the rating year, as measured by the Minimum Capital Test. The Capital Maintenance Provision accounts for the positive impact of investment income on Basic's Rate Stabilization Reserve, and collects only the residual amount required to maintain Basic's capital position

2. A minimum (lower) RSR target of 34% Minimum Capital Test (MCT), (total equity equivalent of $143 million as at February 28, 2019), based on a 1-in-40 probability Dynamic Capital Adequacy Test (DCAT) scenario.

3. A maximum (upper) range RSR target of 85% Minimum Capital Test (MCT), (total equity equivalent of $305 million as at February 28, 2019), based on a 2 year, 1-in-40 DCAT scenario with no management action.

4. No changes to Miscellaneous Permits and Certificates

5. No changes to driver premiums through the Driver Safety Rating (DSR) system, and no change to Vehicle Premium Discounts

6. No changes to Basic Autopac Service and Transaction Fees

7. No Changes to Fleet Rebates and Surcharges

8. Consistent with the 2018 Vehicles for Hire (VFH) Interim Application, the continued:

    a) Eligibility of vehicles for hire for vehicle premium discounts
    b) Waiving of service fees for change of insurance for vehicles for hire

Tables detailing the requested rates and fees are presented in *Part VIII – ART Application Rate Tables*. Experience-based rate adjustments ranging from -15% to +15%, as shown in *Part V(ii) RM Ratemaking Appendix 3* based on adjustment rules shown in *Part V(ii) RM Ratemaking RM.5*. Combined classification offsets for all vehicles except off-road vehicles, to achieve revenue neutrality in implementing rate group, rate line and classification changes for 2019/20, as shown in *Part V(ii) RM Ratemaking Appendix 2.*

Discussion and analysis of the applied for Rate Stabilization Reserve (RSR) capital targets, and the Net Capital Maintenance Provision is provided in *Part VI RSR Rate Stabilization Reserve*.

In the 2019 GRA the Corporation is also requesting final approval of VFH rates for service, approved on an interim basis by PUB Order 11/18.

Bill 30, establishing *The Local Vehicles for Hire Act* ("the VFH Act"), received Royal Assent on November 10th, 2017. The VFH Act eliminates regulation of the taxi industry in Winnipeg through the Taxicab Board and transfers regulatory responsibilities for all vehicles for hire to each municipality in the Province of Manitoba. The VFH Act came into force on February 28, 2018 and allows for a new class of vehicles for hire in addition to the existing taxicab/livery service.

To offer compulsory insurance for vehicles for hire, MPI sought and obtained the Board's interim approval of premium rates both for this new class of vehicles for hire, and for new premium rates for the existing classes of vehicles for hire (taxicabs, limos and wheelchair accessible vehicles).

The Corporation is requesting final approval of the premiums charged with respect to compulsory vehicles for hire insurance (rates for service), effective March 1, 2018 including:

iii. Vehicles for hire rates for service for both the 2017/18 and 2018/19 insurance year in this application, based on rates approved in PUB Orders 162/16 and 130/17 respectively
iv. Changes to eligibility for vehicle premium discounts for vehicles for hire
v. Waiving of service fees for change of insurance for vehicles for hire
vi. A mechanism for refunding/collecting any variance between interim and final approved vehicles for hire Rates for Service

Rate tables for interim vehicles for hire rates for service are provided as Appendix 1 and Appendix 2 to the Interim Vehicles for Hire Application, included in this 2019 GRA as *Part V(ii) VFH Vehicles for Hire Appendix 1*.

RATEMAKING

RM.1 CERTIFICATE OF THE ACTUARY

I, Luke Johnston, a Fellow of the Canadian Institute of Actuaries, certify that:

1. I have derived the indicated rate(s) in accordance with Accepted Actuarial Practice in Canada, on behalf of Manitoba Public Insurance (MPI or the Corporation) , for the Basic Autopac program (Basic) for rates effective March 1, 2019 for new and renewal business.

2. I have reviewed the data underlying this rate application for reasonableness and consistency, and I believe the data is reliable and sufficient for the determination of the indicated rate changes.

3. The indicated rate changes, shown in the table below, have been calculated in accordance with Accepted Actuarial Practice in Canada. These indicated rate changes assume a 0% profit provision, and include a net capital maintenance provision (CMP).

Figure RM- 1: Indicated Rate Change

Line No.	Major Class	Current Average Rate	Indicated Average Rate	Indicated Rate Change
1	**Private Passenger**	$1,111	$1,138	2.4%
2	**Commercial**	$780	$798	2.4%
3	**Public**	$2,003	$2,014	0.6%
4	**Motorcycles**	$797	$822	3.1%
5	**Trailers**	$81	$78	-4.7%
6	**Off-Road Vehicles**	$10	$8	-20.0%
7	**Overall**	$855	$874	2.2%

June 11, 2018 Winnipeg, Manitoba

Signature of Actuary **Date** **Location**

RM.6 SUMMARY AND DISTRIBUTION REPORTS

By major class, the proposed rate changes differ slightly from experience rate changes due to capping rules. A 15% increase/decrease cap is applied to experience-based indicators and all final rates are capped at a 20% increase/decrease.

Figure RM- 14 Major Class Summary Report

Line No.	Major Class	Vehicle Count	Current Average Rate	Proposed Average Rate	Proposed Rate Change	Experience Rate Change*
1	**Private Passenger**	801,726	$1,111	$1,138	2.4%	2.4%
2	**Commercial**	46,246	$780	$798	2.4%	2.6%
3	**Public**	12,630	$2,003	$2,014	0.6%	-0.2%
4	**Motorcycles**	17,023	$797	$822	3.1%	3.2%
5	**Trailers**	200,677	$81	$78	-4.7%	-4.6%
6	**Off-Road Vehicles**	70,838	$10	$8	-20.0%	-36.0%
7	**Overall**	1,149,140	$855	$874	2.2%	2.2%
8	*Per Figure RM-12					

The following tables show the distribution of vehicles by dollar and percent changes after all adjustments. The proposed rate changes result in a rate decrease for 40.2% of vehicles, no change in rates for 7.5% of vehicles, and a rate increase for 52.3% of vehicles. 38.6% of vehicles experience a rate change of +/- $20 or less (including vehicles receiving a $0 change in rates) and 43.9% of vehicles experience a rate change of +/- 5% or less (including vehicles receiving no change in rates). More detailed tables can be found in *RM.6 Summary* and *RM.6 Dollar/Percentage Distribution*.

Figure RM- 15 Dollar Distribution Table

Line No.	$ Change	# of Vehicles	% of Vehicles
1	Decrease $300 or more	73	0.01%
2	Decrease $200 to $299	390	0.03%
3	Decrease $150 to $199	1,824	0.16%
4	Decrease $100 to $149	18,739	1.63%
5	Decrease $50 to $99	106,669	9.28%
6	Decrease $20 to $49	134,207	11.68%
7	Decrease $1 to $19	200,294	17.43%
8	No Change	85,620	7.45%
9	Increase $1 to $19	158,175	13.76%
10	Increase $20 to $49	111,974	9.74%
11	Increase $50 to $99	203,910	17.74%
12	Increase $100 to $149	98,298	8.55%
13	Increase $150 to $199	20,562	1.79%
14	Increase $200 to $299	8,081	0.70%
15	Increase $300 or more	*324	0.03%
16	**GRAND TOTAL**	**1,149,140**	**100%**
17	*Of those 324 units, 313 are Taxicab Vehicle-for-Hire 4 in Territory 1 & 3		

Figure RM- 16 Percent Distribution Table

Line No.	% Change	# of Vehicles	% of Vehicles
1	Decrease 20% or more	70,850	6.17%
2	Decrease 15% to 20%	324	0.03%
3	Decrease 10% to 15%	49,069	4.27%
4	Decrease 5% to 10%	158,593	13.80%
5	Decrease less than 5%	183,360	15.96%
6	(No Change)	85,620	7.45%
7	Increase less than 5%	235,366	20.48%
8	Increase 5% to 10%	289,618	25.20%
9	Increase 10% to 15%	40,524	3.53%
10	Increase 15% to 20%	35,787	3.11%
11	Increase 20% or more	29	0.00%
12	**GRAND TOTAL**	**1,149,140**	100%

VEHICLES FOR HIRE

2019 GRA APPLICATION

June 15, 2018

Manitoba Public Insurance

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VEHICLES FOR HIRE

VFH.1 MPI APPLIED FOR INTERIM APPROVAL OF VFH RATES

On December 15, 2017, Manitoba Public Insurance ("MPI" or "the Corporation") applied to the Manitoba Public Utilities Board ("PUB" or "Board") for interim approval of premiums charged with respect to compulsory vehicles for hire (VFH) insurance, in accordance with the provisions of *The Crown Corporations Public Review and Accountability Act* and *The Public Utilities Board Act.*

Bill 30, establishing *The Local Vehicles for Hire Act* ("the VFH Act"), received Royal Assent on November 10th, 2017. The VFH Act eliminates regulation of the taxi industry in Winnipeg through the Taxicab Board and transfers regulatory responsibilities for all VFHs to each municipality in the Province of Manitoba. The VFH Act came into force on February 28, 2018 and allowed for a new class of VFH in addition to the existing taxicab/livery service.

To offer compulsory insurance for VFH, MPI sought the Board's approval of premium rates both for this new class of VFH, and for new premium rates for the existing classes of VFH (taxicabs, limos and wheelchair accessible vehicles).

The Corporation requested interim approval of the following rates for service effective March 1st, 2018:

- The premiums charged with respect to compulsory VFH Rates for Service, effective March 1, 2018.
    - Interim VFH Rates for Service are being requested for both the 2017/18 and 2018/19 insurance year in this application, as reflected in Appendix 1 and Appendix 2 of the Interim Application, based on rates approved in PUB Orders 162/16 and 130/17 respectively.
- Changes to eligibility for vehicle premium discounts for VFHs, also as reflected in Appendix 1 and Appendix 2 of the Interim Application.

- Waiving of service fees for change of insurance for VFHs
- A mechanism for refunding/collecting any variance between interim and final approved VFH Rates for Service, as determined through the 2019 General Rate Application (GRA)

Further, MPI proposed:

- Other than as specified above, no change to service fees for changing coverage
- No change to Miscellaneous permits and certificates
- No change to driver license premiums
- No change to fleet rebates and surcharges

Rate tables for Interim VFH Rates for Service were included as Appendix 1 and Appendix 2 in the Vehicles for Hire 2018 Interim Application. The Interim Application can be found in Appendix 1.

VFH.2 PUB BOARD ORDER 11-18 APPROVES INTERIM APPLICATION

The PUB approved the Interim Application for interim 2017/18 and 2018/19 VFH premium rates. The Board found that Transportation Network Companies (TNCs) are a new business model in North America, and accordingly, there is a lack of experience upon which insurance rating models and rates can be developed. The Board took this into account in approving the rates applied for by the Corporation. However, the Board issued a number of directives to MPI (responses in bold font) including the following:

6.1 The Rates for Service for vehicles for hire for the 2017/18 and 2018/19 insurance years, as set out in Appendix 1 and Appendix 2 to the Vehicles for Hire 2018 Interim Application filed by Manitoba Public Insurance on December 15, 2017, BE AND HEREBY ARE APPROVED on an interim basis, effective March 1, 2018.

6.2 The Corporation shall apply for final Rates for Service for vehicles for hire for the 2017/18 and 2018/19 insurance years in the 2019 General Rate Application.

See VFH.3 – MPI APPLIES FOR FINAL VFH RATES FOR SERVICE

6.3 The Corporation shall refund or collect any variance between interim Rates for Service hereby approved and the Rates for Service finally approved through the 2019 General Rate Application (GRA).

See VFH.3 – MPI APPLIES FOR FINAL VFH RATES FOR SERVICE

6.4 Vehicles for hire in all categories of the vehicles for hire pool shall be eligible for Driver Safety Rating vehicle premium discounts if registered by individual customer.

6.5 The waiving of service fees for changes of insurance coverage for vehicles for hire BE AND HEREBY IS APPROVED.

6.6 The Corporation shall inform vehicles for hire customers, in advance of placement of coverage, of the possibility of a refund or the collection of additional premiums due to a re-rating resulting from the final approval of Rates for Service for vehicles for hire through the 2019 GRA.

See VFH.8 – MPI'S COMMUNICATION WITH CUSTOMERS HAS BEEN THOROUGH AND EFFECTIVE

6.7 The Corporation shall develop and report on a plan for the collection of data specific to the vehicles for hire pool and shall file the report in the 2019 GRA. The plan the Corporation is to develop will include collection of information as to:

6.7.1 A new vehicles for hire insurance use pool so that experience suitable for ratemaking can be tracked separately from other Basic vehicle classes;

See VFH.6 – MPI ESTABLISHES VFH RATE MAKING FRAMEWORK

6.7.2 Tracking of ratemaking experience (e.g., exposures, premiums, and claim counts and amounts) within the vehicles for hire pool, separated by each sub-category within the vehicles for hire pool (e.g., use category, number of time bands, territory), as well as separated by each time band;

See VFH.6 – MPI ESTABLISHES VFH RATE MAKING FRAMEWORK

6.7.3 Forecasting of claims incurred for the vehicles for hire pool; and a means of allocating to the appropriate time band those claims occurring during any overlap of time bands in which the customer has selected both of the overlapping time bands.

See VFH.6 – MPI ESTABLISHES VFH RATE MAKING FRAMEWORK

6.7.4 The Corporation shall gather data on the number and frequency of changes made to insurance policies for vehicles for hire and provide a report in that regard in the 2019 GRA.

See VFH.7 – DATA COLLECTION – RATE MAKING

6.8 In the 2019 GRA, the Corporation shall provide information as to the total cost resulting from the vehicles for hire rating model. The total cost information shall include, but will be not be limited to:

6.8.1 The financial impact of changes on the Corporation's pro forma financial forecast;

6.8.2 Driver safety rating premium discounts;

6.8.3 Reduced deductible from $600.00 to $500.00 for taxicabs, limousines and accessible vehicles for hire;

6.8.4 One-time and ongoing information technology costs related to upgrading or modifying the AOL and CARS programs to accommodate vehicles for hire; and

6.8.5 Broker commission and service fees relating to transactions associated with vehicle for hire registration and time band selection.

See Part V (i) Expense Appendix 20

6.9 In the 2019 GRA, the issue of Passenger VFH insurance rates as compared to the Taxicab VFH insurance rates be reviewed.

See VFH.6 – MPI ESTABLISHES VFH RATE MAKING FRAMEWORK

6.10 In the 2019 GRA, the Corporation shall examine the issue of whether, for insurance purposes, the Taxicab vehicles for hire category should be eliminated such that Taxicabs would fall within another vehicles for hire use category.

See VFH.6 – MPI ESTABLISHES VFH RATE MAKING FRAMEWORK

6.11 The Corporation shall monitor best practices and standards of the TNC industry and present the results of its monitoring in the 2019 GRA.

See VFH.9 – MPI EVALUATES BEST PRACTICES IN TNC INDUSTRY

6.12 In the 2019 GRA, the Corporation shall file a report on engagement that it has conducted relating to vehicles for hire with any stakeholders such as the City of Winnipeg, other municipalities, TNCs, consumer groups, representatives of the taxicab industry and disability groups.

See VFH.10 – MPI CONTINUES WITH STAKEHOLDER ENGAGEMENT

6.13 Included among the issues to be examined in the 2019 Road Safety Technical Conference directed in Order 130/7 shall be:

6.13.1 Safety for drivers and clients of VFH:

6.13.2 Safety and training standards for all VFH drivers; and

6.13.3 Safety issues relating to persons with disabilities and VFH

6.14 The road safety information filed by the Corporation in the 2019 GRA include information regarding emerging road safety issues as a result of the introduction of TNCs in Manitoba

See Part VII – Working towards Safer Roads through Effective Public Insurance of 2019 GRA

VFH.3 MPI APPLIES FOR FINAL VFH RATES FOR SERVICE

As part of the 2019 GRA, MPI is applying for final approval of 2017/18 and 2018/19 VFH Rates for Service, as well as 2019/20 VFH Rates for Service. For the 2019/20 rates for VFH vehicles, the Corporation utilized the same methodology as was used for setting the 2018/19 rates as presented in *Part V(ii) Vehicles for Hire Appendix 1 Interim VFH Application*.

Should the Board's final determination on 2017/18 and 2018/19 VFH rates in the 2019 GRA Order have any variance to the interim approved VFH rates, any difference in rates will be rebated or collected on a customer by customer basis by the process explained in the following section.

VFH.3.1 MPI's Automated Re-Rating Process

MPI currently has an automated process to trigger a "re-rating" of an insurance policy without requiring a customer visit to a broker or service centre. If the PUB approves final VFH Rates for Service for the 2017/18 and 2018/19 insurance years that differ from the approved interim rates, MPI will identify all VFH customers and initiate a re-rating of the insurance policy. This will complete a new insurance rating calculation process and the new approved rates will be used to determine the appropriate insurance premium that should have been collected. In the event of either an increase or reduction in premium, the associated balance will be applied to the respective customer account and a letter will be sent to each customer with an explanation. This avoids the risk of customers paying higher than required rates and MPI charging inadequate rates.

VFH.4 MPI's VFH RATING MODEL BEST MEETS SUCCESS CRITERIA

MPI initially examined nine insurance solution models/options. They were evaluated at a conceptual level using nine criteria and from these nine options, the top three models were selected for further evaluation and rated based on the following three success criteria:

1. That the rating model is fair and equitable
2. That the rating model is actuarially-based
3. That the rating model is flexible enough to accommodate different regulatory frameworks throughout the province as a result of Bill 30

MPI selected the Time Restriction (Time Band) model because it complies with the existing regulatory process and it best satisfied the three success criteria overall.

Under the Time Band model, the VFHs pool consists of four 4 categories:

1. Taxicab VFH
2. Limousine VFH
3. Accessible VFH
4. Passenger VFH

The insurance policies are based on time bands permitting VFH operation. Each of the 4 categories have the same 4 time bands available to them. Customers can self-select any combination of 4 time bands and premiums are based on the number of time bands selected. Customers have the option to purchase 1, 2, 3, or all 4 time bands. At 4 time bands, a vehicle for hire has the flexibility to operate 24 hours a day, seven days a week.

Figure VFH - 1: Time Bands for Insured VFH Commercial Operation

Line No.	Time Bands	Time of Insured Commercial Operation
1	**A**	Monday through Friday 10:00 am to 3:00 pm and Sunday through Thursday from 7:00 pm to 11:00 pm
2	**B**	Nightly 11:00 pm to 7:00 am
3	**C**	Monday through Friday 7:00 am to 10:00 am and 3:00 pm to 7:00 pm
4	**D**	Friday 6:00 pm through Sunday 11:00 pm

Outside of the time bands, VFHs are insured for non-commercial operation. If a vehicle for hire fare originates during the selected time band, but extends beyond the time band and completes during a non-commercial operation time period, insurance coverage for VFHs operation will extend to cover the duration of that fare.

The insured times of each time band were designed to accommodate the hours of operation that VFHs drivers might prefer, such as weekends, or evenings, while balancing the increased level of exposure from operation between the four time bands. As the selection of time bands is flexible, customers can tailor their operating periods and related insurance costs to fit their availability and desired part-time or full-time VFH participation level. The designed overlap in time between the Overnight and Weekends time bands also provides further flexibility for customers who may not want to select more than one time band. The time bands are intended to provide TNC operators more options but for those operators who want complete flexibility they can purchase all four time bands.

As data accumulates for the various VFH insurance uses, MPI will monitor the trends. If any of the time bands deviate too far from the ~25% of overall claims incurred, MPI will determine the action necessary (i.e. possibly adjusting the time bands).

VFH.5 MPI ESTABLISHED VFH COVERAGE CONSISTENT WITH BASIC

In keeping with the intent of the VFH Act, all VFH will have the following Basic insurance coverage consistent with Basic's all-purpose passenger vehicle coverage:

- $200,000 Third Party Liability
- $50,000 Maximum Insured Value
- $500 deductible

As a result of this change, taxicabs, limousines and livery vehicles (former 'x-plate' vehicles) will see Basic deductible reduced by $100. MPI is not proposing to increase VFHs Basic insurance rates due to the decrease in deductible level from $600 (deductible level for previously 'x-plate' vehicles) to $500 (VFHs deductible level). The policy decision to lower the deductible level is meant to align VFHs with the rest of Basic, and is justified based on an expectation of reduced risk exposure in these classes.

Comprehensive no-fault bodily injury coverage will continue to apply to Manitobans injured in motor vehicle accidents including VFH accidents.

VFH.6 MPI ESTABLISHES VFH RATE SETTING FRAMEWORK

The Corporation set different rates for the four categories of VFHs (Passenger VFH, Taxi VFH, Limousine VFH, and Accessible VFH). Since many customers would still have had rates from the 2017/18 policy year in effect at the time that the VFH insurance uses came into effect, the Corporation prepared 2017/18 equivalent rates for each of the new insurance uses. The methodology utilized for those rates was identical to the methodology used to calculate the 2018/19 rates but using 2017/18 Board-approved rates.

The interim rates for Taxicab, Limousine, and Accessible VFH classes were based on the existing rates for these classes with an adjustment to account for the introduction of time bands, Driver Safety Rating (DSR), and competition from Passenger VFH. MPI believes the rates for these classes, on an overall basis, are reasonably close to the eventual experienced based rates under the new VFH model.

For Passenger VFH, MPI recognized that there were no historical claims experience for this rating classification. Given the lack of MPI data on Passenger vehicles for hire loss experience, the proposed initial rates for Passenger vehicle for hire were set based on the percentage difference between All Purpose and Passenger vehicles for hire rates used in other jurisdictions (8% to 24%). Therefore, the interim rates were calculated based on modifications to the existing PUB approved, Major Class 1, All-Purpose Insurance Use rates by rate group. MPI judgmentally applied a "load" to these actuarially-based rates to account for the assumed increase in exposure from varying levels of VFH exposure. The percentage premium increase is based on the number of time bands selected with each time band selected resulting in a premium increase of 5% (i.e. selecting all 4 time bands results in a premium increase of 20%). The 'percentage increase' method was assumed to best reflect the difference in coverage and loss experience in Manitoba.

Going forward, as experience data becomes available (i.e. in the 2020 GRA), the proposed rates for all VFH categories will be adjusted based on actual claims experience utilizing the existing PUB approved rate making methodology. MPI will then perform a separate relativity calculation within each of these VFH uses to determine the relative rates by Level (1, 2, 3, 4). By setting rates based on the overall VFH experience in each VFH use (rather than for each level separately) there will be more credible data from which to modify rates.

Please see page 13 of *Part V(ii) Vehicles for Hire Appendix 1 - Interim VFH Application* for a detailed explanation of the VFH Rate Setting Framework.

VFH.6.1 Taxi VFH vs. Passenger VFH

The Corporation acknowledges that there is a significant difference in rates between the Passenger VFH category and the Taxi VFH category. However, MPI believes that offering DSR incentives, when combined with the industry's public comments about focusing on safety, and the loss prevention strategies MPI is working collaboratively with the taxi industry on will have a positive effect on loss experience.

The VFH framework is such that loss experience for each of the VFH categories will be tracked separately. As experience data becomes available, the Corporation will continue to ensure that the rates assigned to each VFH group is reflective of the risk and actuarially supported. The Corporation will also be in a better position to determine if Taxicabs should fall within another VFH category. However, at this time there is no basis for the Corporation to make a change to the current rating model.

VFH.7 DATA COLLECTION – RATE MAKING

The primary means of limiting cross subsidization between VFH, and the rest of Basic, is through the creation of a new pool to track the VFH claims experience. MPI is collecting the same information on VFH policy claims as it does for all other policies. The claims experience for VFH classes will be tracked separately, through the use of an additional field in MPI's system. These separately tracked claims will form the 'VFH pool' that will be used to set actuarially sound rates for VFH policies. Once a customer is a VFH policy holder, all claims under that policy will fall into the VFH pool. For example, a collision occurring outside the VFH time bands will still be tracked within the VFH pool. Also, since rates are determined based on the number of time bands purchased, not the specific time bands, there is no consequence of having overlapping time bands for actuarially sound rates.

Apart from establishing a separate pool, as outlined above, MPI will continue to employ its processes to ensure that claimants are correctly insured at the time of a claim, for example, ensuring that VFH drivers are correctly insured under a VFH policy, and under the appropriate sub category (passenger, taxi, limo, accessible).

These processes are similar to those already in place for detecting and ensuring coverage for the date/time of loss, and adherence to all conditions (such as vehicle use for purposes not intended under the policy).

As of April 30, 2018 the number of insured VFH vehicles (all territories) are as follows:

Figure VFH - 2: Insured VFH vehicles (all territories)

	Number of Time Bands				
VFH Category	1	2	3	4	**Total**
Accessible	1	1	5	28	**35**
Limo	3	0	0	33	**36**
Passenger	12	12	4	276	**304**
Taxi	5	3	4	485	**497**
Total	**21**	**16**	**13**	**822**	**872**

As of May 22, 2018 there have been a total of 191 VFH related claims. The breakdown is as follows:

Figure VFH - 3: VFH related claims

	Number of Time Bands				
VFH Category	1	2	3	4	**Total**
Accessible	0	0	0	5	**5**
Limo	0	0	0	3	**3**
Passenger	0	0	4	43	**47**
Taxi	0	0	0	136	**136**
Total	**0**	**0**	**4**	**187**	**191**

The number of customers who changed their VFH insurance (as of April 30, 2018) (i.e. changed the number of time bands or VFH category) is as follows:

- Increased the number of time bands (same VFH category) – 20
- Decreased the number of time bands (same VFH category) – 9
- Changed the VFH category – 5

VFH.8 MPI'S COMMUNICATION TO CUSTOMERS HAS BEEN THOROUGH AND EFFECTIVE

VFH.8.1 Communication with VFH Customers

Also, with the issuance of new VFH insurance uses, MPI created a custom training program for MPI agents such as insurance brokers and frontline staff involved in the sale of VFH insurance policies. Training was mandatory and, in compliance with the PUB order 6.6, all MPI agents are required to advise customers in advance of purchasing VFH insurance policies the possibility exists that a refund or the collection of additional premiums due to a re-rating resulting from the final approval of Rates for Service for VFHs through the 2019 GRA. MPI agents are required to leave a comment on the Policy Application, which is signed by the customer, indicating that they have informed the customer.

VFH.8.2 Communication with "Outliers"

The dissolution of the Taxicab Board and the VFH Act definition of 'vehicle for hire' resulted in certain outliers. Previously 'x-plated' taxi/livery vehicles with seating capacity of 11 or more were not captured under the VFH Act, and did not qualify for VFH insurance policies. However these vehicles must still change registration class and insurance use due to the discontinuance of the 'x-plated' registration class. Based on the customer's declared use of the vehicle, existing registration classes such as Regulated Passenger Vehicle (AR) and Public Service Vehicle (PSV) and existing insurance uses such as Common Carrier, Charter Bus – Local, Disabled Persons Bus, and Private/Business Bus will be used for vehicles that fall outside of the VFH Act definition of 'vehicle for hire' . There were fewer than 100 policies affected and though there may be changes in premiums charged, in the vast majority of cases it is expected that there will not be a negative financial impact to these customers. MPI worked in coordination with the Province of Manitoba to communicate the changes to existing taxi/livery policy holders. MPI mailed letters to all existing taxi and livery customers (x-plated vehicles) informing them of the changes. Information provided to customers that met the VFH definition detailed the availability of new VFH insurance post March 1st 2018, changes to deductibles and the eligibility for DSR discounts for individuals. For taxis and livery vehicles that did not meet the VFH definition, MPI advised customers by letter of their registration and insurance options.

VFH.9 MPI EVALUATES BEST PRACTICES IN TNC INDUSTRY

Rating models used in other Canadian jurisdictions were not considered suitable with Manitoba's public insurance environment given the compulsory nature of Basic and as of the time of this application's preparation, British Columbia and Saskatchewan have not permitted the operation of TNCs. As such, the ongoing review of existing VFH frameworks does not include any public insurers comparable to MPI. Figures 4 and 5 present the results of the updated scan as per Order 6.11.

Figure VFH - 4: TNC – Jurisdictional Insurance Comparison / Availability (Ontario)

	Ontario				
Insurance Provider	Intact	Aviva		Northbridge Insurance	Pembridge Insurance
TNC Companies	Uber	All Rideshare	Lyft	Ride co, InstaRyde, Facedrive, ecoRides, DriveHER, Uride	All Rideshare
Policy Type	Blanket	Individual (Endorsement)	Blanket endorsement for Lyft drivers (Commercial)	Blanket	Individual (Endorsement)
Coverage Period	From login to passenger delivery	From login to passenger delivery	From login to passenger delivery	From login to passenger delivery	N/A
Contact for Claim	Uber	Aviva	Lyft	Northbridge Insurance	N/A
Policy	• Policy	• NPCF 6TN Endorsement Transportation Network endorsement (NPCF 6TN - Permission to Carry Paying Passengers for a Transportation Network)	• Aviva Lyft Commercial Policy	• Policy	
Details	• Automatically applies to all Uber drivers regardless of personal auto policy/provider • When not available to pick up rides, personal auto policy is in effect	• Maximum of 20 hours per week • Contracted with a transportation network company • 6 years minimum licensed (G2 or higher) driving experience in Canada or U.S. • Carries 8 people max. (7 passengers + driver) • No commercial use, such as delivery of goods, including food or courier services • Not registered as a taxi or limousine or other public transportation	• No maximum on ridesharing hours. • If operating less than 20 hours per week, and purchased the NPCF-6TN Endorsement, any enhanced coverage on personal policy will extend to Lyft policy if insured with an Aviva underwriter • 6 years minimum licensed (G2 or higher) driving experience in Canada or U.S. • Carries 8 people max. (7 passengers + driver) • Not registered as a taxi or limousine or other public transportation. • No commercial use, such as delivery of goods, including food or courier services.	• Automatic coverage but personal policy must allow for rideshare usage.	N/A
Coverage	• Up to $2M TPL • Standard AB • $1,000 deductible for Comp/Collision paid by driver • Family protection	• This coverage is an endorsement that permits the vehicle to be used to carry paying passengers. • Extends all policy coverage available to the vehicle	• Up to $2M TPL • Standard AB • $1,000 deductible for Comp/Collision paid by driver • If NPCF-6TN endorsement purchased, personal auto policy enhancements are extended to ridesharing policy	• Up to $2M TPL • Standard AB • $1,000 deductible for Comp/Collision paid by driver • $1,500 Loss of use (post acceptance) • No depreciation on new vehicle (post acceptance)	N/A

Figure VFH - 5: TNC – Jurisdictional Insurance Comparison / Availability (Alberta)

	Alberta				Quebec
Insurance Provider	Intact	Northbridge Insurance	Pembridge Insurance	Aviva	Intact
TNC Companies	Uber	TappCar	All Rideshare	All Rideshare	Uber
Policy Type	Blanket	Blanket	Individual (Endorsement)	Individual (Endorsement)	Blanket
Coverage Period	From login to passenger delivery	From login to passenger delivery	N/A	From login to passenger delivery	From login to passenger delivery
Contact for Claim	Uber	Northbridge Insurance	N/A	Aviva	Uber
Policy	• Policy	• Policy	Provincial government requires Alberta Standard Automobile Form – Transportation Network S.P.F. No. 9 (SPF9)	• NPCF 6TN Endorsement • Transportation Network endorsement (NPCF 6TN - Permission to Carry Paying Passengers for a Transportation Network)	• Policy
Details	• Automatically applies to all Uber drivers regardless of personal auto policy/provider • When not available to pick up rides, personal auto policy is in effect	N/A	N/A	• Maximum of 20 hours per week • Contracted with a transportation network company • 6 years minimum licensed (G2 or higher) driving experience in Canada or U.S. • Carries 8 people max. (7 passengers + driver) • No commercial use, such as delivery of goods, including food or courier services • Not registered as a taxi or limousine or other public transportation	• Automatically applies to all Uber drivers regardless of personal auto policy/provider • When not available to pick up rides, personal auto policy is in effect
Coverage	• Up to $2M TPL • Standard AB • $1,000 deductible for Comp/Collision paid by driver • Family protection	• Up to $5M TPL • $1,500 deductible All perils • Loss of Use • Family Protection • Limited Waiver of Depreciation	N/A	• This coverage is an endorsement that permits the vehicle to be used to carry paying passengers. • Extends all policy coverage available to the vehicle	• Up to $1M TPL • Coverage is provided for collision and upset, comprehensive, etc., if the driver has the coverage on his/her own personal auto policy. The coverage and deductible payable by the driver are those included in his/her personal auto policy.

Currently in Canada, only Alberta, Ontario and Quebec allow ridesharing (vehicle for hire) for compensation. Insurance for ridesharing vehicles in these jurisdictions is provided by either individual endorsement or a blanket policy with the particular TNC. In all three jurisdictions, automobile insurance is sold privately and subject to limited accident benefits[1] (injury), third party liability coverage and tort action. First party physical damage coverage is optional in all three jurisdictions.

The legislative scheme in Manitoba requires residents who wish to operate a motor vehicle in Manitoba to register that vehicle and purchase universal compulsory automobile insurance (Basic Insurance) which is primary to any other insurance that may apply. This includes mandatory first party coverage. Basic Insurance also provides Personal Injury Protection Plan benefits as well as third party liability and all perils physical damage coverage.

Alternative insurance models used in other jurisdictions would, if adopted in Manitoba, result in coverage outside of Basic Insurance. A consequence of which would be that the premiums charged for VFH insurance would be outside the jurisdiction of the Public Utilities Board. The Corporation submits that it would not be in the public interest to intentionally design compulsory insurance coverage for passenger vehicle operations that is outside of Basic and therefore outside of regulatory oversight.

The universal compulsory nature of the program does not contemplate, nor does the legislation permit, that Basic compulsory insurance coverage become secondary, based on temporary (or part time) change in vehicle use from a passenger vehicle to a VHF. Across the Basic compulsory program, the rates charged for the vehicle are based upon the type of vehicle, its use, and its location (territory). Basic coverage remains constant in all cases, and the only change is in the rate charged, reflecting the use, type and territory of the vehicle. VFH is a new use and it is appropriate that Basic rates be set for that type/use.

Use of an umbrella policy with a TNC or individual endorsement is not appropriate for providing compulsory coverage under the Basic program. Providing Basic insurance to

[1] With exception of Quebec, which has pure no-fault injury coverage

TNCs through an umbrella policy also creates the risk that individual operators would not incur their true incremental cost of insurance; as they will under MPI's proposed model that accounts for vehicle type and driver safety. In addition, the use of an umbrella policy would not be fair and equitable to existing VFHs, such as taxis and limos.

In summary, a VFH is required to have Basic Insurance. The requirement to hold the coverage and the obligation of the Basic coverage to respond as primary in the event of a loss does not change based upon the use, type, or territory of the vehicle.

VFH.10 MPI CONTINUES STAKEHOLDER ENGAGEMENT

MPI conducted initial discussions with a number of stakeholders including:

- The Winnipeg Community Taxi Coalition
- Uber
- Lyft
- City of Winnipeg
- Manitoba Infrastructure
- Manitoba Crown Services
- Indigenous and Municipal Relations
- Motor Transport Board
- Taxicab Board

At these discussions, MPI reviewed a number of topics including:

- The overall VFH rating model
- Relevant legislation related to the basic, compulsory insurance program in Manitoba, including first-party coverage extended to all Manitoba residents and occupants of Manitoba-registered vehicles injured in motor vehicle collisions.
- The rate-making and regulatory framework in Manitoba, including the role of the PUB in approving basic insurance rates
- Creation of a separate insurance use for VFH and sub-categories within that classification to ensure rates charged are actuarially sound and to prevent no cross-subsidization within the pool or by other vehicle classes
- The time bands framework
- Changes to the vehicle registration model and plating requirements for VFH
- Adjustments to DSR eligibility and vehicle premium discounts
- Service fees

Although discussions between MPI and stakeholders have been substantial to date, they remain ongoing, particularly with those in the taxi and TNC industries.

As reported in the media, feedback from operating TNCs has been positive. Please see *Part V(ii) Vehicles for Hire Appendix 2*.

PF.1 STATEMENT OF OPERATIONS – 2.2% RATE CHANGE

Line No.	*2019/20 Basic Rates +0.1% Break Even & +2.1% Net Capital Maintenance Provision Rate Change* *(C$ 000s, rounding may affect totals)*	*For the Years Ended February,*						
1		2018A	2019B	2019FB	2020F	2021F	2022F	2023F
2	BASIC	2017/18A	2018/19B	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
3	Motor Vehicles	955,941	1,018,965	1,019,281	1,085,082	1,130,121	1,176,226	1,224,492
4	Drivers	49,946	69,148	68,902	70,903	72,885	74,723	76,565
5	Reinsurance Ceded	(11,294)	(11,975)	(11,196)	(11,420)	(11,648)	(11,881)	(12,119)
6	**Total Net Premiums Written**	994,593	1,076,138	1,076,987	1,144,565	1,191,358	1,239,068	1,288,938
7	**Net Premiums Earned**							
8	Motor Vehicles	922,617	988,774	991,058	1,054,643	1,109,287	1,154,898	1,202,165
9	Drivers	48,819	59,391	59,546	69,896	71,887	73,798	75,638
10	Reinsurance Ceded	(11,294)	(11,975)	(11,196)	(11,420)	(11,648)	(11,881)	(12,119)
11	**Total Net Premiums Earned**	960,142	1,036,190	1,039,408	1,113,119	1,169,526	1,216,815	1,265,684
12	Service Fees & Other Revenues	22,849	23,322	23,832	25,839	27,613	29,525	31,617
13	**Total Earned Revenues**	982,991	1,059,512	1,063,240	1,138,958	1,197,139	1,246,340	1,297,301
14	Claims Incurred	783,040	870,564	853,863	896,982	943,502	992,469	1,044,612
15	DPAC \ Premium Deficiency Adjustment	-	(15,750)	(28,521)	(5,380)	(4,243)	3,999	7,997
16	(a) Claims Incurred - Interest Rate Impact	(15,801)	(23,797)	(8,203)	8,610	11,453	10,124	10,109
17	**Total Claims Incurred**	767,239	831,017	817,139	900,212	950,712	1,006,592	1,062,718
18	Claims Expense	143,337	136,975	137,168	135,428	139,216	144,330	146,780
19	Road Safety/Loss Prevention	13,146	13,843	13,606	12,693	12,818	13,003	13,279
20	**Total Claims Costs**	923,722	981,835	967,913	1,048,333	1,102,746	1,163,925	1,222,777
21	**Expenses**							
22	Operating	70,201	73,799	75,060	73,606	76,313	79,998	82,908
23	Commissions	37,378	40,407	40,338	42,690	44,835	46,610	48,443
24	Premium Taxes	29,143	31,445	31,518	33,736	35,435	36,861	38,334
25	Regulatory/Appeal	4,443	4,666	4,669	4,840	4,998	5,114	5,233
26	**Total Expenses**	141,165	150,317	151,585	154,872	161,581	168,583	174,918
27	**Underwriting Income (Loss)**	(81,896)	(72,640)	(56,258)	(64,247)	(67,188)	(86,168)	(100,394)
28	**Investment Income**	111,731	82,203	191,814	82,148	84,863	87,773	90,599
29	(b) Investment Income - Interest Rate Impact	4,589	-	-	-	-	-	-
30	**Net Investment Income**	116,320	82,203	191,814	82,148	84,863	87,773	90,599
31	**Net Income (Loss)**	34,424	9,563	135,556	17,901	17,675	1,605	(9,795)
32	Total net Impact due to interest rate change (b) - (a)	20,390	23,797	8,203	(8,610)	(11,453)	(10,124)	(10,109)

PF.2 STATEMENT OF FINANCIAL POSITION – 2.2% RATE CHANGE

Line No.	*2019/20 Basic Rates +0.1% Break Even & +2.1% Net Capital Maintenance Provision Rate Change* *(C$ 000s, rounding may affect totals)*		*For the Years Ended February,*						
1			2018A	2019B	2019FB	2020F	2021F	2022F	2023F
2	BASIC		2017/18A	2018/19B	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
3	Assets								
4		Cash and cash equivalents	72,998	11,929	28,178	63,651	77,095	85,793	81,355
5		Investments	2,272,545	2,451,402	2,508,579	2,597,256	2,703,872	2,814,348	2,925,883
6		Investment property	34,720	35,916	13,906	13,548	13,553	13,760	15,246
7		Due from other insurance companies	2	-	-	-	-	-	-
8		Accounts receivable	389,186	357,114	354,564	375,397	390,253	405,447	421,338
9		Prepaid expenses	714	-	-	-	-	-	-
10		Deferred policy acquisition costs	-	9,628	17,110	24,394	29,940	27,275	20,674
11		Reinsurers' share of unpaid claims	1,269	-	-	-	-	-	-
12		Property and equipment	89,280	86,710	89,855	91,050	88,996	88,335	90,227
13		Deferred development costs	55,423	72,551	43,654	47,106	59,150	61,159	63,190
14			**2,916,137**	**3,025,250**	**3,055,846**	**3,212,402**	**3,362,859**	**3,496,117**	**3,617,913**
15	Liabilities								
16		Due to other insurance companies	141	2,642	144	144	144	144	144
17		Accounts payable and accrued liabilities	39,327	31,906	40,996	40,602	41,678	43,356	44,182
18		Financing lease obligation	3,125	2,931	2,925	2,843	2,743	2,634	2,518
19		Unearned premiums and fees	508,089	548,406	547,303	582,126	607,614	633,826	661,368
20		Provision for employee current benefits	16,633	16,953	17,155	17,865	18,583	19,310	20,046
21		Provision for employee future benefits	331,910	316,773	341,796	357,994	373,915	389,863	406,134
22		Provision for unpaid claims	1,806,067	1,920,634	1,851,107	1,930,655	2,011,231	2,088,693	2,164,452
23			**2,705,292**	**2,840,245**	**2,801,426**	**2,932,229**	**3,055,908**	**3,177,826**	**3,298,844**
24	Equity								
25		Retained Earnings	170,975	134,734	306,531	324,432	342,107	343,712	333,916
26		Accumulated Other Comprehensive Income	39,870	50,271	(52,111)	(44,259)	(35,156)	(25,421)	(14,847)
27	Total Equity		**210,845**	**185,005**	**254,420**	**280,173**	**306,951**	**318,291**	**319,069**
28	Total Liabilities & Equity		**2,916,137**	**3,025,250**	**3,055,846**	**3,212,402**	**3,362,859**	**3,496,117**	**3,617,913**

