

ELLEMENT & ELLEMENT
Airport Executive Centre
503 – 1780 Wellington Avenue
Winnipeg, Manitoba
R3H 1B3

Phone: (204) 954-7300
Toll Free: (888) 840-1045
Fax: (204) 954-7310
Email: contact.us@ellement.ca
Website: www.ellement.ca

Actuarial Report as at December 31, 2011

Civil Service Superannuation Fund

**CRA Registration No. 345827
MB Registration No. 345827**

September, 2012

TABLE OF CONTENTS

	<u>Page</u>
I. Actuary's Opinion	I
2. Executive Summary	2
3. Going Concern Valuation	3
4. Solvency Test	4
5. Contribution Requirements	5
6. Analysis of Going Concern Valuation Results	6
7. Analysis of Solvency Test Results	7
8. Fund Basic Benefit Liabilities Employer Profile	8
9. Sensitivity Test (Duration)	9
10. Provision for future Adverse Deviations (PfADs)	10
11. Subsequent Events	11

APPENDICES

- I Financial & Membership Data
- II Summary of the Plan
- III Actuarial Assumptions

I. ACTUARY'S OPINION

The purpose of this Report (Valuation) is to determine the financial position of the Civil Service Superannuation Fund (Fund) as at December 31, 2011, and the adequacy of the contributions being paid to finance basic benefits and pay expenses. This Valuation concerns itself with the basic portion of the benefits (Basic Account) financed by the Fund as defined under the Civil Service Superannuation Act (Plan or CSSA) as at December 31, 2011. A separate report is prepared on the Superannuation Adjustment Account (Indexing Account) which is responsible for indexing of pensions on and after July 1, 1977, and separate employer reports on the portion of the benefits not financed by the Fund.

Actual going concern experience has been less favourable than expected during 2011. In the future, there will be periods when actual experience is more favourable than expected and other periods when actual experience is less favourable than expected, resulting in future gains and losses. The Fund self-insures all benefits and therefore is exposed to investment and demographic risks which must continue to be monitored in the future. Benefits may alternatively be purchased at an insurance carrier to eliminate a portion of these risks. In the future, an asset liability method that is more closely aligned with all or a portion of the liability structure may be considered. This strategy may be cost effective in an appropriate economic climate and should be reviewed on an on-going basis by the Civil Service Superannuation Board (Board).

In my opinion, for the purposes of this Report:

- The financial and the membership data (Appendix I) on which the Valuation is based are sufficient and reliable for the purpose of the Valuation. The total membership counts shown in the Report are different from the amounts reported in the General Manager's Report due to additional new entrants, retirements, disablements, terminations, and deaths following December 31, 2011 that were provided by the Board's staff.
- The benefits used in the calculations are based on the Plan as amended to December 31, 2011 (Appendix II).
- The assumptions, individually and in aggregate, and the methods which have been used in this Valuation are appropriate for the purpose of determining the financial position of the Fund and the funding requirements of the Fund on a going concern basis and on a solvency test basis (Appendix III).
- The value of the Fund's assets would be less than the actuarial liabilities if the Fund had been hypothetically wound up on the valuation date (solvency test). The solvency test is provided for information only as the Plan is exempt from the funding requirements of the solvency test pursuant to Paragraph 4.5(2)(b) of the Regulations to the Manitoba Pension Benefits Act. However, the Canadian Institute of Actuaries (CIA) requires that the wind-up disclosure calculations be performed as part of accepted actuarial practice.
- Asset and liabilities have been rounded to the nearest dollar in this Report. In the Subsequent Events section of this Report - Page 11, we nevertheless describe the uncertainty implicit in the actuarial calculations. Due to the limited scope of our engagement, other than interest discount sensitivity analysis on Page 9, an analysis of the potential range of future measurements of the Plan's financial health due to alternative actuarial assumptions, future Plan experience, or changes in legislation was not performed.
- Contribution rates in respect of future service are to be increased in a staggered manner over four years, however, no program of contribution increases has been established to eliminate the deficit in respect of past service at this time (refer to Contribution Requirements – Page 5 and Subsequent Events – Page 11).

I hereby certify that, in my opinion, the assets of the Fund, together with future investment income, and the current contribution levels, are inadequate to provide the benefits promised by the Fund, in respect of service completed up to the valuation date based on the actuarial assumptions and methodology used in this Report. Without the necessary contribution increases and/or favourable future experience, assets will not be sufficient to provide the benefits. Contribution increases have been recommended in the past and should be considered in the near future if the deficit persists. It is essential that the investment and demographic experience continue to be monitored to evaluate changes in the financial health of the Plan and recommend appropriate actions.

This Valuation has been prepared and this opinion has been given in accordance with accepted actuarial practice.

This Valuation is subject to approval by the appropriate regulatory authorities. It is recommended the Board continue to monitor the adequacy of the contribution rates, so that it may ensure the financial health of the Fund, and assist in meeting the increased accounting standards that are now required. The next Valuation is recommended to occur as at December 31, 2012.



Dennis Ellement, F.S.A., F.C.I.A.
Winnipeg, Manitoba September 21, 2012

2. EXECUTIVE SUMMARY

GOING CONCERN VALUATION	31-Dec-11	31-Dec-10
Assets Available for Basic Benefits	\$ 3,103,654,000	\$ 3,259,311,000
▪ Expense Reserve	-	-
Liability for Basic Benefits		
▪ Active Participants	(1,926,614,048)	(1,877,277,965)
▪ Other Participants	(87,847,002)	(80,671,681)
▪ Pensions in Payment	(1,764,692,701)	(1,598,240,722)
▪ Adjustments:		
▫ Asset Smoothing Adjustment	185,662,640	59,448,821
▫ Contribution Deficiency Contingency	(65,120,655)	(68,468,337)
▫ Indexing Contingency	-	-
Surplus/(Unfunded Liability) Before Adjustments	\$ (675,499,751)	\$ (296,879,368)
Surplus/(Unfunded Liability) After Adjustments	\$ (554,957,766)	\$ (305,898,884)
Funding Ratio Before Adjustments	82.13%	91.65%
Funding Ratio After Adjustments	85.56%	91.56%

SOLVENCY TEST	31-Dec-11	31-Dec-10
Assets Available for Basic Benefits	\$ 3,103,654,000	\$ 3,259,311,000
▪ Expense Reserve	(15,518,000)	(16,297,000)
Liability for Basic Benefits		
▪ Active Participants	(2,295,161,001)	(2,665,951,722)
▪ Other Participants	(117,809,523)	(96,736,131)
▪ Pensions in Payment	(2,293,754,970)	(1,839,362,507)
▪ Adjustments:		
▫ Asset Smoothing Adjustment	185,662,640	59,448,821
▫ Contribution Deficiency Contingency	-	-
▫ Indexing Contingency	-	-
Solvency Excess/(Deficiency) Before Adjustments	\$ (1,618,589,494)	\$ (1,359,036,360)
Solvency Excess/(Deficiency) After Adjustments	\$ (1,432,926,854)	\$ (1,299,587,539)
Solvency Ratio Before Adjustments	65.61%	70.47%
Solvency Ratio After Adjustments	69.56%	71.76%

ANNUAL CONTRIBUTION REQUIREMENTS	2012 <CPPE / ≥CPPE	**	2011 <CPPE / ≥CPPE
Required Contributions for Basic Benefits			
▪ Required Contributions:			
▫ Employee Required Contributions	6.25% / 7.25%		6.00% / 7.00%
▫ Employer (Matching) Required Contributions	5.35% / 7.25%		5.10% / 7.00%
Blended Required Contributions	6.20% / 7.25%		5.96% / 7.00%
▪ Indexing Account Allocation	(0.66%) / (0.74%)		(0.63%) / (0.71%)
Total Required Contributions for Basic Benefits	5.54% / 6.51%		5.33% / 6.29%
Total Theoretical Contributions for Basic Benefits	(7.20%) / (8.46%)		(7.09%) / (8.37%)
Contribution Margin/(Deficiency) for Basic Benefits	(1.66%) / (1.95%)		(1.76%) / (2.08%)

** Contribution Requirements are represented as a percentage of earnings below/above the Canada Pension Plan Earnings (CPPE).

3. GOING CONCERN VALUATION

	31-Dec-11		31-Dec-10	
Assets Available for Basic Benefits (Appendix I)		% of Liabilities		% of Liabilities
▪ Fixed Income Investments (market value)	\$ 1,260,261,000		\$ 1,254,083,000	
▪ Equity Investments (market value)	3,584,966,000		3,661,472,000	
Total Investments	\$ 4,845,227,000		\$ 4,915,555,000	
▪ Net Receivables/Payables (includes a Province Trust Account)	6,501,000		5,114,000	
▪ Debt due from the Province of Manitoba	1,826,000		1,826,000	
▪ Correctional Officers' Trust Account	(4,737,000)		(4,792,000)	
▪ Employer Trust Accounts	(58,334,000)		(59,356,000)	
▪ Money Purchase Accounts Plan	(21,676,000)		(20,631,000)	
▪ Province Unfunded Pension Liability Trust Accounts	(1,304,271,000)		(1,201,935,000)	
Net Assets Available for Benefits	\$ 3,464,536,000		\$ 3,635,781,000	
▪ Superannuation Adjustment Account	(360,882,000)		(376,470,000)	
Total Assets Available for Basic Benefits	\$ 3,103,654,000		\$ 3,259,311,000	
▪ Expense Reserve	-		-	
Actuarial Assets Available for Basic Benefits	\$ 3,103,654,000	82.13%	\$ 3,259,311,000	91.65%
Liabilities for Basic Benefits (Appendix II, III)				
▪ Active Participants:				
▫ not eligible to retire	\$ 1,238,190,918	32.77%	\$ 1,246,862,263	35.06%
▫ eligible to retire reduced	119,126,052	3.15%	99,237,720	2.79%
▫ eligible to retire unreduced	569,297,078	15.06%	531,177,982	14.94%
	\$ 1,926,614,048	50.98%	\$ 1,877,277,965	52.79%
▪ Other Participants:				
▫ not eligible to retire	48,471,924	1.28%	55,121,213	1.55%
▫ valuation accounts payable	16,702,186	0.44%	12,769,082	0.36%
▫ eligible to retire reduced	16,349,442	0.43%	6,186,142	0.17%
▫ eligible to retire unreduced	6,323,450	0.17%	6,595,244	0.19%
	\$ 87,847,002	2.32%	\$ 80,671,681	2.27%
▪ Pensions in Payment:				
▫ retirement pensions	1,655,401,368	43.81%	1,500,805,874	42.20%
▫ survivors' pensions	109,291,333	2.89%	97,434,848	2.74%
	\$ 1,764,692,701	46.70%	\$ 1,598,240,722	44.94%
Total Liabilities for Basic Benefits	\$ 3,779,153,751	100.00%	\$ 3,556,190,368	100.00%
Surplus/(Unfunded Liability) Before Adjustments	\$ (675,499,751)		\$ (296,879,368)	
Adjustments				
▪ Asset Smoothing Adjustment	\$ 185,662,640		\$ 59,448,821	
▪ Contribution Deficiency Contingency	(65,120,655)		(68,468,337)	
▪ Indexing Contingency	-		-	
	\$ 120,541,985		\$ (9,019,516)	
Surplus/(Unfunded Liability) After Adjustments	\$ (554,957,766)		\$ (305,898,884)	
Funding Ratio Before Adjustments	82.13%		91.65%	
Funding Ratio After Adjustments	85.56%		91.56%	

