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Actuarial Report on

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TABLE OF CONTENTS

	Page
Section 1. EXECUTIVE SUMMARY.....	3
Section 2. INTRODUCTION.....	6
Section 3. DATA.....	8
Section 4. ASSET LIABILITIES.....	9
Section 5. WIND-UP VALUATION.....	14
Section 6. SOLVENCY VALUATION.....	16
Section 7. ELIGIBLE CONTRIBUTIONS.....	18
Section 8. ACTUARIAL OPINION.....	20

**Report on the Actuarial Valuation of the University of
Winnipeg Trusteed Pension Plan as at
December 31, 2018**

SUMMARY OF RESULTS

Section 1. EXECUTIVE SUMMARY

To the Board of Trustees of the University of Winnipeg Trusteed Pension Plan Trust ("Trustees")

We are pleased to present this report which was prepared at the request of The Board of Trustees of the University of Winnipeg Trusteed Pension Plan Trust ("Trustees") for the following

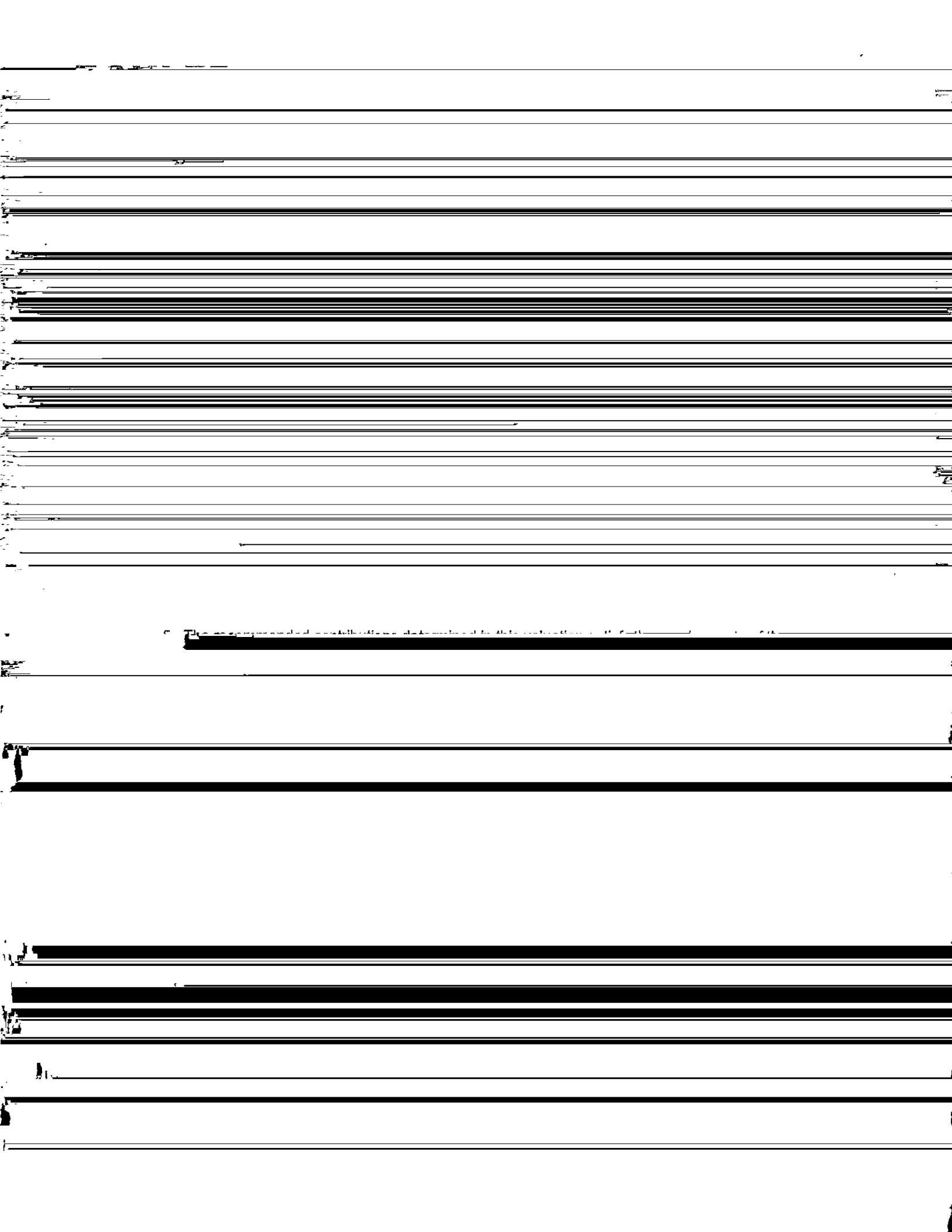
purposes:

To report on the financial position of the defined benefit plan of the University of Winnipeg