PF.3 STATEMENT OF CHANGES IN EQUITY – 2.2% RATE CHANGE

Line No.	*2019/20 Basic Rates +0.1% Break Even & +2.1% Net Capital Maintenance Provision Rate Change* *(C$ 000s, rounding may affect totals)*	*For the Years Ended February,*						
1		2018A	2019B	2019FB	2020F	2021F	2022F	2023F
2	BASIC	2017/18A	2018/19B	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
3	Total Equity							
4	Retained Earnings							
5	Beginning Balance	99,251	125,171	170,975	306,531	324,432	342,107	343,712
6	Net Income (Loss) from annual operations	34,424	9,563	135,556	17,901	17,675	1,605	(9,795)
7	Transfer (to) / from Non-Basic Retained Earnings	37,300	-	-	-	-	-	-
8	Total Retained Earnings	170,975	134,734	306,531	324,432	342,107	343,712	333,916
9	Total Accumulated Other Comprehensive Income							
10	Beginning Balance	81,749	49,148	39,870	(52,111)	(44,259)	(35,155)	(25,421)
11	Other Comprehensive Income for the Year	(41,879)	1,123	(91,981)	7,853	9,103	9,734	10,573
12	Total Accumulated Other Comprehensive Income	39,870	50,271	(52,111)	(44,259)	(35,156)	(25,421)	(14,847)
13	Total Equity Balance	210,845	185,005	254,420	280,173	306,951	318,291	319,069
14	Total Equity							
15	Rate Stabilization Reserve							
16	Retained Earnings	170,975	134,734	306,531	324,432	342,107	343,712	333,916
17	Accumulated Other Comprehensive Income	39,870	50,271	(52,111)	(44,259)	(35,156)	(25,421)	(14,847)
18	Total Rate Stabilization Reserve	210,845	185,005	254,420	280,173	306,951	318,291	319,069
19	Retained Earnings	-	-	-	-	-	-	-
20	Total Equity Balance	210,845	185,005	254,420	280,173	306,951	318,291	319,069
21	RATE STABILIZATION RESERVE TARGETS							
22	PUB RSR Target	180,000	180,000	180,000	180,000	180,000	180,000	180,000
23	DCAT Total Equity Lower Target(*@34% MCT Ratio)	201,000	201,000	143,000*	155,000*	173,000*	180,000*	188,000*
24	DCAT Total Equity Upper Target(**@85% MCT Ratio)	442,000	442,000	305,000**	337,000**	363,000**	380,000**	397,000**
25	MCT RATIO (%)	44%	28%	70%	70%	70%	70%	66%

PF.4 STATEMENT OF OPERATIONS – 2017/18 COMPARATIVE

Line No.		2018 GRA	2019 GRA			Increase /
1	*(C$ 000s, except where noted)*	2017-18FB	2017-18A	Inc (dec)	Ref.	(Decrease)
2		$	$	$		%
3	**Net Premiums Written**					
4	Motor Vehicles	958,740	955,941	(2,799)		(0.29)
5	Drivers	50,334	49,946	(388)		(0.77)
6	Reinsurance Ceded	(11,291)	(11,294)	(3)		0.03
7	**Total Net Premiums Written**	**997,783**	**994,593**	**(3,190)**	(1)	(0.32)
8	**Net Premiums Earned**					
9	Motor Vehicles	925,950	922,617	(3,333)		(0.36)
10	Drivers	49,265	48,819	(446)		(0.91)
11	Reinsurance Ceded	(11,291)	(11,294)	(3)		0.03
12	**Total Net Premiums Earned**	**963,924**	**960,142**	**(3,782)**		(0.39)
13	Service Fees & Other Revenues	22,204	22,849	645		2.90
14	**Total Earned Revenues**	**986,128**	**982,991**	**(3,137)**		(0.32)
			-			
15	**Net Claims Incurred**	827,183	783,040	(44,143)		(5.34)
16	DPAC \ Premium Deficiency Adjustment	(12,127)	-	12,127		(100.00)
17	(a) Claims Incurred - Interest rate impact	(75,641)	(15,801)	59,840		(79.11)
18	**Total Claims Incurred**	**739,415**	**767,239**	**27,824**	(2)	3.76
19	Claims Expense	134,294	143,337	9,043	(4)	6.73
20	Road Safety/Loss Prevention	13,210	13,146	(64)	(4)	(0.48)
21	**Total Claims Costs**	**886,919**	**923,722**	**36,803**		4.15
22	**Expenses**					
23	Operating	72,563	70,201	(2,362)	(4)	(3.26)
24	Commissions	37,655	37,378	(277)		(0.74)
25	Premium Taxes	29,256	29,143	(113)		(0.39)
26	Regulatory/Appeal	4,054	4,443	389	(4)	9.60
27	**Total Expenses**	**143,528**	**141,165**	**(2,363)**		(1.65)
28	**Underwriting Income (Loss)**	**(44,319)**	**(81,896)**	**(37,577)**		84.79
29	**Investment Income**	101,827	111,731	9,904		9.73
30	(b) Investment Income - Interest rate impact	-	4,589	4,589		-
31	**Total Investment Income**	**101,827**	**116,320**	**14,493**	(3)	14.23
32	**Net Income (Loss)**	**57,508**	**34,424**	**(23,084)**		(40.14)
33	**Allocated Corporate Expenses**					
34	Claims Expense	134,294	143,337	9,043		6.73
35	Road Safety/Loss Prevention	13,210	13,146	(64)		(0.48)
36	Operating	72,563	70,201	(2,362)		(3.26)
37	Regulatory/Appeal	4,054	4,443	389		9.60
38	**Total Allocated Corporate Expenses**	224,121	231,127	7,006		3.13
39	**Allocated Corporate Expenses**					
40	Normal Operations	221,706	210,897	(10,809)	(4)	(4.88)
41	Initiatives Implementation	2,444	20,230	17,786	(4)	727.74
42	Initiatives Ongoing	(29)	-	29	(4)	(100.00)
43	**Total Allocated Corporate Expenses**	224,121	231,127	7,006		3.13
44	*Total net positive impact due to interest rates	75,641	20,390	(55,251)		(73.04)

Explanation of Significant Variances – 2017/18 Comparative

Line No.	Ref.	Category	(C$ 000s)	Explanation
1	(1)	Net Premiums Written	**997,783**	2018 GRA
2			(588)	Lower than expected premium related to volume
3			(3,755)	Lower motor vehicle premium upgrade due to fewer new vehicles
4			(105)	Lower premium due to rate change
5			1,671	Lower than expected fleet rebate
6			(388)	Lower driver premiums primarily due to lower volume
7			(25)	Other
8			**994,593**	2019 GRA
9		*detailed explanations along with commentary found in Part V-Revenues		
10	(2)	Net Claims Incurred	**739,415**	2018 GRA
11			59,840	Lower growth in interest rates
12			(34,845)	Lower Physical Damage claims (Low hail counts)
13			(4,187)	Lower PIPP and Liability claims
14			(6,686)	Lower ILAE
15			47	Higher ULAE
16			16,492	Higher Write Down DPAC/Premium Deficiency
17			(2,837)	Other (Allowance for Doubtful Accts, Reinsurance Ceded)
18			**767,239**	2019 GRA
19		*detailed explanations along with commentary found in Part V-Claims Incurred		
20	(3)	Investment Income	**101,827**	2018 GRA
21			4,589	Higher than expected ALM impact due to interest rate forecast
22			1,384	Higher than expected interest income
23			(7,971)	Lower than expected equity investment income
24			13,995	Higher than expected alternative investment income
25			428	Higher than expected fees
26			8,616	Higher than expected amortization
27			(6,029)	Lower than expected pension expense
28			(519)	Other
29			**116,320**	2019 GRA
30		*detailed explanations along with commentary found in Part VI-Investments		
31	(4)	Allocated Corporate Expenses	**221,706**	2018 GRA
32		(Normal Operations)	(2,415)	Lower than expected regular salaries
33			(602)	Lower than expected overtime
34			(1,359)	Lower than expected benefits
35			(785)	Lower than expected data processing expense
36			(2,273)	Lower than expected building expenses
37			(1,175)	Lower than expected safety/loss prevention expense
38			(1,010)	Lower than expected furniture and equipment expense
39			(562)	Lower than expected credit card fees
40			(628)	Other
41			**210,897**	2019 GRA
42	(4)	Allocated Corporate Expenses	**2,444**	2018 GRA
43			996	Higher than expected salaries
44			16,818	Higher than expected data processing
45			(28)	other
46			**20,230**	2019 GRA
47	(4)	Allocated Corporate Expenses	**(29)**	2018 GRA
48		(Initiatives Ongoing)	29	other
49			**-**	2019 GRA
50		*detailed explanations along with commentary found in Part V-Expenses		

PF.5 STATEMENT OF OPERATIONS – 2018/19 COMPARATIVE

Line No.		2018 GRA	2019 GRA			Increase /
1	*(C$ 000s, except where noted)*	2018-19F	2018-19FB	Inc (dec)	Ref.	(Decrease)
2		$	$	$		%
3	**Net Premiums Written**					
4	Motor Vehicles	1,025,482	1,019,281	(6,201)		(0.60)
5	Drivers	69,148	68,902	(246)		(0.36)
6	Reinsurance Ceded	(11,517)	(11,196)	321		(2.79)
7	**Total Net Premiums Written**	**1,083,113**	**1,076,987**	**(6,126)**	(1)	(0.57)
8	**Net Premiums Earned**					
9	Motor Vehicles	994,660	991,058	(3,602)		(0.36)
10	Drivers	59,702	59,546	(156)		(0.26)
11	Reinsurance Ceded	(11,517)	(11,196)	321		(2.79)
12	**Total Net Premiums Earned**	**1,042,845**	**1,039,408**	**(3,437)**		(0.33)
13	Service Fees & Other Revenues	24,328	23,832	(496)		(2.04)
14	**Total Earned Revenues**	**1,067,173**	**1,063,240**	**(3,933)**		(0.37)
			-			
15	**Net Claims Incurred**	865,295	853,863	(11,432)		(1.32)
16	DPAC \ Premium Deficiency Adjustment	(9,474)	(28,521)	(19,047)		201.04
17	(a) Claims Incurred - Interest rate impact	8,465	(8,203)	(16,668)		(196.90)
18	**Total Claims Incurred**	**864,286**	**817,139**	**(47,147)**	(2)	(5.46)
19	Claims Expense	137,885	137,168	(717)	(4)	(0.52)
20	Road Safety/Loss Prevention	13,090	13,606	516	(4)	3.94
21	**Total Claims Costs**	**1,015,261**	**967,913**	**(47,348)**		(4.66)
22	**Expenses**					
23	Operating	74,921	75,060	139	(4)	0.19
24	Commissions	40,593	40,338	(255)		(0.63)
25	Premium Taxes	31,631	31,518	(113)		(0.36)
26	Regulatory/Appeal	4,132	4,669	537	(4)	13.00
27	**Total Expenses**	**151,277**	**151,585**	**308**		0.20
28	**Underwriting Income (Loss)**	**(99,365)**	**(56,258)**	**43,107**		(43.38)
29	**Investment Income**	78,109	191,814	113,705		145.57
30	(b) Investment Income - Interest rate impact	(0)	(0)	(0)		172.00
31	**Total Investment Income**	**78,109**	**191,814**	**113,705**	(3)	145.57
32	**Net Income (Loss)**	**(21,256)**	**135,556**	**156,812**		(737.73)
33	**Allocated Corporate Expenses**					
34	Claims Expense	137,885	137,168	(717)		(0.52)
35	Road Safety/Loss Prevention	13,090	13,606	516		3.94
36	Operating	74,921	75,060	139		0.19
37	Regulatory/Appeal	4,132	4,669	537		13.00
38	**Total Allocated Corporate Expenses**	230,028	230,503	475		0.21
39	**Allocated Corporate Expenses**					
40	Normal Operations	222,267	227,083	4,816	(4)	2.17
41	Initiatives Implementation	2,566	3,420	854	(4)	33.28
42	Initiatives Ongoing	5,195	-	(5,195)	(4)	(100.00)
43	**Total Allocated Corporate Expenses**	230,028	230,503	475		0.21
44	*Total net positive impact due to interest rates	(8,465)	8,203	16,668		(196.90)

Explanation of Significant Variances – 2018/19 Comparative

Line No.	Ref.	Category	(C$ 000s)	Explanation
1	(1)	Net Premiums Written	**1,083,113**	2018 GRA
2			(4,447)	Lower than expected 2017/18 actual premiums
3			(1,168)	Lower rate change due to 2.7 % vs 2.6% Rate Increase
4			(67)	Lower than expected premium related to volume
5			(1,303)	Lower motor vehicle premium upgrade due to less new vehicles
6			723	Lower than expected fleet rebate
7			60	Lower than expected Immobilizer discounts
8			(246)	Lower driver premiums
9			322	Lower than expected reinsurance premiums and other
10			**1,076,987**	2019 GRA
11	*detailed explanations along with commentary found in Part V-Revenues			
12	(2)	Net Claims Incurred	**864,286**	2018 GRA
13			(16,668)	Higher forecasted growth in interest rates
14			(18,538)	Lower forecast for Physical Damage claims
15			474	Higher forecast for PIPP and Liability claims
16			408	Higher forecasted ILAE
17			6,223	Higher forecasted ULAE
18			(19,047)	Lower forecasted Write Down DPAC/Premium Deficiency
19			1	Other
20			**817,139**	2019 GRA
21	*detailed explanations along with commentary found in Part V-Claims Incurred			
22	(3)	Investment Income	**78,109**	2018 GRA
23			4,800	Higher than expected interest income
24			106,146	Higher than expected equity investment income
25			1,361	Higher than expected alternative investment income
26			479	Higher than expected fees
27			465	Higher than expected amortization
28			455	Higher than expected pension expense
29			**191,814**	2019 GRA
30	*detailed explanations along with commentary found in Part VI-Investments			
31	(4)	Allocated Corporate Expenses	**222,267**	2018 GRA
32		(Normal Operations)	(300)	Lowere than expected salaries
33			1,290	Higher than expected data processing
34			1,559	Higher than expected special services
35			(1,238)	Lower than expected building expenses
36			818	Higher than expected safety loss prevention
37			2,139	Higher "Other" expenses primarily due to stretch target
38			1,936	Higher than expected amortization expenses
39			(634)	Lower than expected capital depreciation
40			(754)	Other
41			**227,083**	2019 GRA
42	(4)	Allocated Corporate Expenses	**2,566**	2018 GRA
43		(Initiatives Implementation)	854	Higher than expected data processing
44			**3,420**	2019 GRA
45	(4)	Allocated Corporate Expenses	**5,195**	2018 GRA
46		(Initiatives Ongoing)	938	Higher than expected salaries
47			(2,013)	Lower than expected data processing
48			(4,077)	Lower than expected amortization expense
49			(43)	Other
50			**-**	2019 GRA
51	*detailed explanations along with commentary found in Part V-Expenses			

PF.6 STATEMENT OF OPERATIONS – 2019/20 COMPARATIVE

Line No.		2018 GRA	2019 GRA			Increase /
1	*(C$ 000s, except where noted)*	2019-20F	2019-20F	Inc (dec)	Ref.	(Decrease)
2		$	$	$		%
3	**Net Premiums Written**					
4	Motor Vehicles	1,068,082	1,085,082	17,000		1.59
5	Drivers	71,252	70,903	(349)		(0.49)
6	Reinsurance Ceded	(11,747)	(11,420)	327		(2.78)
7	**Total Net Premiums Written**	**1,127,587**	**1,144,565**	**16,978**	(1)	1.51
8	**Net Premiums Earned**					
9	Motor Vehicles	1,048,409	1,054,643	6,234		0.59
10	Drivers	70,196	69,896	(300)		(0.43)
11	Reinsurance Ceded	(11,747)	(11,420)	327		(2.78)
12	**Total Net Premiums Earned**	**1,106,858**	**1,113,119**	**6,261**		0.57
13	Service Fees & Other Revenues	26,431	25,839	(592)		(2.24)
14	**Total Earned Revenues**	**1,133,289**	**1,138,958**	**5,669**		0.50
15	**Net Claims Incurred**	908,455	896,982	(11,472)		(1.26)
16	DPAC \ Premium Deficiency Adjustment	2,471	(5,380)	(7,851)		(317.73)
17	(a) Claims Incurred - Interest rate impact	1,930	8,610	6,679		346.01
18	**Total Claims Incurred**	**912,856**	**900,212**	**(12,644)**	(2)	(1.39)
19	Claims Expense	139,841	135,428	(4,413)	(4)	(3.16)
20	Road Safety/Loss Prevention	12,947	12,693	(254)	(4)	(1.96)
21	**Total Claims Costs**	**1,065,644**	**1,048,333**	**(17,311)**		(1.62)
22	**Expenses**					
23	Operating	75,469	73,606	(1,863)	(4)	(2.47)
24	Commissions	42,723	42,690	(33)		(0.08)
25	Premium Taxes	33,558	33,736	178		0.53
26	Regulatory/Appeal	4,217	4,840	623	(4)	14.77
27	**Total Expenses**	**155,967**	**154,872**	**(1,095)**		(0.70)
28	**Underwriting Income (Loss)**	**(88,322)**	**(64,247)**	**24,075**		(27.26)
29	**Investment Income**	80,017	82,148	5,880		7.35
30	(b) Investment Income - Interest rate impact	-	(1)	(0)		-
31	**Total Investment Income**	**80,017**	**82,147**	**5,880**	(3)	7.35
32	**Net Income (Loss)**	**(8,305)**	**17,900**	**29,955**		(360.69)
33	**Allocated Corporate Expenses**					
34	Claims Expense	139,841	135,428	(4,413)		(3.16)
35	Road Safety/Loss Prevention	12,947	12,693	(254)		(1.96)
36	Operating	75,469	73,606	(1,863)		(2.47)
37	Regulatory/Appeal	4,217	4,840	623		14.77
38	**Total Allocated Corporate Expenses**	232,474	226,567	(5,907)		(2.54)
39	**Allocated Corporate Expenses**					
40	Normal Operations	220,404	221,926	1,522	(4)	0.69
41	Initiatives Implementation	2,602	757	(1,845)	(4)	(70.91)
42	Initiatives Ongoing	9,468	3,884	(5,584)	(4)	(58.98)
43	**Total Allocated Corporate Expenses**	232,474	226,567	(5,907)		(2.54)
44	*Total net positive impact due to interest rates	(1,930)	(8,610)	(6,680)		346.02

Explanation of Significant Variances – 2019/20 Comparative

Line No.	Ref.	Category	(C$ 000s)	Explanation
1	(1)	Net Premiums Written	**1,127,587**	2018 GRA
2			(6,984)	Lower starting base due to lower than expected 2018/19 rate increase
3			23,743	Higher Premiums due to applied for 2.2% rate increase
4			(105)	Lower than expected premium related to volume factor
5			(516)	Lower motor vehicle premium upgrade due to less new vehicles
6			758	Lower than expected fleet rebate
7			104	Lower than expected Immobilizer discounts
8			(349)	Lower driver premiums primarilary due to DSR impact
9			327	Lower than expected reinsurance premiums and other
10			**1,144,565**	2019 GRA
11	*detailed explanations along with commentary found in Part V-Revenues			
12	(2)	Net Claims Incurred	**912,856**	2018 GRA
13			6,680	Forecasted decrease in claims discount rate
14			(18,892)	Lower forecast for Physical Damage claims
15			776	Higher forecast for PIPP and Liability claims
16			174	Higher forecasted ILAE
17			6,469	Higher forecasted ULAE
18			(7,851)	Lower forecasted Write Down DPAC/Premium Deficiency
19			**900,212**	2019 GRA
20	*detailed explanations along with commentary found in Part V-Claims Incurred			
21	(3)	Investment Income	**80,017**	2018 GRA
22			16,742	Higher than expected interest income
23			(18,763)	Lower than expected equity investment income
24			(20,788)	Lower than expected alternative investment income
25			2,982	Higher than expected fees
26			14,802	Higher than expected amortization
27			6,167	Higher than expected pension expense
28			987	Other
29			**82,147**	2019 GRA
30	*detailed explanations along with commentary found in Part VI-Investments			
31	(4)	Allocated Corporate Expenses	**220,404**	2018 GRA
32		(Normal Operations)	(1,372)	Lower than expected salaries
33			923	Higher than expected data processing
34			(915)	Lower than expected postage
35			2,342	Higher than expected other
36			(583)	Lower than expected capital depreciation
37			1,750	Higher than expected amortization expenses
38			(623)	Other
39			**221,926**	2019 GRA
40	(4)	Allocated Corporate Expenses	**2,602**	2018 GRA
41		(Initiatives Implementation)	(1,845)	Lower than expected data processing
			757	2019 GRA
42	(4)	Allocated Corporate Expenses	**9,468**	2018 GRA
43		(Initiatives Ongoing)	1,997	Higher than expected salaries
44			(1,078)	Lower than expected data processing
45			(6,225)	Lower than expected amortization expenses
46			(278)	Other
46			**3,884**	2019 GRA
48	*detailed explanations along with commentary found in Part V-Expenses			

PF.1

STATEMENT OF OPERATIONS

Manitoba Public Insurance
Multi-year - Statement of Operations

Line No.	*50 50 Interest Rate Forecast with 2.2% RI* *(C$ 000s, rounding may affect totals)*	For the Years Ended February,						
1		2018A	2019B	2019FB	2020F	2021F	2022F	2023F
2	BASIC	2017/18A	2018/19B	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
3	Motor Vehicles	955,941	1,018,965	1,019,281	1,085,082	1,130,121	1,176,226	1,224,492
4	Drivers	49,946	69,148	68,902	70,903	72,885	74,723	76,565
5	Reinsurance Ceded	(11,294)	(11,975)	(11,196)	(11,420)	(11,648)	(11,881)	(12,119)
6	**Total Net Premiums Written**	**994,593**	**1,076,138**	**1,076,987**	**1,144,565**	**1,191,358**	**1,239,068**	**1,288,938**
7	**Net Premiums Earned**							
8	Motor Vehicles	922,617	988,774	991,058	1,054,643	1,109,287	1,154,898	1,202,165
9	Drivers	48,819	59,391	59,546	69,896	71,887	73,798	75,638
10	Reinsurance Ceded	(11,294)	(11,975)	(11,196)	(11,420)	(11,648)	(11,881)	(12,119)
11	**Total Net Premiums Earned**	**960,142**	**1,036,190**	**1,039,408**	**1,113,119**	**1,169,526**	**1,216,815**	**1,265,684**
12	Service Fees & Other Revenues	22,849	23,322	23,845	25,915	27,787	29,814	32,039
13	**Total Earned Revenues**	**982,991**	**1,059,512**	**1,063,253**	**1,139,034**	**1,197,313**	**1,246,629**	**1,297,723**
14	Claims Incurred	783,040	870,564	853,862	896,143	942,167	990,961	1,043,152
15	DPAC \ Premium Deficiency Adjustment	-	(15,750)	(30,306)	(6,883)	(3,712)	2,549	7,509
16	(a) Claims Incurred - Interest Rate Impact	(15,801)	(23,797)	(37,865)	(12,710)	(296)	7,196	5,336
17	**Total Claims Incurred**	**767,239**	**831,017**	**785,691**	**876,550**	**938,159**	**1,000,706**	**1,055,997**
18	Claims Expense	143,337	136,975	137,168	135,286	138,962	144,038	146,501
19	Road Safety/Loss Prevention	13,146	13,843	13,606	12,679	12,792	12,973	13,250
20	**Total Claims Costs**	**923,722**	**981,835**	**936,465**	**1,024,515**	**1,089,913**	**1,157,717**	**1,215,748**
21	**Expenses**							
22	Operating	70,201	73,799	75,060	73,539	76,188	79,852	82,767
23	Commissions	37,378	40,407	40,338	42,690	44,835	46,610	48,443
24	Premium Taxes	29,143	31,445	31,518	33,736	35,435	36,861	38,334
25	Regulatory/Appeal	4,443	4,666	4,669	4,839	4,998	5,114	5,233
26	**Total Expenses**	**141,165**	**150,317**	**151,585**	**154,804**	**161,456**	**168,437**	**174,777**
27	**Underwriting Income (Loss)**	**(81,896)**	**(72,640)**	**(24,797)**	**(40,285)**	**(54,056)**	**(79,525)**	**(92,802)**
28	**Investment Income**	111,731	82,203	192,405	86,465	91,437	95,843	99,484
29	(b) Investment Income - Interest Rate Impact	4,589	-	(23,026)	(19,127)	(8,895)	297	(1,886)
30	**Net Investment Income**	**116,320**	**82,203**	**169,379**	**67,338**	**82,542**	**96,140**	**97,598**
31	**Net Income (Loss)**	**34,424**	**9,563**	**144,582**	**27,053**	**28,486**	**16,615**	**4,796**
32	Total net Impact due to interest rate change (b) - (a)	20,390	23,797	14,839	(6,417)	(8,599)	(6,899)	(7,222)

PF.2 STATEMENT OF FINANCIAL POSITION

Manitoba Public Insurance
Multi-year - Statement of Financial Position

Line No.	*50 50 Interest Rate Forecast with 2.2% RI* *(C$ 000s, rounding may affect totals)*		*For the Years Ended February,*						
1			2018A	2019B	2019FB	2020F	2021F	2022F	2023F
2	BASIC		2017/18A	2018/19B	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
3	Assets								
4		Cash and cash equivalents	72,998	11,929	28,822	65,199	79,676	89,126	85,483
5		Investments	2,272,545	2,451,402	2,485,514	2,558,019	2,661,510	2,781,149	2,900,977
6		Investment property	34,720	35,916	13,906	13,548	13,553	13,760	15,246
7		Due from other insurance companies	2	-	-	-	-	-	-
8		Accounts receivable	389,900	357,114	354,564	375,397	390,253	405,447	421,338
9		Prepaid expenses	-	-	-	-	-	-	-
10		Deferred policy acquisition costs	-	9,628	18,894	27,681	32,696	31,480	25,368
11		Reinsurers' share of unearned premiums	-	-	-	-	-	-	-
12		Reinsurers' share of unpaid claims	1,269	-	-	-	-	-	-
13		Property and equipment	89,280	86,710	89,855	91,050	88,996	88,335	90,227
14		Deferred development costs	55,423	72,551	43,654	47,118	59,181	61,201	63,236
15			**2,916,137**	**3,025,250**	**3,035,209**	**3,178,012**	**3,325,865**	**3,470,498**	**3,601,875**
16	Liabilities								
17		Due to other insurance companies	141	2,642	144	144	144	144	144
18		Accounts payable and accrued liabilites	39,327	31,906	40,996	40,602	41,678	43,356	44,182
19		Financing lease obligation	3,125	2,931	2,925	2,843	2,743	2,634	2,518
20		Unearned premiums and fees	508,089	548,406	547,303	582,126	607,614	633,826	661,368
21		Provision for employee current benefits	16,633	16,953	17,155	17,865	18,583	19,310	20,046
22		Provision for employee future benefits	331,910	316,773	341,796	357,172	372,687	388,935	405,346
23		Provision for unpaid claims	1,806,067	1,920,634	1,821,445	1,878,834	1,946,325	2,019,351	2,088,878
24			**2,705,292**	**2,840,245**	**2,771,764**	**2,879,586**	**2,989,774**	**3,107,556**	**3,222,482**
25	Equity								
26		Retained Earnings	170,975	134,734	315,556	342,609	371,095	387,711	392,507
27		Accumulated Other Comprehensive Income	39,870	50,271	(52,111)	(44,183)	(35,005)	(24,768)	(13,113)
28	Total Equity		**210,845**	**185,005**	**263,445**	**298,426**	**336,090**	**362,943**	**379,394**
29	Total Liabilities & Equity		**2,916,137**	**3,025,250**	**3,035,209**	**3,178,012**	**3,325,864**	**3,470,499**	**3,601,876**

PF.3

STATEMENT OF CHANGES IN EQUITY

Manitoba Public Insurance
Multi-year - Statement of Changes in Equity

Line No.	***50 50 Interest Rate Forecast with 2.2% RI*** *(C$ 000s, rounding may affect totals)*	*For the Years Ended February,*						
1		2018A	2019B	2019FB	2020F	2021F	2022F	2023F
2	BASIC	2017/18A	2018/19B	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
3	Total Equity							
4	Retained Earnings							
5	Beginning Balance	99,251	125,171	170,975	315,556	342,609	371,095	387,711
6	Net Income (Loss) from annual operations	34,424	9,563	144,581	27,053	28,486	16,615	4,797
7	Transfer (to) / from Non-Basic Retained Earnings	37,300	-	-	-	-	-	-
8	**Total Retained Earnings**	170,975	134,734	315,556	342,609	371,095	387,711	392,507
9	**Total Accumulated Other Comprehensive Income**							
10	Beginning Balance	81,748	49,148	39,870	(52,111)	(44,183)	(35,005)	(24,768)
11	Other Comprehensive Income for the Year	(41,878)	1,123	(91,981)	7,928	9,178	10,237	11,655
12	**Total Accumulated Other Comprehensive Income**	39,870	50,271	(52,111)	(44,183)	(35,005)	(24,768)	(13,113)
13	**Total Equity Balance**	**210,845**	**185,005**	**263,445**	**298,426**	**336,090**	**362,943**	**379,394**
14	Total Equity							
15	Rate Stabilization Reserve							
16	Retained Earnings	170,975	134,734	315,556	342,609	371,095	387,711	392,507
17	Accumulated Other Comprehensive Income	39,870	50,271	(52,111)	(44,183)	(35,005)	(24,768)	(13,113)
18	**Total Rate Stabilization Reserve**	210,845	185,005	263,445	298,426	336,090	362,943	379,394
19	Retained Earnings	-	-	-	-	-	-	-
20	**Total Equity Balance**	**210,845**	**185,005**	**263,445**	**298,426**	**336,090**	**362,943**	**379,394**
21	RATE STABILIZATION RESERVE TARGETS							
22	PUB RSR Target	180,000	180,000	180,000	180,000	180,000	180,000	180,000
23	DCAT Total Equity Lower Target (*@34% MCT Ratio)	201,000	201,000	143,000*	155,000*	173,000*	180,000*	188,000*
24	DCAT Total Equity Upper Target (**@85% MCT Ratio)	442,000	442,000	305,000**	337,000**	363,000**	380,000**	397,000**
25	MCT RATIO	44%	28%	73%	75%	79%	82%	82%

Appendix 2: SUMMARY OF BASIC EXPENSES BY CATEGORY

Normal Operations

5 Year Summary of Basic Expenses by Category - Normal Operations Expenses

Line No.	Expense	Claims					Operating					Road Safety				
		2016/17A	2017/18A	2018/19FB	2019/20F	2020/21F	2016/17A	2017/18A	2018/19FB	2019/20F	2020/21F	2016/17A	2017/18A	2018/19FB	2019/20F	2020/21F
1	*($000's, except where noted)*															
2	Compensation - Salaries	66,417	66,794	69,168	71,060	73,443	30,993	29,116	30,278	31,179	32,278	1,762	1,891	1,978	1,848	1,906
3	Compensation - Overtime	1,047	644	1,133	1,128	1,127	193	154	292	291	290	14	2	13	13	13
4	Compensation - Benefits	15,201	15,718	17,031	17,407	17,870	7,374	7,140	7,456	7,639	7,854	352	447	465	431	441
5	Compensation - H & E Tax	1,421	1,429	1,485	1,524	1,558	689	648	649	667	683	33	41	41	38	38
6	Subtotal - Compensation	84,086	84,585	88,817	91,119	93,998	39,249	37,058	38,675	39,776	41,105	2,161	2,381	2,497	2,330	2,398
7	Data Processing	12,945	12,544	14,108	13,933	14,563	6,008	5,487	5,837	5,771	6,039	11	14	16	-	-
8	Special Services	1,973	2,314	2,325	1,794	1,788	2,905	3,218	3,682	2,837	2,810	118	90	263	175	172
9	Building Expenses	6,239	5,794	5,768	6,522	6,492	2,591	2,293	2,364	2,679	2,672	99	100	105	104	103
10	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-	4,131	3,029	4,358	3,106	3,044
11	Telephone/Telecommunications	1,234	1,162	1,199	1,221	1,256	585	518	533	543	558	-	-	-	-	-
12	Public Information/Advertising	53	16	15	15	16	240	95	243	247	254	2,328	1,825	2,081	2,108	2,156
13	Printing, Stationery, Supplies	799	468	947	919	873	556	552	695	675	641	49	60	57	55	52
14	Postage	1	1	1	-	1	2,995	3,241	2,886	2,174	2,279	-	-	-	-	-
15	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Travel and Vehicle Expense	724	524	746	757	775	211	138	174	177	181	5	7	11	10	11
17	Driver Education Program	-	-	-	-	-	-	-	-	-	-	3,399	3,600	3,879	3,885	3,974
18	Grants in Lieu of Taxes	1,059	1,065	1,018	1,053	1,101	439	422	417	433	453	17	18	18	17	18
19	Furniture & Equipment	142	182	677	555	599	324	307	598	490	529	-	-	-	-	-
20	Merchant Fees & Bank Charges	-	-	-	-	-	8,186	8,460	9,175	9,539	9,893	-	-	-	-	-
21	Other	929	793	1,177	1,214	1,239	3,544	3,080	3,543	3,645	3,715	101	87	187	188	192
22	Subtotal - Other Expenses	26,098	24,863	27,981	27,983	28,703	28,584	27,811	30,147	29,210	30,024	10,258	8,830	10,975	9,648	9,722
23	Depreciation-Capital Assets	2,723	2,641	2,721	3,054	3,396	1,220	1,074	1,250	1,553	1,802	56	113	134	120	103
24	Amortization-Deferred Development	10,540	13,760	15,415	10,705	9,370	3,617	3,338	3,802	1,588	1,593	-	-	-	-	-
25	Total	123,447	125,849	134,934	132,861	135,467	72,670	69,281	73,874	72,127	74,524	12,475	11,324	13,606	12,098	12,223
26	**Rounding may affect totals*															

Line No.	Expense	Regulatory					Total				
		2016/17A	2017/18A	2018/19FB	2019/20F	2020/21F	2016/17A	2017/18A	2018/19FB	2019/20F	2020/21F
27	($000's, except where noted)										
28	Compensation - Salaries	247	240	374	387	398	99,419	98,041	101,798	104,474	108,025
29	Compensation - Overtime	4	5	3	4	3	1,258	805	1,441	1,436	1,433
30	Compensation - Benefits	59	59	92	94	97	22,986	23,364	25,044	25,571	26,262
31	Compensation - H & E Tax	6	5	8	8	8	2,149	2,123	2,183	2,237	2,287
32	Subtotal - Compensation	316	309	477	493	506	125,812	124,333	130,466	133,718	138,007
33	Data Processing	-	-	-	-	-	18,964	18,045	19,961	19,704	20,602
34	Special Services	-	1	1	-	-	4,996	5,623	6,271	4,806	4,770
35	Building Expenses	-	6	6	7	6	8,929	8,193	8,243	9,312	9,273
36	Safety/Loss Prevention Programs	-	-	-	-	-	4,131	3,029	4,358	3,106	3,044
37	Telephone/Telecommunications	-	-	-	-	-	1,819	1,680	1,732	1,764	1,814
38	Public Information/Advertising	-	-	-	-	-	2,621	1,936	2,339	2,370	2,426
39	Printing, Stationery, Supplies	1	-	1	1	1	1,405	1,080	1,700	1,650	1,567
40	Postage	-	-	-	-	-	2,996	3,242	2,887	2,174	2,280
41	Regulatory/Appeal	4,555	4,122	4,179	4,334	4,479	4,555	4,122	4,179	4,334	4,479
42	Travel and Vehicle Expense	1	1	1	1	1	941	670	932	945	968
43	Driver Education Program	-	-	-	-	-	3,399	3,600	3,879	3,885	3,974
44	Grants in Lieu of Taxes	-	1	1	1	1	1,515	1,506	1,454	1,504	1,573
45	Furniture & Equipment	-	-	-	-	-	466	489	1,275	1,045	1,128
46	Merchant Fees & Bank Charges	-	-	-	-	-	8,186	8,460	9,175	9,539	9,893
47	Other	16	1	1	1	2	4,590	3,961	4,908	5,048	5,148
48	Subtotal - Other Expenses	4,573	4,132	4,190	4,345	4,490	69,513	65,636	73,293	71,186	72,939
49	Depreciation-Capital Assets	-	2	2	2	2	3,999	3,830	4,107	4,729	5,303
50	Amortization-Deferred Development	-	-	-	-	-	14,157	17,098	19,217	12,293	10,963
51	Total	4,889	4,443	4,669	4,840	4,998	213,481	210,897	227,083	221,926	227,212
52	**Rounding may affect totals*										

Initiatives

5 Year Summary of Basic Expenses by Category - Initiative Expenses

Line No.	Expense	Claims 2016/17A	Claims 2017/18A	Claims 2018/19FB	Claims 2019/20F	Claims 2020/21F	Operating 2016/17A	Operating 2017/18A	Operating 2018/19FB	Operating 2019/20F	Operating 2020/21F	Road Safety 2016/17A	Road Safety 2017/18A	Road Safety 2018/19FB	Road Safety 2019/20F	Road Safety 2020/21F
	($000's, except where noted)															
1	Compensation - Salaries	(3,356)	15	-	(258)	(258)	(568)	25	-	-	-	-	-	-	-	-
2	Compensation - Overtime	2	21	-	-	-	2	12	-	-	-	-	-	-	-	-
3	Compensation - Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Compensation - H & E Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Subtotal - Compensation	(3,354)	36	-	(258)	(258)	(566)	37	-	-	-	-	-	-	-	-
6	Data Processing	820	17,243	2,234	952	1,056	679	878	1,186	799	848	18	1,822	-	243	243
7	Special Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Building Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Telephone/Telecommunications	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Public Information/Advertising	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Printing, Stationery, Supplies	12	3	-	-	-	-	-	-	-	-	35	-	-	-	-
13	Postage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Travel and Vehicle Expense	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-
16	Driver Education Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Grants in Lieu of Taxes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Furniture & Equipment	-	188	-	-	-	-	-	-	-	-	1	-	-	-	-
19	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Other	39	7	-	-	-	2	4	-	-	-	1	-	-	-	-
21	Subtotal - Other Expenses	872	17,441	2,234	952	1,056	681	883	1,186	799	848	55	1,822	-	243	243
22	Depreciation-Capital Assets	7	11	-	-	-	-	-	-	-	-	-	-	-	-	-
23	Amortization-Deferred Development	-	-	-	1,873	2,951	-	-	-	680	941	-	-	-	352	352
24	Total	(2,475)	17,488	2,234	2,567	3,749	115	920	1,186	1,479	1,789	55	1,822	-	595	595
25	*Rounding may affect totals															

Line No.	Expense	Regulatory Appeal 2016/17A	Regulatory Appeal 2017/18A	Regulatory Appeal 2018/19FB	Regulatory Appeal 2019/20F	Regulatory Appeal 2020/21F	Total 2016/17A	Total 2017/18A	Total 2018/19FB	Total 2019/20F	Total 2020/21F
	($000's, except where noted)										
26	Compensation - Salaries	-	-	-	-	-	(3,924)	40	-	(258)	(258)
27	Compensation - Overtime	-	-	-	-	-	4	33	-	-	-
28	Compensation - Benefits	-	-	-	-	-	-	-	-	-	-
29	Compensation - H & E Tax	-	-	-	-	-	-	-	-	-	-
30	Subtotal - Compensation	-	-	-	-	-	(3,920)	73	-	(258)	(258)
31	Data Processing	-	-	-	-	-	1,517	19,943	3,420	1,994	2,147
32	Special Services	-	-	-	-	-	-	-	-	-	-
33	Building Expenses	-	-	-	-	-	-	-	-	-	-
34	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-
35	Telephone/Telecommunications	-	-	-	-	-	-	-	-	-	-
36	Public Information/Advertising	-	-	-	-	-	-	-	-	-	-
37	Printing, Stationery, Supplies	-	-	-	-	-	47	3	-	-	-
38	Postage	-	-	-	-	-	-	-	-	-	-
39	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
40	Travel and Vehicle Expense	-	-	-	-	-	1	1	-	-	-
41	Driver Education Program	-	-	-	-	-	-	-	-	-	-
42	Grants in Lieu of Taxes	-	-	-	-	-	-	-	-	-	-
43	Furniture & Equipment	-	-	-	-	-	1	188	-	-	-
44	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-
45	Other	-	-	-	-	-	42	11	-	-	-
46	Subtotal - Other Expenses	-	-	-	-	-	1,608	20,146	3,420	1,994	2,147
47	Depreciation-Capital Assets	-	-	-	-	-	7	11	-	-	-
48	Amortization-Deferred Development	-	-	-	-	-	-	-	-	2,905	4,244
49	Total	-	-	-	-	-	(2,305)	20,230	3,420	4,641	6,133
50	*Rounding may affect totals										