4. SOLVENCY TEST*

	31-Dec-11		31-Dec-10	
Assets Available for Basic Benefits (Appendix I)		% of Liabilities		% of Liabilities
▪ Fixed Income Investments (market value)	\$ 1,260,261,000		\$ 1,254,083,000	
▪ Equity Investments (market value)	3,584,966,000		3,661,472,000	
Total Investments	\$ 4,845,227,000		\$ 4,915,555,000	
▪ Net Receivables/Payables (includes a Province Trust Account)	6,501,000		5,114,000	
▪ Debt due from the Province of Manitoba	1,826,000		1,826,000	
▪ Correctional Officers' Trust Account	(4,737,000)		(4,792,000)	
▪ Employer Trust Accounts	(58,334,000)		(59,356,000)	
▪ Money Purchase Accounts Plan	(21,676,000)		(20,631,000)	
▪ Province Unfunded Pension Liability Trust Accounts	(1,304,271,000)		(1,201,935,000)	
Net Assets Available for Benefits	\$ 3,464,536,000		\$ 3,635,781,000	
▪ Superannuation Adjustment Accounts	(360,882,000)		(376,470,000)	
Total Assets Available for Basic Benefits	\$ 3,103,654,000		\$ 3,259,311,000	
▪ Expense Reserve	(15,518,000)		(16,297,000)	
Actuarial Assets Available for Basic Benefits	\$ 3,088,136,000	65.61%	\$ 3,243,014,000	70.47%
Liabilities for Basic Benefits (Appendix II, III)				
▪ Active Participants:				
▪ not eligible to retire	\$ 1,192,123,261	25.33%	\$ 1,739,707,589	37.80%
▪ eligible to retire reduced	198,457,873	4.22%	152,227,616	3.31%
▪ eligible to retire unreduced	904,579,867	19.22%	774,016,517	16.82%
	\$ 2,295,161,001	48.77%	\$ 2,665,951,722	57.93%
▪ Other Participants:				
▪ not eligible to retire	70,724,822	1.50%	68,487,684	1.49%
▪ valuation accounts payable	16,702,186	0.35%	12,769,082	0.28%
▪ eligible to retire reduced	22,069,168	0.47%	7,549,062	0.16%
▪ eligible to retire unreduced	8,313,347	0.18%	7,930,303	0.17%
	\$ 117,809,523	2.50%	\$ 96,736,131	2.10%
▪ Pensions in Payment:				
▪ retirement pensions	2,156,909,480	45.82%	1,729,512,101	37.58%
▪ survivors' pensions	136,845,490	2.91%	109,850,406	2.39%
	\$ 2,293,754,970	48.73%	\$ 1,839,362,507	39.97%
Total Liabilities for Basic Benefits	\$ 4,706,725,494	100.00%	\$ 4,602,050,360	100.00%
Solvency Excess/(Deficiency) Before Adjustments	\$ (1,618,589,494)		\$ (1,359,036,360)	
Adjustments				
▪ Asset Smoothing Adjustment	\$ 185,662,640		\$ 59,448,821	
▪ Contribution Deficiency Contingency	-		-	
▪ Indexing Contingency	-		-	
	\$ 185,662,640		\$ 59,448,821	
Solvency Excess/(Deficiency) After Adjustments	\$ (1,432,926,854)		\$ (1,299,587,539)	
Solvency Ratio Before Adjustments	65.61%		70.47%	
Solvency Ratio After Adjustments	69.56%		71.76%	

* The solvency test is provided for information only as the Plan is exempt from the funding requirements of the solvency test pursuant to Paragraph 4.5(2)(b) of the Regulations to the Manitoba Pension Benefits Act. However, the Canadian Institute of Actuaries (CIA) requires that the wind up disclosure calculations be performed as part of accepted actuarial practice.

5. CONTRIBUTION REQUIREMENTS

The accrued benefit cost method of valuation, with salary projection, has been used in this Valuation. Under this method, the expected cost in each year after the valuation date is equal to the cost of benefits expected to be credited for service in the next year. This expected cost is expressed as a level percentage of salary each year. These percentages are commonly called the theoretical contribution rates or normal actuarial cost for basic benefits.

In the following table, we have compared the required contribution rates and the normal actuarial cost for basic benefit rates (below/above Canada Pension Plan Earnings (CPPE)) on the basis of age, sex, and salary distribution, as exists for present active participants. For this Valuation, the table below reflects a “blended or average” contribution rate increase for 2012, to recognize the first of the staggered contribution rate increases which will occur over the next 4 years, refer to Appendix II – Page 2.

2012 (average)					2011		
< CPPE / ≥ CPPE					* < CPPE / ≥ CPPE		
Current Contributions for Basic Benefits							
▪ Employee Current Contributions:							
▫ not eligible to retire	\$	89,653,361	6.25%	7.25%	\$	85,244,463	6.00% 7.00%
▫ eligible to retire		7,255,777	6.25%	7.25%		7,155,614	6.00% 7.00%
▫ eligible to retire unreduced		15,865,903	6.25%	7.25%		14,876,320	6.00% 7.00%
▫ indexing account allocation		(11,503,054)	(0.66%)	(0.74%)		(10,942,192)	(0.63%) (0.71%)
▪ Employer (Matching) Current Contributions:							
▫ not eligible to retire		6,835,097	5.35%	7.25%		6,335,636	5.10% 7.00%
▫ eligible to retire		773,970	5.35%	7.25%		770,314	5.10% 7.00%
▫ eligible to retire unreduced		883,536	5.35%	7.25%		778,656	5.10% 7.00%
▫ indexing account allocation		(866,246)	(0.55%)	(0.74%)		(804,230)	(0.52%) (0.71%)
Total Current Contributions for Basic Benefits		\$ 108,898,344	5.54% / 6.51%		\$ 103,414,581	5.33% / 6.29%	
Normal Actuarial Cost for Basic Benefits							
▪ Active Participants:							
▫ not eligible to retire	\$	106,201,965	6.79%	7.98%	\$	103,262,622	6.69% 7.90%
▫ eligible to retire reduced		10,958,125	8.42%	9.89%		11,108,822	8.32% 9.82%
▫ eligible to retire unreduced		24,298,582	8.95%	10.52%		23,277,305	8.83% 10.41%
Blended Active Participant Theoretical Rate	\$	141,458,672	7.20%	8.46%	\$	137,648,749	7.09% 8.37%
▪ Other Participants		-	0.00%	0.00%		-	0.00% 0.00%
▪ Pensions in Payment		-	0.00%	0.00%		-	0.00% 0.00%
▪ Reserves		-	0.00%	0.00%		-	0.00% 0.00%
Total Normal Actuarial Cost for Basic Benefits		\$ 141,458,672	7.20% / 8.46%		\$ 137,648,749	7.09% / 8.37%	
Contribution Margin/(Deficiency) for Basic Benefits		\$ (32,560,328)	(1.66%) / (1.95%)		\$ (34,234,168)	(1.76%) / (2.08%)	

* Current contributions are represented as a percentage of earnings below/above the Canada Pension Plan Earnings (CPPE).

A provision for the \$32,560,328 annual contribution deficiency has been made on the Valuation Balance Sheet. This provision is equal to \$65,120,655 in anticipation of the contributions which will increase in a staggered manner over for the next 4 years.

In respect of past service, it is recommended that the Province of Manitoba, the Liaison Committee, and the Advisory Committee be informed that the current going concern deficit of \$554,957,766 could be amortized by 15 annual payments of \$61,794,442 (assumes 10.2% is allocated to the Indexing Account) which is equivalent to about 3.50% of salary over the next 15 years. Although the Plan is exempt from the regulatory going concern and solvency funding, the parties must be made aware that it may become a requirement in the future if future excess investment and/or demographic experience is not generated in the Fund.

6. ANALYSIS OF GOING CONCERN VALUATION RESULTS

Reconciliation of Financial Position

Operation of the Basic Benefits Account	Assets	Liabilities	Adjustments	Surplus
■ 2011 Opening Financial Position: 2010 Basis	\$ 3,259,311,000	\$ 3,556,190,368	\$ (9,019,516)	\$ (305,898,884)
▫ Contributions/Benefits Accrued *	263,866,000	131,163,000	-	132,703,000
▫ Benefit Experience & Operating Expenses *	(331,962,000)	(165,179,000)	-	(166,783,000)
▫ Investment Experience Net: -2.71%	(87,561,000)	212,351,000	-	(299,912,000)
▫ Actuarial Adjustment Projection PfAD	-	50,824,000	-	(50,824,000)
▫ Indexing Contingency	-	-	-	-
▫ Contribution Deficiency Contingency	-	-	(4,107,663)	(4,107,663)
▫ Asset Smoothing Adjustment	-	-	126,213,819	126,213,819
■ 2011 Financial Statements Projected Position	\$ 3,103,654,000	\$ 3,785,349,368	\$ 113,086,640	\$ (568,608,728)
▫ Actuarial Reserve Projection PfAD release	-	50,824,000	-	(50,824,000)
▫ ITA Maximum Pensionable Salary Limit	-	2,000,363	-	(2,000,363)
▫ Salary Gain 1-Year Experience	-	(84,726,764)	-	84,726,764
▫ Demographic Retirement Gain 1-Year Experience	-	(4,086,912)	-	4,086,912
▫ Demographic Termination Loss 1-Year Experience	-	6,439,217	-	(6,439,217)
▫ Demographic Death Gain 1-Year Experience	-	(1,127,958)	-	1,127,958
▫ Methodology & Unexplained	-	(2,694,915)	-	2,694,915
▫ Indexing Contingency	-	-	-	-
▫ Contribution Deficiency Contingency	-	-	7,455,345	7,455,345
▫ Asset Smoothing Adjustment	-	-	-	-
■ 2011 Preliminary Going Concern Position	\$ 3,103,654,000	\$ 3,751,976,399	\$ 120,541,985	\$ (527,780,414)
▫ Continue 6.00% annual interest discount rate	-	-	-	-
▫ Mortality UP2020 to UPXGEN	-	27,177,352	-	(27,177,352)
▫ Continue demographic assumptions	-	-	-	-
■ 2011 Closing Going Concern: 2011 Basis	\$ 3,103,654,000	\$ 3,779,153,751	\$ 120,541,985	\$ (554,957,766)

* Contributions and Benefits on the Asset movement include both the Fund and pay-as-you-go payments whereas the adjacent Liability movement entry includes only the Fund side (about 55% of the total).

