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REPORT ON THE ACTUARIAL VALUATION

OF THE DEFERRED BENEFIT FUND OF THE



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Department of ...

Section 1. EXECUTIVE SUMMARY

To the Board of Trustees of the University of Winnipeg Trusteed Pension Plan Trust:

We are pleased to present this report which was prepared by the Trusteed Pension Plan Trust.

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Trustees of the University of Winnipeg Trusteed Pension Plan Trust

5. The recommended contributions determined in this valuation satisfy the requirements of the Pension Benefits Act of Manitoba and the Income Tax Act. The recommended contribution

contributions are in accordance with the following schedule.

Dollar Amount of Contribution

The defined benefit provisions of the Plan have been amended since the date of the previous valuation; however, the amendments had no material impact on the results of our valuation.

Comments to Board of Directors: 11/11/2009 - 11/11/2009

FILING REQUIREMENTS

The last filed external report was effective December 31, 2019. The last filed internal report was effective December 31, 2019.

to the Plan's financial position since the regular valuation as of December 31, 2019. The last filed internal report was effective December 31, 2019.

Section 3. DATA

The valuation was based on data as of December 31, 2017, supplied to us by the Board of Trustees of the Plan. This data is summarized in Appendix C.

We subjected this data to a number of tests of reasonableness and consistency, including the following:

— a member's (and partner's, as applicable) age is within a reasonable range;

- all dates remained unchanged from the data used in the previous actuarial valuation of the Plan;
- accrued service changed by a reasonable amount;
- the form of pension payment did not change (other than resulting from the death of a retired member); and
- we examined the deletions from each of the data files (i.e., the files for active members, nonpensioners and terminated members entitled to a deferred vested pension) since the

Section 4. GOING CONCERN VALUATION

VALUATION BALANCE SHEET

The following is the going concern valuation balance sheet as at December 31, 2017 based on:

- the Plan provisions (summarized in Appendix A);
- the going concern valuation assumptions (the "Assumptions") set forth in Appendix B.

Going concern surplus / (unfunded liability) at December 31, 2016	(\$18,803,000)
University special payments with interest to amortize the unfunded liability	\$2,288,000
Interest on surplus / (unfunded liability) during inter-valuation period at 5.25% per year	(\$987,000)
Expected surplus / (unfunded liability) at December 31, 2017	<u>(\$17,502,000)</u>

Plus actuarial gains/(losses) due to experience differing from assumed during the inter-valuation period:

▪ Gain/(loss) on retirements	(\$968,000)	
▪ Gain/(loss) on mortality	(\$262,000)	
▪ Gain/(loss) on termination	(\$139,000)	
▪ Gain/(loss) on salaries and the YMPE	(\$79,000)	
▪ Gain/(loss) attributable to net investment experience	\$6,757,000	
▪ Gain/(loss) attributable to pension increases	(\$1,040,000)	
Net actuarial experience gain/(loss)	<u>\$4,269,000</u>	\$4,269,000

Gain/(loss) due to changing the actuarial assumptions:

▪ decrease in the valuation interest rate	(\$2,315,000)	
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- The valuation interest rate was decreased from 5.25 % to 5.00% per year, resulting in a loss of \$3,915,000
- The valuation generational mortality improvement scale was update to MI-2017 from CPM Improvement Scale B (CPM-B).

The effect of a decrease to the going concern valuation interest rate of 4% from 5.00% to 4.00%

	Estimated Dollar Amount	Percentage of Pensionable Earnings
Estimated 2018 pensionable earnings capped by the YMCE	\$8,078,000	

Determination of Additional University Contribution

Total current service cost for benefits	\$1,521,000	18.8%
Estimated member required contributions	(\$570,000)	(7.1%)*

University current service cost	\$951,000	11.7%
Regular University Contributions	(\$680,000)	(8.4%)*
University current service cost shortfall	\$271,000	3.3%
Annual allowance for administration expenses	\$160,000	2.0%
Additional University Contribution	\$431,000	5.3%

University Contribution for Current Service

University Regular Contribution	\$680,000	8.4%
Additional University Contribution	\$431,000	5.3%
Total University contribution for current service	\$1,111,000	13.7%

Section 5. WIND-UP VALUATION

The purpose of the wind-up valuation is to determine the financial position of the Plan if it were wound up on the valuation date. The circumstances in which the plan wind-up occurs is that both the University of Winnipeg ceases operations and the Plan wind-up giving rise to termination benefits to members not eligible for retirement on the wind-up date and retirement benefits to all other members. There are no benefits on plan wind-up that were excluded from our valuation.

the value of the early retirement subsidy as provided for in the Plan.