Total

5 Year Summary of Basic Expenses by Category - Total Expenses

Line No.	Expense	Claims 2016/17A	Claims 2017/18A	Claims 2018/19FB	Claims 2019/20F	Claims 2020/21F	Operating 2016/17A	Operating 2017/18A	Operating 2018/19FB	Operating 2019/20F	Operating 2020/21F	Road Safety 2016/17A	Road Safety 2017/18A	Road Safety 2018/19FB	Road Safety 2019/20F	Road Safety 2020/21F
	($000's, except where noted)															
1	Compensation - Salaries	63,061	67,695	69,168	70,802	73,185	30,425	29,172	30,278	31,179	32,278	1,762	1,930	1,978	1,848	1,906
2	Compensation - Overtime	1,049	665	1,133	1,128	1,127	195	166	292	291	290	14	2	13	13	13
3	Compensation - Benefits	15,201	15,718	17,031	17,407	17,870	7,374	7,140	7,456	7,639	7,854	352	447	465	431	441
4	Compensation - H & E Tax	1,421	1,429	1,485	1,524	1,558	689	648	649	667	683	33	41	41	38	38
5	Subtotal - Compensation	80,732	85,507	88,817	90,861	93,740	38,683	37,126	38,675	39,776	41,105	2,161	2,420	2,497	2,330	2,398
6	Data Processing	13,765	28,895	16,342	14,885	15,619	6,687	6,334	7,023	6,570	6,887	29	1,796	16	243	243
7	Special Services	1,973	2,314	2,325	1,794	1,788	2,905	3,218	3,682	2,837	2,810	118	90	263	175	172
8	Building Expenses	6,239	5,794	5,768	6,522	6,492	2,591	2,293	2,364	2,679	2,672	99	100	105	104	103
9	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-	4,131	3,029	4,358	3,106	3,044
10	Telephone/Telecommunications	1,234	1,162	1,199	1,221	1,256	585	518	533	543	558	-	-	-	-	-
11	Public Information/Advertising	53	16	15	15	16	240	95	243	247	254	2,328	1,825	2,081	2,108	2,156
12	Printing, Stationery, Supplies	811	471	947	919	873	556	552	695	675	641	84	60	57	55	52
13	Postage	1	1	1	-	1	2,995	3,241	2,886	2,174	2,279	-	-	-	-	-
14	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Travel and Vehicle Expense	725	529	746	757	775	211	139	174	177	181	5	8	11	10	11
16	Driver Education Program	-	-	-	-	-	-	-	-	-	-	3,399	3,600	3,879	3,885	3,974
17	Grants in Lieu of Taxes	1,059	1,065	1,018	1,053	1,101	439	422	417	433	453	17	18	18	17	18
18	Furniture & Equipment	142	370	677	555	599	324	307	598	490	529	1	-	-	-	-
19	Merchant Fees & Bank Charges	-	-	-	-	-	8,186	8,460	9,175	9,539	9,893	-	-	-	-	-
20	Other	968	801	1,177	1,214	1,239	3,546	3,084	3,543	3,645	3,715	102	87	187	188	192
21	Subtotal - Other Expenses	26,970	41,418	30,215	28,935	29,759	29,265	28,663	31,333	30,009	30,872	10,313	10,613	10,975	9,891	9,965
22	Depreciation-Capital Assets	2,730	2,652	2,721	3,054	3,396	1,220	1,074	1,250	1,553	1,802	56	113	134	120	103
23	Amortization-Deferred Development	10,540	13,760	15,415	12,578	12,321	3,617	3,338	3,802	2,268	2,534	-	-	-	352	352
24	Total	120,972	143,337	137,168	135,428	139,216	72,785	70,201	75,060	73,606	76,313	12,530	13,146	13,606	12,693	12,818
25	*Rounding may affect totals															

Line No.	Expense	Regulatory Appeal 2016/17A	Regulatory Appeal 2017/18A	Regulatory Appeal 2018/19FB	Regulatory Appeal 2019/20F	Regulatory Appeal 2020/21F	Total 2016/17A	Total 2017/18A	Total 2018/19FB	Total 2019/20F	Total 2020/21F
	($000's, except where noted)										
26	Compensation - Salaries	247	240	374	387	398	95,495	99,037	101,798	104,216	107,767
27	Compensation - Overtime	4	5	3	4	3	1,262	838	1,441	1,436	1,433
28	Compensation - Benefits	59	59	92	94	97	22,986	23,364	25,044	25,571	26,262
29	Compensation - H & E Tax	6	5	8	8	8	2,149	2,123	2,183	2,237	2,287
30	Subtotal - Compensation	316	309	477	493	506	121,892	125,362	130,466	133,460	137,749
31	Data Processing	-	-	-	-	-	20,481	37,025	23,381	21,698	22,749
32	Special Services	-	1	1	-	-	4,996	5,623	6,271	4,806	4,770
33	Building Expenses	-	6	6	7	6	8,929	8,193	8,243	9,312	9,273
34	Safety/Loss Prevention Programs	-	-	-	-	-	4,131	3,029	4,358	3,106	3,044
35	Telephone/Telecommunications	-	-	-	-	-	1,819	1,680	1,732	1,764	1,814
36	Public Information/Advertising	-	-	-	-	-	2,621	1,936	2,339	2,370	2,426
37	Printing, Stationery, Supplies	1	-	1	1	1	1,452	1,083	1,700	1,650	1,567
38	Postage	-	-	-	-	-	2,996	3,242	2,887	2,174	2,280
39	Regulatory/Appeal	4,555	4,122	4,179	4,334	4,479	4,555	4,122	4,179	4,334	4,479
40	Travel and Vehicle Expense	1	1	1	1	1	942	677	932	945	968
41	Driver Education Program	-	-	-	-	-	3,399	3,600	3,879	3,885	3,974
42	Grants in Lieu of Taxes	-	1	1	1	1	1,515	1,506	1,454	1,504	1,573
43	Furniture & Equipment	-	-	-	-	-	467	677	1,275	1,045	1,128
44	Merchant Fees & Bank Charges	-	-	-	-	-	8,186	8,460	9,175	9,539	9,893
45	Other	16	1	1	1	2	4,632	3,973	4,908	5,048	5,148
46	Subtotal - Other Expenses	4,573	4,132	4,190	4,345	4,490	71,121	84,826	76,713	73,180	75,086
47	Depreciation-Capital Assets	-	2	2	2	2	4,006	3,841	4,107	4,729	5,303
48	Amortization-Deferred Development	-	-	-	-	-	14,157	17,098	19,217	15,198	15,207
49	Total	4,889	4,443	4,669	4,840	4,998	211,176	231,127	230,503	226,567	233,345
50	*Rounding may affect totals										

Appendix 3: 10-YEAR SUMMARY BASIC TOTAL EXPENSES BY CATEGORY

Line No.	Expense	2013/14A	2014/15A	2015/16A	2016/17A	Claims Expenses 2017/18A	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
	($000's, except where noted)										
1	Compensation - Salaries	58,886	61,090	64,266	63,061	66,809	69,168	70,802	73,185	74,195	76,194
2	Compensation - Overtime	1,911	1,389	1,147	1,049	665	1,133	1,128	1,127	1,126	1,130
3	Compensation - Benefits	13,294	13,448	15,323	15,201	15,718	17,031	17,407	17,870	18,241	18,853
4	Compensation - H & E Tax	1,209	1,271	1,354	1,421	1,429	1,485	1,524	1,558	1,586	1,627
5	Subtotal - Compensation	75,300	77,198	82,090	80,732	84,621	88,817	90,861	93,740	95,148	97,804
6	Data Processing	14,650	13,274	12,468	13,765	29,787	16,342	14,885	15,619	17,630	18,168
7	Special Services	2,287	2,200	2,157	1,973	2,314	2,325	1,794	1,788	1,808	1,874
8	Building Expenses	6,315	6,523	6,709	6,239	5,794	5,768	6,522	6,492	6,608	6,781
9	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-
10	Telephone/Telecommunications	1,742	1,387	1,319	1,234	1,162	1,199	1,221	1,256	1,280	1,312
11	Public Information/Advertising	55	17	3	53	16	15	15	16	16	16
12	Printing, Stationery, Supplies	996	769	789	811	471	947	919	873	889	911
13	Postage	1,581	-	-	1	1	1	-	1	1	1
14	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
15	Travel and Vehicle Expense	820	758	742	725	524	746	757	775	789	809
16	Driver Education Program	-	-	-	-	-	-	-	-	-	-
17	Grants in Lieu of Taxes	939	966	1,026	1,059	1,065	1,018	1,053	1,101	1,121	1,150
18	Furniture & Equipment	604	471	189	142	370	677	555	599	610	625
19	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-
20	Other	922	443	900	968	800	1,177	1,214	1,239	1,262	1,293
21	Subtotal - Other Normal Operating Expenses	30,911	26,808	26,302	26,970	42,304	30,215	28,935	29,759	32,014	32,940
22	Depreciation-Capital Assets	3,359	3,384	2,998	2,730	2,652	2,721	3,054	3,396	3,323	2,985
23	Amortization-Deferred Development	4,982	9,188	7,225	10,540	13,760	15,415	12,578	12,321	13,845	13,051
24	Subtotal - Depreciation / Amortization	8,341	12,572	10,223	13,270	16,412	18,136	15,632	15,717	17,168	16,036
25	Total Expenses	114,552	116,578	118,615	120,972	143,337	137,168	135,428	139,216	144,330	146,780

Line No.	Expense	2013/14A	2014/15A	2015/16A	2016/17A	Operating Expenses 2017/18A	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
	($000's, except where noted)										
26	Compensation - Salaries	28,308	29,533	29,813	30,425	29,141	30,278	31,179	32,278	32,700	33,519
27	Compensation - Overtime	520	354	270	195	166	292	291	290	290	291
28	Compensation - Benefits	6,569	6,769	7,440	7,374	7,140	7,456	7,639	7,854	8,014	8,268
29	Compensation - H & E Tax	597	639	656	689	648	649	667	683	695	712
30	Subtotal - Compensation	35,994	37,295	38,179	38,683	37,095	38,675	39,776	41,105	41,699	42,790
31	Data Processing	7,767	7,440	5,799	6,687	6,365	7,023	6,570	6,887	7,818	8,046
32	Special Services	2,677	3,258	4,148	2,905	3,218	3,682	2,837	2,810	2,855	2,926
33	Building Expenses	2,643	2,755	2,717	2,591	2,293	2,364	2,679	2,672	2,718	2,785
34	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-
35	Telephone/Telecommunications	846	680	622	585	518	533	543	558	569	583
36	Public Information/Advertising	405	470	225	240	95	243	247	254	260	268
37	Printing, Stationery, Supplies	751	667	687	556	552	695	675	641	653	668
38	Postage	1,050	2,945	3,072	2,995	3,241	2,886	2,174	2,279	2,322	2,379
39	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
40	Travel and Vehicle Expense	349	295	231	211	139	174	177	181	184	189
41	Driver Education Program	-	-	-	-	-	-	-	-	-	-
42	Grants in Lieu of Taxes	395	416	420	439	422	417	433	453	461	472
43	Furniture & Equipment	456	330	339	324	307	598	490	529	539	552
44	Merchant Fees & Bank Charges	6,671	7,339	7,570	8,186	8,460	9,175	9,539	9,893	10,091	10,294
45	Other	3,632	4,004	3,889	3,546	3,084	3,543	3,645	3,715	3,786	3,878
46	Subtotal - Other Normal Operating Expenses	27,642	30,598	29,719	29,265	28,694	31,333	30,009	30,872	32,256	33,040
47	Depreciation-Capital Assets	1,510	1,533	1,311	1,220	1,074	1,250	1,553	1,802	1,856	1,780
48	Amortization-Deferred Development	2,836	4,857	2,429	3,617	3,338	3,802	2,268	2,534	4,187	5,298
49	Subtotal - Depreciation / Amortization	4,346	6,390	3,740	4,837	4,412	5,052	3,821	4,336	6,043	7,078
50	Total Expenses	67,982	74,283	71,638	72,785	70,201	75,060	73,606	76,313	79,998	82,908

Line No.	Expense	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
						Road Safety Expenses					
	($000's, except where noted)										
1	Compensation - Salaries	1,407	1,220	1,597	1,762	1,891	1,978	1,848	1,906	1,939	1,987
2	Compensation - Overtime	19	15	6	14	2	13	13	13	13	13
3	Compensation - Benefits	311	286	317	352	447	465	431	441	451	465
4	Compensation - H & E Tax	28	27	28	33	41	41	38	38	39	40
5	Subtotal - Compensation	1,765	1,548	1,948	2,161	2,381	2,497	2,330	2,398	2,442	2,505
6	Data Processing	59	102	309	29	1,836	16	243	243	243	243
7	Special Services	102	146	414	118	90	263	175	172	175	179
8	Building Expenses	91	95	99	99	100	105	104	103	105	108
9	Safety/Loss Prevention Programs	4,963	3,725	3,897	4,131	3,029	4,358	3,106	3,044	3,102	3,178
10	Telephone/Telecommunications	-	-	-	-	-	-	-	-	-	-
11	Public Information/Advertising	2,023	1,947	2,348	2,328	1,825	2,081	2,108	2,156	2,197	2,250
12	Printing, Stationery, Supplies	51	41	100	84	60	57	55	52	53	54
13	Postage	29	-	-	-	-	-	-	-	-	-
14	Regulatory/Appeal	-	-	-	-	-	-	-	-	-	-
15	Travel and Vehicle Expense	12	14	6	5	7	11	10	11	11	11
16	Driver Education Program	3,200	3,256	3,378	3,399	3,600	3,879	3,885	3,974	4,049	4,147
17	Grants in Lieu of Taxes	12	13	14	17	18	18	17	18	18	18
18	Furniture & Equipment	8	1	-	1	-	-	-	-	-	-
19	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-
20	Other	371	367	443	102	87	187	188	192	195	201
21	Subtotal - Other Normal Operating Expenses	10,921	9,707	11,008	10,313	10,652	10,975	9,891	9,965	10,148	10,389
22	Depreciation-Capital Assets	129	104	73	56	113	134	120	103	61	33
23	Amortization-Deferred Development	-	-	-	-	-	-	352	352	352	352
24	Subtotal - Depreciation / Amortization	129	104	73	56	113	134	472	455	413	385
25	Total Expenses	12,815	11,359	13,029	12,530	13,146	13,606	12,693	12,818	13,003	13,279

Line No.	Expense	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
						Regulatory/Appeal Expenses					
	($000's, except where noted)										
26	Compensation - Salaries	-	-	-	247	240	374	387	398	407	417
27	Compensation - Overtime	-	-	-	4	5	3	4	3	3	3
28	Compensation - Benefits	-	-	-	59	59	92	94	97	99	102
29	Compensation - H & E Tax	-	-	-	6	5	8	8	8	9	9
30	Subtotal - Compensation	-	-	-	316	309	477	493	506	518	531
31	Data Processing	-	-	-	-	-	-	-	-	-	-
32	Special Services	99	-	-	-	1	1	-	-	-	-
33	Building Expenses	-	-	-	-	6	6	7	6	7	7
34	Safety/Loss Prevention Programs	-	-	-	-	-	-	-	-	-	-
35	Telephone/Telecommunications	-	-	-	-	-	-	-	-	-	-
36	Public Information/Advertising	-	-	-	-	-	-	-	-	-	-
37	Printing, Stationery, Supplies	-	-	-	1	-	1	1	1	1	1
38	Postage	-	-	-	-	-	-	-	-	-	-
39	Regulatory/Appeal	3,667	3,935	3,675	4,555	4,122	4,179	4,334	4,479	4,582	4,689
40	Travel and Vehicle Expense	-	-	-	1	1	1	1	1	1	1
41	Driver Education Program	-	-	-	-	-	-	-	-	-	-
42	Grants in Lieu of Taxes	-	-	-	-	1	1	1	1	1	1
43	Furniture & Equipment	-	-	-	-	-	-	-	-	-	-
44	Merchant Fees & Bank Charges	-	-	-	-	-	-	-	-	-	-
45	Other	-	-	-	16	1	1	1	2	2	1
46	Subtotal - Other Normal Operating Expenses	3,766	3,935	3,675	4,573	4,132	4,190	4,345	4,490	4,594	4,700
47	Depreciation-Capital Assets	-	-	-	-	2	2	2	2	2	2
48	Amortization-Deferred Development	-	-	-	-	-	-	-	-	-	-
49	Subtotal - Depreciation / Amortization	-	-	-	-	2	2	2	2	2	2
50	Total Expenses	3,766	3,935	3,675	4,889	4,443	4,669	4,840	4,998	5,114	5,233

Line No.	Expense	Total Expenses 2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19FB	2019/20F	2020/21F	2021/22F	2022/23F
	($000's, except where noted)										
1	Compensation - Salaries	88,602	91,843	95,676	95,495	98,081	101,798	104,216	107,767	109,241	112,117
2	Compensation - Overtime	2,450	1,758	1,423	1,262	838	1,441	1,436	1,433	1,432	1,437
3	Compensation - Benefits	20,174	20,503	23,080	22,986	23,364	25,044	25,571	26,262	26,805	27,688
4	Compensation - H & E Tax	1,834	1,937	2,038	2,149	2,123	2,183	2,237	2,287	2,329	2,388
5	**Subtotal - Compensation**	**113,060**	**116,041**	**122,217**	**121,892**	**124,406**	**130,466**	**133,460**	**137,749**	**139,807**	**143,630**
6	Data Processing	22,476	20,816	18,576	20,481	37,988	23,381	21,698	22,749	25,691	26,457
7	Special Services	5,165	5,604	6,719	4,996	5,623	6,271	4,806	4,770	4,838	4,979
8	Building Expenses	9,049	9,373	9,525	8,929	8,193	8,243	9,312	9,273	9,438	9,681
9	Safety/Loss Prevention Programs	4,963	3,725	3,897	4,131	3,029	4,358	3,106	3,044	3,102	3,178
10	Telephone/Telecommunications	2,588	2,067	1,941	1,819	1,680	1,732	1,764	1,814	1,849	1,895
11	Public Information/Advertising	2,483	2,434	2,576	2,621	1,936	2,339	2,370	2,426	2,473	2,534
12	Printing, Stationery, Supplies	1,798	1,477	1,576	1,452	1,083	1,700	1,650	1,567	1,596	1,634
13	Postage	2,659	2,945	3,072	2,996	3,242	2,887	2,174	2,280	2,323	2,380
14	Regulatory/Appeal	3,667	3,935	3,675	4,555	4,122	4,179	4,334	4,479	4,582	4,689
15	Travel and Vehicle Expense	1,180	1,067	979	942	671	932	945	968	985	1,010
16	Driver Education Program	3,200	3,256	3,378	3,399	3,600	3,879	3,885	3,974	4,049	4,147
17	Grants in Lieu of Taxes	1,346	1,395	1,460	1,515	1,506	1,454	1,504	1,573	1,601	1,641
18	Furniture & Equipment	1,068	802	528	467	677	1,275	1,045	1,128	1,149	1,177
19	Merchant Fees & Bank Charges	6,671	7,339	7,570	8,186	8,460	9,175	9,539	9,893	10,091	10,294
20	Other	4,926	4,815	5,232	4,632	3,972	4,908	5,048	5,148	5,245	5,373
21	**Subtotal - Other Normal Operating Expenses**	**73,239**	**71,050**	**70,704**	**71,121**	**85,782**	**76,713**	**73,180**	**75,086**	**79,012**	**81,069**
22	Depreciation-Capital Assets	4,998	5,021	4,382	4,006	3,841	4,107	4,729	5,303	5,242	4,800
23	Amortization-Deferred Development	7,818	14,045	9,654	14,157	17,098	19,217	15,198	15,207	18,384	18,701
24	**Subtotal - Depreciation / Amortization**	**12,816**	**19,066**	**14,036**	**18,163**	**20,939**	**23,324**	**19,927**	**20,510**	**23,626**	**23,501**
25	**Total Expenses**	**199,115**	**206,155**	**206,957**	**211,176**	**231,127**	**230,503**	**226,567**	**233,345**	**242,445**	**248,200**

RM.4.2.6 DSR Discounts for Vehicle-for-Hire (VFH) Vehicles

The Local Vehicles for Hire Act came into force on February 28, 2018, and allowed for a new class of Vehicles For Hire (VFH) in addition to the existing taxicab/livery service.[4]

One outcome of this change is the introduction of DSR discounts for certain vehicles previously not eligible for these discounts, specifically taxis, limousines, and wheelchair livery. With the reclassification of these vehicles as taxi VFH, limousine VFH and accessible VFH, these vehicles are now eligible for DSR discounts (if registered to an individual customer) similar to the new class of VFH vehicles i.e. passenger VFH.

To account for the introduction of DSR discounts for these vehicles (taxi VFH, limousine VFH and accessible VFH), an adjustment was made to the required rate change. The adjustment was necessary since the required rate change was determined excluding a corresponding potential reduction in loss exposure for these vehicles. The adjustment removed the required rate increase, which would have been applicable to all vehicles, as a result of providing Driver Safety Rating (DSR) discounts to specific vehicles.

The adjustment was calculated assuming a $1,000,000 reduction in premiums, which reflects the approximate reduction as a result of providing the DSR discounts. This is equivalent to approximately a 0.1% decrease in the required rate change, reducing the required rate change from 0.2% to 0.1%.

RM.4.2.7 Net Capital Maintenance Provision

For rating year 2019/20, MPI is applying for a Net CMP equivalent to an additional 2.1% required rate increase. The Net CMP is required to maintain capital adequacy in fiscal year 2019/20. Specifically, the Net CMP ensures that the Minimum Capital Test

[4] For a detailed discussion of this, refer to *Part V(ii) Vehicle for Hire*.

(MCT) ratio, which compares capital available to capital required, at fiscal year-end 2019/20 is unchanged from fiscal year-end 2018/19.

The Net CMP of 2.1% is comprised of a 1.2% decrease in the required rate change from the investment income earned on the Rate Stabilization Reserve (RSR), offset by a 3.3% increase in the required rate change to maintain capital adequacy in fiscal year 2019/20.

To determine the 1.2% decrease from the investment income earned on the RSR, we first looked at the ratio of the investment income earned on the RSR to the Basic Vehicle Written Premium for the 2019/20 fiscal year. This calculation is presented in the table below.

Figure RM- 8: Ratio of Investment Income on RSR to Basic Vehicle Written Premium

Line No.	Description	Source	Fiscal Year 19/20
1	Basic Vehicle Written Premium	Part V(i) Proformas, Page 15	1,061,339
2	Investment Income from RSR	Part VI Investments, INV.19	11,830
3	Investment Income from RSR as percent of Basic Vehicle Written Premium		1.1%

We then applied the ratio of 1.1% as a cost offset to the required rates. This has the effect of decreasing the required rate change by 1.2% from 0.1% (per *Ratemaking RM.4.2.6*) to -1.1%.

After applying the required rate change of -1.1%, we compared the MCT ratio at fiscal year-end 2019/20 to fiscal year-end 2018/19. To ensure that the MCT ratio at fiscal year-end 2019/20 remains unchanged from fiscal year-end 2018/19, we had to revise the required rate change to 2.2%, which reflects an increase of 3.3% (from -1.1%).

Including the additional 2.1% required rate increase from the Net CMP results in a final required rate change of 2.2%.

Appendix 1: GARTNER'S RECOMMENDATIONS – STATUS UPDATE

As part of the annual scorecard review, Gartner provides MPI with recommendations to further improve process maturity where it concerns Information Technology (IT). These recommendations reflect industry best practices based upon Gartner research. Gartner provides recommendations for all subject areas, meaning that the presence of a recommendation does not represent an area where MPI is deficient (in several cases, Gartner has provided recommendations to areas where MPI exceeds its peer group). MPI reviews and acts upon these recommendations as part of its operational and project activities. All recommendations in this report, and changes made to previously provided recommendations are investigated and applied as resources (staff time and budget) allow. For readability, recommendations marked as rejected, complete or operational in the *2018 GRA information request PUB (MPI) 1-50* have not been included in this document.

As noted in *Part IV(i) BMK Benchmarking Attachment A, page 15* Gartner transitioned from the CIO Dashboard to the IT Score assessment tool. As part of this, Gartner conducted a review of all outstanding recommendations provided using the CIO Dashboard tool and confirmed that they remained appropriate and measurable using the IT Score tool. This resulted in the following changes:

- Where Gartner identified a recommendation as no longer applicable to MPI, it is identified as "Recommendation withdrawn by Gartner" in the table below.
- Where Gartner identified a new recommendation, based on a recommendation which was in the *2018 GRA*, it will be referenced in the Comments.
- Where Gartner identified a new recommendation, not based on previous recommendations, it will be found in *section 5 - New recommendations from IT Score*

The update of the Gartner Scorecard occurred in Q4 2017/18. In past years Gartner performed this exercise in Q3. The change in timing of the Gartner Scorecard results was due to resource constraints and prioritization of corporate initiatives and planning. Completing this scorecard requires input from several key leaders who were all involved in the re-planning and strategy development that has been occurring. Management is working to move the timeline back from Q4 to Q3 in 2018/19.

Appendix 1: GARTNER'S RECOMMENDATIONS – STATUS UPDATE

#	Description	2019 Application Status	2018 Application Status	Current Status
1. In order for Manitoba Public Insurance (MPI) to better support running the business, MPI should consider:				
1.26	Benchmark service catalog to enhance transparency to the business and drive better IT Economics.	Recommendation withdrawn by Gartner	In Progress (Q4 – 2017-18)	MPI continues to document its key IT services and ensure that they are being delivered effectively. MPI has not been able to find sufficient data to facilitate external benchmarking of these services. At this time, this recommendation has been withdrawn by Gartner as part of their review of all outstanding recommendations.
2. In order for Manitoba Public Insurance (MPI) to better support growing the business, MPI should consider:				
2.06	Consider the acquisition and deployment of dependency mapping tools that connect the relationships between applications and infrastructure resources to business processes in order to ensure appropriate IT resources to support growth.	Recommendation withdrawn by Gartner	Deferred	This recommendation has been withdrawn by Gartner. Based upon a preliminary review of internal capabilities (existing tools and data sources) MPI does not see sufficient value in a tool purchase at this time.

2. In order for Manitoba Public Insurance (MPI) to better support growing the business, MPI should consider *(cont'd):*

#	Description	2019 Application Status	2018 Application Status	Current Status
2.07	Ensure the information needs meet the context of regulatory requirements in order to effectively support new projects.	Recommendation withdrawn by Gartner	New Request, To be evaluated (Q4 2017/18)	Upon further review with Gartner, MPI has confirmed that regulatory requirements are considered in projects. At this time, this recommendation has been withdrawn by Gartner as part of their review of all outstanding recommendations. MPI considers this complete and does not plan to review further.
2.08	Evaluate Bimodal approach that balances 'traditional and efficient' delivery of IT with 'fast and flexible' to address the needs of innovation.	Recommendation revised by Gartner	New Request, To be evaluated (Q4 2017/18)	Please see recommendation 5.08
2.09	Determine if the skills required for digital transformation exist within the organization or are needed from the outside (adaptive sourcing).	Complete	New Request, To be evaluated (Q4 2017/18)	Ensuring the organization has the right skills for current and future needs is an ongoing activity that MPI continues to undertake

3. In order for Manitoba Public Insurance (MPI) to better support transforming the business, MPI should consider:

#	Description	2019 Application Status	2018 Application Status	Current Status
3.02	Increase the span of Enterprise Architecture's (EA) influence throughout business areas by ensuring that governance processes exist and their importance is clearly communicated such that they are not circumvented. Often this involves building up stakeholder support.	See recommendation 5.02	Reworded by Gartner see 3.05	Gartner has consolidated this recommendation into 5.02 going forward.
3.03	Clearly communicate the value of enterprise architecture (EA), or its content, to the key stakeholders in terms that relate to their issues and proactively address their opportunities. This includes business management, key business stakeholders, key IT stakeholders and the overall enterprise architecture community. Look to build business outcome oriented deliverables and communicate success to drive ongoing support for EA.	See recommendation 5.02	Reworded by Gartner see 3.06	Gartner has consolidated this recommendation into 5.02 going forward.
3.04	Ensure that a culturally appropriate future state architecture exists, that a baseline of your current state exists, and a gap analysis is performed.	See recommendation 5.02	Reworded by Gartner see 3.07	Gartner has consolidated this recommendation into 5.02 going forward.

3. In order for Manitoba Public Insurance (MPI) to better support transforming the business, MPI should consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
3.05	Plan the future state architecture to support MPI's goals of access and support for existing and new services.	See recommendation 5.02	On Hold (Review again Q4-2017/18)	Gartner has withdrawn this recommendation and includes the key points in recommendation 5.02. MPI is considering this recommendation as part of the Legacy Modernization business case.
3.06	Perform a baseline of the current state, and perform gap analyses as the architecture is implemented.	See recommendation 5.02	On Hold (Review as part of the budgeting process Q3-2017/18)	Gartner has withdrawn this recommendation and includes the key points in recommendation 5.02. MPI is considering this recommendation as part of the Legacy Modernization business case.
3.07	Continue to increase the span of EA's influence throughout business areas by ensuring that governance processes (as measured by process maturity) and their importance is clearly communicated such that they are not circumvented. Often this involves building up stakeholder support and requires clear communications regarding EA's value to the business.	See recommendation 5.02	In progress (Q4-2017/18)	Gartner has consolidated this recommendation into 5.02 going forward.

3. In order for Manitoba Public Insurance (MPI) to better support transforming the business, MPI should consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
3.08	Evolve contracts with IT service providers so that these are aligned to business outcomes, transformation deliverables, and process performance. Consider a balanced scorecard approach to monitor and track progress.	See recommendation 5.09	To be evaluated (Q4-2017/18)	MPI did not complete an additional review of this recommendation, prior to the changes from Gartner. Gartner has consolidated this recommendation into 5.09 going forward.

4. In order for Manitoba Public Insurance (MPI) to be more effective and innovative, MPI should consider:

#	Description	2019 Application Status	2018 Application Status	Current Status
4.09	Communicate technical debt to IT and business leadership and develop a long-term program to remove it from the MPI environment (e.g. through increased adherence to technology standards and application re-use) and track the success of those efforts	See recommendation 5.01	In Progress (Q4 - 2017/18)	IT leaders presented an update on Application Portfolio Management to Executive in Q1 – 2018/19 which aligns to this recommendation. Additionally, MPI continues to invest in the Technology Risk Management program which is specifically focused on addressing technical debt. Going forward, this recommendation has been replaced by recommendation 5.01.
4.10	Develop 3 year staffing model to ensure key skills are available in-house to reduce reliance on contractors and consultants	In Progress (Q1 - 2019/20) - please see recommendation 5.04 going forward	In Progress (Q1 - 2019/20)	MPI continues to execute its External labor strategy. Going forward, this recommendation has been replaced by recommendation 5.04.

4. In order for Manitoba Public Insurance (MPI) to be more effective and innovative, MPI should consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
4.12	Review compensation strategies to ensure that MPI is competitive with market rates and can attract the talent it needs to deliver on its mission.	Complete	In Progress (Q3 - 2017/18)	MPI completed a comprehensive review of the majority of IT positions in Q3 2017/18 and will be implementing changes in Q1 2018/19 based on these findings.
4.13	Use a Pace-Layered Application strategy to balance maturity based ITIL and CMMI processes with evolution towards Agile, DevOps, and Automation Reusable used in development for cloud implementation.	In progress (Q4-2018/19)	To be evaluated (Q4-2017/18)	MPI currently leverages ITIL based processes in the delivery of IT services. MPI is looking for an opportunity to pilot Agile / DevOps on a 2018/19 project or operational activity to determine pros / cons over current approaches. An update on this specific recommendation will be available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.01	Continue to Maintain Technology Currency: With the accomplishment of modernization and technical updates, MPI should maintain IT assets and continue to invest in technology refreshes to avoid significant capital outlays in future years. Make periodic assessments of technology investments and report findings to executive leadership for I&O.	New	4.09	This recommendation references recommendation 4.09. This is currently being addressed by the Technology Risk Management Program which involves an annual review of IT assets and creation of projects to invest in technology refreshes and other work to maintain said assets. In 2018/19 the spend limit is $4.5M in a combination of IT operational expense and IT operational capital. These initiatives leverage the Value Management process. MPI will continue to assess its technology spend annually and report to Executive as part of the Gartner IT score process. MPI considers this recommendation implemented.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.02	Continue to Improve Enterprise Architecture Maturity: EA requires stronger relationships with business stakeholders, because it involves finding opportunities to deliver transformative value to the business operations by applying information technology to back and front office processes, business information assets, new products and services. Human collaboration and networked relationships should be tested and exploited. Establish reporting for the EA program using metrics to track value delivered to the organization and business outcomes as well as metrics to track continuous improvement of the EA practice itself. Ensure metrics are quantitative (linked to the business outcomes) and qualitative (measuring the perceptions of its stakeholders). Build future state models linked with current state models, ensuring that the future state is consistent with the relevant architecture principles. Integrate Applications into EA by involving enterprise architects in the Applications strategy. Utilize EA principles as a way to ensure the Applications strategy is linked to a business strategy which delivers measurable business value.	New	3.02 to 3.07	This recommendation references recommendations 3.02, 3.03, 3.04, 3.05, 3.06, and 3.07. Expanding Enterprise Architecture capabilities within MPI is a priority in 2018/19 and will be built into the Legacy Modernization program implementation and amendments, and will be part of the corporate strategic planning process. An update on this specific recommendation will be available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.03	Improve IT Governance Maturity: Improve IT governance maturity by continuing the existing process which matches IT services to business demand and by capturing better metrics to measure the achievement of business outcomes. The governance structure needs to be made more explicit, and should incorporate multiple levels within the organization that are capable of resolving process and policy discrepancies. Governance decisions should be mapped to balancing IT investments against run, grow and transform allocations.	New	N/A	There is anticipated to be additional cost associated with this recommendation (governance, approval layers) without clear net benefit. Further review will occur with Gartner in 2018/19 to better understand this opportunity with an update in the 2020 GRA

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.04	Improve People & Skills Management: Implement process roles within the organization and address collaboration and innovation culture required to improve the relationship with the business. Skills development and training should be improved for all areas of IT, especially for Infrastructure and Operations (I&O). Build a comprehensive strategic workforce plan with specific goals. Establish formalized training policies, mentoring programs and training development plan across all roles. Track employees' skills and competencies, documenting gaps. Define skills requirements and acquire people skills necessary to meet commitments. Utilize the skills inventory to ensure vendor management skills are in place to effectively oversee external providers. Continue to integrate "process" as an organizing construct to complement functional, product and geographical orientation within the organization.	New	4.10	MPI is conducting work force planning activities at the directorate level which will incorporate many of the recommendations listed, as related to training and development. MPI continues to invest in the development of corporate culture and focuses on both innovation and collaboration in those activities. Gartner's recommendations will be included in the appropriate department level work plans. Further review required to determine the potential cost / benefit associated with these changes. This will occur in 2018/19 with an update available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.04 *(cont'd)*	Employees should be able to anticipate the impact of change beyond the processes they participate in and the constituents affected by the processes. Employees should be able to anticipate the impact of change beyond the processes they participate in and the constituents affected by the processes. Ensure that collaboration becomes second nature and resistance to change should be deemed inappropriate. Develop a culture of innovation.			
5.05	Improve the IT Strategic Plan: Implement the following improvements to the IT strategic plan: Ensure the I&O component of the IT strategic plan is documented and formally approved to serve as the basis for annual operational plans and major upgrade initiatives. Ensure business objectives, strategies, plans and needs drive the I&O component of the IT strategic plan and that business needs are defined in sufficient detail to drive investment decisions. Improve alignment between IT and business strategic planning processes.	New	N/A	The IT Strategy and major corporate initiatives address the first and fourth parts of this recommendation. Further exploration of infrastructure operations (including operational plans linked to corporate strategy) will be reviewed further in 2018/19 with an update provided in the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.06	Improve the Use of Standards: Ensure standards are consistently used, measured and monitored. Implement standard, documented processes for Application Development. Maintain a standardized operating environment and work with IBM to increase standardization within the infrastructure	New	N/A	MPI is refining its project delivery processes in 2018/19 which includes the standardization of many deliverables used in Application Development. Additional standardization of deliverables will be reviewed at the completion of this activity. MPI actively engages with IBM to ensure the enterprise computing environment is standardized and appropriately documented. Remediation of any discrepancies found, occurs operationally, or as part of major projects. Further review required to determine the potential cost / benefit associated with these changes. This will occur in 2018/19 with an update available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.07	Improve IT Financial Management Disciplines and Key Performance Indicators (KPIs): Realign cost accounting and financial management away from the asset focused paradigms of a cost center, toward the activity based costing of the service, value and outcome oriented paradigms of a business. IT Financial Management approaches should therefore be based on IT as a service provider which utilizes analytics based asset tracking, chargeback based on volumes and usage and service line trending. For Applications, MPI should continue to improve financial transparency. Develop KPIs for financial management of business applications and categorize spending to develop tighter links to business capability delivery. Include total life cycle costing for Applications that includes operations spending.	New	N/A	MPI is reviewing in 2018/19 to determine potential benefits associated with these changes. An update available for the 2020 GRA reflecting the findings of this review.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.07 *(cont'd)*	For I&O, create business based financial management and performance reporting. Implement tools for business management as well as improved financial management. MPI should continue work on asset/license management, track asset utilization and usage and implement allocation of specific service costs based upon simple IT user metrics (e.g. number of users, PCs, phone sets) as well as unit cost metrics (e.g. cost per Windows Instance).			
5.08	Implement Bimodal Service Delivery Capabilities: Implement bimodal service delivery by creating differentiated processes for predictable Mode 1 work and developing more agile processes for exploratory or experimental Mode 2 work.	New	2.08	This recommendation references recommendation 2.08. MPI is piloting this capability in 2018/19 to better understand the associated cost / benefit of this model. An update will be available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.09	Improve Vendor Management Capabilities: Implement consistent vendor management approaches, expand vendor management to all vendors and departments and develop standard terms and templates for contracts. Work with vendors to develop better service level agreements (SLAs), and look at ways to integrate IT operations management tools. Create a formalized vendor engagement model, with defined vendor management processes which are implemented for all vendor interactions. Segment vendors that require centralized management and delegate responsibilities for those vendors that do not require sophisticated management. Put in place reporting capabilities for spending management and demand management that support vendor management. Identify vendor performance metrics, track the metrics using tools and enforce consistently across all spending categories.	New	3.08	This recommendation references recommendation 3.08. In July 2017/18 MPI consolidated IT Vendor Management into one team. In 2018/19 the vendor management team will be creating a strategy which will include many of the Gartner recommendations noted in 5.09; An update on the progress of these activities will be available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.10	Reduce the Risk associated with Privacy Issues: This should be accomplished by ensuring that policies and processes and other defined elements of the enterprise privacy program are reviewed regularly, with solicitation of feedback concerning policy acceptance and performance. Solicit involvement from marketing, employee representatives, external auditors and compliance officers and develop a plan for measuring the success of the enterprise's privacy awareness program. Work to link disparate and currently disjointed elements of the established privacy program and ensure privacy policies apply to all business units and locations.	New	N/A	MPI has a comprehensive privacy program, but will review these specific recommendations for opportunities to improve further. An update on the progress of these activities will be available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.11	Reduce Information Security Risks: This should be accomplished by creating a formal cross-organizational committee to collaborate on information security issues focused on realistic, actionable metrics for measuring the success and challenges of the security program. Ensure TVM (Threat and Vulnerability Management) processes are documented and formalized, with associated RASCI charts and performance metrics, integrated with the IT change management process and increase the resources allocated to performing formal threat research. Define a formal risk management process using controls assessment tools and services and continue practice of reporting risks to technical staff and perform updated assessment using a 3rd party.	New	N/A	MPI has a comprehensive Information Security program which transitioned from project to operations in 2018/19. MPI will review the operation of this program with Gartner, and confirm that all recommendations are fully addressed. An update on the progress of these activities will be available for the 2020 GRA.
5.12	Explore the Utilization of Cloud Services: Explore dynamic resource sharing (e.g. Cloud) Become the broker of best fit solutions – Cloud and Internal	New	N/A	This recommendation references recommendation 1.27 which was reported as complete in GRA 2018, but needs to be re-evaluated in 2018/19 fiscal. An update on the progress of these activities will be available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.13	Pursue Improvements in IT Service Management Processes: Establish common processes and ensure they are consistently followed across all teams. Formalize process improvement programs. Invest in process discovery technologies, such as business process analysis, and start building a business process framework and architecture. The IT organization should work with relevant groups within MPI to apply BPM techniques using iterative methods with process owners driving iterations. These methods should be a collection of best practices drawn from Six Sigma, Lean and other methodologies. Pilot use of process modeling and build support for this practice. Build cross-platform IT Service Management processes for incident management, problem management and change management. Formalize release, capacity and service level management. Improve service level management by formulating comprehensive end to end SLAs with customers.	New	N/A	This recommendation references recommendation 1.21 which was reported as complete in GRA 2018. MPI currently has operational IT processes which are consistently applied across all teams. These include incident and change management. Process improvement occurs regularly within each process (conducted by the process leader as opposed to a centralized team). In Q4 - 2017/18 a group of senior leaders presented a proposal to improve BPM (Business Process Management) maturity. This proposal is not planned for implementation within 2018/19 fiscal year due to higher priority work. All other recommendations require further review, which will occur by Q3 - 2018/19. An update on the progress of these activities will be available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.13 (cont'd)	Define and implement process ownership roles. Define and implement business service management processes and tools. Focus IT processes on automating and optimizing individual service delivery and support processes and perform continuous IT process optimization through trending.			
5.14	Improve Project Portfolio Management (PPM) Maturity through the use of tools: Expand the use of tools which were recently implemented for strategy development and resource management, decision support and risk modelling. Standardize the use of tools where multiple tools exist.	New	N/A	MPI is actively pursuing increased adoption of its PPM tools and processes in 2018/19. An update on the progress of these activities will be available for the 2020 GRA.

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.15	Determine improvements that can be made to the information management strategy. Starting in 2017/18, information management maturity will be measured using the data and analytics survey in the IT Score survey.	New	N/A	A draft data strategy was created in Q1, 2018/19 for use in Q1-Q3 2018/19. This document will be updated in Q3 2018/19 for use in the 2019/20 fiscal year and will incorporate these recommendations. MPI plans to leverage the Gartner Enterprise Information Maturity (EIM) model to measure the effectiveness of its Data and Analytics capabilities. An update on the progress of these activities will be available for the 2020 GRA

5. Using the IT Score tool set, Gartner recommends MPI consider *(cont'd)*:

#	Description	2019 Application Status	2018 Application Status	Current Status
5.16	Replace the CIO Scorecard with Gartner's IT Score Methodology: Replace the CIO Scorecard with Gartner's IT Score methodology which compares MPI with the insurance industry in similar areas and new ones that expand the scope of the analysis. Add two additional surveys (Strategy & Execution, Data & Analytics) to the IT Score methodology to assess the maturity of the IT Strategy and information management disciplines. The addition of these two surveys will also increase the overall confidence level of the enterprise view.	New	N/A	MPI has replaced the CIO Scorecard with Gartner's IT Score methodology and included it in the 2019 GRA. MPI anticipates completing the 2 additional areas, recommended by Gartner, and including the findings as part of the report filed in the 2020 GRA.

Manitoba Public Insurance

Benchmark Findings and Recommendations – Executive Report

Manitoba Public Insurance

This report has been prepared as advice, opinions, proposals, recommendations, analyses or policy options developed by or for the public body or a minister, as per Section 23(1) of the Freedom of Information and Protection of Privacy Act.

Prepared for: Manitoba Public Insurance

Project Number: 330032344

28 May 2018

GARTNER CONSULTING

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Background

Background

- Manitoba Public Insurance (MPI) is a non-profit Crown Corporation that has provided basic automobile coverage since 1971. MPI provides driver and vehicle licensing services, and insurance services through a broker network and throughout MPI in claim centres and customer service centres.
- MPI originally engaged Gartner to prepare CIO and IT Budget Scorecards using 2010/11 budget data. MPI repeated this analysis in 2011/12, 2012/13, 2013/14, 2014/15, 2015/16, and has continued its program in 2016/17.
- The current engagement is using 2016/17 actual financial results.