Unfavourable investment experience of \$299,912,000 and favourable salary experience of \$84,726,764 has been somewhat offset by the increase in the asset smoothing adjustment.

Average Actuarial Factors

Category	Age	# Members	Fund Pension	Actuarial Factor *	Liability
31-Dec-11					
■ Active Participants	44.05	29,717	x 12 x \$ 552.28	x 9.7825 =	\$ 1,926,614,048
■ Other Participants	48.29	3,155	x 12 x 208.41	x 11.1334 =	87,847,002
■ Pensions in Payment	70.24	17,615	x 12 x 751.51	x 11.1089 =	1,764,692,701
Total/Average	53.20	50,487	x 12 x \$ 600.30	x 10.3912 =	\$ 3,779,153,751
31-Dec-10					
■ Active Participants	44.06	29,956	x 12 x \$ 535.64	x 9.7497 =	\$ 1,877,277,965
■ Other Participants	48.90	2,901	x 12 x 216.24	x 10.7166 =	80,671,681
■ Pensions in Payment	70.04	16,686	x 12 x 721.29	x 11.0662 =	1,598,240,722
Total/Average	53.09	49,543	x 12 x \$ 579.46	x 10.3228 =	\$ 3,556,190,368

* Larger actuarial factors mean more reserves per member due to changing demographics and actuarial assumptions.

7. ANALYSIS OF SOLVENCY TEST RESULTS

Reconciliation of Financial Position

Operation of the Basic Benefits Account	Assets	Liabilities	Adjustments	Excess
2011 Opening Financial Position: 2010 Basis	\$ 3,259,311,000	\$ 4,602,050,360	\$ 43,151,821	\$ (1,299,587,539)
▫ Contributions/Benefits Accrued *	263,866,000	169,737,463	-	94,128,537
▫ Benefit Experience & Operating Expenses *	(331,962,000)	(213,757,420)	-	(118,204,580)
▫ Investment Experience Net: -2.71%	(87,561,000)	205,185,809	-	(292,746,809)
▫ Actuarial Adjustment Projection PfAD	-	65,771,116	-	(65,771,116)
▫ Indexing Contingency	-	-	-	-
▫ Contribution Deficiency Contingency	-	-	-	-
▫ Asset Smoothing Adjustment	-	-	126,213,819	126,213,819
2011 Financial Statements Projected Position	\$ 3,103,654,000	\$ 4,828,987,328	\$ 169,365,640	\$ (1,555,967,688)
▫ Actuarial Reserve Projection PfAD release	-	(65,771,116)	-	65,771,116
▫ ITA Maximum Pensionable Salary Limit	-	2,588,661	-	(2,588,661)
▫ Salary Loss 1-Year Experience	-	99,973,190	-	(99,973,190)
▫ Demographic Retirement Gain 1-Year Experience	-	(5,288,855)	-	5,288,855
▫ Demographic Termination Loss 1-Year Experience	-	2,146,406	-	(2,146,406)
▫ Demographic Death Gain 1-Year Experience	-	(1,438,941)	-	1,438,941
▫ Methodology & Unexplained - includes PBA change	-	(868,437,662)	-	868,437,662
▫ Expense Contingency	-	-	779,000	779,000
▫ Contribution Deficiency Contingency	-	-	-	-
▫ Asset Smoothing Adjustment	-	-	-	-
2011 Preliminary Solvency Test Position	\$ 3,103,654,000	\$ 3,992,759,011	\$ 170,144,640	\$ (718,960,371)
▫ Change interest discount rate 2.60%/10yrs/4.10%...	-	678,796,391	-	(678,796,391)
▫ Mortality UP2020 to UPXGEN	-	35,170,092	-	(35,170,092)
▫ Continue demographic assumptions	-	-	-	-
2011 Closing Solvency Test: 2011 Basis	\$ 3,103,654,000	\$ 4,706,725,494	\$ 170,144,640	\$ (1,432,926,854)

* Contributions and Benefits on the Asset movement include both the Fund and pay-as-you-go payments whereas the adjacent Liability movement entry includes only the Fund side (about 55% of the total).

Solvency interest rates continue to decline resulting in a \$678,796,391 increase in liability.

Average Actuarial Factors

Category	Age	# Members	Fund Pension	Actuarial Factor *	Liability
31-Dec-11					
Active Participants	44.05	29,717	x 12 x \$ 552.28	x 11.6538 =	\$ 2,295,161,001
Other Participants	48.29	3,155	x 12 x 208.41	x 14.9307 =	117,809,523
Pensions in Payment	70.24	17,615	x 12 x 751.51	x 14.4394 =	2,293,754,970
Total/Average	53.20	50,487	x 12 x \$ 600.30	x 12.9417 =	\$ 4,706,725,494
31-Dec-10					
Active Participants	44.06	29,956	x 12 x \$ 535.64	x 13.8457 =	\$ 2,665,951,722
Other Participants	48.90	2,901	x 12 x 216.24	x 12.8506 =	96,736,131
Pensions in Payment	70.04	16,686	x 12 x 721.29	x 12.7357 =	1,839,362,507
Total/Average	53.09	49,543	x 12 x \$ 579.46	x 13.3587 =	\$ 4,602,050,360

* Larger actuarial factors mean more reserves per member due to changing demographics and actuarial assumptions.

Pursuant to the Standards of the Canadian Institute of Actuaries (CIA) it is now required to disclose the incremental cost in the next year on a hypothetical wind-up/solvency basis.

This cost is estimated to equal \$276,951,900 as at December 31, 2011. This cost in essence reflects the present value of the increase of the solvency liability in the next year plus the annual benefit payments expected to be made, assuming no change in solvency assumptions.

8. FUND BASIC BENEFIT LIABILITIES EMPLOYER PROFILE

Name of Employer	Code	Active Participants	Other Participants	Pensions in Payment	2011 Total	%
Non-Matching Employers						
1 Province of Manitoba Civil Service	CS	\$ 917,186,511	\$ 52,972,672	\$ 1,041,403,794	\$ 2,011,562,977	53.23%
2 Manitoba Hydro-Electric Board	MH	500,299,713	7,392,938	416,833,253	924,525,904	24.46%
3 Manitoba Public Insurance	AI/AIE	102,679,320	5,893,225	67,435,157	176,007,702	4.66%
4 Division of Driver and Vehicle Licensing	AIL	4,826,548	148,307	1,944,925	6,919,780	0.18%
5 Red River College	RCC	57,731,020	2,417,073	32,001,384	92,149,477	2.44%
6 Liquor Control Commission	LC	29,510,973	1,285,999	30,139,982	60,936,954	1.61%
7 Manitoba Agricultural Services Corporation	AC	2,468,461	228,863	3,069,853	5,767,177	0.15%
8 Addictions Foundation of Manitoba	AF	11,933,452	740,178	11,301,213	23,974,843	0.63%
9 Assiniboine Community College	ACC	11,355,989	1,223,390	8,157,861	20,737,240	0.55%
10 University College of The North	KCC	12,404,345	826,193	5,483,867	18,714,405	0.50%
11 The Legal Aid Services Society of Manitoba	LA	12,889,604	570,695	5,003,224	18,463,523	0.49%
12 Manitoba Centennial Centre Corporation	CC	2,704,329	67,469	3,392,868	6,164,666	0.16%
13 Teachers' Retirement Allowance Fund Board	TR	2,481,757	469,683	818,797	3,770,237	0.10%
14 Communities Economic Development Fund	CE	1,327,166	56,286	542,508	1,925,960	0.05%
15 The Council on Post-Secondary Education	UG	475,100	47,804	575,802	1,098,706	0.03%
16 Manitoba Horse Racing Commission	RC	90,928	41,768	201,834	334,530	0.01%
17 Diagnostic Services of Manitoba	DSM	1,497,330	470,475	352,189	2,319,994	0.06%
18 Regional Health Authority - Winnipeg	RWA	12,746,913	136,369	5,294,230	18,177,512	0.48%
19 Regional Health Authority - Brandon	RBH	9,812,624	332,075	6,964,421	17,109,120	0.45%
20 Regional Health Authority - Central	RCA	4,054,656	129,905	2,959,885	7,144,446	0.19%
21 Regional Health Authority - Assiniboine	ARH et al	4,226,456	181,884	2,384,488	6,792,828	0.18%
22 Regional Health Authority - Parkland	RPL	3,095,367	56,067	2,299,722	5,451,156	0.14%
23 Regional Health Authority - Interlake	RIL	3,116,247	1,729	2,710,279	5,828,255	0.15%
24 Regional Health Authority - South Eastman	RSE	1,432,096	109,019	970,885	2,512,000	0.07%
25 Regional Health Authority - Nor-Man	RNF/RNM	1,384,789	88,659	572,948	2,046,396	0.05%
26 Regional Health Authority - North Eastman	RNE	856,718	-	953,230	1,809,948	0.05%
27 Regional Health Authority - Burntwood	RBW	472,305	9,344	368,554	850,203	0.02%
28 Manitoba Development Corporation	MDC	102,683	-	-	102,683	0.00%
29 Workers' Compensation Board	WC	-	-	6,618	6,618	0.00%
30 WECO	WEC	-	-	661,649	661,649	0.02%
		\$ 1,713,163,400	\$ 75,898,069	\$ 1,654,805,420	\$ 3,443,866,889	91.13%
Matching Employers						
1 Manitoba Lotteries Corporation	LF	\$ 48,484,077	2,654,745	7,189,433	58,328,255	1.54%
2 Manitoba Housing Authority	HA	22,627,207	1,298,580	15,882,388	39,808,175	1.05%
3 WCFS CUPE Support Workers	CSW	1,726,536	5,371	-	1,731,907	0.05%
4 Manitoba Agricultural Services Corporation	MAS	7,537,058	115,392	1,169,977	8,822,427	0.23%
5 Manitoba Crop Insurance Corporation	CI /CIC	12,813,695	614,979	12,218,749	25,647,423	0.68%
6 Manitoba Government and General Employees' Union	EA	10,330,562	320,652	10,358,358	21,009,572	0.56%
7 Manitoba Hydro Utilities Service	MHU	1,220,766	72,924	37,432	1,331,122	0.04%
8 Child and Family All Nations Coordinated Response Network	ANR	2,217,083	138,566	-	2,355,649	0.06%
9 The Civil Service Superannuation Board	SB	6,973,384	1,136,889	5,287,187	13,397,460	0.35%
10 Manitoba Gaming Control Commission	GC	3,625,531	103,556	558,014	4,287,101	0.11%
11 Travel Manitoba	TM	1,402,971	128,504	330,908	1,862,383	0.05%
12 Food Development Centre	FD	1,638,064	478,782	104,699	2,221,545	0.06%
13 Manitoba Floodway Authority	MFA	1,821,881	61,081	198,709	2,081,671	0.06%
14 Dairy Farmers of Manitoba	MC	1,591,037	96,681	2,644,219	4,331,937	0.11%
15 Industrial Technology Centre	IT	2,329,262	399,886	388,499	3,117,647	0.08%
16 Hams Marketing Services Co-Op Inc.	HM	1,853,417	81,899	2,673,660	4,608,976	0.12%
17 Manitoba Film and Sound Recording Development Corporation	MFS	441,729	9,009	-	450,738	0.01%
18 Manitoba Pork Council	PC	445,269	40,339	874,155	1,359,763	0.04%
19 Manitoba Arts Council	MA	446,984	32,328	411,338	890,650	0.02%
20 Manitoba Chicken Producer Board	CB	442,028	-	151,728	593,756	0.02%
21 Sport Manitoba	SM	690,716	15,849	41,040	747,605	0.02%
22 Crown Corporations Council	CR	916,873	-	1,173,047	2,089,920	0.06%
23 Horizon Lab Ltd.	MTR	31,387	616	-	32,003	0.00%
24 Manitoba Cattle Enhancement Council	MCE	139,289	-	-	139,289	0.00%
25 Manitoba Turkey Producers	TB	148,523	5,626	570,289	724,438	0.02%
26 Paletta & Company Hotels	PCH	58,288	-	2,841	61,129	0.00%
27 Venture Manitoba Tours Ltd.	VT	296,538	-	43,208	339,746	0.01%
28 Economic Innovation and Technology Council	MR	1,082,097	956,850	3,510,724	5,549,671	0.15%
29 Manitoba Development Corporation	DFF	20,701	102,108	512,575	635,384	0.02%
30 Manitoba Hazardous Waste	HW	-	-	496,686	496,686	0.01%
31 Manitoba Water Services Board	WS	-	120,034	439,536	559,570	0.01%
32 Human Resources and Employment Centres	R's/HE	1,002,564	229,683	2,386,947	3,619,194	0.10%
33 Manitoba Beef Commission	BC	151,216	-	305,354	456,570	0.01%
34 Local Government Districts	LG	-	-	132,677	132,677	0.00%
35 Manitoba Mineral Resources Limited	MM	-	-	38,918	38,918	0.00%
36 Manitoba Data Services	DS	-	-	340,093	340,093	0.01%
37 Money Purchase Plan Annuity	MPP	-	-	5,279,784	5,279,784	0.14%
38 No Billing (Charged to Fund)	NB	78,943,915	2,728,004	34,134,109	115,806,028	3.06%
		\$ 213,450,648	\$ 11,948,933	\$ 109,887,281	\$ 335,286,862	8.87%
31-Dec-11 Total Fund Liabilities for Basic Benefits		\$ 1,926,614,048	\$ 87,847,002	\$ 1,764,692,701	\$ 3,779,153,751	100.00%
31-Dec-10 Total Fund Liabilities for Basic Benefits		\$ 1,877,277,965	\$ 80,671,681	\$ 1,598,240,722	\$ 3,556,190,368	100.00%