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Effective Date	Amortization Period	Annual Special Payment
December 31, 2010	Jan 2011 – Dec 2025	\$751,000
December 31, 2011	Jan 2012 – Dec 2026	\$622,000
December 31, 2015	Jan 2016 – Dec 2030	\$856,000
December 31, 2017	Jan 2018 – Dec 2032	\$91,000
December 31, 2018	Jan 2019 – Dec 2033	\$577,000
Total		\$2,897,000

2. The deterioration in the financial position from an unfunded liability of \$18,670,000 at December 31, 2017 to an unfunded liability of \$23,024,000 at December 31, 2018 is mainly



FILING REQUIREMENTS

The last filed actuarial report was effective December 31, 2017. This report outlines the changes

to the Plan's financial position since the previous valuation as at December 31, 2017, and is to be filed with the Office of the Superintendent of Pensions in Manitoba and Canada Revenue Agency. The report is also to be used by the Trustees to determine the University's funding requirements

Section 3. **DATA**

The valuation was based on data as of December 31, 2018, supplied to us by the Board of

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Section 5 GOING CONCERN VALUATION

VALUATION BALANCE SHEET

The following is the going concern valuation balance sheet as at December 31, 2018 based on:

the Plan provisions (summarized in Appendix A)

- the going concern valuation assumptions (described in Appendix B);
- the membership data (summarized in Appendix C); and
- the actuarial value of assets (summarized in Appendix D).

Going Concern Valuation

12 31 2018

12 31 2017

Effective Date	Annual Special Payment (payable monthly)	End of Liquidation Period	Present Value of Payments on December 31, 2018
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01.01.2012	\$622,000	12.31.2026	\$4,067,000
01.01.2016	\$856,000	12.31.2030	\$7,640,000
01.01.2018	\$91,000	12.31.2032	\$905,000
01.01.2019	\$577,000	12.31.2033	\$6,010,000

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Going concern surplus / (unfunded liability) at December 31, 2017	(\$18,670,000)
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unfunded liability	
Interest on surplus / (unfunded liability) during inter-valuation period at 5.00% per year	(\$934,000)

Expected surplus / (unfunded liability) at December 31, 2018	(\$17,224,000)
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Plus actuarial gains/(losses) due to experience differing from assumed during the inter-valuation period:

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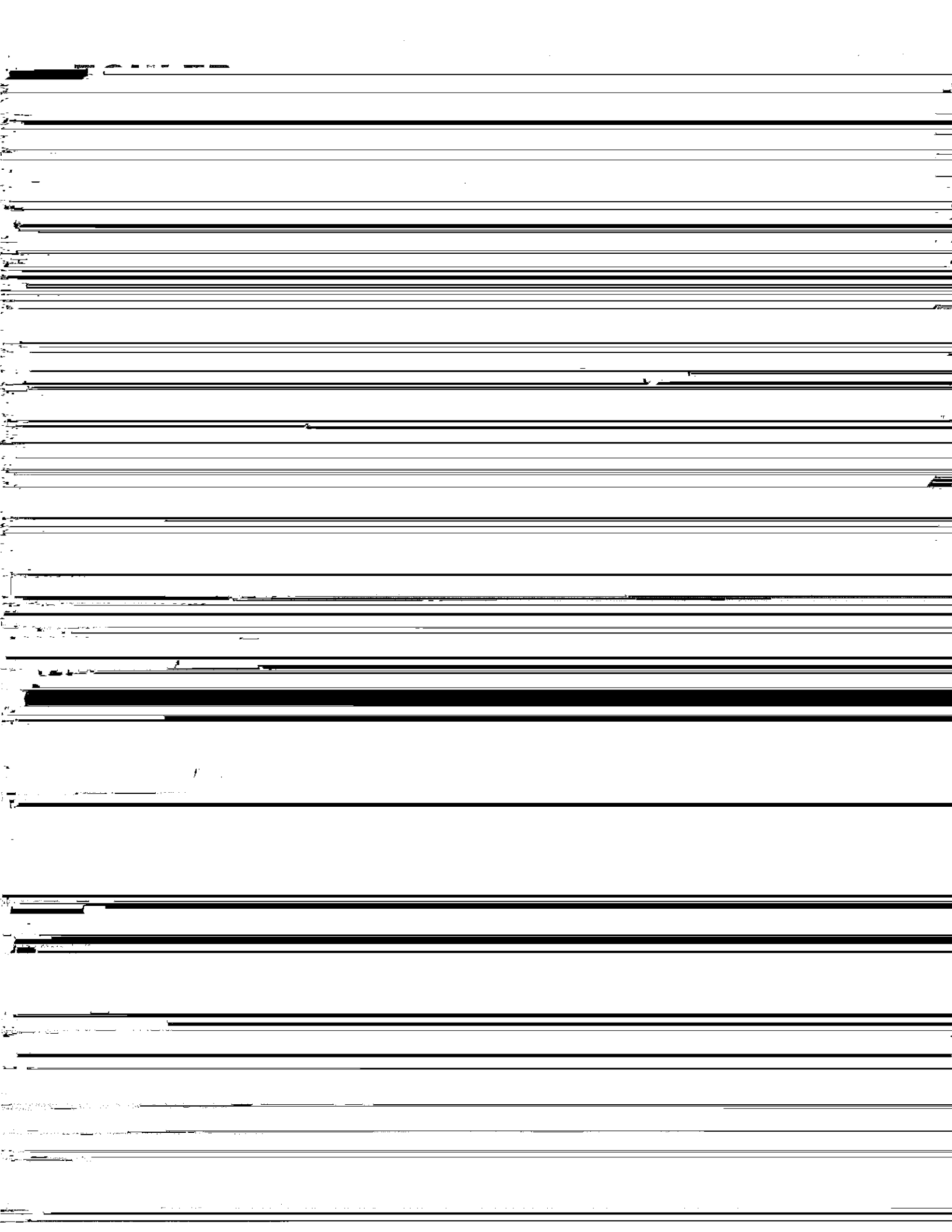
INTEREST RATE SENSITIVITY OF THE GOING CONCERN LIABILITY