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Objectives

MPI has retained Gartner to conduct an annual review of the IT service delivery capability (organization, processes, and infrastructure)

Four Structure Evaluation Instruments

1. IT Budget Assessment
2. CIO Dashboard Survey
3. Infrastructure & Operations (I&O) Scorecard
4. IT Score Survey

Outcomes

- Evaluate the relative maturity of the IT organization in critical IT disciplines
- Assess the IT organization's ability to react to rapidly changing business requirements and make calculated IT investments
- Compare relative funding levels of IT at MPI and the distribution of those expenditures
- Compare MPI's infrastructure and operations costs, staffing and service levels with those of similar enterprises and document findings.
- Establish a baseline for infrastructure and operations spending, staffing and service levels, providing an indicator of where improvements are possible

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MPI's Mission and level of Project Investment required some additional normalizations and peer group modifications in the Gartner Analysis

Analysis Challenge	Analysis Risk	Analysis Mitigation
MPI is a hybrid organization – it is an Insurer, but its public mission is to serve Manitobans, not maximize revenues	If MPI is successful in its Mission - returning more benefits to Manitobans while driving down prices – revenues will be lower than those of similar organizations who focus on profit maximization	▪ Included 2 Canadian Provincial & Local Government Peers ▪ As government entities do not report revenue and MPI revenue are impacted by investments, focus is placed on IT spend as a % of operating expense.

A total of 12 peer organizations are included in the 2016/17 comparison. It is important to note that the peer group changes from year-to-year as organizations do not necessarily participate every year. Six of the peer organizations from 2015/16 updated their data and this updated data is used in the 2016/17 peer analysis. Year-to-year changes in peer results are reflective of changes in the peer group as well as changes to the individual organisations' data.

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MPI's Enterprise Metrics from 2012/13 to 2016/17

	5 Year Trend	CAGR	2016/17	2015/16 - 2016/17 Growth
MPI Revenue		4.6%	$ 1,287,470,000	14.5%
MPI Expenses		5.1%	$ 1,372,674,000	18.8%
MPI IT Budget		-2.4%	$ 74,755,663	5.8%
MPI Run The Business IT Cost		1.3%	$ 44,105,841	4.0%
MPI Change the Business IT Investment		-6.6%	$ 30,649,822	8.4%
MPI Employees		0.5%	1,971	1.9%
MPI IT FTEs		-1.5%	336	3.7%
MPI IT as a % or Revenue		-6.6%	5.8%	-7.6%
MPI IT as a % of Operating Expense		-7.1%	5.4%	-10.9%
MPI Enterprise Maturity Score		3.9%	3.52	2.9%

Observations:

- Revenue has increased while business costs associated with running the business have also increased
- The IT Budget has increased, but to a lesser extent than business OPEX
- MPI's IT Spending as a % of Revenue has decreased by 7.6% year over year and has decreased by 6.6% during the last 5 years
  - Business revenue from policies is higher due to growth in the number of vehicles on the road in Manitoba
- MPI's IT Spending as a % of Operating Expense has decreased by 10.9% year over year and has decreased by 7.1% over the last 5 years
- MPI continues to improve its Maturity (3.9% over 5 years using CIO Dashboard), driving effectiveness
- In 2016/17, overall personnel spending and staffing were higher than Peers

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Key takeaways from the analysis

Key Findings

- Personnel spending and staffing levels remain higher than peers, with a slight increase in IT to Company FTE ratio (16.7% to 17%)
- Similar to previous years, the focus for MPI IT investment is on reliability, availability, and lowering risk. These investments, along with initiatives to provide better access and a better user experience, increase the IT footprint, resulting in higher steady-state IT expenses.
- MPI improved its overall Maturity rating from 3.42 in 2015/16 to 3.52 in 2016/17.
- Similar to previous years, MPI spends 62% of the IT budget on Personnel vs. 45% for the peers. 32% of MPI's IT staff is made up of contractors vs. 24% for the peers. Higher staffing levels relative to peers is particularly evident in Infrastructure and Operations.
- Business Process Management and Enterprise Architecture maturity remains generally low and appears to be an opportunity for improvement.

Implications and Recommendations

- With the accomplishment of modernization and technical updates, MPI should maintain IT assets and continue to invest in technology refreshes to avoid significant capital outlays in future years.
- MPI's IT organization should focus on establishing linkages through enterprise architecture and focus future investments on delivering transformative value to the business operations.
- MPI should develop stronger relationships with business stakeholders.
- Maturity improvements should be focused on governance and metrics to track value delivered to the business and achievement of business outcomes.
- MPI should continue the efforts currently underway to review the size of its retained staff and the number of contractors as it increases its use of third-party support for infrastructure services.
- Internal skills development and training should be a priority.
- MPI should replace the CIO Scorecard with Gartner's IT Score methodology which compares MPI with the insurance industry in similar areas and new ones that expand the scope of the analysis.

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MPI's IT spending has become more stable in recent years and with an improved ratio vs. business operating expense.

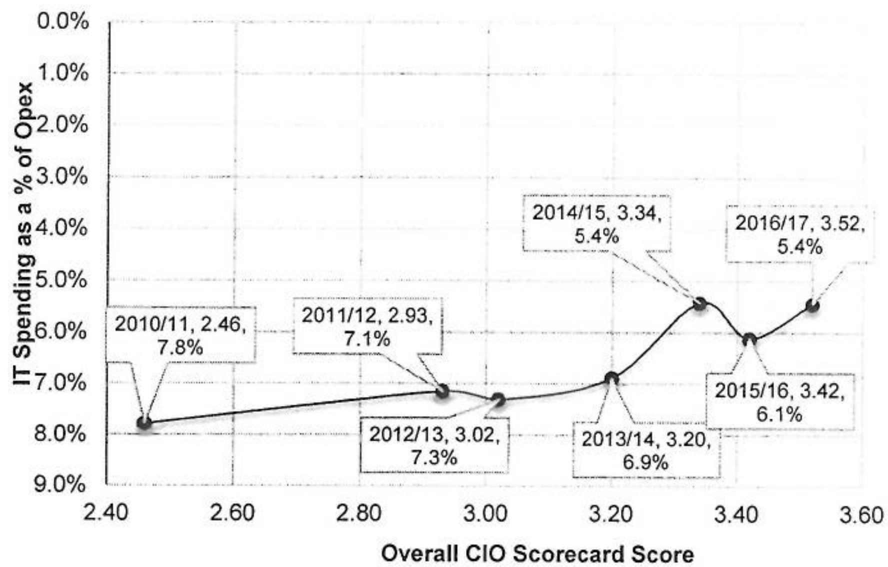
Observations:

- IT spending as a percentage of business operating expense is a better performance indicator for MPI. MPI is supporting a growing business workload with modest increases in IT spending (OPEX increased by 18.8% but IT spending only increased 5.8%.)
- IT Maturity continues to improve and should help MPI contain costs providing leverage in new initiatives.
- Six of the peer organizations from 2015/16 updated their data and this updated data is used in the 2016/17 peer analysis. IT Spending as a % of OPEX has been trending lower for the peer group.

Implications:

- OPEX spending is higher due to higher claims payouts*. Gartner has observed that mature IT operations contribute towards business efficiencies (lower overall operating expense) in the enterprise. MPI IT should unlock efficiency to the business, which will in turn contribute towards a reduction in OPEX spending (not withstanding other non-IT related expenses.)
- Continuing to work on process maturity will assist in improved efficiency in the IT operations and the delivery of additional value to the organization's business operations.

* **Source:** Manitoba Public Insurance 2016 Annual Report



	Maturity Score	IT as a % of Opex
2010/11	2.46	7.8%
2011/12	2.93	7.1%
2012/13	3.02	7.3%
2013/14	3.20	6.9%
2014/15	3.34	5.4%
2015/16	3.42	6.1%
2016/17	3.52	5.4%
2016/17 Peer	2.84	4.8%

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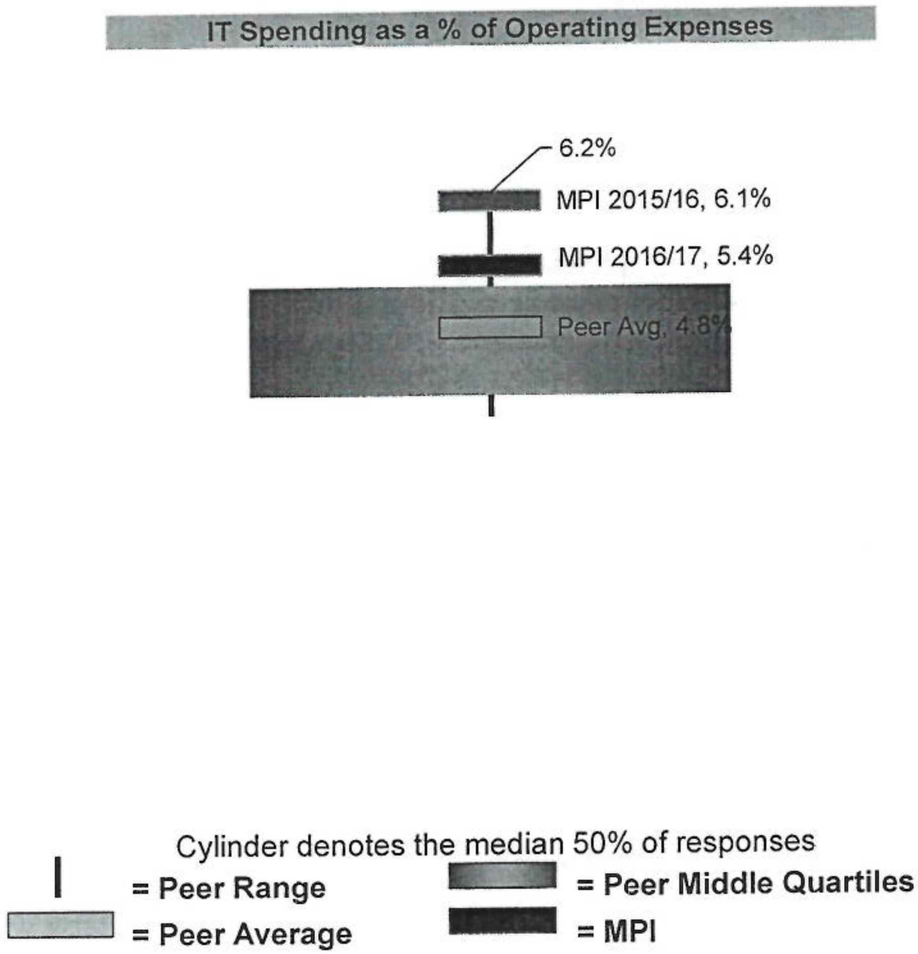
MPI's IT Spend as a % of OPEX is lower compared with 2015/16, but higher than the peer group average



Observations:

- MPI's spending as a percentage of OPEX is lower compared with the previous year's measurement
- MPI's spending as a percentage of OPEX is higher than the peer group

Implications:

- MPI should continue to invest in strong governance over third-party service providers and continue its continuous improvement initiatives to ensure it receives the expected benefits from its optimization programs.

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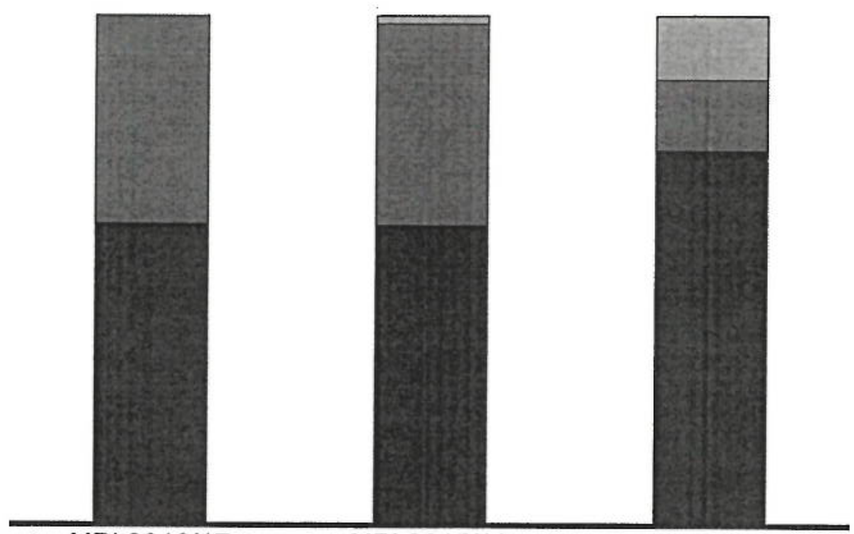
MPI has maintained its "Change the Business" % of its budget and is higher than Peers. IT Spending is focused on internal improvements and delivering new capabilities.

IT Spending to Run, Grow and Transform the Business



		MPI 2016/17	MPI 2015/16	Peer Avg
Change the business	Transform	0.0%	1.6%	12.5%
	Grow	41.0%	39.7%	14.0%
	Run	59.0%	58.8%	73.5%

Run: Run-the-business IT initiatives are aimed at essential (and generally non-differentiated) business processes. The objective of a run-the-business initiative is to improve or maintain the desired balance among cost, quality and risk for these essential processes.

Grow the business: This is an indicator of how much of the IT resource is consumed and focused on developing and enhancing IT systems in support of business growth (typically organic growth).

Transform the business: This is an indicator of how much of the IT resource is consumed and focused on implementing technology systems that enable the enterprise to enact new business models

Observations:

- MPI spending on running the business is lower than the peer group average
- MPI spending on growing the business is higher than the peer group average
- MPI spending on transforming the business is lower than the peer group average
- As the core infrastructure "catch-up" investments end, the run the business metric has remained flat
- MPI has been making investments to continue to support customer service improvements to Manitobans.

Implications:

- Lower spending on running the business frees up more IT budget to enable growth
- As MPI continues to make technology investments, it should focus on proper execution of these investments to maximize benefits realization

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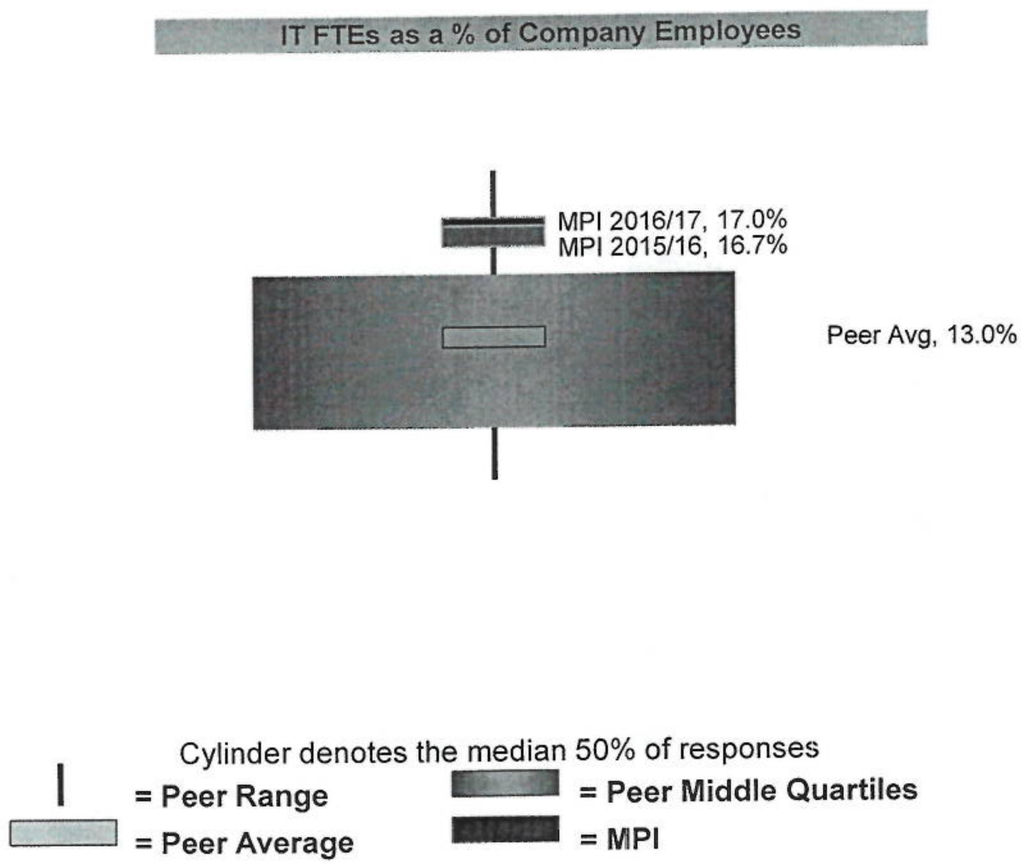
MPI has more IT FTEs as a percentage of total company employees than peers



Observations:

- MPI's overall staffing level rose slightly from 324 FTEs to 336 FTEs (16.7% to 17%)
- MPI's staffing level is 33% higher than the peers
- MPI continues to transition to third-party services for a number of areas within Infrastructure and Operations
- The benchmark measured a high level of availability for infrastructure functions (service levels increased year over year and are better than peer averages)

Implications:

- High staffing levels may be due to business growth which limits the ability to optimize costs
- Higher staffing levels may be an enabler of the high levels of service offered by IT to the business
- With the move to third party services come additional requirements for oversight and operational process staff in managing the vendor

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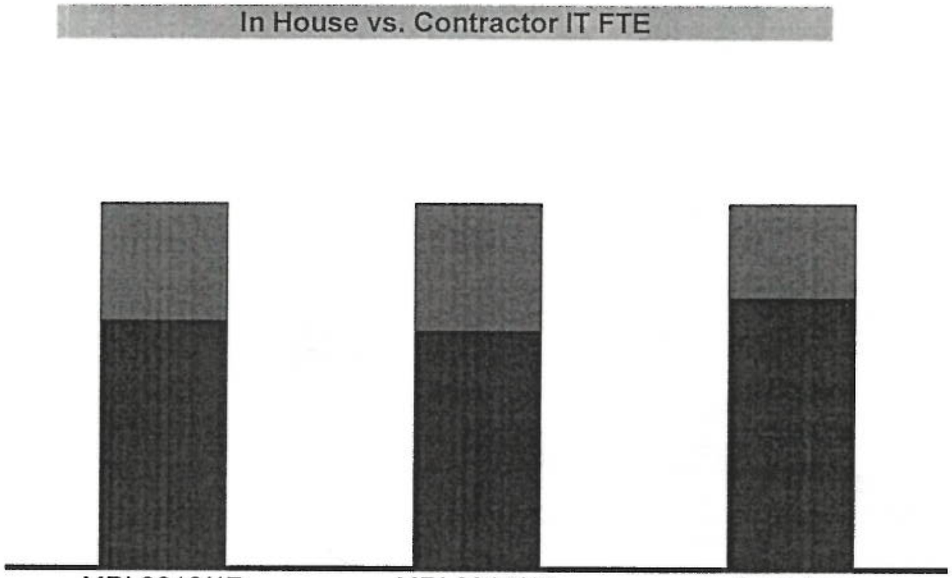
MPI's proportion of contractors is higher than the peer group average



	MPI 2016/17	MPI 2015/16	Peer Avg
Contractors	32.1%	34.9%	25.8%
In House	67.9%	65.1%	74.2%

Observations:

- MPIs proportion of contractors is higher than the peer group average but lower than the previous year's measurement

Implications:

- MPI continues to transition to outsourced services for a number of areas within Infrastructure, making use of contractors to bridge skills gaps
- MPI should continue to monitor skills gaps, looking for opportunities to build internal skills as a way to contain increases in average labour costs

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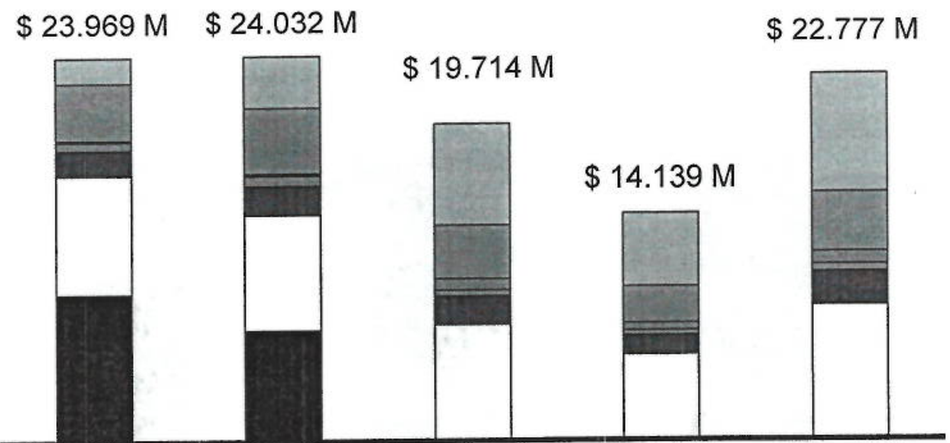
At $24 M, MPI's overall Infrastructure & Operations Spending is $4.3 M or 22% higher than the peer group average, driven by higher outsourcing costs. MPI should continue to review this area.

I & O Total Spending by Cost Category



	MPI 2016/17	MPI 2015/16	Peer Avg	Peer 25th	Peer 75th
Hardware	$ 1.602 M	$ 3.257 M	$ 6.271 M	$ 4.525 M	$ 7.388 M
Software	$ 3.582 M	$ 4.095 M	$ 3.293 M	$ 2.275 M	$ 3.661 M
Disaster Recovery	$ 0.116 M	$ 0.150 M	$ 0.701 M	$ 0.468 M	$ 0.778 M
Occupancy	$ 0.528 M	$ 0.625 M	$ 0.391 M	$ 0.294 M	$ 0.459 M
Transmission	$ 1.542 M	$ 1.769 M	$ 1.780 M	$ 1.195 M	$ 2.078 M
Personnel	$ 7.366 M	$ 7.171 M	$ 7.277 M	$ 5.382 M	$ 8.412 M
Unallocated	$ 9.233 M	$ 6.965 M	$ 0.000 M	$ 0.000 M	$ 0.000 M
Total	$ 23.969 M	$ 24.032 M	$ 19.714 M	$ 14.139 M	$ 22.777 M

Observations:

- IT Spending is 22% higher than Workload Peers
- The gap between MPI and peers has narrowed from 2015/16 to 2016/17 (35% to 22%)
- Variances to peers are highest in Occupancy (35%) and Software (9%)
- The unallocated amount of $9.2M is the outsourcing amount after transmission and personnel is removed assuming 30% of the outsourced amount is for personnel. Outsourcing for the peer group is included within the allocated categories.

Implications:

- Occupancy and software costs provide potential opportunities for cost savings.

Note:

- Approximately $482K previously included for software was determined to be out of scope for Infrastructure and operations according to Gartner's consensus model and was removed fro 2016/17. These amounts were included in previous years.

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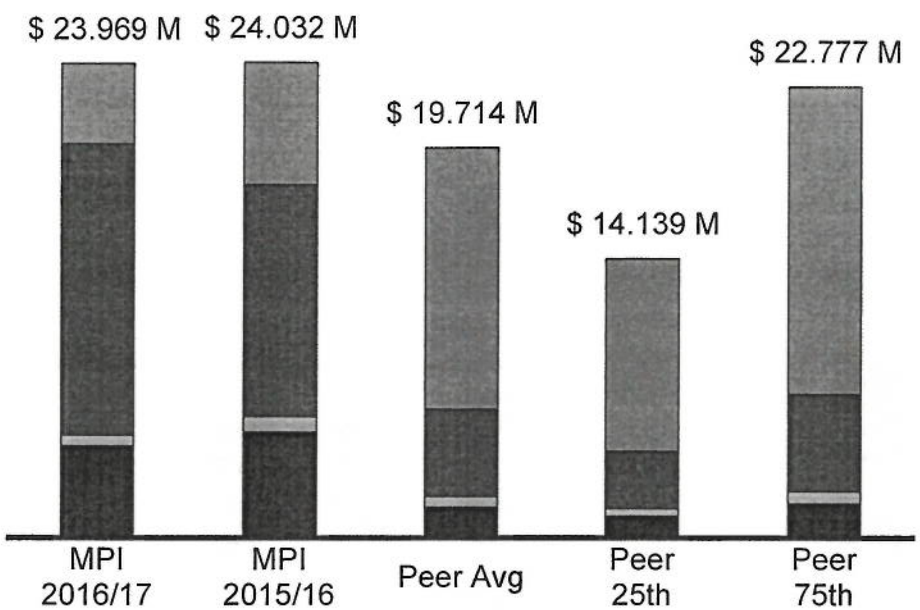
MPIs spending outsourcing and maintenance is significantly higher than the peer group average for Infrastructure and Operations

I & O Total Spending by Sourcing Type



	MPI 2016/17	MPI 2015/16	Peer Avg	Peer 25th	Peer 75th
Insourced	$ 4.057 M	$ 6.182 M	$ 13.195 M	$ 9.763 M	$ 15.521 M
Outsourced	$ 14.732 M	$ 11.719 M	$ 4.448 M	$ 2.904 M	$ 4.943 M
Contractor	$ 0.549 M	$ 0.783 M	$ 0.530 M	$ 0.357 M	$ 0.579 M
Maintenance	$ 4.631 M	$ 5.349 M	$ 1.541 M	$ 1.116 M	$ 1.734 M
Total	$ 23.969 M	$ 24.032 M	$ 19.714 M	$ 14.139 M	$ 22.777 M

Observations:

- Outsourced spending is 3.3X higher than the peer group average
- Maintenance costs are 3X higher than the peer group average
- MPI's outsourcing costs include a prepayment for future upgrades as part of a 'vitality' clause in the IBM contract which avoids large single year increases, but presents a higher yearly cost than might be expected.

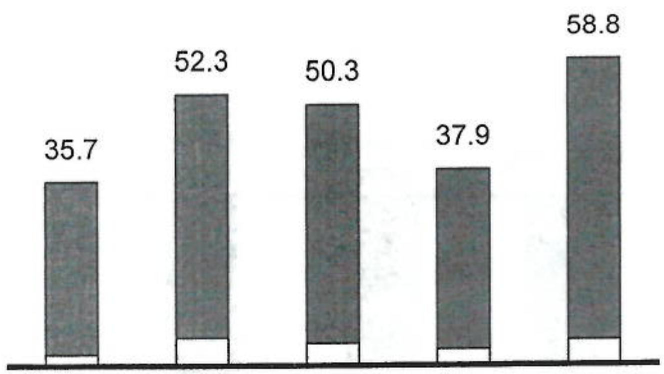
Implications:

- MPI may benefit from an assessment of the competitiveness of the outsourcing and maintenance agreements

Gartner.

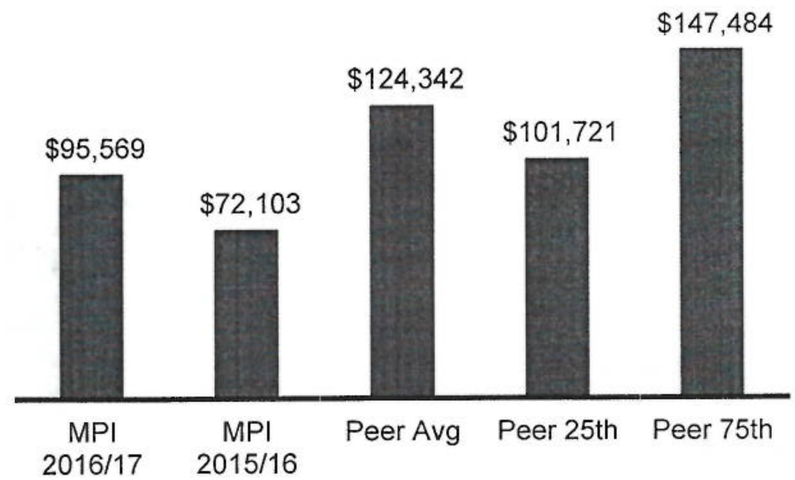
MPI's staffing levels for I&O are lower than in 2015/16 and lower than the peer group, however, the staffing levels need to be considered in the context of the high level of outsourcing.

In House vs. Contractor IT FTE



	MPI 2016/17	MPI 2015/16	Peer Avg	Peer 25th	Peer 75th
Insourced	33.5	46.9	46.1	34.8	53.9
Contractor	2.2	5.4	4.3	3.1	5.0
Total	35.7	52.3	50.3	37.9	58.8

Cost per blended FTE



Observations:

- Insourced headcount for I&O has decreased since 2015/16
- MPI has embraced outsourcing for 8 of 10 I&O functions, including Windows Server, Unix Server, Linux Servers, Storage, LAN, WAN, Internet Access Servers, Voice Premises Technology. Service Desk and End-User Computing are retained by MPI.

Implications:

- MPI should evaluate the size of the retained organization in support of IT functions that are handed by the outsourced service provider
- The need for oversight and operational process staff for vendor management may limit staff reduction opportunities

Gartner.

MPI previously used the Gartner CIO Dashboard to assess MPI's process maturity which has been discontinued. Gartner recommends transitioning to IT Score for 2017/18.

	CIO Dashboard	IT Score
Toolset Overview	• Previously used to assess MPI's process maturity. • This tool has been discontinued by Gartner.	• MPI provided data for 2016/17. • Current tool used by Gartner to perform in-depth maturity assessments.
Comparison Data	• While the framework provides a way to perform year on year comparisons of MPI's maturity level, the peer data should be considered out of date.	• Provides a way to perform year on year comparisons • Current peer data is available for the Insurance industry
Scoring	• MPI's maturity level assessed at level 3.52 using CIO Dashboard methodology during the 2016/17 period.	• IT Score is a different methodology with different weightings in the assessment domains. • MPI's maturity level assessed at level 3.10 using IT Score methodology during 2016/17 period.
Assessment Framework	• Infrastructure and Operations • Applications Organization • Business Process Management • Enterprise Architecture • Cost Containment • Open Innovation Readiness • Effectiveness / Innovation Enterprise Viewpoint • Effectiveness / Innovation IT Organization Viewpoint • Overall Score	• Infrastructure & Operations • Applications Organization • Enterprise Architecture • Vendor Management • Program and Portfolio Management • Security and Risk Management - Privacy • Security and Risk Management - Information Security • Enterprise View

Gartner.

MPI saw significant improvements in process maturity in Application Organization, Infrastructure and Operations and Cost Containment

	MPI 2016/17	MPI 2015/16	MPI 2014/15	MPI 2013/14	MPI 2012/13	MPI 2011/12	Insurance Avg
Infrastructure & Operations	3.14	2.98	2.85	2.64	2.32	2.32	2.20
Cost Containment	3.21	3.10	2.97	2.79	2.38	2.15	2.51
Applications Organization	3.17	2.94	2.83	2.81	2.66	2.70	2.76
Business Process Management	1.60	1.60	1.60	1.40	1.40	1.20	1.76
Enterprise Architecture	3.18	3.18	3.18	3.05	2.84	2.73	2.53
Open Innovation Readiness	4.13	4.13	3.75	3.75	3.75	3.63	2.46
Effectiveness/Innovation Enterprise Viewpoint	4.09	4.09	4.00	4.00	4.00	4.00	3.23
Effectiveness/Innovation IT Organization Viewpoint	3.89	3.89	3.78	3.67	3.67	3.44	3.17
Overall Score	**3.52**	**3.42**	**3.34**	**3.20**	**3.02**	**2.93**	**2.82**

Evaluation Criteria: MPI compares itself against seven key criteria that evaluate the effectiveness of the IT organization to deliver to the needs of the business. Comparisons are made to previous years and Gartner's IT Score for the CIO role as the CIO Dashboard has been discontinued. The insurance average had not shown material change over the past few years and can still be considered relevant.

Observations: MPI has improved over 2015/16, especially in Applications (+8%) and Infrastructure & Operations (+6%), but opportunities still remain to improve. Business Process Management is unchanged from last year and is still very low. MPI's overall IT Score was 3.52 (+3% over 2015/16)

Implications: MPI has increased its Maturity across the board, but can still improve in areas such as Business Process Management Increasing Maturity in these areas will improve the efficiency and effectiveness of both IT and MPI overall.

Gartner.

MPI's Executive View score is 3.4 and the Enterprise Score is 3.1. These scores will be used for year over year comparisons going forward. Opportunities exist for improvements in enterprise architecture and applications maturity.

	MPI 2016/17	Insurance Avg
Executive View	3.4	-
Applications Organization	2.4	2.4
Enterprise Architecture	2.3	3.0
Infrastructure & Operations	2.7	2.5
Vendor Management	3.0	2.5
Program and Portfolio Management	3.6	2.8
Security and Risk Management - Privacy	4.1	3.3
Security and Risk Management - Information Security	3.6	3.0
Enterprise	3.1	-

Note: Gartner does not provide benchmarks at the overall Enterprise level. The Enterprise and Executive score / assessments are based on a varying compilation of survey types across participants, not just a single survey.

Observations:

- MPI's Executive View score is 3.4 and the Enterprise Score is 3.1. These scores will be used for year over year comparisons going forward.
- Enterprise Architecture maturity is lower than the peer group average

Recommendations:

- Focus initiatives for improvements on enterprise architecture

Gartner.

Reconciling CIO Dashboard with IT Score

How does Business Process Management, as measured in CIO Dashboard map to the IT Score survey?

- In the CIO Dashboard survey, Business Process Management was assessed in various domains with MPI having low maturity in Organization and Culture and Metrics and Measures. It should be noted that the peer data within is outdated, meaning that MPI was being compared to the industry as it was, several years ago.
- In addition, within the insurance industry, IT organizations have shifted from business process maturity to a focus on improving the partnership between IT and the business.
- The newer IT Score Methodology is based on Gartner research* which finds that Enterprise IT maturity is more than the sum of individual IT functions and technical capabilities. *All* enterprise leaders (not just CIOs and IT leaders) must adapt and drive change in order to mature overall maturity beyond level 3 which is a critical step in surviving and exploiting digital business.
- Instead of simply measuring business process management as a separate domain, the IT Score methodology consists of an executive view which is separate from the IT domains. Rather than a focus on business processes, the domains within the executive view reflect the current focus areas with regard to enabling IT as an enabler for business value.

Why is Enterprise Architecture assessed with a high score in the CIO Dashboard survey and a low score in the IT Score survey?

- In the CIO Dashboard survey, enterprise architecture consisted of multiple domains with MPI being assessed as relatively weak in architecture impact, but stronger in every other domain.
- Similar to business process management, the scope and maturity level of enterprise architecture has changed for IT organizations within the entire insurance industry.
- In the newer IT Score survey, enterprise architecture consists of 7 domains which reflect the current best practice focus areas for modern IT organizations. MPI was assessed with a lower level of maturity in the current domains, most notably governance and metrics. Comparisons are made to recent peer data.

** Source: ITScore for the Enterprise - G00343561*

Gartner

In Summary, MPI continues to improve in most dimensions measured, but opportunities for continuous improvement remain.

Spending

- IT Spending as a % of Revenue dropped from 6.3% to 5.8%
  - compared with 3.7% for peers
- IT Spending as a % of Operating Expense dropped from 6.1% to 5.4%
  - compared with 4.8% for peers

Spending Allocation

- MPI has moved out of it's "catch up" stage and the balance of spending for growth is decreasing.
- MPI continues to spend more on Contractors and external third-parties, which increases spending.
- MPI's "Run the Business" spending is lower than the Peers.

Alignment and Maturity

- MPI improved in many process areas as measured using the CIO Dashboard survey
- The overall IT Maturity score increased using the CIO Dashboard survey
- Measurements have been made using the new IT Score methodology which will enable ongoing year on year comparisons and comparisons to peer organizations

- MPI's mission is to serve Manitobans, not maximize revenues, which has an effect on metrics reported as a % of revenue. Spending as a % of overall operating expense compares well with peers.
- Improving MPI's long-term IT cost position is reliant on managing outsourced service provider costs and decreasing dependence on outside contractors.
- MPI will increase value to the business through improvements in enterprise architecture which will enable transformative value to the enterprise.
- MPI will enable future maturity and efficiency improvements through a focus on skills development and training.
- MPI will transition to the IT Score survey which reflects priorities and best practices for modern IT organizations and enables peer comparisons

Appendix 19: INFORMATION TECHNOLOGY COSTS

The following tables provide a comprehensive analysis of Corporate Information Technology (CIT) expenses and capital expenditures. This includes both historical actual from 2013/14 to 2017/18 and the forecast period from 2018/19 to 2022/23.

The first table provides a summary, including compounded annual growth rates for all corporate expense costs related to IT within MPI.

Figure EXP App 19 – 1: Information Technology Costs (Corporate)

Line No.	Summary	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/232F	Compound Annual Growth 13/14A-17/18A (5 years)	Compound Annual Growth 18/19B-22/23F (5 years)
	(C$000s, except where noted)												
1	Total IT Expenses	61,237	64,170	57,479	64,289	85,093	76,218	70,813	74,372	82,656	84,255	8.6%	2.5%
2	Deferred Development Costs	29,819	17,079	20,847	27,671	204	10,902	25,757	33,409	26,500	25,250		
3	Data Processing Equipment	1,155	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625		
4	Total IT Costs	30,974	18,108	21,471	27,781	346	13,387	28,685	35,062	27,730	26,875		

The following two tables provide detail for the summary showing budgeted and forecasted amounts for the three IT related departments within the Corporation as well as all of the capital IT costs within the Corporation.

Figure EXP App 19 – 2: Total Information Technology Expenses

Line No.	IT Expenses	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/23F
1	*($C 000s, except where noted)*										
2	CIT Departmental Expenses:										
3	Data processing:										
4	Computer Costs	377	14	-	-	-	-	-	-	-	-
5	Licence Charges	6,431	5,698	6,219	5,826	7,408	8,126	8,342	8,720	8,894	9,072
6	Computer Maintenance	1,683	1,348	1,371	1,484	1,787	1,689	1,715	1,748	1,783	1,819
7	Software	1,668	702	277	805	176	352	258	258	263	268
8	IBM Data Centre	-	6,080	7,276	9,550	9,176	9,790	9,972	10,558	10,769	10,984
9	IBM Security Operations Centre	-	-	-	-	-	550	550	550	561	572
10	External Labour										
11	AOL	3,145	2,955	2,313	2,305	1,230	2,201	1,887	1,887	1,924	1,963
12	CARS	793	739	578	576	308	624	535	535	546	557
13	Other	3,832	2,414	1,522	2,324	1,672	730	634	627	639	659
14	Total Data Processing	17,929	19,950	19,556	22,870	21,756	24,062	23,893	24,883	25,379	25,894
15	Compensation	10,382	9,388	10,044	11,231	11,521	13,314	14,100	14,511	14,764	15,056
16	Training	103	144	142	132	127	129	140	143	146	149
17	Special Services	1,203	969	766	991	1,024	926	944	963	982	1,002
18	Printing, Stationery and Supplies	596	338	295	231	169	582	564	225	229	234
19	Telephone and Telecommunications	3,049	2,562	2,377	2,221	2,054	2,121	2,174	2,231	2,275	2,321
20	Computer Equipment Expense	645	674	289	167	295	1,161	878	969	989	1,008
21	Miscellaneous	291	115	30	116	42	80	81	83	84	86
22	Total CIT Dept Exp (before Dep'n/Amort)	34,198	34,140	33,499	37,959	36,989	42,375	42,774	44,008	44,848	45,750
23	Depreciation - Data Processing Equipment	1,847	826	1,075	672	411	813	1,526	2,176	2,176	2,176
24	Amortization of Deferred Dev Costs	-	7,941	8,534	9,415	12,702	14,573	6,125	6,125	2,835	1,683
25	Total CIT Direct Departmental Expenses	36,045	42,907	43,108	48,046	50,103	57,761	50,425	52,309	49,859	49,609
26	Allocated Building Expenses	1,264	1,293	1,292	1,309	1,112	1,311	1,347	1,362	1,384	1,406
27	Allocated Corporate Benefits	2,786	2,870	2,951	3,092	3,304	3,997	4,119	4,196	4,275	4,275
28	DP - Microfiche	42	44	43	43	43	44	44	45	46	46
29	DP - External Labour - Other	118	247	376	264	244	310	310	316	323	323
30	Total CIT Departmental Expenses including allocations	40,255	47,361	47,770	52,754	54,806	63,423	56,245	58,228	55,887	55,659
31	Implementation Expense:										
32	Licence Charges	10	52	33	12	243	5	-	-	-	-
33	Computer Maintenance	-	-	-	-		-	-	-	-	-
34	IBM Data Centre	-	-	-	150	161	500	500	500	500	500
35	Software	-	-	5	-		500	-	-	-	-
36	Deferred Development Impairment					20,258	-	-	-	-	-
37	External Labour	4,955	5,707	4,891	4,290	1,571	3,050	350	350	350	350
38	Total Implementation Expense	4,965	5,759	4,929	4,452	22,233	4,055	850	850	850	850
39	Ongoing expense:										
40	Licence Charges	-	-	-	205	-	-	233	308	955	955
41	Amortization of Deferred Dev Costs	-	-	-	-	-	-	3,477	6,052	15,676	21,376
42	Computer Maintenance	-	-	-	-	-	-	-	-	-	-
43	Software	-	-	-	-	-	-	50	50	50	50
44	IBM Data Centre	7,170	1,513	1,808	-	-	-	1,217	1,630	4,136	4,432
45	Total Ongoing Expense	7,170	1,513	1,808	205	-	-	4,977	8,041	20,817	26,812
						-					
46	Total other CIT Exp	16,345	11,726	11,399	9,365	26,936	9,717	11,647	14,810	27,695	33,712
47	Depreciation - Data Processing	-	903	-	-	-	-	-	-	-	-
48	Amortization of Deferred Dev Costs	8,847	8,634	2,972	6,878	8,055	8,740	8,740	7,253	5,102	934
49	Total CIT other Exp (after Dep'n/Amort)	25,192	21,263	14,371	16,243	34,991	18,457	20,388	22,063	32,797	34,646
50	Total IT Expenses	61,237	64,170	57,479	64,289	85,093	76,218	70,813	74,372	82,656	84,255

Figure EXP App 19 – 3: Corporate Capital Expenditures - Deferred Development Costs

Line No	Project Description	2013/14A	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F	2020/21F	2021/22F	2022/23F	Unassigned Capital
1	*(C$000s, except where noted)*											
2	Projects that do not impact Basic	-	135	533	3,154	31	2,000	3,029	-	1,500	-	-
3	Projects that impact Basic											-
5	IT Optimization	2,688	-	-	46	-	-	-	-	-	-	-
6	Disaster Recovery	11,826	-	-	14	-	-	-	-	-	-	-
7	HR Management System Phase 1 & 2	2,945	(302)	-	1,579	-	-	-	-	-	-	-
8	HR Management System Phase 3 & 4	102	145	-	-	-	-	-	-	-	-	-
9	Physical Damage Re-engineering	-	1,674	-	390	-	-	-	-	-	-	-
10	PDR Opt Repair - Collaborative Estimating & JSST	-	9,676	387	688	-	-	-	-	-	-	-
11	PDR Opt Repair - Distributed	-	1,296	1,593	2,343	2	-	-	-	-	-	-
12	Physical Damage Re-engineering Main/Phase 3	11,350	(4,529)	4,707	(2,434)	282	-	-	-	-	-	-
13	PDR Opt Repair - Remote Estimating	-	1	42	70	115	-	-	-	-	-	-
14	BI3 Fineos Upgrade 2016	257	1,462	2,002	577	-	-	-	-	-	-	-
15	BI3 Fineos Upgrade 2020	-	-	-	-	-	1,257	1,020	-	-	-	-
16	BI3 Fineos Upgrade 2024	-	-	-	-	-	-	-	-	-	1,250	-
17	Enterprise Data Masking	651	1,189	1,077	3	-	-	-	-	-	-	-
18	High School Driver Education Phase 2	-	314	327	1,333	112	-	-	-	-	-	-
19	High School Driver Education Phase 3	-	-	-	-	681	900	-	-	-	-	(882)
20	Infor/Lawson Upgrade	-	172	978	1,258	1,101	-	-	-	-	-	31
21	Infor Major Upgrade 2022	-	-	-	-	-	-	-	2,000	1,000	-	-
22	ITO - High Availability	-	2,919	4,881	938	-	-	-	-	-	-	-
23	Legal Management Project	-	1,086	1,536	(8)	-	-	-	-	-	-	-
24	Predictive Analytics	-	1,578	600	1	-	-	-	-	-	-	-
25	Corporate Learning Management	-	263	-	1,123	1,406	250	-	-	-	-	129
26	Physical Damage - Centre of	-	-	537	283	-	-	-	-	-	-	-
27	Information Security Strategy and Road Map Phase 1	-	-	1,298	1,934	130	-	-	-	-	-	11
28	Information Security Strategy and Road Map Phase 2	-	-	337	659	1,756	-	-	-	-	-	206
29	Technology Innovation & Capabilities	-	-	12	(12)	-	-	-	-	-	-	-
30	Technology Risk Management -	-	-	-	2,213	145	-	-	-	-	-	25
31	Technology Risk Management - 2017	-	-	-	-	2,902	228	-	-	-	-	325
32	Technology Risk Management - 2018	-	-	-	-	-	3,772	-	-	-	-	-
33	Technology Risk Management - 2019	-	-	-	-	-	-	4,000	-	-	-	-
34	Technology Risk Management - 2020	-	-	-	-	-	-	-	4,000	-	-	-
35	Technology Risk Management - 2021	-	-	-	-	-	-	-	-	4,000	-	-
36	Technology Risk Management - 2022	-	-	-	-	-	-	-	-	-	4,000	-
37	Appointment Manager	-	-	-	2	1,402	-	-	-	-	-	-
38	Customer Claims Reporting System	-	-	-	10,592	5,032	-	-	-	-	-	-
39	Enhanced DR Capabilities	-	-	-	292	1,422	-	-	-	-	-	658
40	Partner Portal	-	-	-	291	2,256	-	-	-	-	-	(140)
41	Financial Re-Engineering Initiative	-	-	-	342	1	-	6,708	6,409	-	-	-
42	Customer Self Service	-	-	-	-	1,679	1,500	1,000	1,000	-	-	(709)
43	Credit Card Strategy	-	-	-	-	255	995	-	-	-	-	249
44	Legacy Systems Modernization	-	-	-	-	-	-	10,000	20,000	20,000	20,000	-
45	Total Deferred Development Costs	29,819	17,079	20,847	27,671	20,710	10,902	25,757	33,409	26,500	25,250	(97)
46	Impairment of Deferred Development	-	-	-	-	(20,506)	-	-	-	-	-	-
46	Data Processing Equipment:											
47	Provision for New and Replacement	1,019	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625	
48	Projects that impact Basic											
49	IT Optimization	136	-	-	-	-	-	-	-	-	-	
50	Total Data Processing Equipment	1,155	1,029	624	110	142	2,485	2,928	1,653	1,230	1,625	-
51	Total Capital Requirements for IT	30,974	18,108	21,471	27,781	346	13,387	28,685	35,062	27,730	26,875	(97)

The table below provides the number of Consultants supporting IT operational activities as well as Consultants utilized on projects. The subsequent Basic Program costs for these Consultant activities are also provided. Improvement Initiative Costs do not include deferred development costs.