9. SENSITIVITY TEST (DURATION)

The impact on pension liabilities of changes in the actuarial assumptions depends largely upon the number of years over which benefits will be paid and the exact pattern of the expected benefit cash flow. The demographics of the group covered by a valuation have an impact on the resulting change in liability for a given change in an actuarial assumption. Different parts of the valuation are affected differently by a change in a specific valuation assumption. Two of the more significant assumptions are the real rate of return and the assumed inflation rate expected in the future. There are rules of thumb to estimate the effect upon liabilities of a change in the assumed real rate or assumed inflation rate. These rules of thumb can be expressed mathematically by introducing the concept of duration where:

$$\% \text{ change in liability} = - \text{duration} \times \% \text{ change in assumed rate}$$

The approximation is usually quite good for small changes in the assumed rate (we will test a negative ¼% change). For larger changes, the concept of convexity must be introduced which we will not explore in this Report. The following table summarizes the application of the above formula to the Fund data as at December 31, 2011.

GOING CONCERN		Decrease Real Rate ¼%		
Real Rate	4.00%	3.75%		
Inflation Rate	2.00%	2.00%		
Nominal Rate	6.00%	5.75%		
Mortality	UPXGEN	UPXGEN	% Change in	Estimated
Liability Category	Liability	Liability	Liability	Duration
Active Participants	\$ 1,926,614,048	\$ 2,007,275,741	4.19%	16.75
Other Participants	87,847,002	90,612,460	3.15%	12.59
Pensions in Payment	1,764,692,701	1,804,433,724	2.25%	9.01
Adjustments	(120,541,985)	(108,005,207)	(10.40%)	-
Surplus/(Unfunded)	(554,957,766)	(690,662,718)	-	-
Total	\$ 3,103,654,000	\$ 3,103,654,000	3.71%	14.84
Increase/(Decrease) in Liabilities		\$ 135,704,952		

SOLVENCY TEST		Decrease Real Rate ¼%		
Cash Settlements 1st 10 years	2.60%	2.35%		
Cash Settlements thereafter	4.10%	3.85%		
Annuity Purchases	3.31%	3.06%		
Mortality	UPXGEN	UPXGEN	% Change in	Estimated
Liability Category	Liability	Liability	Liability	Duration
Active Participants	\$ 2,295,161,001	\$ 2,410,441,313	5.02%	20.09
Other Participants	117,809,523	122,405,312	3.90%	15.60
Pensions in Payment	2,293,754,970	2,356,830,369	2.75%	11.00
Adjustments	(170,144,640)	(170,144,640)	0.00%	-
Excess/(Deficiency)	(1,432,926,854)	(1,615,878,354)	-	-
Total	\$ 3,103,654,000	\$ 3,103,654,000	4.03%	16.13
Increase/(Decrease) in Liabilities		\$ 182,951,500		

10. PROVISION FOR FUTURE ADVERSE DEVIATIONS (PfADs)

The actuarial assumptions must be, individually and in aggregate, appropriate for the purpose of the Valuation. The assumptions are the sum of the actuarial best estimate plus a PfAD.

Asset Smoothing Adjustment

An asset smoothing adjustment to buffer past and possible future adverse investment experience has been utilized for this Report and is equal to \$185,662,640 on the Going Concern and Solvency Test Valuation Balance Sheets (please refer to Appendix III - Page 3). This reserve is a write-up of assets for this Valuation which may or may not mitigate in full, or in part, past and possible future adverse investment experience.

Contingency Adjustment

A contingency adjustment provides for the possibility of future adverse investment and/or demographic experience. There is no explicit contingency adjustment on the going concern or solvency test balance sheets.

Assumed Rate of Return

Currently, there is a PfAD contained implicitly in the assumed rate of return of 6.00% per year, which is estimated to equal to 1.20% (please refer to Appendix III - Page 5 for further detail). This provision may or may not prove to be adequate in the future. Consideration should be given to lowering the current real rate of 4.00% per year in the future.

Salary Increase Rate

The assumed salary rate increase is equal to 2.75%.

Retirement Rate

Current expected retirement rates allow for at least 10% higher retirements than the best estimate of actual retirement experience to date. Given the large number of "baby boomer" retirees expected in the near future, these rates may or may not prove to be adequate. Continued monitoring of retirement experience should occur.

Mortality Rate

Current expected mortality rates provide a best estimate of actual mortality experience to date. These rates are the same as the basis on which lump-sum payments are made and reflect the increasing longevity of the membership. These rates may or may not prove to be adequate in the future. Continued monitoring of mortality experience should occur.

The most current UPI994 generational mortality table projected using Scale AA (UPXGEN) was used for the going concern and solvency test.

Indexing Contingency

No provision for indexing has been made on the Going Concern Valuation Balance Sheet other than for existing deferred pensioners (1.33% per year in the deferral period). A Separate Report is prepared on the Superannuation Adjustment Account that makes some provision for indexing of pensions in payment.

Contribution Deficiency Contingency

A provision for the \$32,560,328 annual contribution deficiency has been made on the Going Concern Valuation Balance Sheet. This provision is equal to \$65,120,655. This provision recognizes that the contribution rates to the Fund will increase by 2.00% of salary (matched by employers) in a staggered manner over the next 4 years.

Contribution rates to the Fund are scheduled to increase in the near future to eliminate the current future service contribution deficiency so that future benefit accruals do not cause further increases in the unfunded liability in the Fund.

No contribution schedule has been established to eliminate the past service deficit at this time.

II. SUBSEQUENT EVENTS

- This Valuation does not reflect the change in the going concern or solvency test interest rates after the Valuation date, nor is it required. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict the pension plan's future financial condition or its ability to pay benefits in the future.

Over time, the Plan's actual cost will depend, on a number of factors, including the level of the benefits in the Plan, the number of individuals' paid benefits, the amount of Plan expenses, and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

To prepare this Report, actuarial assumptions, as described in Appendix III, are used to select a single scenario from the range of possibilities. The results of that single scenario are included in this Report. However, the future is uncertain and the Plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of changes in regulatory requirements, plan experience, changes in expectations about the future and other factors.

Because actual Plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

- Changes to the Manitoba Pension Benefits Act largely effective May 31, 2010 did not have a material impact on the going concern financial health of the Plan. However, these changes materially improved the solvency test financial health of the Plan due to changes legislated in the vesting criteria needed for the early retirement privileges incorporated in lump-sum settlements on windup.
- In respect of future service, it was recommended in the last Valuation that contribution rates of employees and matching employers to the Basic Account be increased to eliminate the current contribution deficiency so that future benefit accruals do not cause an unfunded liability in the Fund. Contributions will increase by 2.00% of salary (matched by employers) in a staggered manner over the next 4 years as indicated in Appendix II – Page 2. Nevertheless, a small future service contribution deficiency may persist and should be monitored closely.
- In respect of past service, it is recommended that the Province of Manitoba, the Liaison Committee, and the Advisory Committee be informed that the current going concern deficit of \$554,957,766 could be amortized by 15 annual payments of \$61,794,442 (assumes 10.2% is allocated to the Indexing Account) which is equivalent to about 3.50% of salary over the next 15 years. Although the Plan is exempt from the regulatory going concern and solvency funding, the parties must be made aware that it may become a requirement in the future if future excess investment and/or demographic experience is not generated in the Fund.
- Based on an asset mix of 30% fixed income with an expected return of 3.00%, and 70% equity with an expected return of 9.00%, it is possible that the Fund would achieve a net average return of 7.00% per year over the next 15 years. Such an average return would produce excess investment income of 1.00% per year for 15 years above the net assumed rate of 6.00%, or 15% excess in total. This may be enough to return the 85.56% average funded ratio of the Plan to 100.0%. There are many other favourable and unfavourable scenarios that may guide the parties to act prudently.
- Any contribution increase to employees in excess of 9.00% (on a blended basis) of salary will require the approval of the Canada Revenue Agency to ensure continued tax deductibility of such employee contributions.
- We are not aware of any other matters or subsequent events occurring since the completion of this Report which would materially adversely affect the financial position as at December 31, 2011.