is an increase in the liability of approximately \$15,921,000

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Section 6. WIND-UP VALUATION

would up on the valuation date. The circumstances in which the plan wind up occurs is that both



Section 7. SOLVENCY VALUATION

The table below shows the solvency position of the Plan as at December 31, 2018. 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 liability for all active members with 20 years or more of service on the valuation date includes the value of the early retirement subsidy as provided for in the Plan.

The calculations are based on the Plan provisions in effect on the valuation date, the solvency

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Section 8. ELIGIBLE CONTRIBUTIONS

MINIMUM CONTRIBUTIONS

The University is required to make:

- Regular University Contributions at the rate of 9.0% of earnings up to the YBE, 7.2% of earnings between the YBE and the YMBE and 0.0% of earnings in excess of the YMBE

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Under the Pension Benefits Act of Manitoba, all contributions due to the Plan must be remitted monthly. Member and University contributions are due within 30 days following the end of the month to which they apply.



Section 9. ACTUARIAL OPINION

With respect to the University of Winnipeg Trusteed Pension Plan forming part of the actuarial

- 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, 2018 to the date of the next valuation. The effective date of the next valuation must be no later than December 31, 2019 in order to comply with applicable legislation.
- b. Based on the projected unit credit actuarial funding method, the plan has an unfunded liability of \$23,024,000.

In order to satisfy the funding requirements of the Pension Benefits Act, the University must

Notwithstanding the foregoing opinion, emerging experience differing from the assumptions will result in gains or losses which will be revealed in future valuations.

- a. the membership data on which the valuation is based are sufficient and reliable, for the purposes of the valuation,

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A member who continues in employment after his normal retirement date continues to make contributions to the Plan and his pension does not commence until his actual retirement date or the end of the year in which the member attains age 71, if earlier. Upon retirement the members receive the greater of the pension accrued to the date of retirement and the actuarial equivalent pension based on the amount that would have been payable had the member retired on his or

PENSION

At retirement, the member is entitled to an annual pension equal to 2% of his final average

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

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

Salary Increases:

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

- i. General increases of 3.0% per year. This rate is based on the mid-point of the Bank of Canada trust rates for the Consumer Price Index of 2.0% per year, plus real salary

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2017.

Termination:

Considering the age and length of employment of current members (the DB part of the Plan was closed to new entrants January 1, 2001) and the very low number of terminations occurring, we

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3.2% per year for 10 years and 3.4% per year thereafter for lump sum transfer.

Future increases in Pensionable Earnings:

None

CPM9044 (Combined) Mortality Table with mortality improvement

Appendix C. MEMBERSHIP DATA

This section provides a summary of membership data used in the valuation. The data was provided by the Board of Trustees. We have reconciled the data with that used in the previous valuation and are satisfied that the data are sufficient and reliable for the purposes of the valuation.

Active Members	12.31.2018	12.31.2017
Number of Members	101	118
Average Pensionable Earnings	\$93,374	\$92,772
Average Credited Service	24.9	25.0
Average Age	59.2	59.1
Total Required Contributions with Interest	\$11,050,000	\$11,510,000

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Male Retired Members

Lifetime Passions

Temporary Passions

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The following table summarizes the changes in membership since the previous valuation.

Active

Appendix D DI AM ASSETS

FINANCIAL STATEMENTS

A summary of the change in assets since the previous valuation is summarized below:

Balance at January 1	137,241,351
Member Contributions	582,432
University Contributions	3,666,955
Investment Income	3,411,815
Realized Gains and Losses	1,182,347
Change in Market Values	(7,973,753)
Pensions Paid	(9,253,668)
Lump Sum Payments	(1,747,653)
Investment Management Expenses	(562,322)

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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%
Emerging market equities	10.0%	7.5%	5.0%	5.0%	5.0%	5.0%
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%

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Appendix E. CERTIFICATION