Figure EXP App 19 – 4: Summary of Consultant Costs and FTE

Line No.	Consultants - Corporate[1]	2013/14A[3]	2014/15A	2015/16A	2016/17A	2017/18A	2018/19B	2019/20F[4]	2020/21F[4]
1	IT Operational Activities	49	40	37	31	17	16	20	20
2	Improvement Initiatives	71	70	77	76	90	66	60	60
3	Total	120	110	114	107	107	82	80	80
4	Consulting Costs - Basic only								
5	IT Operational Activities[2]	6,311	5,084	3,831	4,376	2,568	2,880	2,480	2,480
6	Improvement Initiatives	23,100	14,553	17,214	15,528	11,778	8,637	7,853	7,854
7	Total	29,411	19,637	21,045	19,904	14,346	11,517	10,333	10,334

(1) Contractor counts vary throughout the year. For this table on September of each fiscal year (mid-point) thus 2016-17 actuals do not relect all contractor conversions in Q3 and Q4.
Please see GRA 2017 Volume I, Chapter 8, IT.2 for details on this.
(2) Basic IT Operational Activities are estimated at 80% of Corporate
(3) Adjusted as the improvement initiatives total had previously included IT Operational Activities, some license fees and software maintenance.
(4) Any changes to the planned improvement initiatives for 2019/20 and 2020/21 will impact the number of consultants.

MANITOBA PUBLIC INSURANCE

INFORMATION TECHNOLOGY STRATEGY

Published: June 1, 2018

Effective Year: 2018-19 Fiscal

Next Full Review: Q1 - 2019/20

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Message from the Chief Information Officer at MPI

Manitoba Public Insurance's Information Technology Strategy establishes the strategic direction for information technology (IT) investments within the corporation for the foreseeable future. At its core, the strategy is intended to guide which IT capabilities will be created to support the business capabilities required to meet the Corporation's business objectives. This will result in the delivery of better products and services, and ultimately enhancing the value being offered to Manitobans.

At MPI, business and technology decisions need to envision beyond the corporation and consider the extended enterprise of business partners while continuing to align to the service of our customers. The goal of this alignment is to support the persistent optimization of core business functions, including ensuring the Corporations' ability to adapt to changes in the auto insurance and registration environment.

The maturing of value management within the corporation has created a more formalized process in the selection of candidate initiatives. Included in this are specific actions designed to strengthen current enterprise governance, a key to our success going forward.

This year, MPI is performing an assessment of our legacy systems to see if they are a candidate for modernization based upon their ability to meet the needs of the corporation into the future. Some of the drivers of this assessment are the evolving customer expectations on service delivery, product and service flexibility and agility, and application risk. Given the pervasiveness of our legacy systems within our technology infrastructure, the outcome of this assessment may have a significant impact on our IT roadmap and how IT capabilities are created for the next several years.

On an annual basis, the Information Technology and Business Transformation division (ITBT) will update this strategy to reflect the progress made and any changes required to maintain alignment to the Corporation's business plan.

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Brad Bunko

Vice President, IT, Business Transformation & Chief Information Officer

1. Executive Summary

This IT Strategy marks the start of a fundamental shift in how MPI views new technology and how new technology will be implemented. Over the last two years (since our last IT Strategy) there has been careful consideration by Management and our Board as to how we need to evolve to increase our effectiveness at introducing the technology needed for business transformation. The following table summarizes the significant changes we have adopted in our strategy by indicating what our past practice was, what are new practice is and how we will ensure our change has been effective.

Where we were	Where we are going	How we are going to measure success
Leaders in creating innovation and pursuing unproven technologies	Adopt proven mainstream technology	Through the maturity of the products and solutions we implement
Executed High risk projects	Identify all risks prior to project initiation and incorporate into project decision	Risks initially unaccounted for do not surface during or post project delivery. Projects attain value benefits stream projections
Project Governance with non-business project sponsor for all projects	Project sponsor is the Operational Business Champion, will have shared accountability with the Business Transformation Office and has a long term stake in ensuring the benefits stream is met	Ongoing benefit realization is achieved through the Operational Business Champion.
Customize out of the box software to suit our processes	Align, wherever possible, our processes to industry best practices that is incorporated in vendor provided software	Reduced software costs and adoption of industry best practices
Candidate project were not vetted through a detailed value management process	Value management discipline becomes engrained in MPI process and culture and participates through the project lifecycle and beyond	Project decisions are based on the Value Management Process. IT expenditures will only be incurred after a value management assessment has been completed.
Technology driven change within the organization	IT capabilities are created to support Business Capabilities that are needed in pursuit of a Business Objective	Business value for IT expenditures

Within MPI's Annual Business Plan (published April 30, 2018) MPI outlines its mandate and strategic direction. This plan highlights MPI's key priorities and considerations (internal/external environment, and associated risks) as well as key metrics and targets, budgetary and human resource requirements, and capital plans.

The Annual Business Plan effectively sets the corporate direction for the 2018/19 fiscal year, and provides guidance for future years. It does this by highlighting the priorities which have been traditionally found in many supporting documents such as detailed budgets, schedules, briefing notes and business cases; and providing clear guidance on the path forward for the Corporation. The Annual Business Plan outlines strategies and specific activities that will support the achievement of the following business objectives and related strategies.

Business Objectives; with a focus on core Auto Insurance and DVA:

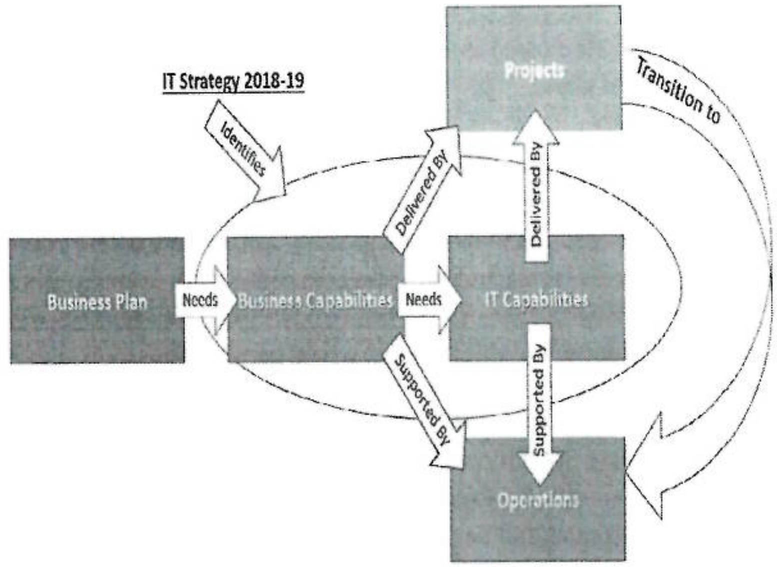
- Rate Stability and Predictability
- Operational Excellence
- Product and Service leadership

The IT Strategy fulfills a similar purpose, providing corporate IT direction for 2018/19 fiscal year and guidance for future years. Its primary purpose is to support the business objectives and strategies outlined in the Annual Business Plan; outlining which business and IT capabilities are needed to achieve these, and which specific capabilities need to be added, changed or improved to ensure MPI is successful in achieving its business objectives. The IT Strategy outlines how the practice of Enterprise Architecture will be used to ensure that the right set of capabilities are developed, at the right time, for the right cost.

This IT Strategy is a considerable evolution from an earlier version (June 2015) with significant emphasis on supporting the MPI business. This IT Strategy also reflects improved process maturity in several key areas:

- Enterprise Architecture: Increased emphasis on definition and alignment of capabilities.
- Information Security: Increased alignment to industry frameworks and best practices have brought structure and focus to this domain.
- Value Management: Improved focus on business cases and linking projects to business objectives and strategies.

By design, the IT Strategy sets the technology path forward based on the business context, business objectives, and business strategies for the current fiscal year and for future years. The IT strategy then applies guiding principles and considers major influences to develop the business capabilities and IT capabilities required to be successful. Business and IT capabilities are delivered by projects. Successfully implemented projects result in the transfer of business and IT capabilities to operational areas, which leverage and maintain these capabilities.



The Value Management process provides oversight to these projects to ensure they deliver appropriate business value for the investment made, as documented in the business case.

The Legacy Modernization Assessment project will have a significant influence on the future direction of IT within MPI. This assessment will review the feasibility and cost of replacing our core Insurance and Driver/Vehicle Registration systems and will complete at the end of Fiscal Year 2018/19. For this reason, this version of the IT Strategy will provide direction for the current year and guidance for foreseeable future years, with the understanding that significant change may be driven by the Legacy Modernization Assessment and will need to be factored into future versions of the IT Strategy.

The value of Legacy Modernization is derived from supporting the current and future needs of the Insurance and Driver/Vehicle registation businesses. Potential solutions will be evaluated for upfront value (business and IT capabilities gained by modifying existing processes and avoiding customization) and long term cost effectiveness .

There are also changes to the business context, objectives and strategies which need to be reviewed and considered on an ongoing basis. To ensure continuous alignment to the business direction, the IT Strategy will be reviewed, updated and communicated annually.

2. Introduction

Manitoba Public Insurance (MPI) has demonstrated a dedication to cost containment and a commitment to providing Manitobans with automobile insurance rates that continue to be among the lowest in Canada. Given the continuous advance in technology and the changing automotive industry, the Corporation also continues to refine and adapt our products and services with our customers and business partners in mind. By continuing to focus on our existing value proposition, as well as exploring new ways to create value for our customers, by consistently providing exceptional coverage and services, MPI can achieve its mission and maintain control of costs.

Exceptional coverage and service when combined with a focus on cost control is challenging when using legacy technologies. For a time, legacy systems can be stretched and strained beyond their original designs, but there is a price - incrementally increasing costs with each major enhancement. However, moving away from these legacy systems, without proper planning and diligence, can have significant cost implications and not deliver the required business value. Legacy system modernization requires major decisions to be made: such as, whether to build or buy, what technology to grow or replace, what change is critical now, and what change can be deferred. These major changes cannot be considered in isolation. They must be confirmed as appropriate for the business environment, aligned to current and future business needs, and consider the current technology environment and parallel technology priorities. The focus of this IT Strategy to provide clarity and focus on IT matters, in a way that is continually aligned to business needs.

This IT Strategy uses the concept of capabilities (combinations of people, processes, and technologies to achieve a business outcome), to ensure there are effective links between major documents such as the Annual Business Plan to the Corporate Capital Master Summary. The advantage of this approach is that it results in continuity and consistency across multiple parallel initiatives. This approach can be adjusted based upon the approved program portfolio, and complements the Value Management process / business cases which illustrate the proposed projects are prudent and necessary.

The IT Strategy is focused on the current and future needs of the business, and captures the key context, considerations and principles which frame this understanding. To ensure a full and comprehensive view, business needs must be examined at the highest level (Annual Business Plan), then specific strategies and objectives based on the business plan, then specific plans to impliment those strategies and achieve the objectives (operational and capital projects).

The IT Strategy then outlines the capabilities needed to meet these needs and the approach to integrate these capabilities into projects and operations in the 2018/19 fiscal year. The information is organized as follows:

- Business Context, Business Objectives, and Strategies; highlights the current context, objectives, and strategies for business success which will be considered in this IT strategy
- Major Influences and Guiding Principles; describes several major influencers that need to be considered in the strategy and reflects experiences and best practices which are used to guide all IT decisions and shape the development of business and IT capabilities
- Developing Business and IT Capabilities and Required capabilities; defines and explains the business and IT capabilities which are required for development through active or yet to be planned projects (aligned to key business objectives and strategies)
- Applying the IT Strategy to Projects and Operations; provides an overview of the methodology, and highlights how the strategy is expected to impact both business and IT capabilities, and the organization in general

3. Business Context

These external drivers will shape our business over the foreseeable future include:

- *Changing customer expectations:*
  Customers expect enhanced service capabilities that are oriented toward the customer experience they have grown accustomed to from online retailers. These enhanced service capabilities affect the speed (faster responses from insurance companies), access to and quality of service (more self-service and better analytical insight into customer preferences), and product features (more-individualized products and services). These customer expectations vary based upon demographics and require MPI to refine its methods for measuring customer expectations and engagement, and further developing analytic capabilities. The introduction of new channels adds complexity to the service delivery model and increase expectations for service availability for any technology solution.

- *Partnerships and the extended enterprise:*
  Product delivery through insurance brokers and physical damage claims services provided by the repair industry are critical to the MPI service delivery model. MPI will continue to be an extended enterprise, reliant upon partners to provide services directly to customers with IT systems acting as the conduit between all parties. These systems need to interoperate with an increasing volume and variety of partner and customer technologies.

- *Traffic Safety Culture:*
  MPI, in partnership with Manitoba Infrastructure, is pursuing the goal of having the safest roads in Canada and pursuing the objective of significantly reducing fatalities on our roadways. This goal is challenged by new trends such as "texting and driving" which impacts claims frequency, as well as potential impacts as a result of the legalization of cannabis. MPI continues to invest in education, control, and awareness programs. Integrating technology solutions into these programs allows MPI to reach customers in new ways. Through the use of analytics, program results can be further quantified and improved.

- *Vehicle technology changes:*
  New technologies, such as partial and full autonomous vehicles and the Internet of Things (IoT), are changing the risk landscape for insurance companies. With the potential to affect premiums going forward there is the need to monitor these changes and take appropriate actions to mitigate their associated risks. The near term impact can be seen in Physical Damage costs as new technologies (ex. automatic parking, pedestrian emergency braking) reduce the frequency of accidents but result in higher severity (aluminum alloys require special tools and training; and in vehicle technologies increase the cost and complexity of repairs). This requires the technology behind estimating and adjusting solutions to be flexible, continuously updated, and consistently available – connecting MPI and its repair partners.

- *Insurance Industry Requirements:*
  The insurance industry is facing changing regulations and in some cases, more supervision by regulators at the federal or global level. This results in stricter solvency capital regulations that are forcing insurers to set aside more capital for the business that they are underwriting, and to increase investments in information/cyber security. MPI needs to continue to monitor these regulatory changes to be prepared for, and to ensure compliance as required.

4. Business Objectives and Strategies

Our corporate mission statement outlines the foundation for how MPI will be successful as a business:

Exceptional coverage and service, affordable rates and safer roads through public auto insurance.

This will be accomplished through a focus on the effective management of claims, underwriting and investment income. This cannot be done in isolation. In order to meet the diverse needs of our geographically dispersed customers, MPI must incorporate effective partnerships in the delivery of products, programs and services, as well as a deep understanding and adaptation to ongoing industry changes. This will require new technical capabilities which must be secure, reliable, and cost effective but also responsive to the needs of customers and partners and adaptable to the changes in products, services, and programs.

Objective 1: Rate Stability and Predictability

Strategy: The Basic compulsory insurance program must be operated on a self-sustaining basis with sufficient capital reserves, while maintaining stability, predictability and affordability. Strategic focus will be on risks, opportunities, and threats which materially impact this goal such as agreement negotiations with Brokers and the Repair Industry, Investment and Capitalization strategies, Claims control programs, and management of enterprise risk and related safeguards such as reinsurance.

Objective 2: Operational Excellence

Strategy: The Corporation will continue to demonstrate fiscal prudence and sound financial management practices while driving cost-containment, streamlining of operations and elimination of unnecessary operational expenses. This strategy will be supported by Capital projects and major technological initiatives will focus on supporting and optimizing core business functions, including ensuring the Corporation's ability to adapt appropriately to changes in the auto insurance and registration environment. These enterprise wide activities include creating an overall roadmap for online products and services, corporate wide efforts to enable a high performing culture, and new reporting and dashboards. This also includes division level optimization of key processes (appeals, financial management, information technology, and facilities).

Objective 3: Product and Service Leadership

Strategy: The Corporation will continue to evolve to address the changing needs of Manitobans including services to Manitobans in rural, northern, and remote communities. This will be facilitated through analysis of current stakeholders, the review and refinement of the existing product suite, and the implementation of a customer needs and experience framework. Opportunities will be explored to deliver the technical components of these initiatives in a timely fashion using new agile processes.

Clearly defined business objectives, backed by strategies to achieve them, are the first step in defining the business capabilities required for success. Section 6 outlines key considerations which help MPI guide the selection and prioritization of new capabilities. Section 8, outlines those capabilities and the need for changes and improvements needed to ensure success.

To ensure a full and comprehensive view needs must inform strategies, which must inform plans. At the highest level business needs must be consistent with the Annual Business Plan. Then specific strategies and objectives must then be developed based on the business plan. Finally, the specific plans to impliment those strategies and achieve the objectives (operational and capital projects) must be devised. For example, the following of Corporate Strategic Priorities focus on achieving core business objectives, and were considered in the development of capabilities (or needs, see section 8), but also need to be evaluated for the potential impact on the strategy to achieve Legacy Modernization.

ALM Implementation	Repair Negotiation	Online Self Service
Broker Negotiation	Risk Appetite	Performance Culture
Capitalization Autopac	Appeal Process Review	Reinsurance
Claims Cost Control	DVA Review	Reports / Dashboards
Customer Experience	Finance Re-Engineering	Space Plan
Product Suite Review	IT Legacy Update	Stakeholder Agenda Analysis

*Dark shading denotes Legacy Modernization impact, light shading denotes potential Legacy Modernization impact

5. Major Influences

The following pre-existing projects and processes have a significant impact on many business and IT capabilities proposed in this strategy. A brief summary of each and their impacts is highlighted here:

Legacy Modernization

A Legacy Modernization assessment has been established to determine how our existing application infrastructure can be modernized to be successful in meeting the current, new and known future business requirements. Potential solutions will be evaluated for upfront value (business and IT capabilities gained by modifying existing processes and avoiding customization) and long term cost effectiveness. The core objectives of the project are:

- Perform a detailed assessment of our core systems and their associated business processes.
- Perform an industry survey of available technologies in both the Property & Casualty Insurance policy issuance and claims administration, and in the Driver and Vehicle Administration domain.
- Create a set of recommendations and guidelines defining how to transform MPI's legacy systems to meet long term business needs and close identified gaps in business and IT capabilities.
- Create an Application Strategy that outlines how MPI will address the proposed recommendations for transforming MPI's legacy systems to meet long term business needs
- Create a detailed comprehensive Business Case that outlines the costs, benefits, and risks for implementing and then operationalizing the solution defined by the Application Strategy.

The results from the assessments and the industry surveys will be used as input into developing a detailed business case which will be presented to MPI's Board of Directors. During the process of completing these assessments, MPI will gain detailed, third party, insight into the business and IT capabilities provided by key systems. These insights may have a significant impact in how business and IT capabilities are created for the foreseeable future and may significantly shape the 2019/20 IT strategy and 2019/20 project portfolio.

Information Security and IT Risk Management Processes

Mature Information Security and IT Risk management are critical to the success of the modern corporation due to the complex and changing IT and information security risk landscapes. Effective governance and oversight must exist, continually identifying threats, evaluating risks, and enhancing controls and capabilities. To guide these activities, MPI has formed the Information Security Office (ISO) which manages three key governance functions: Information Security, IT Risk Management and Information Security Architecture.

The ISO has established the IT Risk Management practice through a framework for defining and measuring key IT risks in the areas of application, infrastructure, security and compliance, resourcing, and project management. IT Risk Management ensures that appropriate information technology and business process and controls are in place, measured, effective, and aligned to defined risk tolerances.

The role of ISO is critical to maintaining compliance to information security standards, requirements, evolving customer and regulatory expectation and requirements, evolving contractual commitments and controls with strategic business partners, while ensuring technology change are aligned to risk practices and measures, including monitoring and aligning our Information Security maturity targets.

Data and Analytics Processes

To maximize the business value found within its data, MPI consolidated four operational departments and centralized them within one directorate in Q2, 2017/18. In the short term this created operational efficiencies and improved service delivery on data and analytic initiatives. A second step has been the creation of a draft Data Strategy which outlines a corporate level governance structure over data and analytics, and a roadmap for incremental improvements in people, processes and technology. To support the business strategies, this area will focus on the implementation of standardized dashboards and consistency in reporting key performance indicators (KPIs) for strategic priorities and corporate performance measures. As part of the Legacy Modernization program, this area will ensure that the proposed system solutions incorporate the data and analytics capabilities required to produce accurate reporting and actionable business insights upon implementation and in the future.

Technology Risk Management Program

The Technology Risk Management (TRM) program provides regular investment in technology systems and processes. This ensures that existing technologies stay on supported versions and technology risks are addressed through process and technology improvements. Investments are identified and prioritized annually. The 2018/19 program budget will be spread across 4 key areas: Application Risk Management, Infrastructure Risk Management, Information Security Risk Management and Risk Registry Remediation. Investments in 2018/19 include the increased adoption / deployment of Information Security technologies and the upgrade and/or replacement of significant parts of the IBM managed IT infrastructure (including network, security, and storage devices). These projects will require careful planning and coordination to minimize any downtime associated with the changes.

Value Management Process

MPI has continued to increase its use of the Value Management process to effectively identify, qualify, quantify, and evaluate projects. Value Management begins with business cases which; outline the goals and scope of an initiative, highlight the associated cost and benefit estimates, and present the monetary impact using a consistent set of financial measures. The process continues over the duration of the project, with emphasis on delivery to the business case and review of any project changes which materially impact the business case. At the completion of projects, Value Management confirms attainment of business case goals, including attainment of financial measures. The Value Management process also includes steps to review candidate projects for potential synergies or conflicts. The outcome of this review is recorded in the Enterprise Architecture section of the business case and looks for conflicts on a business, technical or security architecture perspective.

Enterprise Architecture Process

Enterprise Architecture (EA) is the discipline of proactively and holistically managing business and IT capabilities by identifying and analyzing the execution of change toward the desired business vision and outcomes. EA delivers value by presenting business and IT leaders with complete recommendations for adjusting processes and projects to achieve business outcomes that align to the business plan. MPI is actively pursuing improvements to its EA process maturity as a way to reduce the risk and cost associated with implementation of the key business strategies. EA involves Business Architecture, Technical / Data Architecture, and the ISO and is a key input to upcoming major initiatives (there is a specific focus on EA within Legacy Modernization). EA actively integrates business plans, business capabilities, IT capabilities, and leverages industry best practices and MPI guiding principles to ensure consistency and efficiency across the enterprise. EA is a critical process to the development and maintenance of the IT Strategy.

6. Guiding Principles

Guiding principles represent distilled organizational knowledge and best practices acquired through experience and are used to support the organizational decision making. This knowledge was collected and considered as part of the preparation of this strategy, and will be used to guide the development of business and IT capabilities.

- Enterprise Architecture shall align solutions with the Corporation's mission and vision to maximize business value while providing business agility, reducing complexity and total cost of ownership

- IT services of the Corporation shall be governed and managed centrally.

- IT services and solutions shall align and evolve with the Corporation's security, privacy and business continuity policies, standards and requirements to ensure information is appropriately safeguarded.

- Technology solutions shall leverage industry proven technologies and shall be maintained such that they operate within the vendors' supported set of technologies.

- Commercial software shall be considered before in-house custom development.

- MPI will seek to standardize its products and processes, where prudent, to avoid uneconomical customization of commercial software.

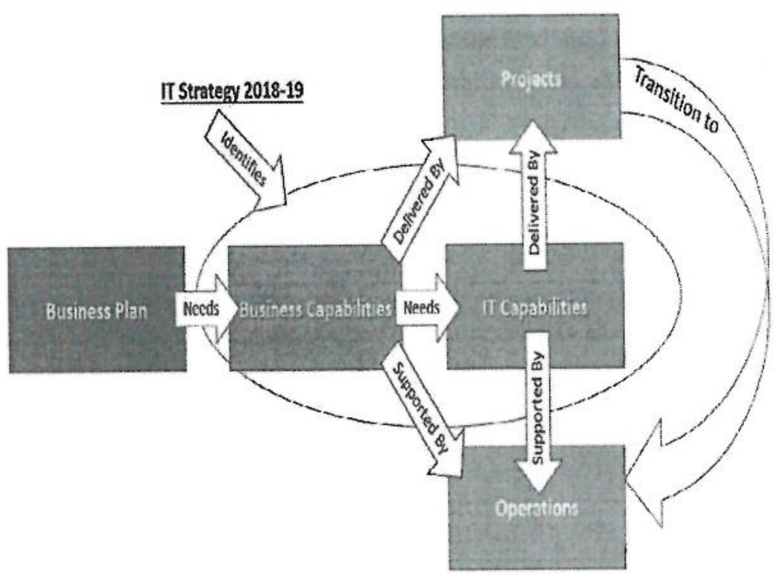
7. Developing Business and IT Capabilities

Enterprise Architecture identifies two concepts (Business Capability and IT Capability) which enable the connection between business strategy, objectives and specific IT initiatives:

- Business Capability: A business capability refers to a combination of resources (people, organizational structures, assets, systems, technologies and partnerships) that is necessary to reach the future state described by the business strategy. For MPI, the business strategy is included in the 2018/19 Annual Business Plan.
- Information Technology Capability: An IT capability refers to a combination of resources (people, organizational structures, assets, systems, technologies and partnerships) that is necessary to support a business capability. For MPI, IT projects are completed to add or change IT capabilities.

MPI is investing significant operational effort in establishing and advancing Enterprise Architecture based upon recommendations from Gartner and comparison to peer organizations.

The MPI Annual Business Plan summarizes the needs of the corporation for the next fiscal year. These needs are met using a combination of people, processes and technology to achieve the intended business result. Within this IT Strategy, MPI has shared the business and IT capabilities which will achieve the top business objectives. The next section illustrates that business capabilities may exist independently, or may be supported by one or more technology solutions, each with their own requirements for people, process, and technology. These have been referred to in this strategy as IT capabilities. MPI deploys new capabilities via projects, and then transfers ongoing support, maintenance and continuous improvement of capabilities to operational departments.



The IT Strategy illustrates how business goals, objectives and strategies (outlined in the Annual Business Plan), translate into business capabilities and IT capabilities, and will be delivered by projects and supported by operations. Each major project in the Corporate Capital Master Summary has a business case associated with it, which outlines the specific needs of the business. These needs can be translated into business capabilities which can be linked back to this IT Strategy.

8. Required Business and IT Capabilities

The following key capabilities are under development, with most starting within the 2018/2019 fiscal year.

8.1 Introduction of internet customer self-service channel for purchasing products and services

Business Objective: Operational Excellence

Business Capabilities: In FY18/19, MPI will introduce a new secure internet based customer self-service channel for purchasing products and services which are high volume and low complexity in nature (i.e. appointment based services like knowledge and road tests). MPI intends to expand these service offerings and capabilities over the next several years.

IT Capabilities: A secure customer self-service channel requires new technologies which effectively manage a customer identity and provide secure ways to interact with MPI, including information lookup and payment. These new interactions need to ensure the right balance of security and functionality, and have appropriate measures to log / track the transaction for quality assurance purposes. Information must be accessible on demand, but must also ensure the appropriate privacy controls are in place to prevent unauthorized disclosure. Legacy Modernization assessment will further guide this activity as the IT capabilities required on current platforms versus newer industry solutions could be very different.

Related Project(s): Customer Self-Service; Legacy Modernization Assessment

8.2 Introduction of secure customer messaging and electronic documents to increase customer communication channels and reduce ongoing mailing costs

Business Objective: Product and Service Leadership

Business Capabilities: In conjunction with the internet customer self-service channel, MPI will be introducing secure customer messaging via email and / or SMS text messages, as well as electronic document distribution via a secure MPI customer portal 'inbox'. MPI will be utilizing email and / or SMS text messages as a communication medium in conjunction with the new driver's education program to provide drivers with reminder messages, driving and testing feedback, and to increase overall communications between MPI, instructor and the students. Incrementally, MPI will utilize the new secure 'inbox' as a means to transform MPI customer communications from a paper-based mailing medium to electronic documents. Initially, this service will be an optional service offering to customers.

IT Capabilities: A secure method of communication with customers and partners needs significant Information Technology capabilities. These new interactions need to have the right balance of security timeliness and functionality, be built on platforms that are designed for higher availability, and able to handle spikes in transaction volume around peak business times. Diligence is also required to link digital and physical transactions (started by SMS, continued by e-mail, finished in person). This complexity along with the rapidly expanding number of devices and communication platforms results in additional efforts for testing on the deployment and continued support of new transaction types.

Related Project(s): Customer Self-Service Project; High School Driver's Education Program

8.3 Introduction of customer feedback and survey mechanisms as part of customer self-service experience

Business Objective: Product and Service Leadership

Business Capabilities: As part of the customer self-service channel, MPI will be introducing new real-time customer feedback tools with the capability to capture feedback and opinions regarding our products and the customer's overall service experience. This capability will also be extended to the MPI public website to provide Manitobans with an incremental customer feedback and survey mechanism for all future customer service experiences.

IT Capabilities: The ability to measure and report on customer feedback requires several different technologies. The first focuses on the secure capture of information, and includes the appropriate mechanisms for a customer to "opt-out" which will be consistent across connections. The second ensures information provided by customers is analyzed and reported in a timely, secure and consistent way with the appropriate privacy controls. Finally, information that is no longer required needs to be securely disposed of.

Related Project(s): Customer Self-Service project is a prerequisite. A separate business case and project will be required to deliver this capability.

8.4 Enhanced performance measurements and real-time dashboard reporting

Business Objectives: Operational Excellence, Product and Service Leadership

Business Capabilities: In FY18/19, MPI will be establishing performance measurements which will serve as corporate KPI's into the future. Once established, it is envisioned that real-time dashboard reporting of these KPI's will be operationalized and made available to all key MPI stakeholders.

IT Capabilities: Online customer experience management and real-time dashboard creation require the expansion of existing capabilities and technologies to analyze and consolidate existing and new data sources. Capabilities gained in this activity can be leveraged to enhance both pre-existing and new internal operational reporting. Legacy Modernization assessment will further guide this activity as the IT capabilities required on current platforms versus newer industry solutions could be very different.

Related Project(s): Customer Self-Service project is a prerequisite. A separate business case and project will be required to deliver this capability. Legacy Modernization Assessment will guide the capabilities considered in this area.

8.5 Increase efficiency and effectiveness of corporate financial reporting processes and controls

Business Objective: Operational Excellence

Business Capabilities: MPI intends to complete an assessment of its current financial reporting processes and controls in the near term. As a starting point, the Corporation will utilize the recently completed (2015) Finance study and re-validate and adjust findings based on current and future corporate needs. The assessment will also determine the corporate impacts, gaps and remediation priorities to ensure the corporation is in compliance to IFRS 17 accounting standards and requirements, prior to the January 2021 financial reporting deadline. Additionally, MPI will assess and confirm the future viability and alignment of the existing financial technology suite based on the findings of the Legacy Modernization Assessment engagement.

IT Capabilities: The existing financial platform will be further reviewed to confirm it can perform the business functions required, and can be augmented with additional solutions as required and feasible. As part of this assessment, vendor and industry best practices will be reviewed to identify opportunities to meet business needs and further leverage platform capabilities. IT capabilities will include technology solutions to facilitate self-service capabilities and process automation opportunities. These activities need to be closely aligned to the Legacy Modernization Assessment.

Related Project(s): Finance Re-engineering; Legacy Modernization Assessment

8.6 Transform the Driver's Education Program to modern learning tools, media and introduce social media collaboration

Business Objective: Product and Service Leadership

Business Capabilities: In spring 2019, MPI intends to launch a new driver's education program which will transform the existing program from a lecture and paper-based medium for training, to a more modern demographically focused medium which leverages video, computer based simulation exercises, gamification, social media collaboration and the mobile platform as the primary technology base. This will result in:

- Improved driver education program and services
- New channel for driver education for instructors, students, and related customers
- Supports for the implementation of social media with appropriate policies, controls and oversight

IT Capabilities: These business capabilities require new skill sets within MPI (web development for mobile devices, including standards for accessibility) and new technical capabilities (enhanced testing on mobile devices). These platforms also have a higher expectation for availability (24/7 operation), which requires different types of support and transaction processing which avoid downtime. These activities also generate new types of transactions and related meta-data which requires different solutions to track and manage in ways that are secure and efficient.

Related Project(s): High School Driver's Education Program

8.7 Further streamline key Physical Damage processes to maintain effective cost control

Business Objective: Rate Stability and Predictability

Business Capabilities: Further streamline the core business capabilities, processes and administration to enable better management of claims costs. This will be completed by enhancing claims cost controls related to the different factors which affect claim severity. This involves a review and potential changes to estimating processes and standards, repair processes and guidelines, and changes to repair certification and related training. This also requires the capability to continually evolve all these areas as manufacturer requirements and vehicle composition (ex. advanced metals, increasingly complex onboard computing) changes.

IT Capabilities: Ensure that the existing vendor supplied platforms can be updated where existing IT capabilities have been replaced with updated products (such as estimating standards) without incurring significant cost and / or with limited business process disruption. This technology management capability needs to apply to both MPI and Repair Shops. This also requires the introduction of a new commercial parts sourcing solution which will replace a current MPI custom solution.

Related Project(s): Enhanced DR Capabilities (Parts, LOU)

8.8 Ensure consistent and necessary investments in Information Security Resiliency and IT Risk Management

Business Objectives: Rate Stability and Predictability, Operational Excellence

Business Capabilities: Continue to monitor and evolve information and cyber security risks, and IT security defense plans, measures and actions. Maintain effective operational controls to ensure the timely completion of threat identification, threat response and ongoing preventative measures. Assess the effectiveness of measures and safeguards, and optimize over time.

IT Capabilities: This requires the introduction of new IT capabilities throughout the lifecycle of a system. This begins with requirements, design, and development, including security requirements and review throughout. It continues into testing and through implementation, ensuring no security gaps exist when a project is deployed into production. This continues with regular reviews to ensure operational activities (ex. system patching, defect fixes) reduce risks consistently, and do not create new security vulnerabilities. Monitoring capabilities are enhanced to look for known threats and unusual patterns of behavior (emerging, not reported, threats or MPI specific attacks). The Legacy Modernization assessment has the potential to make recommendations which could significantly change the focus of these investments.

Related Project(s): Technology Risk Management; Credit Card Strategy; BI3 Fineos Upgrade; Legacy Modernization Assessment

8.9 Complete market and stakeholder analysis to ensure continued product excellence

Business Objectives: Product and Service Leadership

Business Capabilities: A review of product suites and the needs of key stakeholders will occur in the 2018/19 fiscal year. It is anticipated that changes to products and services may be recommended from this review. Changes to Business Capabilities may / may not require changes to IT capabilities. A recent example of this type of change has been the introduction of Transportation Network Companies, which is leveraging existing IT capabilities in new ways.

IT Capabilities: The identification of impacts to IT capabilities will be determined based on the outcome of the product suite review. This will be updated in the 2019/20 IT Strategy and may include new business cases and related initiatives

Related Project(s): AOL PUB Release; SRE

9. Applying the IT Strategy

Overview

The MPI Annual Business Plan summarized three business objectives and their related strategies.

- Rate Stability and Predictability
- Operational Excellence
- Product and Service Leadership

The IT Strategy outlines both the business and IT capabilities which will be required to achieve these objectives. The Strategy provides the framework for evaluating, planning and building MPI business and IT capabilities necessary to ensure MPI is successful in attaining these objectives.

Organizational Impact

Executing the portfolio of initiatives necessary to achieve MPI's business objectives will have a major impact on the MPI corporate culture, and will require higher levels of collaboration, and accountability within divisions and between departments. To facilitate this, the corporation has reorganized its divisions to recognize its increased emphasis on risk management, align operational functions and to improve the management of claims. Examples of key areas of change include:

- Continued development and formalization of Value Management processes are being adopted across the corporation.
- Strategic Projects have an additional leadership role; Operational Business Champion (OBC). This role is accountable for making key decisions (in consultation with Executive Sponsors), on the initiative.
- Project and Operational financial reporting, as well as technology procurement have been consolidated and transitioned to the Finance division.
- The Data and Analytics team has been formed and is responsible for the maturing of corporate data and analytics competencies and standards, as well as development, implementation, and ongoing maintenance of corporate dashboards, thereby increasing the transparency on strategic priorities and key corporate metrics.
- The Application Services group has been successfully integrated into the Enterprise System Support directorate resulting in end to end operational support capabilities for critical corporate applications.
- The Information Security Office has expanded its scope of responsibilities, providing services at a corporate level.

Changing roles, skills, and priorities to support business and IT capabilities

Delivering the business capabilities and related IT capabilities will require changes to employee skill sets. There will be an increasing emphasis on analytical skills, technical skills (newer coding practices optimized for web development), and business, technical and security architectural skills. MPI is active in the development of internal staff through project and operational opportunities. MPI is also executing an External Labour strategy to ensure MPI transitions knowledge and skills from external contractors / consultants to internal staff.

Prioritization is also occurring to ensure there are sufficient resources to develop the required capabilities. Select non-critical operational work was deferred until the end of Q1-2018/19 allowing more internal resources to participate in key projects. This is a balance, because as significant changes are implemented, the importance of operational processes which quickly identify and resolve application defects, remains critical to the integrity and availability of key corporate systems. These operational processes must not be negatively impacted by any changes in staffing allocation to build capabilities, doing so would increase risk to the stability of key platforms.

As MPI considers the future of its core system (Legacy Modernization Assessment), MPI will revalidate the long term mix of analytical, technical, and architectural consultants required to support its critical applications and propose a staffing strategy to align to the long term corporate requirements. It will also continue to evaluate the requirement for, and priority of, operational work related to Legacy platforms.

Delivering projects which result in new / enhanced IT and Business capabilities

To support the deployment of the business and IT capabilities identified in section 8, some projects will require an additional delivery approach which provides more agility and improves time to deliver. The existing delivery model focuses on structure, rigor and consistency and has a formal progression of steps including:

- Production of detailed business requirements
- Detailed technical requirements and solution designs
- Comprehensive testing and implementation
- Solution delivery and warranty

MPI is currently exploring an additional methodology which can operate in parallel (An Agile methodology) which focuses on rapid, small deliveries. This would be used to bring solutions to production more quickly, often using pilots to provide proof of value before embarking on a full project using the traditional 'waterfall' delivery methodology. This also provides MPI with practical experience in alternate delivery models which are seeing increased adoption in the insurance industry. This broader experience allows MPI to better partner with current and future strategic technology providers, leveraging and learning their best practices.