APPENDIX I

Financial & Membership Data

I. Total Assets Available for Basic Benefits (Source: Audited Financial Statements)

	31-Dec-11	31-Dec-10
Assets		
Fixed Income Investments (market value)	\$ 1,260,261,000	\$ 1,254,083,000
Equity Investments (market value)	3,584,966,000	3,661,472,000
	<u>\$ 4,845,227,000</u>	<u>\$ 4,915,555,000</u>
Net Receivables/Payables (includes a Province Trust Account) (Note 5)	6,501,000	5,114,000
Debt due from the Province of Manitoba (Note 1)	1,826,000	1,826,000
Correctional Officers' Trust Account (Note 2)	(4,737,000)	(4,792,000)
Employer Trust Accounts (Note 3)	(58,334,000)	(59,356,000)
Money Purchase Accounts Plan (Note 4)	(21,676,000)	(20,631,000)
The Province of Manitoba Unfunded Pension Liability Trust Account 1 & 2 (Note 5)	(1,304,271,000)	(1,201,935,000)
	<u>\$ 3,464,536,000</u>	<u>\$ 3,635,781,000</u>
Superannuation Adjustment Account	(360,882,000)	(376,470,000)
Total Assets Available for Basic Benefits	<u>\$ 3,103,654,000</u>	<u>\$ 3,259,311,000</u>

Note 1: Under Section 24(1) of the CSSA, the Province of Manitoba assumed an accrued liability of \$1,826,000 for its employees and pensioners as at May 1, 1939. The Province of Manitoba pays semi-annual interest at 4.00% per annum on this amount.

Note 2: Effective November 19, 1996, employees who are members of the Province of Manitoba's Corrections Component are required to contribute an additional 1.00% of pensionable earnings. These additional contributions, which are credited to this trust account, are intended to fund the additional pension benefits for eligible employees who may retire as early as age 50 with no reduction for early retirement providing age and qualifying service is equal to a total of 75 or greater.

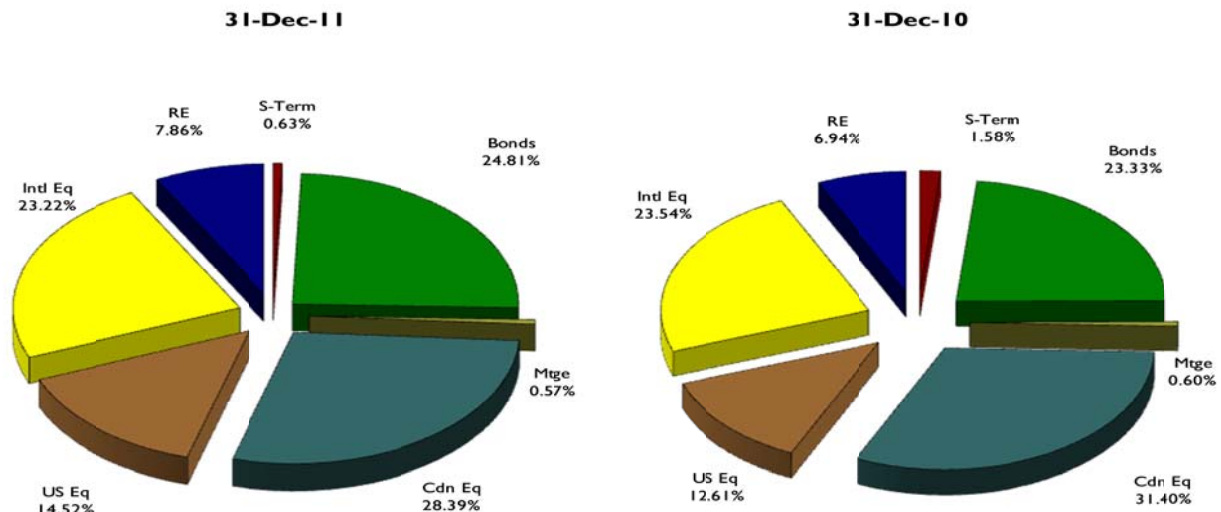
Note 3: The Fund is responsible for providing enhanced benefits enacted in the 1992 legislation agreed to by the Employee Liaison Committee and the Employer Pension Advisory Committee. These benefits are 100% financed from the Fund's net assets available for benefits. To facilitate this funding, trust accounts were established for most employers participating in the Fund for their share of the actuarial valuation of these future benefit enhancements. Specific contributions from eligible employees are being transferred to the applicable trust account.

Note 4: Effective January 2, 1985, a separate Money Purchase Accounts Plan was established to enhance the portability of pensions. Contributors include employees, recipients of superannuation allowances, annuities, or pensions payable under the CSSA, or persons on whose behalf the Board is required or requested to transfer moneys to this Plan. Refunds are made upon written request by the contributor. Administrative costs are recovered by the Board.

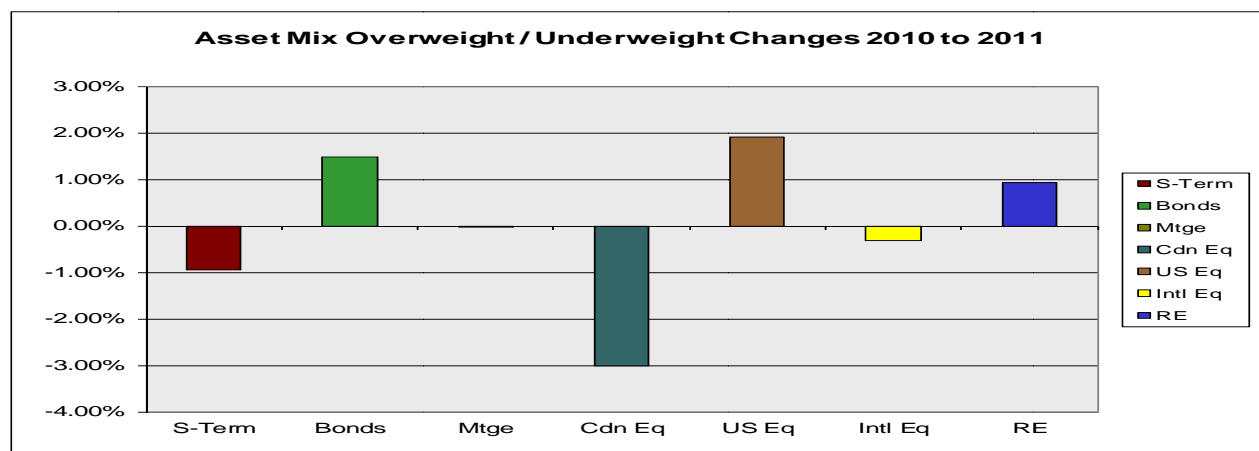
Note 5: The Province of Manitoba has established a fund for the purpose of accumulating funds for the eventual retirement of the Province of Manitoba's unfunded pension obligation. Under the terms of March 6, 2001 and March 30, 2009 agreements between the Province of Manitoba and the Board, the Province of Manitoba established funds with the Board and the Province of Manitoba to which it is making the required payments to these funds. As well, the Province of Manitoba is making payments to this fund that are related to the Special Operating Agencies' unfunded pension liabilities. Payments received by the Board from the Province of Manitoba are held by the Board in trust for and on behalf of the Province of Manitoba and are invested by the Board on behalf of the Province of Manitoba. The payments received are not assets of the Plan and accordingly, they are accounted for by the Fund in the Unfunded Pension Liability Trust Accounts. These trust accounts earn investment income at a rate of return equal to the rate of return earned by the Fund. The Board receives an investment management fee for its services. The payments made by the Province of Manitoba to the Board do not reduce the accrued pension benefit obligations of the Fund. The Trust Agreements have been recently amended to make the trusts irrevocable. Accordingly, the assets in the Trust Accounts can not be used for any purposes other than to fund the payments of pension benefits for which the Province of Manitoba is responsible and to pay the costs and expenses that are directly attributable to the administration of the Trust Accounts. In October 2007, The Financial Administration Act was amended to allow for withdrawals from the fund to pay, or fund the payment of, pension benefits for which the Province of Manitoba is responsible.

2. Asset Mix Distribution

	31-Dec-11		31-Dec-10	
1. Short Term (S-Term)	\$ 30,313,000	0.63%	\$ 77,846,000	1.58%
2. Bonds and Debentures (Bonds)	1,202,267,000	24.81%	1,146,595,000	23.33%
3. Mortgages (Mtge)	27,681,000	0.57%	29,642,000	0.60%
Fixed Income	\$ 1,260,261,000	26.01%	\$ 1,254,083,000	25.51%
4. Canadian Equities (Cdn Eq)	1,375,619,000	28.39%	1,543,247,000	31.40%
5. U.S. Equities (US Eq)	703,690,000	14.52%	619,971,000	12.61%
6. Non-North American Equities (Intl Eq)	1,124,870,000	23.22%	1,156,991,000	23.54%
7. Real Estate (RE)	380,787,000	7.86%	341,263,000	6.94%
Equity	\$ 3,584,966,000	73.99%	\$ 3,661,472,000	74.49%
	<u>\$ 4,845,227,000</u>	<u>100.00%</u>	<u>\$ 4,915,555,000</u>	<u>100.00%</u>



To limit the exposure to interest rate fluctuation and to obtain the best possible return at an acceptable risk, the Board amended the long-term investment asset mix policy to be 30% fixed income and 70% equity (Source: Audited Financial Statements).