Accordingly, the following approach was used:

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Wind-up Valuation	12.31.2017	12.31.2016
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Wind-up Assets

Market value of Plan assets	\$137,241,000	\$131,687,000
Allowance for wind-up expenses	(\$200,000)	(\$195,000)
Total wind-up assets	\$137,041,000	\$131,492,000

Wind-up Liabilities

Active members	\$61,521,000	\$68,258,000
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Inactive and deferred	\$1,116,000	\$1,285,000
Other (incl. outstanding surplus distribution)	\$172,000	\$195,000
Total wind-up liabilities	\$798,834,000	\$798,834,000

Section 6. SOLVENCY VALUATION

The table below shows the solvency position of the Plan as at December 31, 2017. The

circumstances in which the plan wind-up occurs is that both the University of Winnipeg ceases operations and the Plan wind-up giving rise to termination benefits to members not eligible for

retirement on the wind-up date and retirement benefits that were excluded from our valuation. The liability for all active

funded over a five-year period. However, the University was eligible and made an election to be _____

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Section 8. ACTUARIAL OPINION

With respect to the University of Winnipeg Trusteed Pension Plan forming part of the actuarial report on evaluation of the plan at December 31, 2017, I hereby certify that:

- a. The purpose of this report is to provide actuarial estimates of the funding payments required to be made by the University of Winnipeg for the period from December 31, 2017 to the date

of the next valuation. The effective date of the report shall not be later than

Notwithstanding the foregoing opinion, emerging experience differing from the assumptions will,

Appendix A. SUMMARY OF PLAN PROVISIONS

The defined benefit provisions of the Plan are summarized below.

LATE RETIREMENT

A member who continues in employment after his normal retirement date continues to make

contributions to the Plan until the end of the year in which he attains age 71, if earlier. Upon retirement the member

at the end of the year in which the member attains age 71, if earlier. Upon retirement the member

The death benefit is the commuted value of the pension earned to the date of death.

BENEFITS ON TERMINATION OF EMPLOYMENT

A member who terminates employment is entitled to a deferred pension payable from normal retirement date.

Appendix B. ACTUARIAL ASSUMPTIONS

Going Concern Valuation

These assumptions are the same as those used at the previous valuation, except where noted.

Valuation interest rate:

In order to determine the expected investment return on the investments of the Plan, our model determined expected long term capital market returns, standard deviations and correlations for

each major asset class noted in Appendix E (Bonds, Canadian equities, US equities, etc.) by

using historic returns, current yields and forecasts. We then statistically generated expected

budget provided by the Trustees. An implicit allowance for investment management expenses of 0.45% is reflected in the valuation interest rate.

Salaries Increases

Salaries are assumed to increase from the valuation date as follows:

General increases of 3.0% per year. This rate is based on an allowance for market

implied inflation at December 31, 2017 of 2.0% per year based on the difference between long-term nominal and real return Government of Canada bond yields plus real salary increases of 1.0% per year which is consistent with historical increases in the Canadian

_____ is a report released by the CIA Task Force on Mental Imprisonment on September 20

_____ 2017 D _____

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assumed that the YMPE will increase from its 2018 level of \$55,900 by 3.0% per year. This is consistent with the general salary increase assumption.

Pensions in pay are increased annually by an amount equal to the excess return of the fund, net

Appendix C. MEMBERSHIP DATA

This section provides a summary of membership data used in the valuation. The data was

The table content is almost entirely obscured by heavy black redaction bars. Only a few faint lines and a small portion of text are visible, including the word "This" in the first row and some illegible characters in the second row.

Distribution of Active Membership

The following table summarizes the distribution of active membership by age and credited service. We have included the count of members in each group and shown their average

reasonable amount of service.

Age Group	Credited Service						Total
	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	
40 - 44	*	*	*				\$70,204
	1	1	1				3
45 - 49		\$58,495	*				\$64,034
		4	1				5
50 - 54	*	\$83,104	*	\$52,555			\$77,725
	1	11	2	4			18
55 - 59	*	\$92,895	\$80,113	\$83,847	\$75,774	*	\$83,243
60 - 64		\$99,748	\$109,419	\$111,324	\$109,637	\$62,854	\$101,702
		10	5	14	10	6	45

The following tables summarize the distribution of retired members by age.

Male Retired Members

<u>Lifetime Pensioners</u>	<u>Temporary Pensioners</u>
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The following table summarizes the changes in membership since the previous valuation.

Reconciliation of Membership

	Active		Pensioners		
At December 31, 2016	63	70	281	38	452
Retirements					
- Pension	(7)	(5)	14	(2)	-
- Paid out	(1)	(2)			(3)

Appendix D. PLAN ASSETS

Assets of the Plan are held in trust with CIBC Mellon. The funds are invested in a number of pooled funds. We have relied on the audited financial statements for the fund prepared by the University of Winnipeg on behalf of the Board of Trustees for the year ending December 31, 2017.

The pooled funds are invested in marketable securities and are as follows:

by the audited financial statements consisted of the following:

Actual Asset Mix at December 31, 2017

	Market Values	Proportion
Fixed Income		

FINANCIAL STATEMENTS

2017

Asset Mix Benchmark

Going Concern Funding Ratio	<85%	85% - 90%	90% - 95%	95% - 100%	100% - 105%	>105%
Canadian equities	20.0%	17.5%	15.0%	12.5%	12.5%	10.0%
Global equities	25.0%	22.5%	20.0%	17.5%	17.5%	15.0%
Emerging market equities	10.0%	7.5%	5.0%	5.0%	5.0%	5.0%
Real estate	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Total Growth Portfolio	75.0%	65.0%	55.0%	50.0%	45.0%	40.0%
Universe/Long bonds	20.0%	30.0%	40.0%	45.0%	50.0%	55.0%
High yield bonds	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Total Liability Matching	25.0%	35.0%	45.0%	50.0%	55.0%	60.0%
Total Fund	100%	100%	100%	100%	100%	100%

The constraints on the asset mix are as follows:

Asset Mix Constraints