Ongoing Oversight and Governance

Developing this IT Strategy has provided MPI with the opportunity to confirm the alignment of the business plan, business capabilities, IT capabilities and IT projects. The result is a single document which succinctly links the MPI business plan, business strategy, key business process documentation, and project documents (such as business cases and project / program charters) resulting in increased transparency and clarity. This document is used within MPI to guide project and operational teams.

Enterprise Architecture concepts and practices have been critical to the development of this strategy. MPI continues to develop its Enterprise Architecture process maturity, with assistance from Gartner research and experts, and through initiatives such as the Legacy Modernization assessment. As Enterprise Architecture process maturity continues to improve, and further clarity on future business and IT capabilities emerge, updates to this document will be required.

On an annual basis, MPI will update this strategy to reflect the progress made and any changes required to maintain alignment to the Corporation's business plan.

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Part and Chapter:	**IV IT**	**Page No.:**	
PUB Approved Issue No:	**19. Current IT Strategic Plan and IT Expenses and Projects**		
Topic:	**IT Management**		
Sub Topic:			

Preamble to IR (If Any):

Question:

a) Please file an update to PUB/MPI I-29 Appendix 1 and I-29 (c) from the 2018 GRA.

b) Please file an update to PUB/MPI 2-16 (a) & (b) from the 2018 GRA.

Rationale for Question:

To provide an update on project status.

RESPONSE:

a) Please see Appendix 1: Status of Corporate Strategic Initiatives. With respect to PUB/MPI I-29 (c) from the 2018 GRA, the Value Management Post Implementation Review template has not changed except for the addition of a section entitled "PIR Methodology" which will outline what procedures were undertaken to perform the review (i.e. interviews, verification procedures).

b) Please see the tables below for update to PUB(MPI) 2-16 from the 2018 GRA:

Figure 1: Listing of Active and Future Initiatives – Total Corporate

Line No.	Active and Future Projects - (completed and closed projects not shown)	Budget	Business Case Development Phase	Business Case Approved (Y/N)	Delivery Phase	Notes
1	*(C$000s, except where noted)*					
2	High School Driver Education Phase 2	1,982	Completed	Y	Elaboration	
3	High School Driver Education Phase 3	2,018	Completed	Y	Elaboration	
4	HR Managenent System Phase 3 & 4	446	Not started	N	Start up	
5	BI3 Fineos Upgrade 2020	2,277	Completed	Y	Not Started	
6	BI3 Fineos 2024	1,250	Not started	N	Not Started	
7	Financial Re-engineering Initiatives	13,960	In Progress	N	Start up	Note 1
8	Legacy Systems Modernization	72,000	In Progress	N	Inception	Note 1
9	Infor/Lawson Upgrade	4,505	N/A	N/A	Warranty	Note 2
10	Infor Major Upgrade 2022	3,000	Not Started	N	Not Started	
11	Technology Risk Management - 2017	4,525	Completed	Y	Various Phases	
12	Technology Risk Management - 2018	4,272	Completed	Y	Various Phases	
13	Technology Risk Management - 2019	4,500	Not Started	N	Not Started	
14	Technology Risk Management - 2020	4,500	Not Started	N	Not Started	
15	Technology Risk Management - 2021	4,500	Not Started	N	Not Started	
16	Technology Risk Management - 2022	4,500	Not Started	N	Not Started	
17	Enhanced DR Capabilities	2,989	PDR	N/A	Various Phases	Note 2
18	Customer Self Service	4,870	Completed	Y	Various Phases	
19	AOL PUB Release	2,672	Completed	Y	Inception	
20	Credit Card Strategy	1,701	In Progress	N	Various Phases	
21	Non-Basic Projects	7,090	Various	Various	Various Phases	
22	Total Project Budget	147,557				

Note 1: Initial Phase of project includes completion of detailed business case for approval before proceeding to full project phase.

Note 2: Project approved prior to full implementation of Value Management Process

Figure 2: Listing of PDR Related Projects

Line No.	Project name	Basic Deferred Development Project*
1	*(C$000s, except where noted)*	
2	Physical Damage Re-Engineering Phase 1 & 2	1,888
3	Physical Damage Re-Engineering Main/Phase 3	11,639
4	PDR Opt Repair - Remote Estimating	212
5	Appointment Manager	1,297
6	Customer Claims Reporting System	14,412
7	Enhanced DR Capabilities	2,189
8	Partner Portal	2,223
9	Total Project	33,860

**Impairment of Deferred Developmen excluded Basic Deferred Development reference Appendix 18*

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Project	Infor/Lawson Upgrade				
Start Date	December 2014	Projected End Date		June 2018	
Status	Budget		Schedule		Overall

Project Description

This initiative includes a full platform upgrade of the Infor (formerly Lawson) Financial, Payroll and Time Entry components in addition to the Human Resource Management System. Major goals of the upgrade are to (i) fulfill the existing requirement for future dating functionality; (ii) enable additional employee self-serve functionality; and (iii) remain on mainstream maintenance and support from the vendor.

Understanding of the functionality changes included in the new versions of the software is crucial as it is anticipated that modifications to existing business processes, documentation and change management will be required. The project was initially expected to be completed by end of 2016/17 fiscal year. The project encountered significant issues with the Infor/Lawson product and with the setup of the pre-production testing environment. With Executive review and approval, go-live was postponed to April 23, 2018 in order to add increased quality assurance to the configuration of the Production Support and Production environments. Setup and testing functionality in the Production Support environment was successfully concluded as well as the implementation dry run in Production. System went live April 23. Warranty Period has been extended to June 15 to address additional defects, and stabilize the Systems Integration Test environment. Exit criteria for warranty is under review.

Timeline

Phase - Warranty	Target Date	
Warranty Period Extended	June 15	
Exit Criteria In Reivew with Executive Steering Committee	June 12	
Decision whether to extend warranty past June 15	June 13	

Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Infor Upgrade went live April 23/18.	System Integration Test environment stabilized
"Go-Live" incident reporting was closed May 28, the team is shifting focus from resolving incidents occurring in prodcution to fixing defects on the workaround list.	Resolve prioritized defects – time boxed for completion on June 15
Executive Steering Committee has extended the warranty period from May 18 to June 15 with a focus on stabilization, reduction of reliance on incremental resources and successful transition.	Executive Committee Meeting to validate and approve the recommended Warranty Exit Criteria
	Transition the Project to Production Support – TBD pending approval of exit from Warranty

Project Risks/Issues

Description	Type	Mitigation Plan	Status
Continue monitoring production to identify system stability issues	Issue	Determine the tools required to monitor production	In Progress
Stabilize System Integration Test (SIT) environment	Issue	Vendor to be onsite to re-install SIT	In progress

Financials

Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
0	121,679	392,796
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
4,504,600	3,663,130	3,934,247

The following is a summary of the PDR Spinoff projects initiated March 1 2017.

Project	PDR Spinoff - Customer Claims Reporting System				
Start Date	July 2014		Projected End Date	April 2018	
Status	Budget		Schedule		Overall

After a thorough review of the business case and technology factors, a decision has been made to not pursue the implementation of Customer Claims Reporting System (CCRS) at this time.
The CCRS project was one of the last initiatives of the Physical Damage Re-engineering (PDR) Program. The goal of CCRS was to create an online claims reporting option for our customers by 2019. While this project is not moving forward, the project has already helped create efficiencies in the claims reporting and liability assessment processes, and created a clear vision for a future customer self-service process.

Timeline

Project closed

Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Project close out activities	N/A
Resource reassignment	

Project Risks/Issues

Description	Type	Mitigation Plan	Status

Financials

Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
7,200,000	766,959	775,979
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
23,388,041	16,399,175	16,408,195

Project	PDR Spinoff - Loss of Use (LOU)						
Status	Budget	Schedule	Overall	Start Date	Mar 2017	Projected End Date	Feb 2019

The goal fo the LOU Program is to move the responsibility for managing rental vehicle use to the shops on a per claim basis. This will occur in parallel with establishing more robust control structures within MPI. MPI will establish standard and fixed spend per repair. This will allow shops to deal directly with rental agencies to source and provide replacement vehicles. The rental companies will bill the repair shops instead of MPI and MPI will reimburse the shops based on the fixed rate for the repair, not based on the actual which pass the risk of repair delays to the shops.

Phase 1 of LOU was implemented February 24th 2018, and warranty has been closed. Phase 1 included the LOU Automated Approval for Rental Agencies based on current touch times. Work on CR-LOU-05 (Deferred Functionality) has started and is in SIT (System Integration Testing). Deferred Functionality has an implementation date of June 24th, 2018. This implementation includes 5 tasks deferred from Phase 1.

Phase 2 will contain the balance of the original LOU scope and will be implemented in fiscal 18/19- dependent upon the negotiation outcome with the Repair trade.

Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Completed Design / Development	Complete SIT (System Integration Testing)
Started SIT (System Integration Testing)	Complete UAT (User Acceptance Testing)
	Complete implementation and warranty

Project Risks/Issues

Description	Type	Mitigation Plan	Status
No Risks or issues at this time			

Project				PDR Spinoff - Parts Solution			
Status	Budget	Schedule	Overall	Start Date	April 2018	Projected End Date	2018/19

The solution will implement software commonly used in the recycled parts market to identify recycled parts for MPI claims. The new solution will replace the legacy in-house Claims Response System (CRS) which limits parts and pricing. This will influence the OEM and Aftermarket industries. Much of the work to be conducted serves the purpose of removing current barriers to the utilization of recycled parts in repairs. The solution comprises a combination of organizational (structure, process, people) and technological changes.

Mitchell uParts, Mitchell QRP, and Mitchell Parts solutions have been assessed and it has been determined they are not viable options for MPI to implement as a Recycled Part Sourcing solution. A comprehensive solution for Recycled Part Sourcing was presented, and Executive Streeing Committee (ESC) accepted the solution April 25th. The project commenced on April 26th and is scheduled to complete at the end of December. There will be at least one key touchpoint relating to the implementation of Mitchell Estimate advisor once the Mitchell roadmap is confirmed. A key dependency is successful negotiations with ARM (Automotive Recyclers of Manitoba), and that the Manitoba recyclers will agree to use Car Part and list their inventory.

Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Start Schedule for critical path	ESC approval for new set of policies
Begin Recycler engagement activities	Decision on project direction when the Mitchell roadmap is available for Estimate Advisor (if required)
Begin software setup for review of closed files and testing	

Project Risks/Issues

Description	Type	Mitigation Plan	Status
Mitchell Roadmap for Estimate Advisor not yet known- may impact schedule/budget	Risk		

Financials (LOU & Car Parts Pro/uParts)

Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
500,000	169,099	1,263,483
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
2,989,314	1,886,918	2,981,302

Project	PDR Spinoff - Appointment Manager						
Status	Budget	Schedule	Overall	Start Date	March 2017	Projected End Date	April 2018

The Appointment Manager project web-enables the existing appointment management functionality for use by internal staff and extends appointment management capabilities to support future customer self-service booking of appointments as well as usage by repair shops to self manage their availability for direct booking of estimate appointments through the new FNOL applications.

Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Appointment Manager/Appointment Viewer functionality testing (User Acceptance Testing) completed	Project implementation and closeout activities completed.
Implemented on February 25, 2018.	
Post go-live Warranty and transition to Operations completed.	

Project Risks/Issues

Description	Type	Mitigation Plan	Status
All risks and issues are addressed and closed			

Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
0	41,087	41,087
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
1,404,440	1,445,355	1,445,355

Project	PDR Spinoff - Partner Portal						
Status	Budget	Schedule	Overall	Start Date	Oct 2015	Projected End Date	February 2018

MPI is replacing the existing Partners Portal to provide MPI partners a new web and mobile based platform to interact and engage with MPI.
Partner Portal will provide a new experience to MPI Partners to communicate with the respective service areas and perform various self managed activities using different service applications/Communities and utilize online tools and knowledge guides.

Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Transition to Operations complete	Project is completed – no further reporting will be provided
Close out documentation	

Project Risks/Issues

Description	Type	Mitigation Plan	Status
All risks and issues are addressed and closed			

Financials

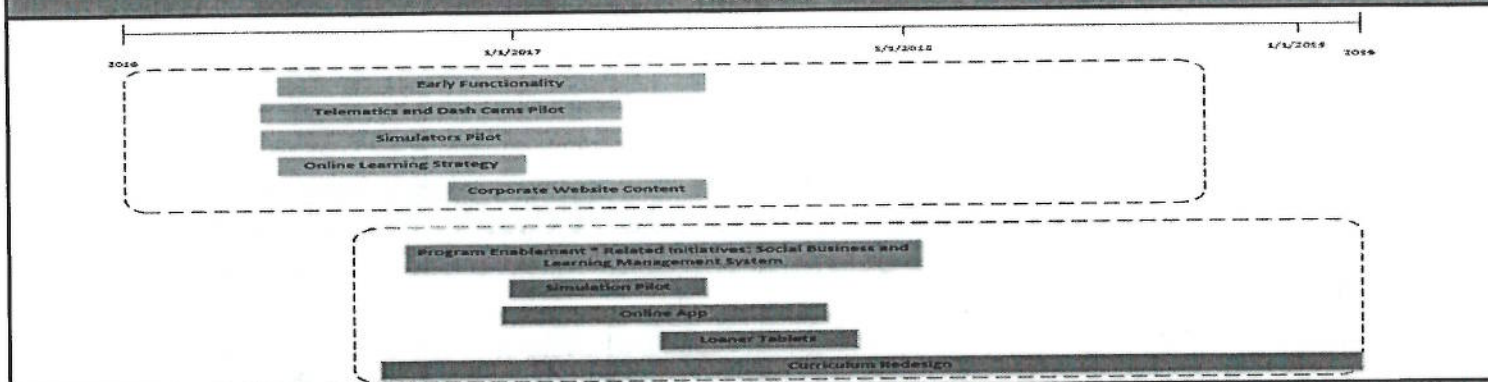
Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
0	27,740	40,740
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
2,406,770	2,573,828	2,586,828

Project	High School Drivers Education (HSDE)				
Start Date	April 2016	Projected End Date		February 2019	
Status	Budget		Schedule		Overall

The purpose of the program is to redevelop of the High School Driver Education program. The final phase of the program has been initiated with a focus on curriculum redevelopment. The outcomes of the curriculum redesign focus on higher order learning concepts and better utilization of classroom hours by shifting some 'knowledge- based' program content to online computer-based learning. This can be leveraged further with our other audiences including: first nations, northern communities, adult driver education, etc. This is intended to enhance the student experience and further engage guardian/parent/Co-pilot involvement.

The Board approved $1 million in additional funding as well as additional time, extending the project end date from June 2018 to the end of February 2019. The curriculum development is planned to be complete by June 2018, with some video assets to be completed by the end of August. The technical solution concepts are being validated and developed. Testing is expected to begin fall 2018.

Timeline



Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
CR approved for additional funding and new project end date of Feb 2019	Competency model and training with learning for HSDE instructors being developed for facilitation and coaching.
Technical & Security resources assigned. Security Risk Assessment complete	Security audit planning
Architecture Design solution being validated. Business & System Requirements being gathered and prioritized	Architecture Design solution validated and development underway
Video development, approvals, and filming underway	All video assets complete and loaded into the system
Project plan and schedule revised. Business Case revised	Curriculum design/development and Competency Model complete
Instructor Advisory Committee Workshop held for HSDE Instructors to introduce new program	Training approach and plan developed. Training material development

Project Risks/Issues

Description	Type	Mitigation Plan	Status
CLMS may not meet solution requirements	Risk	Assessment and Proof of concept underway	On Track
CSS timelines may not meet HSDE's needs for authentication	Issue	Assessment underway	On Track
Budget and Schedule have no contingency	Risk	Prioritization of technical pieces with business input to deliver the most value for the budget and the timeline	On Track
Parallel streams of work need to be integrated with coordination between different business units.	Risk	Project teams being co-located to increase communication amongst teams	

Financials

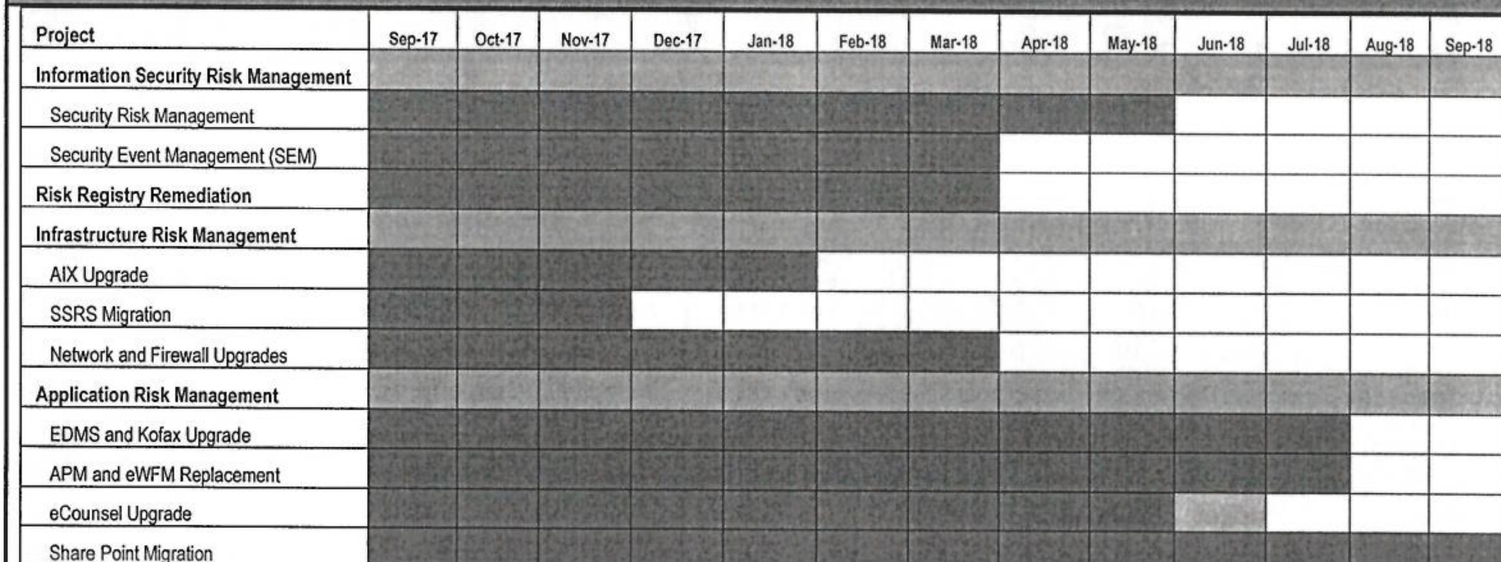
Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
900,000	251,346	2,229,857
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
4,000,000	3,021,490	5,000,000

Program	**Technology Modernization Program - Technology Risk Management (2017/18 Program)**		
Start Date	March 2017	**Projected End Date**	September 2018
Status On Track	Budget	Schedule	Overall

The Technology Risk Management program will evaluate, identify and/or implement technologies to reduce technology risk leveraging technologies and best practice where applicable. The initiatives 10 new initiatives under the 2017/18 portfolio:

- EDMS and Kofax Upgrade
- Risk Registry Remediation
- APM and eWFM Replacement
- **[Redacted]** Upgrade
- eCounsel Upgrade
- SSRS Migration
- SharePoint Migration
- Network and Firewall Upgrade
- Security Risk Management
- Security Event Management (SEM)

Timeline



Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Security Risk Management – Pilot completed	**EDMS and Kofax Upgrade:** A key project resource has being fully leveraged by a parallel project impacting schedule. The conflict is resolved and the team is confident they can meet the July 31, 2018 delivery date.
Security Event Management (SEM) completed	**Risk Registry Remediation:** Data Masking and access control recommendations are completed. Project Completed.
	eCounsel Upgrade: The project is fully resourced and the team has started work in the development environment. The timeline for user testing may be extended due to business user availability. The project is reporting as yellow based on this risk to the June 30, 2018 delivery date.
	APM and eWFM Replacement: Project is fully resourced and has engaged the product vendor. Project is on track to complete by July 31, 2018
	[Redacted] Upgrade: Project complete
	SSRS Migration: Project complete
	Share Point Migration: Project is progressing with site collection and departmental site migrations. Due to site complexities discovered during the migrations and scheduling challenges the project will extend to September 30 2018.

	Network and Firewall Upgrades: Firewall monitoring / management software has been purchased and implemented. Outstanding configuration work will be transitioned to TRM-2018 allowing the project to close.
	Security Risk Management: The project has completed all in-scope deliverables. Project is in the process of obtaining final approvals on deliverables and completing the project closure report.
	Security Event Management (SEM): Project complete.

Project Risks/Issues
No significant risks or issues at this time.

Financials		
Project Budget for 18/19	**YTD Actual**	**Forecasted Current Year Spend**
228,295	593,260	1,512,145
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
4,524,676	4,281,594	5,200,479

The following is a summary of the projects under this program.

Program	**Technology Risk Management – 2017/18 Initiatives**						
Project	**EDMS and Kofax Upgrade**						
Status	Budget	Schedule	Overall	**Start Date**	June 2017	**Projected End Date**	July 2018
Upgrade the Electronic Document Management System applications to the latest version offered by the vendors, ensuring continued supportability and reducing the cost of future upgrades.							
Project	**Risk Registry Remediation**						
Status	**Budget**	**Schedule**	**Overall**	**Start Date**	March 2017	**Projected End Date**	March 2018
Complete the Data Masking initiative resulting in the masking of the production databases and the implementation of processes which support MPI data security policies. Identify and document process for implementing access controls in the production support environment, and implementing these controls on one application to ensure the processes are valid and can be re-used.							
Project	**APM and eWFM Replacement**						
Status	Budget	Schedule	Overall	**Start Date**	March 2017	**Projected End Date**	July 2018
Replace end-of-life applications used to manage the Contact Centre, ensuring that the technologies used are vendor supported.							
Project	**[Redacted] Upgrade**						
Status	**Budget**	**Schedule**	**Overall**	**Start Date**	March 2017	**Projected End Date**	March 2018
Upgrade our current **[Redacted]** reducing operational risk. This operating system supports the database solution, used by the AOL / CARS applications.							
Project	**eCounsel Upgrade**						
Status	Budget	Schedule	Overall	**Start Date**	Sept 2017	**Projected End Date**	June 2018
Maintain the software at a current version to ensure continued vendor support and provide the ability to decommission non-standard components.							

Project		SSRS Migration					
Status	Budget	Schedule	Overall	Start Date	March 2017	Projected End Date	December 2017
Convert and migrate the remaining SSRS reports off of aging non-supported environments (namely **[Redacted]**) to fully supported environments.							

Project		Share Point Migration					
Status	Budget	Schedule	Overall	Start Date	March 2017	Projected End Date	September 2018
Migrate all of the approximately 150 project, department and executive SharePoint site collections. This allows the decommissioning of the legacy environments, and improved capabilities for SharePoint users.							

Project		Network and Firewall Upgrades					
Status	Budget	Schedule	Overall	Start Date	April 2017	Projected End Date	June 2018
Ensure the continued manageability of firewall devices, by optimizing the network and firewall configurations to ensure consistency between different MPI environments (production, test, development).							

Project		Security Risk Management					
Status	Budget	Schedule	Overall	Start Date	March 2017	Projected End Date	May 2018
Address security gaps identified during the implementation, and on-going security assessment of the Information Security Strategy & Road Map Program.							

Project		Security Event Management (SEM)					
Status	Budget	Schedule	Overall	Start Date	March 2017	Projected End Date	March 2018
Engage a third party to monitor security events, conduct investigation and coordinate remediation of security incidents, identified through new security technologies.							

Program	Technology Modernization Program - Technology Risk Management (2018/19 Program)				
Start Date		Projected End Date			
Status On Track	Budget	On Track	Schedule	On Track	Overall

The Technology Risk Management program will evaluate, identify and/or implement technologies to reduce technology risk leveraging technologies and best practice where applicable. The initiatives 14 new initiatives under the 2018/19 portfolio:

- Informatica Upgrade
- VIP Upgrade
- Loss of Use – Platform Upgrade
- CDW-EDW Migration
- Dollar Universe Upgrade
- Team Foundation Servers(TFS) and Visual Server Upgrade
- VMware [Redacted] Refresh
- Security Risk Management-2018
- Workstation Security Enhancements
- Risk Registry Remediation
- File Server Storage Solution
- Security Device Refresh
- SAN Storage and TSM Backup Upgrade
- Windows Server Vitality [Redacted]

Timeline

Project	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19
Informatica Upgrade												
VIP Upgrade												
Loss of Use - Platform Upgrade												
CDW-EDW Migration												
Dollar Universe Upgrade												
Team Foundation Servers (TFS) and Visual Studio Upgrade												
Security Risk Management-2018												
Workstation Security Enhancements												
Risk Registry Remediation – 2018												
File Server Storage Solution												
Security Device Refresh												
SAN Storage and TSM Backup Upgrade												
Windows Server Vitality [Redacted]												
VMware [Redacted] Refresh												

Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Informatica Upgrade – Project Delivery Log approved	**Informatica Upgrade:** Project is completing the planning documents to complete the inception phase and move to elaboration where final schedule is to be confirmed.
File Server Storage Solution – Inception Phase complete	**File Server Storage Solution:** Project is moving into elaboration phase and is focusing on more detailed planning documentation and schedule
SAN Storage and TSM Backup Upgrade - Inception Phase complete	**SAN Storage and TSM Backup Upgrade:** Project is in elaboration phase and is focusing on more detailed planning documentation and schedule
Windows Server Vitality **[Redacted]** – Inception phase started	**Windows Server Vitality [Redacted]:** Project is in inception phase and is completing the deliverables to proceed to elaboration
VMware **[Redacted]** Refresh – Project Charter approved	**VMware [Redacted] Refresh:** Project is in inception phase and is completing the deliverables to proceed to elaboration

Project Risks/Issues

No significant risks or issues at this time.

Financials

Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
4,271,705	90,293	3,516,919
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
4,271,705	90,293	3,516,919

The following is a summary of the projects under this program.

Program	Technology Risk Management – 2018/19 Initiatives						
Project	Informatica Upgrade						
Status	Budget	Schedule	Overall	Start Date	April 2018	Projected End Date	July 2018
Upgrade Informatica to **[Redacted]** will be supported until 2020 (or later). Informatica is used in the extraction, transformation, and loading (ETL) of data which populates the enterprise data warehouse. It is critical for report generation. This upgrade is covered under an existing maintenance agreement with the vendor and is planned to be completed by leveraging internal MPI resources.							
Project	File Server Storage Solution						
Status	Budget	Schedule	Overall	Start Date	March 2018	Projected End Date	October 2018
Redefine the file storage environment in order to reduce operational costs while improving efficiencies and accommodating MPI's evolving business needs.							
Project	SAN Storage and TSM Backup Upgrade						
Status	Budget	Schedule	Overall	Start Date	March 2018	Projected End Date	December 2018
Modernize storage and backup solutions to ensure supportability, capacity, and value.							
Project	Windows Server Vitality (2009 to 2016)						
Status	Budget	Schedule	Overall	Start Date	March 2018	Projected End Date	December 2018
Reduce the risks associated with running End of Life software in our environment. Execute on IBM contractual agreement to perform a major Operating System upgrade every 4 years and validate the changes through formal testing processes.							
Project	VMware [Redacted] Refresh						
Status	Budget	Schedule	Overall	Start Date	March 2018	Projected End Date	December 2018
VMWare [Redacted] (Vitality) To eliminate and reduce Business impact (IT Security and IT Availability) associated with running End of Life Support platforms in our environment. End of general support for **[Redacted]** is 2018/09/19. To remain current on all major Data Centre platforms and to execute on IBM contractual agreement to upgrade Operating Systems and Middleware once every 4 years.							

Project	Customer Self Service (CSS)			
Start Date	April 2017	Projected End Date		July 2018
Status	Budget	Schedule		Overall

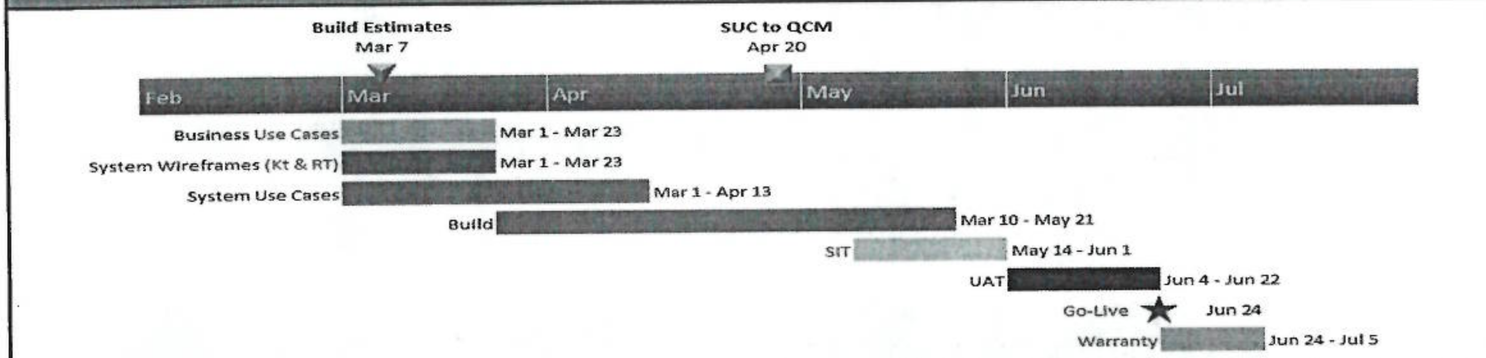
To enhance service and control costs, MPI is extending self-service options beyond the existing Online Credit Card payment functionality. Providing an online self-serve option for customers to perform transactions historically handled at either an Autopac agent or MPI service centre will reduce the transaction count at physical locations. This is a multi-year project with functionality to be built on yearly depending on business needs.

For the first release, the project has been revised to incorporate three main components:

1. "Low" authentication
2. Self-serve user functionality (Booking of Knowledge Test & Road Test)
3. Online payments (PCI Compliant)

Release 1 being tested and it is expected to be implemented by the end of June. Planning of subsequent releases is underway.

Timeline



Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Revised Scope/Approach to CSS initial release 1 (R1)	Complete R1 SIT
Refocus design and analysis activities.	Complete R1 UAT
Completed Project Plan & Schedule	R1 Go-Live and Warranty
Architecture Definition, Business and Systems Analysis	Begin work on Release 2
	Begin work on Release 3

Project Risks/Issues

Description	Type	Mitigation Plan	Status
No contingency in the schedule	Risk	Ask project team to work overtime to complete tasks ahead of schedule to build in schedule contingency.	On Track
PCI compliance for Online Credit Card Payments introduces additional scope	Risk	Implement CSS-specific functionality relevant to PCI compliance. Ensure Credit Card Strategy project is aware of CSS timelines and provides PCI-compliance deliverables when required.	On Track
System Testing & User Acceptance are time-boxed in order to meet schedule targets.	Risk	Prioritize testing, and perform in parallel as much as possible.	On Track
CSS & Credit Card Strategy need UAT cycles to align	Risk	Close coordination with Credit Card Strategy project.	On Track

Financials

Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
1,500,000	891,317	1,998,933
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
4,869,613	2,570,811	4,584,000

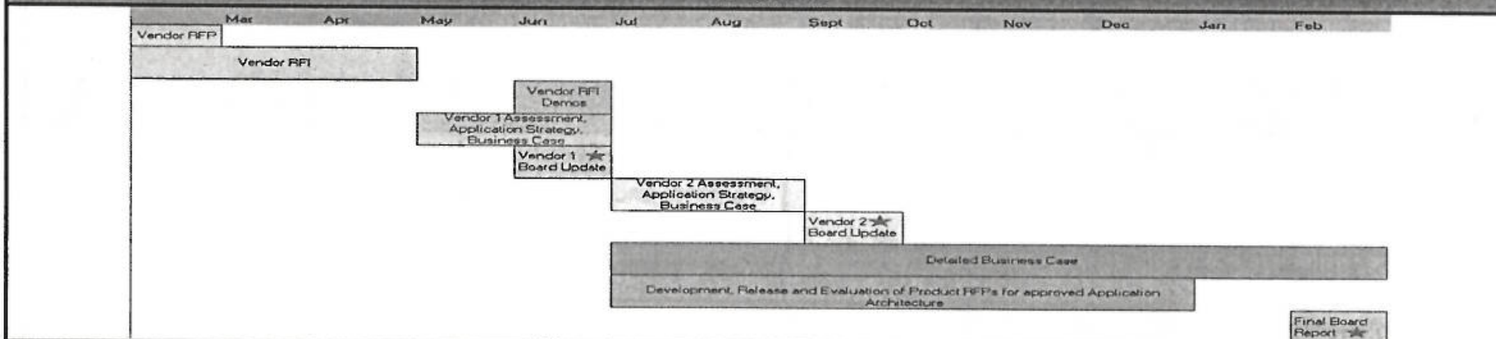
Project	Legacy System Modernization				
Start Date	March 2018		Projected End Date	February 2019	
Status	Budget		Schedule		Overall

Project Description

The purpose of the Legacy System Modernization assessment is to provide MPI with direction on how to manage and evolve MPI legacy systems so that gaps in the legacy system capabilities are addressed allowing for the technology to meet the long term business goals.

The project will deliver an assessment that will determine if MPI is a good candidate for a modernization program and provide recommendations and a strategy on how to address the gaps in MPI's legacy systems, in order to support of the long term business needs. The project will also develop, release, and evaluate product RFPs and complete a detailed business case for review at the February 2019 Board meeting depending on outcome of assessement and Board directiong in June 2018.

Timeline



Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Project start & kickoff meeting. Project resources assigned	Board presentation (Vendor #1)
Legacy System Modernization Assessment Request for Pricing (RFP) Awarded - Vendor #1 (Deloitte). Master Services Agreement and Statement of Work signed	Legacy System Modernization Assessment Request for Pricing (RFP) Awarded - Vendor #2 (Avasant). Master Services Agreement and Statement of Work signed
Vendor #1 Legacy System Modernization Assessment and Business Case underway	Vendor #2 Legacy System Modernization Assessment underway
Request for Information (RFI) Application Architecture solution Vendors selected & product demos booked	Application Architecture Vendor demonstrations and evaluation
Vendor #1 Legacy System Modernization proposed Application Strategy solution in progress	Development, Release and Evaluation of Product RFPs for approved Application Architecture

Project Risks/Issues

Description	Type	Mitigation Plan	Status
Ability for MPI to provide information to support Deloitte Assessment in a timely manner	Risk	Working with Project Sponsor and Deloitte team to ensure that clear questions are asked so they are more easily answered	
MPI resource allocation to meet competing project needs	Risk		
Coordination of second Assessment Vendor. Timing, effort, and cost unknown	Risk	Currently being assessed	

Financials

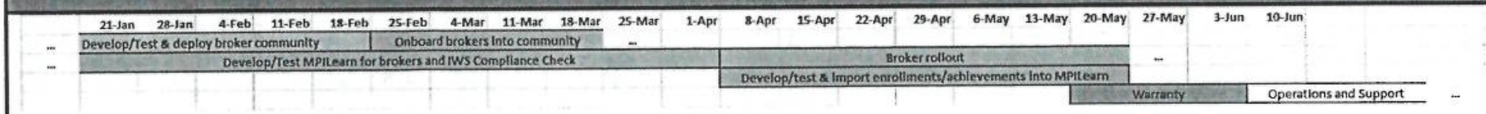
Project Budget for 18/19	YTD Actual	Forecasted Current Year Spend
2,000,000	8,901	1,991,099
Total Project Budget as at Mar 1, 2018	**LTD Actual**	**Total Forecast @ Completion**
72,000,000	8,901	72,000,000

Project	Corporate Learning Management System (CLMS)				
Start Date	March 21, 2016		Projected End Date	June 4, 2018	
Status	Budget		Schedule		Overall

Project Description

The purpose of the CLMS project is to provide a central location for all MPI related training and development for internal MPI staff, business partners, and customers. In doing so, the corporation will benefit from reduced administration costs, improved training compliance, better access to training, and enhanced employee career development - all of which align with the Corporate Values, Mission, Vision, and Goals. The project has been extended until the end of June 2018 to provide for warranty and knowledge transfer, and a Project Change Request is in place the explains the budget variance.

Timeline



Milestones

Milestones – First Quarter 2018/19 (Mar-May)	Milestones – Second Quarter 2018/19 (June-August)
Brokers on boarded to new community – March 16 (99% complete)	Warranty and transition complete
Broker rollout begins – April 8	Project closeout
HRMS enrollments/achievements import complete – May 24	

Project Risks/Issues

Description	Type	Mitigation Plan	Status
Simplistic system response to OpenText timeouts and technical issues can cause IWS compliance check to fail occasionally	Issue	Improve error handling, including allowing compliance check to succeed if technical errors are encountered	In progress
Data Migration related to achievements and IWS compliance is more complex and more effort than anticipated.	Issue	Revisit data conversion requirements and simplify as appropriate. Rework data transformation code and retest. Prioritize conversion and stage import of data.	Resolved

Financials

Project Budget for 17/18	YTD Actual	Forecasted Current Year Spend
250,000	427,872	553,179
Total Project Budget as at Mar 1, 2017	**LTD Actual**	**Total Forecast @ Completion**
3,128,141	3,414,785	3,540,092

HEALTH WEALTH CAREER

ASSET LIABILITY STUDY MAJOR PROJECTS

PHASE ONE

UPDATED TO DECEMBER 21, 2017

Manitoba Public Insurance

CONTENTS

1. Merits of Unique Asset Allocations 1
2. Merits of New Fixed Income Exposure 5
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4. Address Phase One CAC Recommendations 19

1
MERITS OF UNIQUE ASSET ALLOCATIONS

5.02 (a) An analysis of the merits of adopting a unique asset allocation and Investment Policy Statement (i.e. segregating the assets) for each of the Corporation's three lines of business (Basic, Extension, SRE), excess capital/retained earnings/Rate Stabilization Reserve (RSR) and its pension assets.

BACKGROUND

Currently, MPI commingles the assets of the three lines of business (Basic, Extension and Special Risk Extension ("SRE")), the Rate Stabilization Reserve ("RSR") and its employee pension plan ("Pension") (together the "components"). Our analysis considers the advantages and disadvantages of the current commingled asset approach versus an approach that would segregate the assets of each component and develop a distinct asset allocation policy for each based on its goals and characteristics. Developing optimal asset allocation policies for each component does not preclude MPI from commingling certain components with similar goals and characteristics.

Reviewing whether each component is best served by common or separate asset mix policies is part of good due diligence. Mercer analysed and compared the liability characteristics of each component to assess whether there were sufficient similarities across components to support a common asset allocation policy. This analysis considered the appetite for risk that can be borne by MPI across the various components and other requirements such as liquidity needs.

In PUB Order No. 162/16 (December 15, 2016), Mr. Valter Viola made recommendations that are addressed in this study. Mr. Viola, in the submission, represented the Consumers' Association of Canada ("CAC"). Mr. Viola made the following recommendation #18:

"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."

ANALYSIS

The primary distinguishing characteristic of the components are:

Item	Basic	Extension	SRE	RSR	Pension
Purpose	Pay Basic Claims	Pay Extension Claims	Pay SRE Claims	Stabilization of Insurance Rates	Pay Employee Pension Benefits
Investment Goals (from MPI Investment Policy Statement at April 27, 2017)	The purpose of the Fund is to pay the liabilities of the Corporation as they come due and to provide investment income from interest, dividends and capital gains that will assist in minimizing premiums payable by policyholders, in that order.				
Liquidity needs	Sufficient liquid assets for Basic claims	Sufficient liquid assets for Extension claims	Sufficient liquid assets for SRE claims	Sufficient liquid assets to dampen shocks in rates	Sufficient liquid assets for pension payments
Assets[1] ($ Millions at 02/28/2017)	$2,189	$134	$172	$99	$353
Sensitivity to Interest Rate Changes (Duration[2])	10.5[3]	1.1[3]	2.7[3]	0.0	15.6[4]
Sensitivity to Inflation Rate Changes (Duration[2])	10.4[3]	0.0[3]	0.0[3]	0.0	12.6[4]

1. Source: MPI Financial Statements as at Feb 28 2017.

2. Duration is a measure of interest rate sensitivity. A duration of 10 means a 1% decrease (increase) in the interest rate used to calculate the liability will result in a 10% increase (decrease) in the liability.

3. Based on MPI duration calculations including Provision for Adverse Deviation ("PfAD") and Internal Loss Expense Adjustment ("ILEA").

4. Based on financial statements' disclosures and additional sensitivity tests provided by the actuary.

Approach	Advantages	Disadvantages
☐ Comingled	• Single set of documentation and oversight. • Some cost savings and efficiencies.	• Investment performance of the comingled assets may not necessarily align with the component's liability/risk profile and may create unintended financial results when the component is examined in isolation. • Impractical to meet a common investment objective with a single asset allocation when components have significantly different sensitivities to interest rate and inflation changes.
☑ Unique **MERCER RECOMMENDED**	• A unique asset allocation for each component would permit the reflection of each component's: - Duration and liability/risk profile - Liquidity needs/constraints - Goals and objectives - Minimum return considerations • Investment performance of segregated assets could be accounted by component. • The assets for each line can be monitored and re-allocated, as needed • Investment managers' fees may still be calculated on aggregated assets. • Investment manager performance reviews can continue to be reviewed in aggregate	• Requires a significant change to MPI internal accounting system • Relatively minor charge for additional accounts from manager and custodian. • Increased documentation • Oversight and review of each component's asset allocation and performance could add to the review process.

IMPLEMENTATION CONSIDERATIONS

The conclusions and recommendations of the Asset Liability Study will help develop the rationale for changing the structure from a comingled asset basis to some degree of asset segregation. That is, the study may reveal that it is prudent to have some components comingled; whereas other components should be segregated.

Currently, the MPI internal accounting system is designed to accommodate a commingled asset approach. In order to more fully understand the implementation implications of segregating assets, MPI should investigate the following:

1. Board approval process to accommodate the transition.
2. Cost of elected transition. These costs should consider both internal and external costs (e.g., custodial, legal, audit)
3. Transition timeline that allows for sufficient time to develop and test the new accounting system and to obtain the appropriate level of input from external providers involved in the transition.