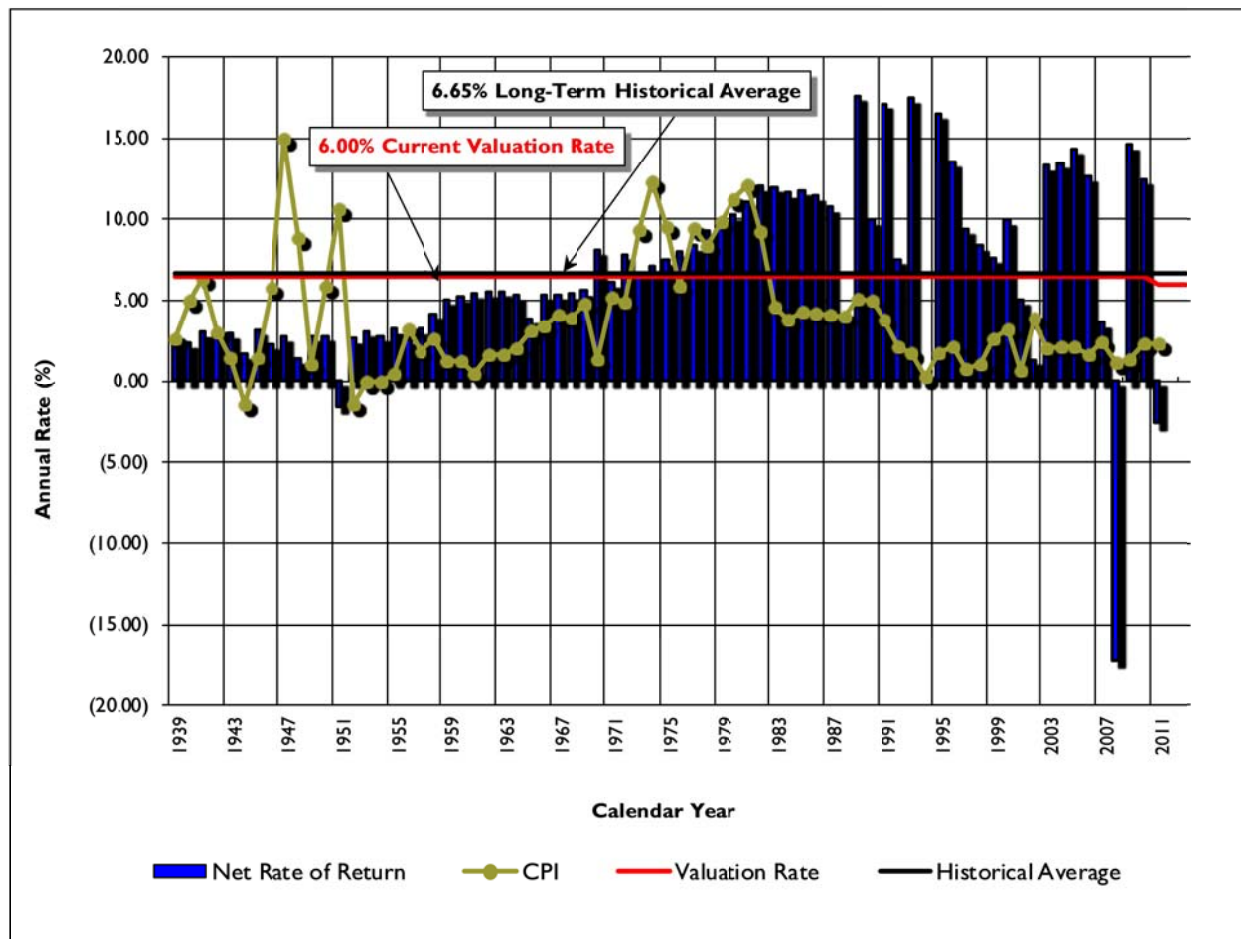


3. Historical Cash Flow: 73 Years (Basic Account and Indexing Account)

[1] Year**	Opening Assets	[2] Fund & Pay-as-you-go Contributions	[3] Benefits	[4] Expenses	[5] Investment Fees	[6] Investment Income	[7] Closing Assets	[8] Net Return
1939	\$ 5,022,908	\$ 452,383	\$ (117,994)	\$ (4,151)	\$ 0	\$ 123,003	\$ 5,476,149	2.37%
1940	5,476,149	462,964	(172,927)	(8,018)	0	130,602	5,888,770	2.33%
1941	5,888,770	594,089	(200,751)	(7,086)	0	181,856	6,456,878	2.99%
1942	6,456,878	455,779	(208,762)	(9,488)	0	189,072	6,883,479	2.88%
1943	6,883,479	440,959	(228,891)	(6,852)	0	203,731	7,292,426	2.92%
1944	7,292,426	441,331	(237,906)	(6,801)	0	121,812	7,610,862	1.65%
1945	7,610,862	476,802	(279,094)	(8,365)	0	243,235	8,043,440	3.16%
1946*	8,043,440	495,588	(284,104)	(6,597)	0	184,284	8,432,611	2.26%
1947	8,432,611	778,339	(328,404)	(7,869)	0	236,658	9,111,335	2.73%
1948*	9,111,335	792,068	(372,476)	(10,715)	0	(218,081)	9,302,131	1.34%
1949	9,302,131	905,065	(421,390)	(9,473)	0	262,446	10,038,779	2.75%
1950	10,038,779	994,024	(469,602)	(9,293)	0	286,002	10,839,910	2.78%
1951*	10,839,910	1,179,579	(527,278)	(12,349)	0	(179,115)	11,300,747	(1.60%)
1952*	11,300,747	1,344,962	(553,862)	(11,919)	0	(1,265,915)	10,814,013	2.60%
1953	10,814,013	1,462,734	(666,186)	(12,101)	0	341,695	11,940,155	3.05%
1954	11,940,155	1,611,842	(690,616)	(15,320)	0	341,770	13,187,831	2.76%
1955	13,187,831	1,663,647	(773,936)	(12,476)	0	434,896	14,499,962	3.19%
1956	14,499,962	1,790,935	(859,146)	(13,597)	0	384,823	15,802,977	2.57%
1957	15,802,977	2,130,165	(798,404)	(19,480)	0	523,979	17,639,237	3.18%
1958*	17,639,237	2,395,882	(917,013)	(23,360)	0	764,898	19,859,644	4.16%
1959*	19,859,644	2,661,599	(1,035,623)	(27,240)	0	1,039,120	22,497,500	5.03%
1960	22,497,500	4,144,352	(1,154,232)	(31,120)	0	1,246,736	26,703,236	5.20%
1961	26,703,236	2,927,316	(1,403,725)	(28,990)	0	1,485,022	29,682,859	5.41%
1962	29,682,859	3,196,204	(1,605,710)	(28,171)	0	1,668,806	32,913,988	5.48%
1963	32,913,988	3,558,599	(1,759,225)	(36,677)	0	1,873,563	36,550,248	5.54%
1964*	36,550,248	3,877,559	(2,219,502)	(38,149)	0	1,979,089	40,149,245	5.30%
1965*	40,149,245	3,160,279	(2,014,266)	(29,849)	0	1,570,949	42,836,358	3.86%
1966	42,836,358	3,725,529	(3,651,008)	(52,977)	0	2,274,524	45,132,426	5.31%
1967	45,132,426	4,369,950	(2,643,540)	(48,180)	0	2,449,109	49,259,765	5.33%
1968	49,259,765	5,053,832	(2,676,421)	(64,800)	0	2,701,658	54,274,034	5.36%
1969	54,274,034	5,854,684	(3,005,217)	(75,977)	0	3,091,166	60,138,690	5.55%
1970	60,138,690	6,680,379	(3,486,690)	(94,068)	0	4,980,327	68,218,638	8.07%
1971	68,218,638	7,799,868	(4,149,289)	(104,499)	0	4,261,235	76,025,953	6.09%
1972	76,025,953	9,167,547	(4,838,136)	(143,101)	0	6,082,486	86,294,749	7.79%
1973	86,294,749	10,468,999	(5,931,048)	(144,955)	0	5,923,884	96,611,629	6.69%
1974	96,611,629	13,415,988	(7,519,676)	(187,266)	0	7,034,969	109,355,644	7.07%
1975	109,355,644	17,478,089	(8,729,977)	(277,474)	0	8,459,738	126,286,020	7.45%
1976	126,286,020	21,560,004	(10,893,728)	(328,456)	0	10,454,455	147,078,295	7.95%
1977	147,078,295	25,723,575	(12,527,475)	(420,893)	0	12,779,529	172,633,031	8.33%
1978	172,633,031	28,820,421	(15,566,709)	(464,754)	(267)	16,514,075	201,935,797	9.22%
1979	201,935,797	30,972,133	(18,939,495)	(426,237)	(5,006)	20,277,643	233,814,835	9.76%
1980	233,814,835	35,610,583	(22,105,591)	(501,376)	(7,389)	24,502,748	271,313,810	10.19%
1981	271,313,810	40,077,511	(24,347,203)	(562,043)	(16,508)	30,878,819	317,344,386	11.07%
1982	317,344,386	46,310,086	(26,696,402)	(574,946)	(20,929)	39,173,814	375,536,009	11.98%
1983	375,536,009	55,246,946	(32,486,301)	(1,649,451)	(13,059)	46,079,767	442,713,911	11.93%
1984	442,713,911	55,247,692	(41,641,651)	(726,172)	(81,599)	52,113,402	507,625,583	11.58%
1985	507,625,583	60,726,998	(44,840,057)	(769,761)	(115,395)	60,619,735	583,247,103	11.74%
1986	583,247,103	66,731,516	(51,745,686)	(701,556)	(214,827)	67,587,082	664,903,632	11.41%
1987	664,903,632	74,154,000	(60,044,000)	(958,000)	(22,000)	71,783,368	749,817,000	10.69%
1988	749,817,000	82,966,000	(68,349,000)	(1,127,000)	(722,000)	30,951,000	793,536,000	4.00%
1989	793,536,000	87,444,000	(75,248,000)	(1,233,000)	(1,067,000)	141,327,000	944,759,000	17.55%
1990	944,759,000	95,317,000	(87,829,000)	(818,000)	(1,198,000)	94,997,000	1,045,228,000	9.89%
1991	1,045,228,000	104,335,000	(93,946,000)	(670,000)	(1,364,000)	180,752,000	1,234,335,000	17.08%
1992	1,234,335,000	107,405,000	(115,873,000)	(791,000)	(1,290,000)	93,632,000	1,317,418,000	7.51%
1993	1,317,418,000	114,699,000	(119,806,000)	(900,000)	(1,116,000)	230,089,000	1,540,384,000	17.42%
1994	1,540,384,000	117,886,000	(129,598,000)	(969,000)	(1,520,000)	3,382,000	1,529,565,000	0.12%
1995	1,529,565,000	121,492,000	(137,521,000)	(894,000)	(1,845,000)	252,094,000	1,762,891,000	16.45%
1996	1,762,891,000	127,112,000	(151,650,000)	(982,000)	(2,777,000)	239,112,000	1,973,706,000	13.50%
1997***	1,973,706,000	104,920,000	(546,688,000)	(736,000)	(2,117,000)	166,119,000	1,695,204,000	9.36%
1998	1,695,204,000	122,261,000	(129,544,000)	(785,000)	(1,981,000)	142,888,000	1,828,043,000	8.33%
1999	1,828,043,000	115,219,000	(135,216,000)	(712,000)	(2,398,000)	139,931,000	1,944,867,000	7.57%
2000	1,944,867,000	125,361,000	(147,650,000)	(964,000)	(2,664,000)	193,804,000	2,112,754,000	9.89%
2001	2,112,754,000	136,764,000	(156,626,000)	(845,000)	(2,164,000)	107,407,000	2,197,290,000	5.01%
2002	2,197,290,000	149,320,000	(168,974,000)	(1,037,000)	(2,490,000)	30,846,000	2,204,955,000	1.30%
2003	2,204,955,000	155,824,000	(179,152,000)	(1,274,000)	(3,142,000)	293,631,000	2,470,842,000	13.25%
2004	2,470,842,000	167,480,000	(194,500,000)	(1,283,000)	(4,019,000)	333,733,000	2,772,253,000	13.42%
2005	2,772,253,000	191,600,000	(213,939,000)	(1,478,000)	(4,312,000)	398,284,000	3,142,408,000	14.27%
2006	3,142,408,000	212,647,000	(237,555,000)	(1,540,000)	(4,035,000)	397,998,000	3,509,923,000	12.59%
2007	3,509,923,000	214,854,000	(260,704,000)	(1,482,000)	(5,459,000)	130,119,000	3,587,251,000	3.58%
2008	3,587,251,000	232,626,000	(284,319,000)	(1,265,000)	(2,152,000)	(613,093,000)	2,919,048,000	(17.28%)
2009	2,919,048,000	247,149,000	(294,503,000)	(1,484,000)	(3,409,000)	423,890,000	3,290,691,000	14.53%
2010	3,290,691,000	261,179,000	(319,276,000)	(1,461,000)	(3,743,000)	408,391,000	3,635,781,000	12.41%
2011	3,635,781,000	275,798,000	(350,744,000)	(1,485,000)	(2,370,000)	(92,444,000)	3,464,536,000	(2.64%)
		\$4,341,249,375	\$ (5,027,976,325)	\$ (35,927,448)	\$ (59,850,979)	\$ 4,242,018,469		
								6.65%