RECOMMENDATION

This preliminary review strongly supports the consideration of unique asset allocations by component for the following reasons:

1. Better alignment of the asset allocation policy with characteristics and needs of each component.
2. Better alignment with respective metrics to assist in accountability and pricing.
3. Better visibility of each component's portfolio while maintaining the ability to re-allocate assets between components, as each component's obligations evolve.

Once the Asset Liability Study is complete (November 30, 2017), the study will have provided the rationale on which components should be comingled. MPI should consider the implementation considerations noted above before it proceeds with the transition to the new structure.

2

MERITS OF NEW FIXED INCOME EXPOSURE

5.02 (b) Examine the merits of adding exposure to types of fixed income not currently included in the portfolio (e.g. mortgages, private debt, foreign debt, etc.).

BACKGROUND

Currently, MPI has a target weight of 70% to fixed income investments. Within this allocation, there is a 50% target weight to Marketable Bonds and a 20% target weight to Non-Marketable Bonds. MPI's current fixed income structure is dominated by Manitoba Schools ("MUSH") bonds and Non-Manitoba Provincial bonds. Approximately 4% resides in Federal and Corporate bonds. There is currently no allocation to real return bonds within the portfolio. There is currently no allocation outside of Canada.

The Canadian bond market is represented by the FTSE TMX Canada Universe Index. As at September 30, 2017, the Canadian bond market was composed of:

SECTOR	WEIGHT (%)
Federal	37.00
Provincial	33.71
Municipal	1.92
Corporate	27.37
Total	**100.00**

The decision to explore exposure to types of fixed income not currently included in the portfolio will be reviewed, as part of the Asset Liability Study commissioned in early October 2017. The review will consider the advantages and disadvantages of various fixed income asset classes and investment strategies.

REVIEWING FUNDAMENTAL OBJECTIVES

Given current bond yield levels and the uncertainty surrounding fixed income markets, there are valid reasons to question the key fundamental objectives that have traditionally lead investors toward fixed income:

- **For Capital Preservation:** The risk of negative returns over the short/medium term is perhaps higher than ever before (since yields are so low)
- **For Income and Real Return:** Given current yields and inflation expectations, it is difficult to foresee significant real returns from traditional core fixed income portfolios
- **For Liquidity:** While domestic government bond liquidity remains likely, many portfolios have migrated toward more active positions with higher allocations to corporate bonds
- **To Provide Hedge on Interest Rate Risk Exposure:** Fixed income represents a matching asset that aligns with the nature of liabilities (insurance, pension and other fixed liabilities).

It is good governance practice to take a step back and re-confirm investment strategy and the implementation approach to fixed income in consideration of the challenges and opportunities in the current market environment.

ASSET CLASSES TO CONSIDER

We believe the following types of liquid and illiquid products may have a valuable role to play as part of MPI's allocation and are worth modelling as part of the Asset Liability Study. However, the appropriateness of different strategies will depend on MPI's return objectives, risk tolerance, overlap with existing asset exposure, tolerance for illiquidity and complexity, desire for liability matching characteristics, and governance arrangements. Our discussion assumes that MPI's current objectives are as follows from the April 27, 2017 Investment Policy Statement: "The purpose of the Fund is to pay the liabilities of the Corporation as they come due and to provide investment income from interest, dividends and capital gains that will assist in minimizing premiums payable by policyholders, in that order.

To aid in assessing each option, we provide general guidance on the relative ability of each asset class to fulfil these objectives.

ASSET CLASS	ABILITY TO MATCH DURATION	ABILITY TO ENHANCE INVESTMENT RETURNS	ABILITY TO PROTECT PRINCIPAL
Federal/Provincial Bonds	Very strong. Diverse set of duration and terms to choose from.	Weak. Modest real return expectations at best.	Excellent, particularly for shorter-duration federal bonds.
Real Return Bonds	Strong for MPI's inflation linked liabilities.	Weak. Will only perform well if Canadian inflation is high.	Principal may erode as interest rates rise and/or inflation expectations change.
Private Debt (Investment Grade)	Modest. Limited issuances available.	Strong.	Weak. Interest rate sensitive.
Commercial Mortgages	Modest.	Modest	Moderate. Interest rate sensitive.
Levered Bonds (Generally 3 times exposure. Available for Canadian Long Bonds and RRBs)	Very Strong Capital efficient approach.	Depends on underlying bonds. RRBs have a greater ability than long bonds.	Weak. Interest rate sensitive.
Growth Fixed Income (includes Global Bonds, US High Yield, and Emerging Markets Debt)	Very Weak	Strong	Variable (vehicle dependent).

FEDERAL/PROVINCIAL BONDS

A diversified portfolio of nominal bonds issued by the Government of Canada and the Provinces constitutes 70% of the Canadian bond universe and forms the backbone of most institutional investors fixed income portfolios. Federal issues are extremely liquid, provide significant flexibility to match duration, and are of the highest quality. Provincial issues currently deliver higher returns than federal issues (with yields varying by credit quality of each province).

From our perspective, while real yields from federals and provincials are modest, we still believe that these bonds should form the foundation of a fixed income portfolio. A strong foundation allows investors to more confidently pursue excess returns in other areas of the sector.

REAL RETURN BONDS

Real Return Bonds ("RRBs") have the components of a conventional bond, coupon payments and return of principal at maturity. The distinguishing feature of the RRB is that both the periodic coupon payments and the return of principal at maturity are linked to the consumer price index ("CPI") over the respective term. The real yield (i.e., the yield in excess of CPI) is known at date of issue. The coupon payments and adjusted principal repayment depend on future inflation. This makes RRBs an explicit hedge against inflation risk.

The Canadian RRB market is fairly large and liquid. There are currently 15 outstanding issuances, among which eight were issued by the Government of Canada and 7 are provincial issuances.

RRBs are the most direct hedge to inflation, but provide no opportunity for additional real returns (except when used in an overlay approach where the long term credit spread between federal and provincial bonds is included). Investors looking to balance return enhancement with inflation hedging often look to obtain an implicit or indirect inflation hedge using real assets, which are expected to deliver inflation sensitive returns (e.g., physical[1] real estate, physical infrastructure).

PRIVATE DEBT

Private Debt (also known as Direct lending or Private Credit) is a broad term that refers to any investment in privately negotiated debt. Private debt is similar to a loan in that it is capital provided (as an investment) to an entity in exchange for interest (and possibly other payments) and the return of the original principal at a defined point in the future.

Private debt encompasses corporate debt, real estate debt, and infrastructure debt, as well as some opportunistic credit strategies. For each form of debt, exposure can be via senior loans or subordinated/mezzanine loans. Issuers may be investment grade, but on the whole, the private debt market is sub investment grade and similar in some regards to the syndicated/bank loan and high-yield markets, though typically with higher yields, additional return sources, and different market dynamics.

The debt is also not widely held, and is customized to the borrower's requirements, thus rendering it illiquid. We note that private debt investments have existed for a number of years, but were, for a long time, the preserve of a minority of investors, of which banks were the most significant. Today, private debt is an asset class increasingly considered by a broad range of institutional investors.

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[1] Physical real estate investment means actually investing in a physical property that produces income and capital gains or losses. This should not be confused with real estate investments that invest in the stocks of real estate companies.

Borrowers often choose private debt financing because it can be customised to their specific needs or when public debt is not available to them. Given the illiquidity of the underlying asset, investors may choose to access private debt through their private market allocation.

The attractiveness of the private debt market is often linked to the aftermath of the global financial crisis, overleveraged banks, shrinking balance sheets, and the impact of international banking regulation on banks' lending activity. Although there's a positive tailwind from the changed market dynamics (particularly in Europe), we believe there's a strategic role for private debt in institutional portfolios. With the long-term nature of liabilities, pension funds and other institutional investors are in a position to offer liquidity to the market and thereby realize an illiquidity premium. Considering the attractive return potential of private debt, it's one manner in which investors can diversify from equities and yet maintain a similar level of expected return.

COMMERCIAL MORTGAGES

A commercial mortgage is a mortgage loan secured by commercial property, such as an office building, shopping centre, industrial warehouse, or apartment complex. The proceeds from a commercial mortgage are typically used to acquire, refinance, or redevelop commercial property.

Commercial mortgages are structured to meet the needs of the borrower and the lender and generally subject to extensive underwriting and due diligence prior to closing.

Canada's institutional commercial mortgage market has seen remarkable growth, keeping pace with the expansion of the directly held real estate sector. The player pool is also growing. Mortgage lending and investing has been dominated by chartered banks, credit unions and life insurance companies, but recently, non-bank mortgage lending companies have increased their market share.

In light of stable real estate market conditions, commercial mortgages should continue to serve as an effective alternative investment within Canadian institutional fixed income portfolios. Institutional investors have earned higher risk-adjusted spreads with minimal volatility. For investors seeking long-duration assets to meet long-tail liabilities, commercial mortgages can also offer better relative value than comparable fixed-income instruments with a similar duration. Added to these benefits is the higher degree of control investors exert over the structure and underlying credit risk of commercial mortgages versus corporate bonds, allowing investors to potentially manage the downside risk throughout the cycle.

OVERLAY BONDS

Implementing an interest rate hedging strategy does not always require a reduction in the allocation to return seeking assets, as it is possible to synthetically increase exposure to bonds through borrowing. Funding can be obtained through various mechanisms through the derivatives market. Pooled funds offering this type of strategy typically focus on the:

1. FTSE TMX Long Term Provincial Index (duration around 15 years) or

2. FTSE TMX Real Return Bond Index.

Canadian bond managers offer pooled funds that typically provide a 3 times leveraged approach (i.e., one dollar invested provides three dollars of exposure to the underlying bonds less borrowing costs).

By synthetically increasing exposure to bonds, investors can track liabilities in a capital efficient manner as market interest rates change.

Since funding costs are currently lower than the yield-to-maturity on the underlying bonds, a long bond overlay strategy comes with a positive expected return. In addition, an RRB overlay strategy normally includes a return enhancer equal to the long term spread between federal and provincial bonds. When all other assets are kept unchanged, adding a bond overlay strategy will typically increase the Plan's expected return.

GROWTH FIXED INCOME

We define Growth-oriented fixed income as fixed-income assets and strategies expected to generate returns in excess of government bonds and investment-grade credit, but do not have effective interest rate risk hedging properties when MPI liabilities are considered.

Growth Fixed Income generally refers to mandates that take long, strategic, and tactical positions in government bonds, corporate bonds, high yield, currencies and a number of other asset classes within developed and emerging markets. Approaches are generally unconstrained in approach and can allocate to areas of the global fixed income marketplace that a manager believes to be most attractive.

HIGH YIELD

High yield bonds refers to bonds that are rated below investment grade (i.e., have a credit rating that is lower than BBB- or equivalent). These bonds have a higher chance of failing than investment grade bonds and therefore are subject to more default risk. Although these bonds are publicly traded, they are generally less liquid than investment grade corporate bonds.

In terms of risk and return profile, High Yield falls between equity and investment grade bond investing. High yield bonds tend to outperform other fixed income assets in the recovery phase of the economic cycle, and should be expected to underperform when an economy moves into recession. Relative to equity investments, high yield bonds provide superior downside protection under negative economic scenarios. Over time we would expect the asset class will produce positive returns without adding excessive risk to a well-diversified portfolio.

High yield bond are typically issued by:

- Emerging companies raising capital for expansion

- More mature companies with relatively weak balance sheets
- Companies taking on debt for acquisitions or leveraged buyouts

The asset class has traditionally been centered in the US where the market remains more developed. The European market has made considerable progress over the last ten years and now represents around 20% of the global market. Mercer's preference is to pursue a global allocation within High yield bonds.

EMERGING MARKET DEBT

Emerging Market Debt ("EMD") generally refers to bonds issued by the governments of less developed countries. Debt can be issued in the currency of the country ("local currency") or in a "hard currency", historically US Dollars, but now also in the Euro and occasionally Japanese Yen.

The risk premium available to investors is the compensation for being exposed to credit risk and for the unhedged investor, currency (for debt denominated in local currency) risk.

Advantages of local-currency EMD:

- Appreciation of emerging market currencies as emerging market economies mature;
- A "deeper" market and a higher average credit quality;
- Structural real yield advantage ("positive carry").

However, emerging market countries are more vulnerable to crises with numerous examples of currency devaluations and inflation, so some investors may prefer the perceived security of hard-currency debt. As such, we can also see some advantages to appointing a manager who has expertise in both and allowing them discretion to set the local / hard allocation.

3

ASSESS INTEREST RATE RISK MANAGEMENT STRATEGY

5.02 (c) Study the Corporation's current interest rate risk management strategy (duration matching) relative to the alternatives (including a cash flow matching strategy and a hybrid/bucketed approach in respect of claim liabilities). Provide the pros and cons of changing our strategy, practical implementation issues to consider, etc.

BACKGROUND

MPI's business lines' (i.e., Basic, Extension and Special Risk Extension) liabilities and pension liabilities are sensitive to changes in interest rates, which is summarized as follows:

Item	Basic	Extension	SRE	RSR	Pension
Assets[1] ($ Millions at 02/28/2017)	$2,189	$134	$172	$99	$353
Sensitivity to Interest Rate Changes (Duration[2])	10.5[3]	1.1[3]	2.7[3]	0.0	15.6[4]
Sensitivity to Inflation Rate Changes (Duration[2])	10.4[3]	0.0[3]	0.0[3]	0.0	12.6[4]

Source: MPI Financial Statements as at Feb 28 2017.

2. Duration is a measure of interest rate sensitivity. A duration of 10 means a 1% decrease (increase) in the interest rate used to calculate the liability will result in a 10% increase (decrease) in the liability.

3. Based on MPI duration calculations including Provision for Adverse Deviation ("PfAD") and Internal Loss Expense Adjustment ("ILEA").

4. Based on financial statements' disclosures and additional sensitivity tests provided by the actuary.

Short-term volatility of premiums is a primary concern therefore mitigating short-term changes in the relative value of assets and liabilities is a major investment objective, particularly those generated by interest rates variations. As a result, MPI has historically maintained a well-structured approach to interest rate risk management.

MPI's current interest rate risk management policy is summarized as follows:

- Duration[2] matching fixed income portfolio strategy to closely match claims liabilities in both dollar amount and duration.
- Fixed income manager will have *market value* of duration matching portfolio within *+/- $100M* of the *present value of claims liabilities*[3] in the previous month end.
- Duration matching portfolio will be within +/- 0.25 years of claims liability duration including the Provision for Adverse Deviation ("PfAD").
- Claims liability duration is based on previous fiscal quarter.
- Modified duration used unless effective duration is a more appropriate measure.

Interest rate risk management can be categorized into 3 approaches:

1. Duration matching (i.e., matching bond and liabilities within a specified tolerance)
2. Cash flow matching (i.e., matching bond cash flows to claims/benefits cash flows)
3. Hybrid bucket matching (i.e., hybrid of 1. and 2.)

The decision to elect a particular interest rate risk management strategy will depend upon the impact of each approach on security, affordability and efficiency. Each of the three options have varying levels of precision to hedging interest rate risk. Analysis was conducted to develop reasonable rationale on the go forward approach.

In discussions with investment managers that have a significant number of P&C general asset mandates, we understand that most mandates are based on duration matching without dollar matching constraints. Some mandates are based on hybrid bucket matching. In rare cases, the mandate is to follow a cash flow matching approach. The reasons for not adopting a cash flow matching approach are 1. the liability cash flows are projected expectations and actual experience can be materially different, and 2. cash flow matching has an opportunity cost as matching cash flows takes priority over maximizing yield given credit rating, liquidity and concentration constraints.

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[2] Duration is a measure of interest rate sensitivity. A duration of 10 means a 1% decrease (increase) in the interest rate used to calculate the liability will result in a 10% increase (decrease) in the liability.

[3] $1.9 Billion as at February 28, 2017. Source is MPI Financial Statements as at February 28, 2017.

On December 15, 2016 at a meeting of the Public Utilities Board, Mr. Valter Viola made recommendations, which are addressed in this study. Mr. Viola, in the submission, represented the Consumers' Association of Canada ("CAC"). Mr. Viola made the following recommendation #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."

ANALYSIS

In general, there are 3 approaches that institutional investors use to manage interest rate risk, as summarized below:

Approach	Pros	Cons
Duration Matching	Cost effective approach. Protects against parallel shift in yield curve. Provides more flexibility with regard to investment vehicles, particularly if return enhancement is a priority.	Does not protect as well against non-parallel shifts in comparison to other approaches.
Cash Flow Matching	Higher resolution matching Protects against reinvestment risk, including non-parallel yield curve shifts	Precision of claims/benefits projections may not merit high resolution matching, as projected cash flows can be materially different from actual. Generally, most costly approach from return and fees trade-off viewpoint.
Hybrid/ Bucket Approach	Cheaper than cash flow match Some protection against non-parallel yield curve shifts	Less protection against interest rate risk than cash flow matching approach. In terms of return and fees trade off, in between duration matching and cash flow matching.

A hybrid/bucket approach combines the merits of duration matching (low cost effective matching of interest rate risk) with cashflow matching. It 'buckets' obligations into various tranches and builds an asset portfolio that has expected cashflows that are substantively similar to each 'bucket'. Relative to duration matching, it improves the robustness of the interest rate matching, but is not as precise as a cashflow matching approach.

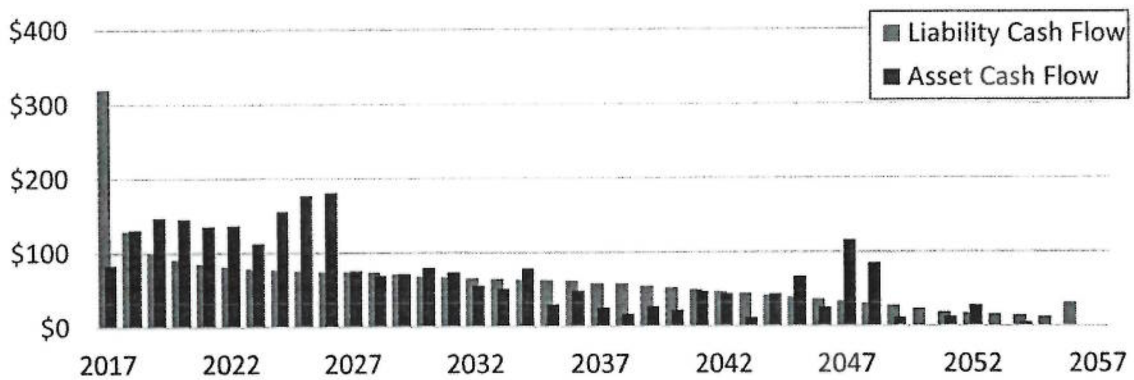
A hybrid/bucket approach is generally more costly to implement and administer than duration matching approaches, but has the added benefit of matching convexity risk more closely than duration matching. Convexity risk is the risk of non-parallel shifts in the yield curve and is most pronounced when unusual changes in yields happen. While we acknowledge that a hybrid/bucket approach more precisely immunizes convexity risk, we also observe that:

1. Convexity risk is generally equally likely to result in a gain or a loss to an investor, and
2. Gains/losses resulting from non-parallel shifts often works themselves out over modest periods of time.

For investors with very limited tolerance for risk over the short term and sufficient scale to warrant a sophisticated matching program, we support a hybrid/bucket approach and/or a cashflow matching approach. But for investors who can tolerate modest levels of risk over the short term and target excess returns from active management, we are comfortable recommending a duration matching approach which allows for more efficient implementation and a broader opportunity set.

PROJECTED CASHFLOWS: CURRENT ASSET ALLOCATION

Assuming future inflation will match the 2% annual target, the current interest rate risk management approach provides relatively good coverage of the expected claim payments. The following chart compares the expected liability cash flows (claim payments) to the cash flows from the current bond portfolio:

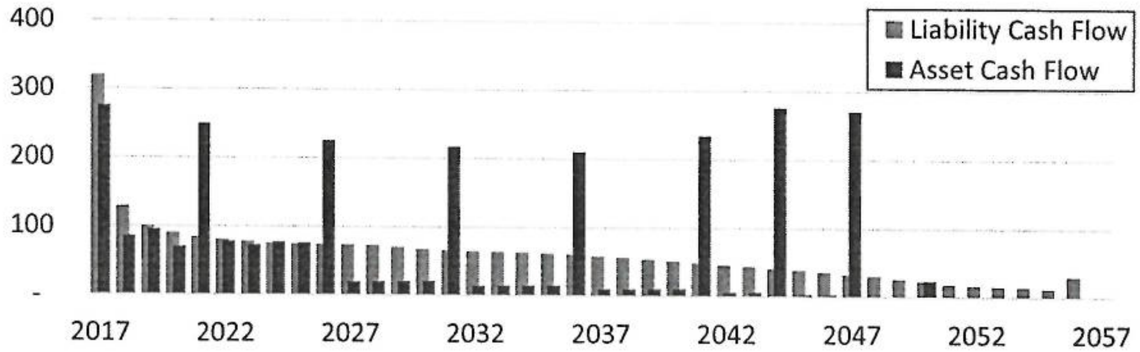


Dollars in millions.

THE CHALLENGES OF ELIMINATING INFLATION RISK

The current strategy exposes MPI to the risk of inflation increases in excess of 2% per annum. Unfortunately, it is virtually impossible to construct a portfolio that would match the expected claim payments in any future inflation scenario. This is in part due to the limited issuance of Real Return Bonds (RRBs). Although the RRB market is fairly large and liquid, there are currently only about 15 bonds. Eight were issued by the Government of Canada (good liquidity) and 7 are provincial bonds (poor liquidity). One could argue that the task of cash flow matching with RRBs could be made easier if the RRB bonds were stripped. (Stripping bonds is the process of breaking down a bond into individual coupons and a maturity payment). RRB stripping would allow for better matching as the breaking down the RRB bond into smaller pieces makes fitting the cash flows easier; however, RRB stripping is a rare occurrence as most investors prefer to buy the entire bond and pricing of the components can be very difficult given the unknown of actual inflation at various points in the future.

The following chart shows cash flows from a portfolio consisting of 34% nominal short and mid-term bonds and 66%[4] RRBs (roughly reflecting the discount rate and inflation sensitivity of the claim payments stream) compared to the expected liability cash flows. The chart illustrates the challenge of achieving inflation-sensitive cash flow matching due to the limited number of RRB issues and their specific maturity dates.



Dollars in millions.

IMPLEMENTATION CONSIDERATIONS

Given the circumstances outlined in the analysis, it is reasonable to take a measured approach to including RRBs rather than trying to hedge all of the inflation risk. Depending on whether MPI decides to assign the RRB mandate internally or externally the implementation approach may differ. If the mandate were handled externally, the most efficient and affordable approach would be to invest in a passively managed RRB fund or a levered RRB fund for better capital efficiency and return potential. If the mandate is managed internally, MPI's investment bond team could consider an RRB portfolio approach that would fit the liability cash flows better than the first method.

RECOMMENDATION

One of MPI's key investment objectives is to match interest rate risk:

> *Short-term volatility of premiums is a primary concern therefore mitigating short-term changes in the relative value of assets and liabilities is a major investment objective, particularly those generated by interest rates variations.*

[4] FTSE TMX RRB Index has a duration of about 15; whereas the MPI Basic liabilities have a real duration of about 10. This means a 66% RRB allocation would provide a real duration of 10 (i.e., 66% x 15 = 10).

MPI's current approach is a duration matching approach with a dollar matching constraint. From our perspective, Duration matching is the most cost effective and flexible approach to mitigating interest rate risk. Given MPI's willingness to accept modest levels of credit and liquidity risk, we recommend continuing with duration matching. While cash flow matching, or a hybrid/bucketed approach may be more precise, the incremental costs and complexity ought to be considered carefully, since often times the convexity risk (which these approaches help mitigate) tend to work themselves out naturally over time.

4

ADDRESS PHASE ONE[5] CAC RECOMMENDATIONS

5.03 (h) Address the recommendations made by the Consumer's Association of Canada (CAC) as per Schedule G of the RFP. The following eight (8) recommendations shall be addressed in Phase One:

5. Risk/Return Definitions for Asset Mix Decisions
7. Min/Max Asset Class Constraints
11. Canadian Equities Minimum Asset Allocation
12. No International Equities
14. Exclusion of Real Return Bonds
15. Effectiveness of Duration Policy[6]
16. Integration of real estate/infrastructure liabilities in duration management
18. Pension Fund[7]

On December 15, 2016 at a meeting of the Public Utilities Board, Mr. Valter Viola made recommendations to be addressed in this study. Mr. Viola, in the submission, represented the Consumers' Association of Canada ("CAC"). Phase One of the study answers CAC recommendations # 5, 7, 11, 12, 14, 16 and 18.

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[5] This was originally slated for Phase Two as described in the *"Request for Proposal #2785 for Asset Liability Study"*. By mutual agreement between MPI and Mercer, it was moved to Phase One for greater project efficiency.

[6] See this report's section entitled: *"Assess Interest Rate Risk Management Strategy"*.

[7] See this report's section entitled: "Merits of Unique Asset Allocations".

5. RISK/RETURN DEFINITIONS FOR ASSET MIX DECISIONS

BACKGROUND

The CAC recommendation was:

"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."

RESPONSE

We agree that asset mix decisions should be based on market values. The 2017 asset liability study is based on market values.

7. MIN/MAX ASSET CLASS CONSTRAINTS BACKGROUND

BACKGROUND

The CAC recommendation was:

"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."

The 2017 Asset Liability Study will develop optimal asset allocations on both a minimally constrained and constrained basis. The minimally constrained basis considers the fact that MPI requires a reasonable level of investment liquidity to ensure cash is available to pay claims or pension benefits. The constrained basis will employ practical implementation considerations that cannot be modelled without constraints. Each of these constraints will be clearly documented and explained. For example MUSH bonds will have a minimum constraint as these bonds are not liquid and over the foreseeable future an allocation to MUSH will remain even if the study's results were to conclude that MUSH bonds should be eliminated.

RECOMMENDATION

The Asset Liability Study will review both minimally constrained and practical implementation constraints that will be well documented and explained.

11. CANADIAN EQUITIES' 10% MINIMUM ASSET ALLOCATION

BACKGROUND

The CAC recommendation was:

"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."

ANALYSIS

Based on the MPI investment policy statement effective April 27, 2017, the asset allocation for Canadian equity has a policy weight of 10%, which is 67% of the 15% total policy allocation to public equities. Most institutional investors have significantly diversified their public equity portfolios such that allocations to Canadian equities are typically between 25% to 33% of total public equities. Such allocations still represent a modest home country bias (since Canadian equities are ~ 4-5% of total global equities), but are much more diversified than the current MPI allocation. Some Canadian institutional investors have completely eliminated any home country bias.

Investors who choose to maintain a healthy home country bias typically do so because of inertia, lower investment management fees, to reduce currency risks, or since correlation with Canadian inflation is slightly higher than for non-Canadian equities. Overall, we view the diversification benefits of a globally diversified public equity portfolio to be compelling.

IMPLEMENTATION CONSIDERATIONS

The 2017 Asset Liability Study will review the expansion of the equity portfolio to consider:

1. EAFE[8] Equities (often referred to as International Equities) which represents approximately 36% of the developed world's capital markets.

2. Global Low Volatility Equities which are global equity mandates that target between 20% - 30% reduction in return volatility as compared to the MSCI Global Equity Index.

RECOMMENDATION

We expect our recommendation will be to reduce the allocation of Canadian equities to be 25-33%[9] of total public equities.

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[8] Europe Australasia Far East as defined by investment industry wide used benchmark provider MSCI.

[9] Based on no constraints on allocations to Canadian equity.

12. NO INTERNATIONAL EQUITIES

BACKGROUND

The CAC recommendation was:

"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."

ANALYSIS

As part of the Asset Liability Study conducted by Mercer in late 2017, the asset allocation policy is being revisited. To date, the review has discussed the relatively concentrated nature of Canada's equity market. The aim of the asset allocation policy review is to develop an asset allocation policy that is optimal in light of the appropriate level of risk. EAFE[10] Equities (often referred to as International Equities) represents approximately 36% of the developed world's capital markets. We fully support reviewing the diversification of the equity portfolio by including International Equities.

IMPLEMENTATION CONSIDERATIONS

Transitioning to a non-Canadian equity portfolio is relatively straightforward, particularly if suitable pooled funds are available

The alternative to optimizing allocations to US Equity and EAFE Equity is to bundle these two mandates into one mandate (typically referred to as 'global equities' and typically benchmarked to the MSCI World index). This is supported by the fact the lines are blurred when it comes to categorizing a stock as US Equity or EAFE Equity when you consider the level of corporate globalization. For example, categorizing Microsoft as US Equity and ignoring it's non-US operations does not make sense. At the same time, combining the mandates into one mandate allows the investment manager to select a best in class stock regardless of questionable geographical classification. This in turn, provides the manager with an additional lever to outperform market returns. An extension of this idea is to combine US Equity, EAFE Equity and Emerging Markets equity into a single mandate known as an All Country mandate, which is typically benchmarked to the All Country World Index ("ACWI"). ACWI mandates are currently composed of about 52% US, 32% EAFE, and 12% Emerging Markets Equities. Note that the decomposition of ACWI into geographical regions is considered irrelevant to many ACWI investment managers, given the level globalization present in the world. Also, note that Emerging Markets Equities include companies such as Samsung, TenCent and Alibaba (all of which have a market cap of over $200Billion).

[10] Europe Australasia Far East as defined by investment industry wide used benchmark provider MSCI.

RECOMMENDATION

We expect our recommendation to include an allocation to international equities. Note that the 2017 Asset Liability Study will not constrain the allocation to international equities.

14. EXCLUSION OF REAL RETURN BONDS

BACKGROUND

The CAC recommendation was:

"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)."

Real Return Bonds ("RRBs") have the components of a conventional bond, coupon payments and return of principal at maturity. The distinguishing feature of the RRB is that both the periodic coupon payments and the return of principal at maturity are linked to the consumer price index ("CPI") over the respective term. The real yield (i.e., the yield in excess of CPI) is known at date of issue. The coupon payments and adjusted principal repayment depend on future inflation. This makes RRBs an explicit hedge against inflation risk.

The inflation sensitivities of MPI's three lines of business (Basic, Extension and Special Risk Extension ("SRE")), the Rate Stabilization Reserve ("RSR") and its employee pension plan ("MPI components") measured by duration are summarized in the table below:

Item	Basic	Extension	SRE	RSR	Pension
Sensitivity to Inflation Rate Changes (Duration[3])	10.4[2]	0.0[2]	0.0[2]	0.0[2]	12.6[1]

Duration is a measure of interest rate sensitivity. A real duration of 10 means a 1% decrease (increase) in the real interest rate used to calculate the liability will result in a 10% increase (decrease) in the liability. The duration of Canadian RRB market is currently approximately 15. Hedging a duration of 10 would simply mean having a 66%[11] allocation to RRBs.

[11] FTSE TMX RRB Index has a duration of about 15; whereas the MPI Basic liabilities have a real duration of about 10. This means a 66% RRB allocation would provide a real duration of 10 (i.e., 66% x 15 = 10).

ANALYSIS

RRBs are the most direct hedge to inflation, but provide no opportunity for additional real returns. Investors looking to balance return enhancement with inflation hedging often look to obtain an implicit or indirect inflation hedge using real assets, which are expected to deliver inflation sensitive returns (e.g., physical[12] real estate, physical infrastructure).

The Canadian RRB market is fairly large and liquid. There are currently 15 outstanding issuances, among which eight were issued by the Government of Canada and 7 are provincial issuances.

RRBs issued by the Government of Canada are the most liquid and currently have a total market value of about $72 Billion.

IMPLEMENTATION CONSIDERATIONS

Typically, RRB investment mandates are best handled by a passive manager with significant assets in RRBs relative to peer managers as this could aid in sourcing the less liquid RRB issues. These passive managers provide broad RRB market exposure at fee levels significantly lower than conventional bond mandates.

Due to the limited number of RRB issues and their specific maturity dates, developing a portfolio to match the inflation risk in the MPI components can be challenging. The challenge arises from trying to achieve a closely matching inflation-sensitive cash flow between assets and the respective component's projected claims or pension payments.

RECOMMENDATION

We agree that RRBs can provide an effective hedge against CPI linked obligations MPI has approved the inclusion of RRBs in the 2017 Asset Liability Study.

16. INTEGRATION OF REAL ESTATE/INFRASTRUCTURE LIABILITIES IN DURATION MANAGEMENT

BACKGROUND

The CAC recommendation was:

"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

[12] Physical real estate investment means actually investing in a physical property that produces income and capital gains or losses. This should not be confused with real estate investments that invest in the stocks of real estate companies.

made consistent with the leverage actually used in the portfolio, removing the ~ 4% difference related to real estate debt."

MPI's real estate investment is a direct investment in property, as opposed to an investment in real estate corporation stocks. Similarly, MPI's infrastructure investment is direct rather than investing in infrastructure corporations.

ANALYSIS

While it is true that interest rate risk exists in Real Estate and Infrastructure, we suspect that the duration will be relatively short when compared to MPI liabilities as debt terms in these investments can be short in term and interest rates can be floating. As such, it is extremely rare to consider duration risk of the underlying liability in these investments.

The following illustration provides a sense of the level of materiality:

Target Allocation to Real Estate	10%
Leverage used in Greystone real estate fund	25%
Assumed Duration of Debt	4*
Duration of Real Estate as a portion of overall MPI portfolio	0.10

*** Provided by Greystone on October 27, 2017.**

Analysis as at June 30, 2017

RECOMMENDATION

The Asset Liability Study will consider the use of leverage in the Real Estate and Infrastructure and how it may influence the overall duration of the portfolio. At this point, we do not expect it to be material nor worthy of hedging.

18. PENSION FUND

BACKGROUND

The CAC recommendation was:

> *"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."*

Currently, MPI commingles the assets of the three lines of business (Basic, Extension and Special Risk Extension ("SRE")), the Rate Stabilization Reserve ("RSR") and its employee pension plan (the "components").

As per the Actuarial Valuation Report as at December 31, 2016 – Pension Liabilities of Manitoba Public Insurance (As a result of participation of its employees in the Civil Service Superannuation Act):

> *"At present, MPI is contributing to the CSSF[13] based on the pay-as-you-go method of funding. Under this method, no advance funding payments for the employer share of the cost of pensions are made to the CSSF. MPI has, however, established a reserve against general assets which is being increased to match the increase in its pension liabilities."*

As per Note 16 of MPI's Annual Financial Statements for the Fiscal Year Ended February 28, 2017 ("MPI 2017 Annual Report"):

> *"The Corporation has not segregated investment assets to fund the benefit plans. Funding occurs as benefits are paid. The Corporation has established a provision against general assets, which is being increased to match the increase in its benefit plan liabilities."*

The current approach to Pension Fund assets is as follows:

1. The accounting basis liability for MPI's pension obligations is calculated by an independent actuary in accordance with International Financial Reporting Standards – International Accounting Standard 19.

2. An amount equal to 1. is carved out of the commingled assets and is assigned as pension assets supporting the liability determined in 1.

Under the current approach, where the performance of commingled assets differs from the change in pension liabilities, a gain (or loss) is incurred by the commingled fund and impacts the assets remaining for other Components. The primary economic drivers of changes in pension liabilities are changes in long-term interest rates and inflation expectations. For example:

- a decrease in applicable interest rates will increase the size of the pension liabilities, which in turn will increase the size of the provision against general assets; and
- an increase in applicable interest rates will decrease the size of the pension liabilities, which in turn will decrease the size of the provision against general assets.

OBSERVATIONS

The characteristics of the pension liabilities are different than MPI's three lines of business (Basic, Extension and SRE) and the RSR liabilities. The following is a non-exhaustive list of differences:

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[13] CSSF is the Civil Service Superannuation Fund.

- Sensitivity to interest rates and which interest rates are used to determine the liability, and therefore the provision against general assets
- Sensitivity to rates of inflation and pensionable earnings
- Longevity of current and future retirees (but impractical to hedge using financial assets)
- Rates of retirement, termination of employment and disability of employees participating in the pension plan (but impractical to hedge using financial assets)

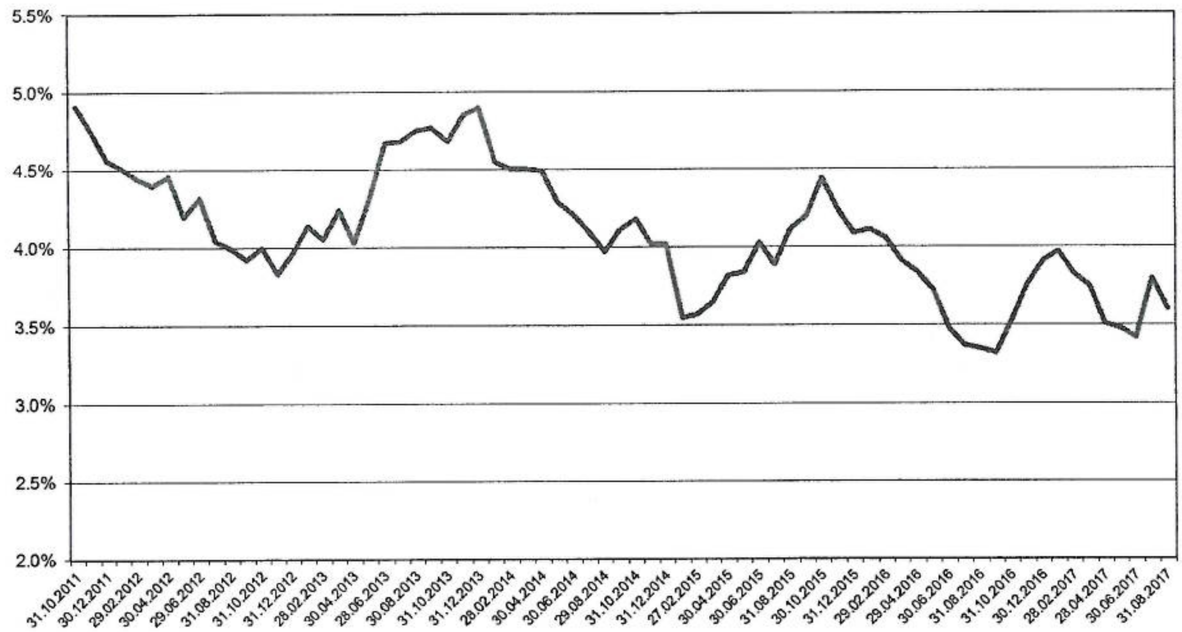
The following table summarizes certain sensitivities disclosed in the MPI 2017 Annual Report.

	Results in '000s			% Change Relative to the Defined Benefit Obligation at 3.89%		
February 28, 2017	Pension	Other Benefits	Total	Pension	Other Benefits	Total
Defined benefit obligation at 3.89%	$353,052	$52,006	$405,058			
Discount rate sensitivities						
• Defined benefit obligation at 4.89%	$298,855	$47,836	$346,691	(15.4%)	(8.0%)	(14.4%)
• Defined benefit obligation at 2.89%	$423,887	$56,120	$480,009	20.0%	7.9%	18.5%
Other sensitivities						
• Defined benefit obligation with +1 year to life expectancy	$358,699	$52,485	$411,184	1.6%	0.9%	1.5%
• Inflation indexing (2/3rds COLA) +1%	$384,071	$52,006	$436,077	8.8%	-	7.7%
• Inflation indexing (2/3rds COLA) -1%	$325,547	$52,006	$377,553	(7.8%)	-	(6.8%)
• Health care cost inflation +1%	$353,052	$57,461	$410,513	-	10.5%	1.3%
• Health care cost inflation -1%	$353,052	$47,823	$400,875	-	(8.0%)	(1.0%)

As per the above results, the defined benefit obligation for pension is most sensitive to changes in the applicable discount rate and the duration of MPI's pension obligations is in the range of 15.5-18. It is our understanding that the discount rate used is a single rate that approximates the present value of MPI's pension benefit obligation cash flows to the present value of those cash flows using the Canadian Institute of Actuaries' ("CIA") model yield curve for financial reporting purposes.

The following is a chart that displays the evolution of CIA discount rates since October 31, 2011 to September 29, 2017 for a sample pension plan with duration of 16.

Evolution CIA Discount Rates Over Time for Sample Plan with Duration of 16
(new CIA model (CIA 2.0) starting on November 30, 2016)



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The following table is a summary of MPI's defined benefit obligations at each fiscal year end from February 28, 2011 to February 28, 2017:

Fiscal year ending	Duration	Discount rate	Change in discount rate	Defined benefit obligation (Results in '000s)		
				Pension	Other benefits	Total
Feb. 28, 2011	Not disclosed	4.85%		$218,872	$38,940	$257,812
Feb. 28, 2012	Not disclosed	4.20%	(0.65%)	$260,415	$40,847	$301,262
Feb. 28, 2013	Not disclosed	3.90%	(0.30%)	$285,360	$46,475	$331,835
Feb. 28, 2014	16.0	4.20%	0.30%	$285,326	$47,812	$333,138
Feb. 27, 2015	17.15	3.60%	(0.60%)	$339,334	$51,785	$391,119
Feb. 29, 2016	16.29	4.05%	0.45%	$328,390	$49,727	$378,117
Feb. 28, 2017	15.6	3.89%	(0.16%)	$353,052	$52,006	$405,058

As can be seen from the previous chart and the above table, the discount rate used to determine MPI's pension obligations is volatile and therefore the provision against general assets for pension is correspondingly volatile. Over the past 7 fiscal year ends, the average discount rate is 4.10%, the minimum discount rate is 3.6% and the maximum discount rate is 4.85%. We estimate that the impact of the 60 basis point decrease in discount rate from 4.2% to 3.6% at February 27, 2015 was an increase in pension obligations, or a loss, of approximately $33-$35 million (assuming all else being equal).

RECOMMENDATION

Given the above observations and assuming that MPI will continue with its current policy with respect to the pay-as-you-go method of funding, MPI should consider segregating its pension assets from its insurance related assets. This will allow for:

- An asset allocation that considers the characteristics of the pension liabilities in isolation and the risk appetite of MPI;
- Enhanced transparency with respect to MPI's pension portfolio and possible re-allocations to or from MPI's three lines of business (Basic, Extension and SRE) and the RSR, if applicable;
- MPI's three lines of business (Basic, Extension and SRE) to have metrics that could be independent of the pension portfolio and can assist in accountability.