- * Some numbers in 1958, 1959, and 1964 were estimated. 1946 is an 11-month "year", and 1965 is a 9-month "year". (Adjusted Book Value" 1939-1990 | Market Value: 1991-2007). In 1948, 1951 and 1952 transfers to reserves for possible future losses on account of investment principal were made, and special adjustments under the CSSA occurred.
- ** Years 1939 to 1945 commenced on May 1, years 1946 to 1964 commenced on April 1. Thereafter, calendar years are reported.
- *** The large decrease in assets in 1997 was due to the privatization of MTS.
- **** Rates of return are arithmetical and are calculated on the basis of mid-year cashflow.

The volatility in recent asset values is due to the Auditor's requirement that market values be reported. Previously, adjusted book values were used. The Valuation Balance Sheet separately reflects a smoothing asset adjustment reserve to partially mitigate or neutralize this volatility.



Historical Cash Flow: 5 Years (Basic Account)

[1] Year	[2] Opening Assets	[3] Fund & Pay-as-you-go Contributions	[3] Benefits	[4] Expenses	[5] Investment Fees	[6] Investment Income	[7] Closing Assets	[8] Net Return
2007	\$ 3,299,804,000	\$ 205,565,000	\$ (244,696,000)	\$ (1,482,000)	\$ (5,459,000)	\$ 121,612,000	\$ 3,375,344,000	3.74%
2008	3,375,344,000	222,807,000	(267,126,000)	(1,265,000)	(2,152,000)	(584,724,000)	2,742,884,000	(17.51%)
2009	2,742,884,000	236,239,000	(421,259,000)	(1,484,000)	(3,409,000)	395,170,000	2,948,141,000	14.79%
2010	2,948,141,000	250,061,000	(300,446,000)	(1,461,000)	(3,743,000)	366,759,000	3,259,311,000	12.42%
2011	3,259,311,000	263,866,000	(330,477,000)	(1,485,000)	(2,370,000)	(85,191,000)	3,103,654,000	(2.71%)
		\$ 1,178,538,000	\$ (1,564,004,000)	\$ (7,177,000)	\$ (17,133,000)	\$ 213,626,000		2.15%

4. Membership Summary (records processed for liability calculations)

Category	31-Dec-11			31-Dec-10		
	Males	Females	Total	Males	Females	Total
Active Participants	15,099	14,618	29,717	15,220	14,736	29,956
Other Participants						
- Long-Term Disability *	40	108	148	40	100	140
- Deferred Annuities	1,297	1,602	2,899	1,184	1,463	2,647
- Transfers	65	43	108	69	45	114
	<u>1,402</u>	<u>1,753</u>	<u>3,155</u>	<u>1,293</u>	<u>1,608</u>	<u>2,901</u>
Pensions in Payment						
- Pensioners	8,833	6,002	14,835	8,463	5,521	13,984
- Survivors	291	2,489	2,780	268	2,434	2,702
	<u>9,124</u>	<u>8,491</u>	<u>17,615</u>	<u>8,731</u>	<u>7,955</u>	<u>16,686</u>
Total	<u>25,625</u>	<u>24,862</u>	<u>50,487</u>	<u>25,244</u>	<u>24,299</u>	<u>49,543</u>

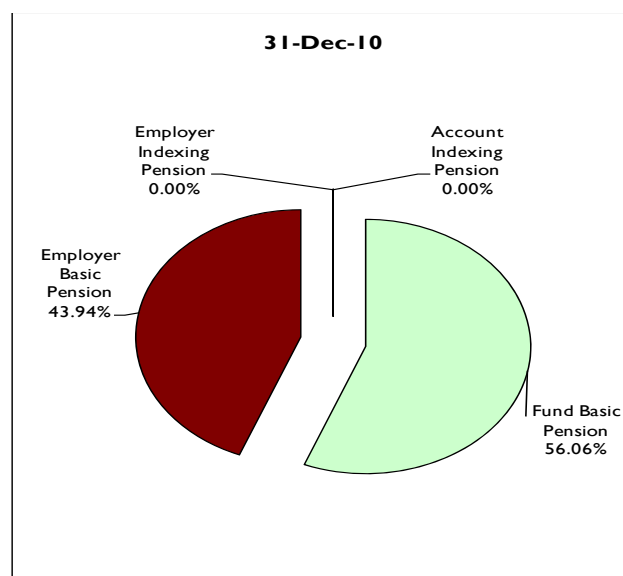
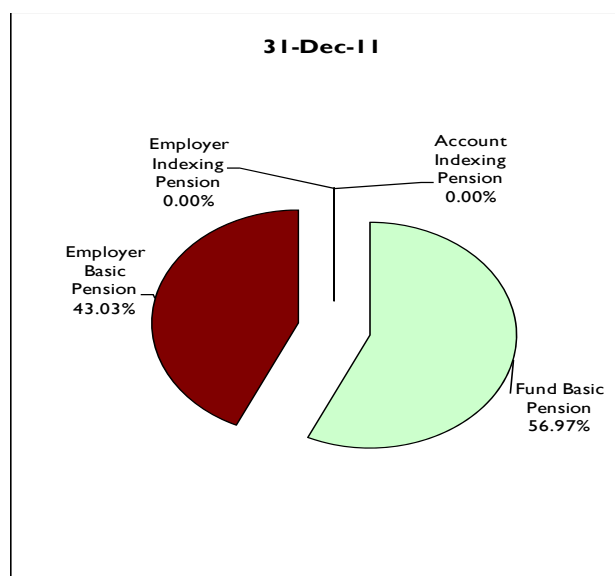
* The LTD recipients who will receive an enhanced disability benefit (not a responsibility of the Fund) on cessation of LTD income are also reflected in the number of pensions in payment (a portion of which is the liability of the Fund).

	31-Dec-11			31-Dec-10		
	Number	Average Age	Fund Average Monthly Pension	Number	Average Age	Fund Average Monthly Pension
Active Participants	29,717	44.05	\$ 552.28	29,956	44.06	\$ 535.64
Other Participants	3,155	48.29	208.41	2,901	48.90	216.24
Pensions in Payment	17,615	70.24	751.51	16,686	70.04	721.29
Total	<u>50,487</u>	<u>53.20</u>	<u>\$ 600.30</u>	<u>49,543</u>	<u>53.09</u>	<u>\$ 579.46</u>

- The active participant average monthly pension which is the responsibility of the Fund has been estimated from salary and service data as these participants have not yet retired, disabled, terminated, or died and therefore have not had their pension determined explicitly by the Board. The amounts shown in the prior Report have been restated for such participants.
- The total membership counts shown in the Report are different from the amounts reported in the General Manager's Report due to additional new entrants, retirements, disablements, terminations, and deaths following December 31, 2011, that were provided by the staff of the Board.
- This Report is in respect of Fund obligations. The Fund average monthly pension has been shown above which represents approximately 55% of the total pensions paid to participants prior to reflecting indexing. Additional information is shown on the following pages that detail Fund pension amounts as well as the pension amounts payable outside the Fund by the Indexing Account and the pay-as-you-go employers. The valuation of the obligations not belonging to the Fund is reported separately.

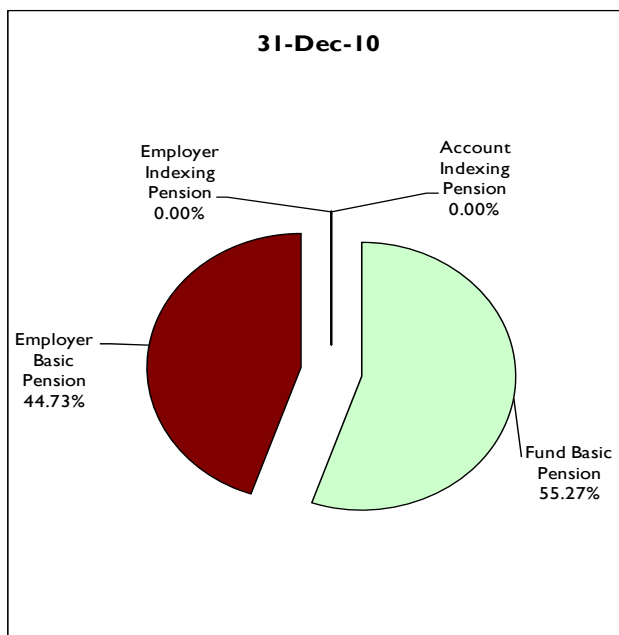
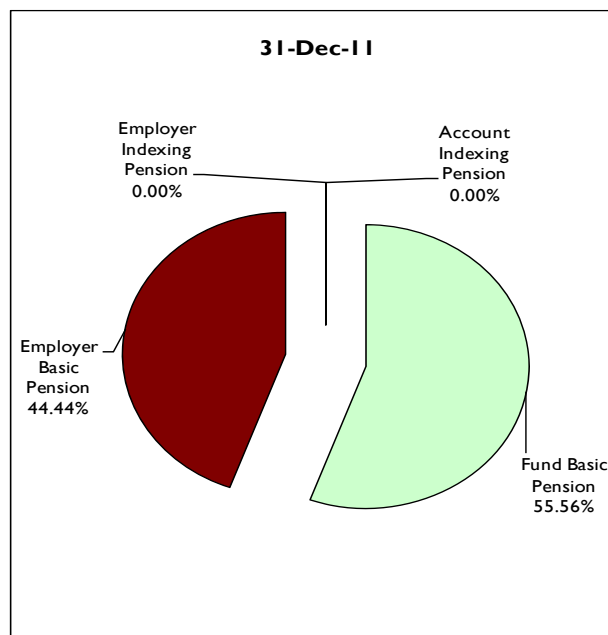
5. Active Participants Age Profile (This Report is in respect of Fund obligations only. Employer in the information below refers to pay-as-you-go employers. The Fund includes matching employer pension information.)