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HEALTH WEALTH CAREER

ASSET LIABILITY STUDY

PHASE TWO

DECEMBER 8 2017

Manitoba Public Insurance

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1
INTRODUCTION

BACKGROUND ON THE FUND

Manitoba Public Insurance ("MPI") maintains investment funds (the "Fund") in respect of the liabilities of MPI in accordance with the Manitoba Public Insurance Corporate Act (the "Act"). As of August 31, 2017, assets of the Fund totaled $2,695Million as summarized below:

Fixed Income		Equities		Alternatives	
$1,852.2M	68.7%	$434.9M	16.1%	$408.7M	15.2%
Cash	0.5%	Canadian	11.2%	Real Estate	11.6%
Federal Bonds	4.5%	US	4.9%	Infrastructure	3.5%
Provincial Bonds	34.2%			Private Equity	0.1%
Corporate Bonds	6.0%				
MUSH Bonds	24.1%				

The Fund's asset allocation policy (the "Policy") is the most important factor driving Fund performance. The Policy has been determined in light of the Fund objectives. The Policy reflects the characteristics of the underlying obligations and a risk/return tradeoff selected by the MPI Investment Committee ("Committee"). The Policy aims to maximize return while minimizing risk in an overall portfolio context, while considering practical investment implementation implications.

PURPOSE OF STUDY

In September 2017, MPI undertook a Policy review (the "Study") following an order by the Public Utilities Board ("PUB"). The current Policy was last set approximately 3 years ago. The primary purpose of the Study was to identify and recommend Policy allocations that reflect MPI's risk and return objectives, asset size, and governance structure. In addition, the Study was to respond to a number of recommendations submitted by the Consumers' Association of Canada.

MPI retained Mercer to assist in this Study. Mercer provides expertise in the development of an asset allocation policy through asset liability studies. Mercer worked with the staff and management of MPI throughout the study and authored this report. All figures related to MPI in this report were provided to Mercer by MPI.

OVERVIEW OF MPI'S OBLIGATIONS

For the purpose of the Study, obligations of MPI were segmented amongst the following 5 components ("Components"):

	BASIC	EXT	SRE	RSR	PENSION
What's included	Compulsory: auto insurance claims	Optional: auto insurance claims	Competitive: fleet insurance claims & Provincial Facilities	Retained earnings from Basic	Employee Benefits
Size[1]	$1,790M	$106M	$147M	$97M	$405M
Purpose	Pay claims as they come due			Stabilize rates	Fund pension benefits
Return Expectation/ Risk Tolerance	Very low risk tolerance. Could grow in future.	Moderate	Moderate	Moderate	Moderate
Interest Rate Sensitivity (Duration)	High (10.5)	Low (1.1)	Low (2.7)	Not applicable	Very high (15.6)

Basic Claims Liabilities are subject to significant interest rate risk and require a high level of liquidity to pay claims. Given that the Basic insurance business:

1. comprises approximately 88% of the total business based on net claims incurred, and

2. that no new rates or fees for Basic services can be introduced without the approval of the PUB,

the risk tolerance for assets supporting Basic is very low. To meet these objectives and reflect the nature of Basic, MPI's proposed Policy for Basic is to attempt to hedge substantially all of its nominal interest rate risk by investing in bonds with nominal interest rate duration that matches[2] the

[1] Source: Financial Statement at February 28, 2017.

[2] Most Basic liabilities are subject to inflation risk. After considering the cost of hedging inflation risks and the likelihood of future increases in inflation, MPI decided to hedge the nominal interest rate risk of Basic liabilities assuming that inflation linked obligations increase at 2% per annum. By matching the duration of assets to the duration of liabilities, MPI will be able to efficiently construct portfolios that allow for return enhancement. A fully cash flow matched asset portfolio would mitigate both duration and convexity risk, but would require MPI to sacrifice opportunities to diversify its fixed income portfolio and enhance yields. We are supportive of MPI's strategy decision in the regard.

duration of Basic liabilities. Given MPI's low tolerance for risk, the proposed Policy for Basic will not include equities or alternative investments.

SRE and Extension Claims Liabilities are subject to low interest rate risk and require a high level of liquidity to pay claims. The risk tolerance for SRE and Extension Claims Liabilities are moderate. Given the moderate tolerance for risk, MPI's proposed Policy for these lines reflects a balanced portfolio of bonds, equities and alternative investments. MPI's proposed Policy for SRE and Extension Claim bonds includes modestly higher allocations to non-government bonds than the more conservative Basic Policy.

The RSR is essentially surplus assets excluding accumulated other comprehensive income ("AOCI"). The intent of the RSR is to protect motorists from rate increases made necessary by unexpected events and losses arising from non-recurring events or factors. There is no underlying obligation therefore there is no targeted interest rate risk hedge. The size of the RSR dictates the capacity to stabilize rate increases. Currently, MPI's risk tolerance for RSR is moderate. Given the moderate tolerance for risk, MPI's proposed Policy for these lines reflects a balanced portfolio of bonds, equities and alternative investments. MPI's proposed Policy for SRE and Extension Claim bonds includes modestly higher allocations to non-government bonds than the more conservative Basic Policy.

Pension assets support MPI employee pension liabilities in conjunction with MPI's unfunded portion of the Civil Service Superannuation Board of Manitoba ("CSSB") pension obligations. Pension liabilities are subject to interest rate risk tied to high quality long-term corporate bond yields. Risk tolerance is moderate. CSSB has an asset allocation policy that allocates approximately 30% to bonds and 70% to equities and alternative asset classes. MPI's proposed Policy for these pension assets is an allocation slightly less aggressive than that of CSSB (40% to bonds and 60% to equities and alternative asset classes).

2
KEY RECOMMENDATIONS

CONSOLIDATION VS. SEGREGATION

Currently, MPI commingles the assets of the Components with the same Policy mix applying to each. This Study recommends the identification and segregation of unique asset allocations by Component for the following reasons:

1. Better alignment of the Policy with characteristics and needs of each Component.
2. Better attribution of investment income and gains/losses across each Component to assist in accountability and pricing.
3. Better visibility of each Component's portfolio while maintaining the ability to re-allocate assets between components as their obligations evolve.

MPI has recommended unique Policy allocations for the Basic and Pension Components, along with a consistent Policy allocation for each of RSR/SRE/Extension. Segregation of the assets of each Component will likely take some time to fully implement as MPI makes necessary changes to internal accounting and attribution systems.

NEW ASSET CLASSES

As part of the overall review of MPI's risk and return objectives, several new asset classes were considered to assess the extent to which they would be expected to improve the risk/reward trade-off of the Fund relative to the underlying obligations. The following two tables summarize the new asset classes included, and excluded, from MPI's recommended Policy and a brief discussion of the rationale for each:

ASSET CLASS	RATIONALE FOR INCLUSION IN RECOMMENDED ASSET ALLOCATIONS
Corporate Bonds	Investment grade Canadian corporate bonds. Corporate bonds generally increase yields over Provincial bonds; however, the credit spread varies by issuer (some Corporates are higher quality than some Provinces) and over time. Corporate bonds are available in various maturities to help hedge interest rate risk of underlying obligations, which vary in duration. Careful due diligence of corporate bond issuers and diversification of credit risks are key to delivering excess returns, as over the last 5 years, the median Canadian corporate manager has significantly outperformed the passive index by 39 basis points.
Private Debt	Investment grade North American debt covering private corporate debt, infrastructure debt, power & energy debt and other forms of private debt. Typically, fully hedges US currency risk and yield curve changes. Since private debt is less liquid than public debt, it generally results in an increased yield over a comparable Canadian bond index[3] of about 0.75%. An allocation to North American private debt further diversifies credit risk beyond those of Canadian provinces and Canadian publicly traded bonds
All Country World Index Equities (ACWI)	Includes developed world market equities and emerging market equities to improve portfolio diversification. Allows an active investment manager the ability to select best in class stocks regardless of the relevant stock exchange geography. The standard ACWI benchmark is composed of approximately 52% US, 32% EAFE[4], and 12% Emerging Markets Equities.
Global Equity (Low Volatility)	Well-diversified developed world equities with return volatility of about 25% less than the standard global equity benchmark index. Offsets some of the ACWI equity volatility.

[3] Currently FTSE/TMX Canada Universe Bond Index yield is 2.3%

[4] Europe Australasia Far East as defined by investment industry wide used benchmark provider MSCI.

EXCLUDED ASSET CLASSES

These asset classes were considered as part of the Study, but excluded from the Policy recommendation:

ASSET CLASS	RATIONALE FOR EXCLUSION IN RECOMMENDED ASSET ALLOCATIONS
Real Return Bonds	Real return bonds ('RRBs') are inflation-linked bonds that are typically used to hedge inflation risk. While basic claim liabilities and pension liabilities are indexed to inflation; a number of factors contributed to the exclusion of RRBs from the Policy recommendation, including: 1. RRB real yields are relatively low, averaging ~0.6% through November 2017. 2. MPI's Basic liabilities assume a 2% inflation rate. If future inflation is near this rate, these obligations can be most efficiently hedged with traditional bonds. RRBs will only be worth their cost if inflation is well in excess of 2%, but will cause MPI to incur losses if inflation is flat. 3. Duration and dollar matching liabilities is challenging with RRBs. The Canadian RRB market consists of 15 issues of which only 7 are liquid and all are government issued. 4. RRBs are traditionally indexed to the Canadian Consumer Price Index, while Basic Liabilities are indexed to other drivers.
Levered Bonds	Levered bonds allow investors to increase their exposure to longer duration securities via derivative contracts. Typically, investors pledge capital and pay a borrowing cost (typically short-term rates) and receive returns from a longer-term fixed income index (such as Long-Term Provincial Bonds or RRBs). Levered bonds can be implemented directly or via institutional pooled funds which helps to diversify their counterparty risks. Levered bonds can provide capital efficient matching of desired duration or inflation exposures and are well suited for investors who are looking to match interest rate risk while maintaining healthy allocations to a growth portfolio. Given MPI's preference to avoid equity exposure or additional types of risk within the Basic Portfolio, Levered Bonds are not included in the Policy recommendation. For the other Components, the desire is not to use leverage in the Portfolio.
Diversified Growth Funds	Diversified Growth Funds come in a variety of forms, but generally combine a diversified set of return drivers in an attempt to provide a more efficient return than traditional balanced funds. They typically use a combination of derivative positions as well as direct holdings. While many diversified growth funds are less expensive than traditional hedge funds, they can be more expensive than direct holdings. Given MPI's desire to reduce, rather than increase, exposure to growth assets, they are not included in the Policy recommendation.

ASSET CLASS	RATIONALE FOR EXCLUSION IN RECOMMENDED ASSET ALLOCATIONS
Private Equity	Private equity can provide institutional investors opportunities to enhance long-term returns by committing capital for longer periods to entities that are not subject to public market reporting requirements and/or are smaller with respect to market capitalization. Given MPI's desire to reduce, rather than increase exposure to growth assets, they are not included in the Policy recommendation.

NEW ASSET ALLOCATIONS

Following a thorough review of the relative merits of the asset classes noted above and after considering the purpose of each business line and MPI's risk tolerance and return requirements, Mercer modeled multiple combinations of asset classes utilizing efficient frontier concepts as well as stochastic projections of both assets and MPI's obligations utilizing the economic assumptions outlined in Appendix B.

Based on this analysis, MPI management recommended the following Policy portfolios for each business line and Pension obligations:

	CURRENT	PROPOSED BASIC	PROPOSED SRE/EXT RSR	PROPOSED PENSION
Fixed Income	**70%**	**100%**	**50%**	**40%**
Short-term Bonds (Prov.)	6.5%	0%	10%	0%
Mid-term Bonds (Prov.)	12%	28%	10%	0%
Long-term Bonds (Prov.)	29.5%	32%	0%	0%
Short-term Bonds (Corp.)	0%	0%	0%	0%
Mid-term Bonds (Corp.)	0%	9%	10%	0%
Long-term Bonds (Corp.)	2%	11%	0%	20%
MUSH Bonds	20%	20%	5%	0%
Private Debt - Universe	0%	0%	15%	0%
Private Debt - Long	0%	0%	0%	20%
Public Equities	**15%**	**0%**	**35%**	**35%**
Canadian Equity	10%	0%	12%	10%
U.S. Equity	5%	0%	0%	0%
All Country World Equity	0%	0%	13%	18%
Global Equity (Low Volatility)	0%	0%	10%	7%
Alternatives	**15%**	**0%**	**15%**	**25%**
Real Estate	10.%	0%	10%	15%
Infrastructure	5%	0%	5%	10%

The recommended asset allocation policies have the following overall impact:

RETURN

	CURRENT	PROPOSED	IMPACT
Expected Annual Total Return	4.3%	3.9%	$11M p.a. reduction in expected return
Non-MUSH Yield – ALL	2.75%	3.02%	$6M p.a. increase
Non-MUSH Yield – Basic	2.75%	2.92%	Liability decrease of $40M

RISK

	CURRENT	PROPOSED	IMPACT
1 in 20 year downside event impact on surplus	-$142M	-$75M	Improved by $67M
Interest Rate Risk Hedged	73%	87% (100% for Basic)	Significant reduction in interest rate risk.

3
IMPLEMENTATION CONSIDERATIONS

CONSOLIDATION VS SEGREGATION

The Study recommends segregation of Component assets; however, the MPI internal accounting system is designed to accommodate a consolidated asset approach. MPI is considering the implications of moving to a segregated assets model.

In the meantime, we recommend that MPI roll-up the new asset allocation policies for each Component into a consolidated policy as follows:

ASSET CLASS (GROUP)	MINIMUM	NORMAL	MAXIMUM	ACCOUNTING CLASS[5]
Cash and short-term	0.0%	0.0%	5.0%	AFS
Fixed Income				
Provincial Bonds	35%	45%	55%	FVTPL
Corporate Bonds	6%	19%	23%	FVTPL
Non-Marketable Bonds[6]	10%	20%	25%	HTM, FVTPL
Total Fixed Income	**70%**	**84%**	**90%**	
Public Equities				
Canadian Equity	0%	3%	10%	AFS
Global Equity[7]	0%	5%	10%	AFS
Global Low Volatility Equity	0%	2%	5%	AFS
Total Public Equity	**0%**	**10%**	**20%**	
Alternative Investments				
Canadian Real Estate	0%	4%	12%	FVTPL
Infrastructure	0%	2%	5%	FVTPL
Total Alternative Investments	**0%**	**6%**	**12%**	

RECOMMENDED ASSET ALLOCATIONS

As at February 28, 2017, MPI's investment assets totalled $2,547Million. Based on this amount, the recommended asset allocations are as follows:

	FIXED INCOME		EQUITIES		ALTERNATIVES		TOTAL
Basic	$ 1,790M	100%	$ -	0%	$ -	0%	$ 1,790M
SRE	74M	50%	52M	35%	$ 22M	15%	$ 148M

[5] AFS – Available for Sale, HTM – Held to Maturity, FVTPL – Fair Value Through Profit and Loss.
[6] Consists of Municipal University Schools Hospital ("MUSH") Bonds and Private Debt.
[7] Includes U.S., EAFE and to a lesser extent Emerging Market Equities.

	FIXED INCOME		EQUITIES		ALTERNATIVES		TOTAL
RSR	49M	50%	34M	35%	$ 15M	15%	$ 98M
Extension	53M	50%	37M	35%	$ 16M	15%	$ 106M
Pension	162M	40%	142M	35%	$ 101M	25%	$ 405M
Total Target	**$ 2,128M**	**84%**	**$ 265M**	**10%**	**$ 154M**	**6%**	**$ 2,547M**

Implementation of the asset class changes are expected to be phased in over a 2-year period. Assuming no change in asset values, implementation of the recommended asset allocations would require the following changes relative to the current overall asset allocation:

	FIXED INCOME		EQUITIES		ALTERNATIVES	
MPI Balance as at Aug 31 2017	$1,732M	68%	$428M	17%	$387M	15%
Change	+$396M	+15%	-$163M	-6%	-$233M	-9%

A summary of the proposed changes to the portfolio and anticipated timing are summarized as follows:

	PROPOSED	TIMING
Provincials	Duration shifting	Q1 2018
Corporate Bonds	Add 1-2 mandates	by Feb. 28, 2019
Private Debt	Add 1-2 mandate	2019
MUSH Bonds	Manage liquidity	Gradually over 24 months
Equities	Add 2 mandates	2018

APPENDIX A

RFP ITEMS

On September 12, 2017, MPI issued a Request for Proposal #2785 For Asset Liability Study. Section 5.03 list items to be addressed in the Study during Phase Two. The table below lists these items and indicates where the item is discussed in this report.

SECTION	DESCRIPTION	ADDRESSED IN
5.03(a)	Analyse risks of liabilities in context of corporate goals	Section 1. Overview of MPI's obligations.
5.03(b)	Quantification of risk/return parameters	Section 2. New Allocations.
5.03(c)	Investment characteristics of new asset classes and impact of new asset classes	Section 2. New Asset Classes, Excluded Asset Classes.
5.03(d)	Evaluation of probability of meeting expectations under various scenarios	Appendix D
5.03(e)	Asset class optimization	Section 2. New Asset Classes, Excluded Asset Classes.
5.03(f)	Recommend asset allocation	Section 2. New Allocations.
5.03(g)	Recommend allocation to corporate bonds	Section 2. New Allocations.

APPENDIX B

10-YEAR FORWARD LOOKING CAPITAL MARKET ASSUMPTIONS

ASSET CLASS RETURNS AND VOLATILITY

Asset Class	Median 10 year return	Standard deviation
1 Treasury Bills	1.4%	1.5%
2 Federal short-term bonds	1.9%	3.5%
3 Federal mid-term bonds	2.1%	6.5%
4 Federal long-term bonds	2.0%	8.5%
5 Real return bonds	2.7%	7.5%
6 Provincial short-term bonds	2.3%	3.5%
7 Provincial mid-term bonds	2.8%	6.5%
8 Provincial long-term bonds	3.0%	8.5%
9 Corporate short-term bonds	2.8%	3.5%
10 Corporate mid-term bonds	3.5%	6.5%
11 Corporate long-term bonds	3.8%	8.5%
12 Global bonds	0.8%	8.6%
13 High yield bonds	3.9%	9.5%
14 Emerging debt	6.8%	12.0%
15 Canadian equity (large cap.)	6.7%	19.5%
16 U.S. equity (large cap.)	6.7%	17.0%
17 Int'l equity (large cap.)	6.7%	17.1%
18 Global equity (large cap.)	6.7%	16.1%
19 Global low vol equity	6.1%	13.0%
20 Emerging equity	8.7%	25.0%
21 Private equity	10.1%	25.0%
22 Real estate	5.4%	13.0%
23 Diversified Growth Fund	4.9%	9.8%
24 Direct Infrastructure	6.2%	13.0%
25 MUSH Bonds	3.0%	6.5%
26 Commercial Mortgages	2.7%	3.5%
27 Long Commercial Mortgages	2.5%	5.3%
28 Private Debt - Universe	3.3%	5.4%
29 Private Debt - Long	3.5%	8.5%

Source: Mercer's Canadian long-term capital market assumptions (August 31, 2017). Expected return represents expected return over the next 10 years.

Note: 3X Long Provincial Bonds is defined as 300% Provincial Long Bonds less 200% Treasury Bills and a 0.7% leverage cost. 3X Real Return Bonds is defined as 300% Real Return Bonds less 200% Treasury Bills and a 0.7% leverage cost.

Inflation: 2.0%

Fixed income returns based on projected yields implied by the current forward yield curve.

Asset Class Correlations

Correlations

Asset Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1 Treasury Bills	1.00	0.38	0.18	0.01	(0.19)	0.31	0.02	(0.14)	(0.03)	(0.34)	(0.38)	0.16	(0.47)	0.10	(0.19)	(0.41)	(0.19)	(0.32)	(0.27)	(0.12)	(0.10)	0.27	(0.11)	0.15	0.02	0.10	0.10	0.00	(0.15)
2 Federal short-term bonds	0.38	1.00	0.91	0.76	0.25	0.96	0.79	0.52	0.47	0.07	(0.05)	0.86	(0.23)	0.27	(0.65)	(0.48)	(0.38)	(0.45)	(0.12)	(0.42)	(0.15)	(0.27)	0.14	0.03	0.79	0.41	0.41	0.75	0.54
3 Federal mid-term bonds	0.18	0.91	1.00	0.94	0.46	0.91	0.92	0.75	0.46	0.23	0.19	0.83	(0.14)	0.26	(0.62)	(0.40)	(0.38)	(0.41)	0.00	(0.44)	(0.07)	(0.19)	0.17	0.08	0.92	0.33	0.33	0.90	0.78
4 Federal long-term bonds	0.01	0.76	0.94	1.00	0.57	0.77	0.92	0.89	0.40	0.32	0.38	0.72	(0.02)	0.24	(0.50)	(0.27)	(0.29)	(0.30)	0.09	(0.33)	0.01	(0.13)	0.19	0.11	0.92	0.26	0.26	0.93	0.91
5 Real return bonds	(0.19)	0.25	0.46	0.57	1.00	0.39	0.65	0.70	0.53	0.62	0.62	0.13	0.35	0.22	0.22	(0.03)	0.04	0.01	0.08	0.21	(0.01)	(0.09)	0.04	0.47	0.65	0.48	0.48	0.66	0.70
6 Provincial short-term bonds	0.31	0.96	0.91	0.77	0.39	1.00	0.87	0.61	0.64	0.28	0.14	0.82	(0.08)	0.32	(0.53)	(0.41)	(0.28)	(0.36)	(0.05)	(0.30)	(0.16)	(0.32)	0.12	0.10	0.87	0.50	0.50	0.84	0.63
7 Provincial mid-term bonds	0.02	0.79	0.92	0.92	0.65	0.87	1.00	0.89	0.68	0.55	0.51	0.69	0.13	0.30	(0.34)	(0.24)	(0.14)	(0.20)	0.16	(0.15)	(0.08)	(0.21)	0.12	0.18	1.00	0.41	0.41	0.98	0.91
8 Provincial long-term bonds	(0.14)	0.52	0.75	0.89	0.70	0.61	0.89	1.00	0.53	0.60	0.69	0.48	0.24	0.26	(0.12)	0.00	0.03	0.02	0.32	0.04	0.04	(0.07)	0.15	0.23	0.89	0.26	0.26	0.92	0.99
9 Corporate short-term bonds	(0.03)	0.47	0.46	0.40	0.53	0.64	0.68	0.53	1.00	0.85	0.66	0.33	0.49	0.39	0.06	(0.10)	0.13	0.02	0.15	0.25	(0.22)	(0.41)	(0.02)	0.14	0.68	0.63	0.63	0.69	0.55
10 Corporate mid-term bonds	(0.34)	0.07	0.23	0.32	0.62	0.28	0.55	0.60	0.85	1.00	0.94	0.03	0.68	0.30	0.35	0.18	0.31	0.26	0.34	0.44	(0.09)	(0.28)	(0.01)	0.16	0.55	0.41	0.41	0.60	0.62
11 Corporate long-term bonds	(0.38)	(0.05)	0.19	0.38	0.62	0.14	0.51	0.69	0.66	0.94	1.00	(0.04)	0.66	0.25	0.38	0.25	0.33	0.31	0.42	0.45	0.01	(0.12)	0.01	0.17	0.51	0.21	0.21	0.58	0.69
12 Global bonds	0.16	0.86	0.83	0.72	0.13	0.82	0.69	0.48	0.33	0.03	(0.04)	1.00	0.00	0.41	(0.63)	(0.26)	(0.22)	(0.25)	0.09	(0.40)	0.21	(0.20)	0.48	0.08	0.69	0.37	0.37	0.67	0.52
13 High yield bonds	(0.47)	(0.23)	(0.14)	(0.02)	0.35	(0.08)	0.13	0.24	0.49	0.68	0.66	0.00	1.00	0.42	0.48	0.55	0.57	0.59	0.60	0.58	0.49	(0.03)	0.50	0.25	0.13	0.31	0.31	0.20	0.26
14 Emerging debt	0.10	0.27	0.26	0.24	0.22	0.32	0.30	0.26	0.39	0.30	0.25	0.41	0.42	1.00	0.20	0.28	0.47	0.40	0.45	0.42	0.39	0.09	0.39	0.52	0.30	0.42	0.42	0.34	0.28
15 Canadian equity (large cap.)	(0.19)	(0.65)	(0.62)	(0.50)	0.22	(0.53)	(0.34)	(0.12)	0.06	0.35	0.38	(0.63)	0.48	0.20	1.00	0.59	0.74	0.70	0.35	0.86	0.15	0.21	(0.03)	0.40	(0.34)	0.00	0.00	(0.30)	(0.17)
16 U.S. equity (large cap.)	(0.41)	(0.48)	(0.40)	(0.27)	(0.03)	(0.41)	(0.24)	0.00	(0.10)	0.18	0.25	(0.26)	0.55	0.28	0.59	1.00	0.78	0.94	0.80	0.60	0.56	0.27	0.35	0.19	(0.24)	(0.21)	(0.21)	(0.19)	(0.05)
17 Int'l equity (large cap.)	(0.19)	(0.38)	(0.38)	(0.29)	0.04	(0.28)	(0.14)	0.03	0.13	0.31	0.33	(0.22)	0.57	0.47	0.74	0.78	1.00	0.94	0.70	0.83	0.42	0.19	0.28	0.45	(0.14)	(0.02)	(0.02)	(0.11)	(0.01)
18 Global equity (large cap.)	(0.32)	(0.45)	(0.41)	(0.30)	0.01	(0.36)	(0.20)	0.02	0.02	0.26	0.31	(0.25)	0.59	0.40	0.70	0.94	0.94	1.00	0.79	0.76	0.52	0.25	0.33	0.34	(0.20)	(0.12)	(0.12)	(0.16)	(0.03)
19 Global low vol equity	(0.27)	(0.12)	0.00	0.09	0.08	(0.05)	0.16	0.32	0.15	0.34	0.42	0.09	0.60	0.45	0.35	0.80	0.70	0.79	1.00	0.43	0.62	0.19	0.49	0.27	0.16	(0.13)	(0.13)	0.19	0.29
20 Emerging equity	(0.12)	(0.42)	(0.44)	(0.33)	0.21	(0.30)	(0.15)	0.04	0.25	0.44	0.45	(0.40)	0.58	0.42	0.86	0.60	0.83	0.76	0.43	1.00	0.25	0.21	0.13	0.42	(0.15)	0.14	0.14	(0.10)	0.00
21 Private equity	(0.10)	(0.15)	(0.07)	0.01	(0.01)	(0.16)	(0.08)	0.04	(0.22)	(0.09)	0.01	0.21	0.49	0.39	0.15	0.56	0.42	0.52	0.62	0.25	1.00	0.48	0.81	0.30	(0.08)	(0.22)	(0.22)	(0.05)	0.04
22 Real estate	0.27	(0.27)	(0.19)	(0.13)	(0.09)	(0.32)	(0.21)	(0.07)	(0.41)	(0.28)	(0.12)	(0.20)	(0.03)	0.09	0.21	0.27	0.19	0.25	0.19	0.21	0.48	1.00	0.15	0.27	(0.21)	(0.36)	(0.36)	(0.23)	(0.11)
23 Diversified Growth Fund	(0.11)	0.14	0.17	0.19	0.04	0.12	0.12	0.15	(0.02)	(0.01)	0.01	0.48	0.50	0.39	(0.03)	0.35	0.28	0.33	0.49	0.13	0.81	0.15	1.00	0.20	0.12	0.13	0.13	0.18	0.19
24 Direct Infrastructure	0.15	0.03	0.08	0.11	0.47	0.10	0.18	0.23	0.14	0.16	0.17	0.08	0.25	0.52	0.40	0.19	0.45	0.34	0.27	0.42	0.30	0.27	0.20	1.00	0.18	(0.36)	(0.36)	0.17	0.19
25 MUSH Bonds	0.02	0.79	0.92	0.92	0.65	0.87	1.00	0.89	0.68	0.55	0.51	0.69	0.13	0.30	(0.34)	(0.24)	(0.14)	(0.20)	0.16	(0.15)	(0.08)	(0.21)	0.12	0.18	1.00	0.41	0.41	0.98	0.91
26 Commercial Mortgages	0.10	0.41	0.33	0.26	0.48	0.50	0.41	0.26	0.63	0.41	0.21	0.37	0.31	0.42	0.00	(0.21)	(0.02)	(0.12)	(0.13)	0.14	(0.22)	(0.36)	0.13	(0.36)	0.41	1.00	1.00	0.41	0.27
27 Long Commercial Mortgages	0.10	0.41	0.33	0.26	0.48	0.50	0.41	0.26	0.63	0.41	0.21	0.37	0.31	0.42	0.00	(0.21)	(0.02)	(0.12)	(0.13)	0.14	(0.22)	(0.36)	0.13	(0.36)	0.41	1.00	1.00	0.41	0.27
28 Private Debt - Universe	0.00	0.75	0.90	0.93	0.66	0.84	0.98	0.92	0.69	0.60	0.58	0.67	0.20	0.34	(0.30)	(0.19)	(0.11)	(0.16)	0.19	(0.10)	(0.05)	(0.23)	0.18	0.17	0.98	0.41	0.41	1.00	0.95
29 Private Debt - Long	(0.15)	0.54	0.78	0.91	0.70	0.63	0.91	0.99	0.55	0.62	0.69	0.52	0.26	0.28	(0.17)	(0.05)	(0.01)	(0.03)	0.29	0.00	0.04	(0.11)	0.19	0.19	0.91	0.27	0.27	0.95	1.00

APPENDIX C

SUMMARY OF PHASE ONE

TOPIC	ANALYSIS/DISCUSSION	MPI CONCLUSION
Should each business have a unique asset allocation?	The profile of the obligations and risk of each of the 3 lines of business, RSR and Pension is unique. At a minimum, each business should be assessed individually. Preliminary recommendation is to adopt unique asset allocations.	Decision on whether to aggregate or segregate assets depends on dispersion of objectives.
What are MPI's Investment Goals?	The current IPS emphasizes mitigating risk resulting from interest rate variations and mitigating the risk of short-term premium volatility. It also indicates that minimizing premium levels is an objective. Clarifying investment goals for each business line is recommended.	Will define the purpose and objectives for each business line.
Inflation linkage of liabilities	Much of MPI's obligations are linked to future levels of inflation. Real return bonds are the best hedge for future inflation.	Given low inflation expectations, hedge nominal, but not real, interest rate risk.[8]
Merits of New Fixed Income Exposure	Reviewed the relative merits of Federal Bonds, Real Return Bonds, Private Debt, Corporate Bonds Commercial Mortgages, Levered Bonds, and Growth Fixed Income. Analysis considered historical and expected risk and returns, duration matching potential, cost, and implementation considerations.	Consider private debt and corporate bonds as new asset classes.
Interest Rate Risk Management Strategy	Discussed the merits of duration matching, cashflow matching, and a hybrid approach.	Focus on duration matching for 100% of Basic liabilities.

[8] See "Excluded Asset Classes" for a fuller discussion on this item.

TOPIC	ANALYSIS/DISCUSSION	MPI CONCLUSION
Economic Assumptions	Mercer's long-term assumptions assume a gradual rise in interest rates to a long-term equilibrium state. Alternatively, we are comfortable assuming shifts in future yields implied by current forward rates.	Projections and analysis will be based on implied forward rates.
Merits of New Growth Portfolio Exposure	Reviewed the relative merits of International Equities, Global Equities, Low Volatility Global Equities, Emerging Markets, Private Equity, and Diversified Growth Funds.	Consider allocations to Global Equities (including Emerging Markets), Low Volatility Global Equities, and Private Equities.

APPENDIX D

SUPPORTING ANALYSIS

The MPI Investment Committee selected the following portfolios for each line and Pension, in order to reduce investment risk for Basic claims, and develop balanced portfolios for SRE/Extension, RSR and Pension.

The following tables summarizes the Current and Recommended asset allocations and provides the risk and return metrics for each:

	CURRENT	RECOMMENDED			
	CONSOLIDATED	CONSOLIDATED	BASIC	SRE, EXT, RSR	PENSION
Fixed Income	70%	84%	100%	50%	40%
Public Equities	15%	10%	0%	35%	35%
Alternatives	15%	6%	0%	15%	25%
Risk/Return Metrics					
Expected Annual Total Return	4.29%	3.9%	3.12%	5.15%	5.69%
Non-MUSH Yield	2.75%	3.02%	2.92%	2.73%	3.72%
1 in 20 year downside event impact on surplus	-$142M	-$75M	-$38M	-$36M	-$54M
Interest Rate Risk Hedged	73%	86%	100%	Not applicable	36%
Probability of positive real return in 5yrs	80%	74%	64%	83%	83%
Probability of surplus in 5 years	76%	82%	71%	84%	62%

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HEALTH WEALTH CAREER

ASSET LIABILITY MANAGEMENT STUDY

PHASE THREE

16 JANUARY 2018

Manitoba Public Insurance

MAKE TOMORROW, TODAY

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FIXED INCOME BENCHMARK AND ATTRIBUTION RECOMMENDATIONS

(a) **A review of the benchmark for the Corporation's fixed income portfolio with particular focus on ways to implement fixed income attribution analysis. The current benchmark is liability based. Provide the considerations related to switching to a market based benchmark.**

BACKGROUND

MPI's fixed income portfolio is geared towards matching the interest rate sensitivity (i.e. duration) of liabilities. MPI's current interest rate risk management policy, which drives the construction of the fixed income portfolio, is outlined in MPI's Asset Liability Management policy and is summarized as follows:

- Duration[1] matching fixed income portfolio strategy to closely match claims liabilities in both dollar amount and duration.
- Fixed income manager will have *market value* of duration matching portfolio within +/- *$100M* of the *present value of claims liabilities*[2] in the previous month end.
- Duration matching portfolio will be within +/- 0.25 years of claims liability duration including the Provision for Adverse Deviation ("PfAD").

The duration of MPI's liabilities can be summarized as follows:

Duration Measure	Basic	Extension	SRE	RSR	Pension
Sensitivity to Interest Rate Changes	10.5	1.1	2.7	0.0	15.6
Sensitivity to Inflation Rate Changes	10.4	0.0	0.0	0.0	12.6

[1] Duration is a measure of interest rate sensitivity. A duration of 10 means a 1% decrease (increase) in the interest rate used to calculate the liability will result in a 10% increase (decrease) in the liability.

[2] $1.9 Billion as at February 28, 2017 for all insurance lines. Source is MPI Financial Statements as at February 28, 2017.

The annual expected return of the fixed income portfolio and its benchmark is outlined in the Investment Policy Statement (IPS), is as follows:

- Return on the present value of the Corporation's claim liability cash flows over the measurement period.

MPI's current fixed income portfolio is benchmarked against the present value of cashflow obligations. Given the dynamic nature of its obligations, this makes attribution very challenging.

Why establish benchmarks?

An effective benchmark serves two primary purposes:

1. Provide the investment manager with an appropriate investment management objective for managing the investment portfolio.
2. Acts as a standard against which the performance of the investment manager can be measured.

In order to effectively fulfill these two purposes, a benchmark should be:

1. **Specified in advance**. The benchmark is specified at the start of the mandate or evaluation period and is known to both the investment manager and the investor.
2. **Appropriate**. The benchmark is consistent with the investor's desired approach and style, as well as with the approach, style, knowledge and expertise of the appointed investment manager.
3. **Unambiguous**. The benchmark's composition (i.e. its constituents and their weights) is clearly defined.
4. **Measurable**. The benchmark's composition and return can be determined on a reasonably frequent basis.
5. **Accountable**. The investment manager accepts the applicability of the benchmark and agrees to accept that differences in performance between the portfolio and the benchmark are caused only by their active management.
6. **Investable**. It is possible to forgo active management and instead passively replicate the benchmark.

In terms of performance measurement, in addition to being used as a reference against which portfolio performance can be compared, a benchmark can also be used to help identify and quantify the sources of the portfolio's return through attribution analysis.

When it comes to conducting performance attribution analysis for a fixed income portfolio there is no single standard method. As a result, approaches taken to dissect fixed income returns can vary in terms of the number of factors looked at and the degree of precision.

Here is an example of attribution for diversified bond portfolio over a 1 year period:

Factor	Measure Impact of...	Numerical Example
Beta (Asset Allocation Decisions)		
Expected Interest Rate Effect	Market performance due only to interest rate movements had interest rates moved as predicted by the forward curve	0.44%
Unexpected Interest Rate Effect	Performance during the period due to interest rates that was not predicted by the forward curve	0.54%
Alpha (Investment Manager Decisions)		
Interest Rate Management Effect	Manager's portfolio positioning with respect to interest rates (e.g. duration, convexity)	0.17%
Sector/Quality Management Effect	Manager's portfolio positioning with respect to spreads	-0.11%
Security Selection	Actual securities selected by the manager	0.05%
Trading Activity	Any additional unexplained portion of the portfolio's return; which is attributed to the manager's trading activity	-0.02%
Total		**1.07%**

When conducting fixed income performance attribution, a benchmark portfolio of securities is required in order to calculate the investment manager's relative positioning with respect to, and assess the movement coming from, certain sources of return. One of these sources of return is the effect of interest rate movements (i.e. changes to the yield curve) on the investor's fixed income portfolio. A benchmark portfolio allows for the assessment of the investment manager's success in positioning the portfolio not only for parallel shifts in the yield curve, but also for steepening, flattening or other changes in shape of the yield curve. A valid and relevant benchmark portfolio is therefore a key input for performance attribution.

The two most intuitive ways to build a benchmark portfolio are by using broad market indices (e.g. FTSE TMX Canada Universe Bond Index) or by using custom securities aligned with the mandate. The tradeoffs between these two approaches are outlined as follows:

Approach	Pros	Cons
Broad Market Indices	Well recognized and easy to understand and implement Unambiguous, measurable, usually investible, and can be specified in advance	May not be appropriate or accountable if the available broad market indices do not align perfectly with the investor's objective for their fixed income portfolio or if forcing a manager to use them as a reference point would in some way hinder their ability to achieve their objective
Custom Securities	Can allow for a benchmark to meet all of the benchmark validity criteria (i.e. unambiguous, measurable, investible, specified in advance, appropriate and accountable)	Can be difficult and expensive to construct and maintain

Given the above, the more common approach to constructing a benchmark portfolio, primarily on account of simplicity and cost, is to use broad market indices, but to tailor the portfolio as much as possible to the particular investment objective.

ANALYSIS & IMPLEMENTATION CONSIDERATIONS

For a benchmark to be appropriate and accountable, it must be in-line with the objective of the investment portfolio. Given that the overall objective of MPI's fixed income portfolio is to match the duration and dollars of liabilities within specified allowable ranges[3], the portfolio's benchmark should have a link to liabilities and reflect the asset class restrictions imposed on the manager.

To link the benchmark to liabilities, we recommend a benchmark portfolio that is consistent with the duration of liabilities. If the mandate is specifically constrained to a certain sector (i.e. Provincial bonds), it would be appropriate to construct the benchmark from indices within this sector.

RECOMMENDATION

We recommend MPI transition to a market-based benchmark for its fixed income portfolio, with unique market-based benchmarks for each component of the allocation:

	RECOMMENDED BENCHMARK
Fixed Income	
Short-term Bonds (Prov.)	FTSE TMX Short Term Provincial Bond Index
Mid-term Bonds (Prov.)	FTSE TMX Mid Term Provincial Bond Index
Long-term Bonds (Prov.)	FTSE TMX Long Term Provincial Bond Index
Short-term Bonds (Corp.)	FTSE TMX Short Term Corporate Bond Index
Mid-term Bonds (Corp.)	FTSE TMX Mid Term Corporate Bond Index
Long-term Bonds (Corp.)	FTSE TMX Long Term Corporate Bond Index
MUSH Bonds	FTSE TMIX Provincial Bond Indices matching liabilities in accordance with the ALM Policy
Private Debt - Universe	FTSE TMX Universe Bond Index
Private Debt - Long	FTSE TMX Long Term Bond Index

[3] See the MPI ALM Policy for further details.

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UNIQUE ASSET ALLOCATION AND IPS

(b) If the Corporation decides to adopt a unique asset allocation for the three (3) lines of business, excess capital/retained earnings/Rate Stabilization Reserve (RSR) and pension assets, the Successful Vendor shall provide assistance in developing new Investment Policy Statements for each unique asset allocation.

A revised Investment Policy Statement identifying the unique asset allocations is provided under separate cover.

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PUB ORDER 11.17

11.17 Add additional analysis/discussion of the bucket matching approach.

In Phase 1 of our analysis, we contrasted 3 approaches that institutional investment managers utilize to manage interest rate risk:

Approach	Pros	Cons
Duration Matching	Cost effective approach. Protects against parallel shift in yield curve. Provides more flexibility with regard to investment vehicles, particularly if return enhancement is a priority.	Does not protect as well against non-parallel shifts in comparison to other approaches.
Cash Flow Matching	Higher resolution matching Protects against reinvestment risk, including non-parallel yield curve shifts	Precision of claims/benefits projections may not merit high resolution matching, as projected cash flows can be materially different from actual. Generally, most costly approach from return and fees trade-off viewpoint.
Hybrid/ Bucket Approach	Cheaper than cash flow match Some protection against non-parallel yield curve shifts	Less protection against interest rate risk than cash flow matching approach. In terms of return and fees trade off, in between duration matching and cash flow matching.

A hybrid/bucket approach combines the merits of duration matching (low cost effective matching of interest rate risk) with cashflow matching. It 'buckets' obligations into various tranches and builds an asset portfolio that has expected cashflows that are substantively similar to each 'bucket'. Relative to duration matching, it improves the robustness of the interest rate matching, but is not as precise as a cashflow matching approach.

A hybrid/bucket approach is generally more costly to implement and administer than duration matching approaches, but has the added benefit of matching convexity risk more closely than duration matching. Convexity risk is the risk of non-parallel shifts in the yield curve and is most pronounced when unusual changes in yields happen. While we acknowledge that a hybrid/bucket approach more precisely immunizes convexity risk, we also observe that:

1. Convexity risk is generally equally likely to result in a gain or a loss to an investor, and
2. Gains/losses resulting from non-parallel shifts often works themselves out over modest periods of time.

For investors with very limited tolerance for risk over the short term and sufficient scale to warrant a sophisticated matching program, we support a hybrid/bucket approach and/or a cashflow matching approach. But for investors who can tolerate modest levels of risk over the short term and target excess returns from active management, we are comfortable recommending a duration matching approach which allows for more efficient implementation and a broader opportunity set.

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PUB ORDER 11.21

11.21 Would our modelling and recommendation for the asset mix backing RSR have differed if the upper limit for the RSR was reduced from $438Million to $325Million, as per PUB order 130-17?

Our analysis and eventual recommendation for the assets backing RSR obligations holds so long as MPI's risk tolerance is moderate and the total assets of MPI are in the $2-4Billion range. In other words, our recommended asset mix for RSR would have been the same whether the RSR maximum limit was $438Million or $325Million.

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