		Average Monthly Pension				
Age Band	Number	Basic Pension		Indexing		Total
		Fund	Employer	Employer	Account	
15 - 19	35	\$ 7.82	\$ 5.06	\$ -	\$ -	\$ 12.88
20 - 24	1,059	46.37	31.40	-	-	77.77
25 - 29	2,503	112.12	80.27	-	-	192.39
30 - 34	3,294	198.60	141.49	-	-	340.09
35 - 39	3,533	302.17	214.87	-	-	517.04
40 - 44	3,800	461.79	326.55	-	-	788.34
45 - 49	4,800	675.65	510.72	-	-	1,186.37
50 - 54	5,042	826.09	635.47	-	-	1,461.56
55 - 59	3,679	936.66	715.91	-	-	1,652.57
60 - 64	1,607	887.52	702.62	-	-	1,590.14
65 - 69	365	890.76	762.00	-	-	1,652.76
70 - 74	-	-	-	-	-	-
75 - 79	-	-	-	-	-	-
80 - 84	-	-	-	-	-	-
85 - 89	-	-	-	-	-	-
90 - 94	-	-	-	-	-	-
95 - 99	-	-	-	-	-	-
100 - 104	-	-	-	-	-	-
31-Dec-11	29,717	\$ 552.28	\$ 417.17	\$ -	\$ -	\$ 969.45
31-Dec-10	29,956	\$ 535.64	\$ 419.80	\$ -	\$ -	\$ 955.44



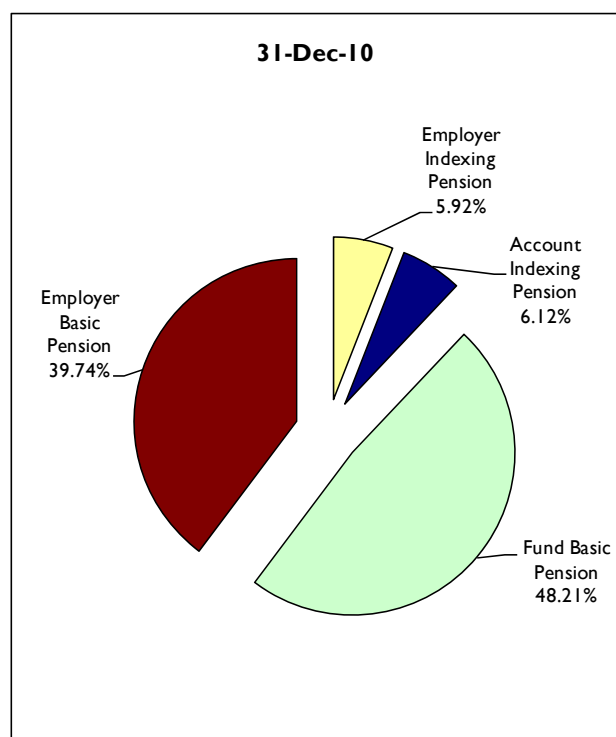
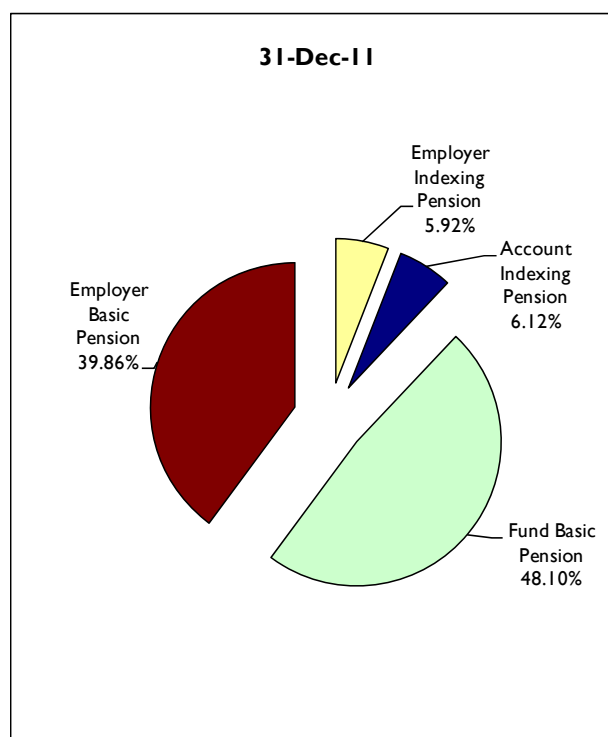
6. Other Participants Age Profile (This Report is in respect of Fund obligations only. Employer in the information below refers to pay-as-you-go employers. The Fund includes matching employer pension information.)

		Average Monthly Pension				
Age Band	Number	Basic Pension		Indexing		Total
		Fund	Employer	Employer	Account	
15 - 19	-	\$ -	\$ -	\$ -	\$ -	\$ -
20 - 24	40	17.67	11.59	-	-	29.26
25 - 29	112	53.75	31.88	-	-	85.63
30 - 34	161	107.18	67.96	-	-	175.14
35 - 39	259	126.75	91.96	-	-	218.71
40 - 44	385	197.35	140.54	-	-	337.89
45 - 49	624	226.73	176.05	-	-	402.78
50 - 54	848	286.62	241.27	-	-	527.89
55 - 59	466	196.19	172.41	-	-	368.60
60 - 64	227	190.74	148.36	-	-	339.10
65 - 69	29	180.37	153.31	-	-	333.68
70 - 74	4	63.49	32.08	-	-	95.57
75 - 79	-	-	-	-	-	-
80 - 84	-	-	-	-	-	-
85 - 89	-	-	-	-	-	-
90 - 94	-	-	-	-	-	-
95 - 99	-	-	-	-	-	-
100 - 104	-	-	-	-	-	-
31-Dec-11	3,155	\$ 208.41	\$ 166.70	\$ -	\$ -	\$ 375.11
31-Dec-10	2,901	\$ 216.24	\$ 175.01	\$ -	\$ -	\$ 391.25



7. Pensions in Payment Age Profile (This Report is in respect of Fund obligations only. Employer in the information below refers to pay-as-you-go employers. The Fund includes matching employer pension information.)

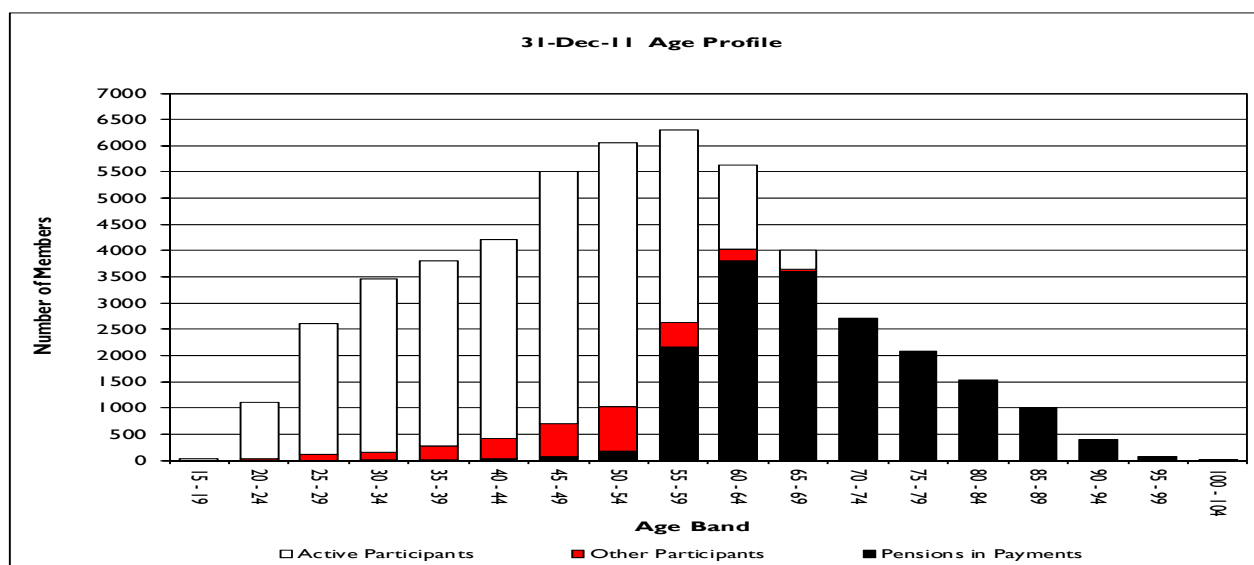
Age Band	Number	Average Monthly Pension				
		Basic Pension		Indexing		Total
		Fund	Employer	Employer	Account	
15 - 19	-	\$ -	\$ -	\$ -	\$ -	\$ -
20 - 24	-	-	-	-	-	-
25 - 29	-	-	-	-	-	-
30 - 34	1	122.23	92.98	6.99	6.98	229.18
35 - 39	7	185.89	149.96	7.33	7.32	350.50
40 - 44	21	200.06	144.71	6.95	7.70	359.42
45 - 49	78	334.02	296.37	15.91	16.27	662.57
50 - 54	174	393.21	620.25	21.71	19.37	1,054.54
55 - 59	2,160	1,071.48	893.29	18.53	18.36	2,001.66
60 - 64	3,801	1,009.78	832.97	46.25	47.91	1,936.91
65 - 69	3,609	812.55	665.94	79.06	81.47	1,639.02
70 - 74	2,692	652.22	533.68	113.01	116.20	1,415.11
75 - 79	2,075	538.00	437.83	141.28	147.27	1,264.38
80 - 84	1,525	449.44	379.43	162.70	167.92	1,159.49
85 - 89	1,010	366.72	298.73	182.07	193.25	1,040.77
90 - 94	389	286.02	254.76	202.53	202.92	946.23
95 - 99	71	188.04	162.56	190.64	195.36	736.60
100 - 104	2	90.66	82.16	179.02	179.01	530.85
31-Dec-11	17,615	\$ 751.51	\$ 622.80	\$ 92.44	\$ 95.57	\$ 1,562.32
31-Dec-10	16,686	\$ 721.29	\$ 594.58	\$ 88.60	\$ 91.56	\$ 1,496.03



8. Total Membership Age Profile (This Report is in respect of Fund obligations only. Employer in the information below refers to pay-as-you-go employers. The Fund includes matching employer pension information.)

		Average Monthly Pension				
Age Band	Number	Basic Pension		Indexing *		Total
		Fund	Employer	Employer	Account	
15 - 19	35	\$ 7.82	\$ 5.06	\$ -	\$ -	\$ 12.88
20 - 24	1,099	45.33	30.68	-	-	76.00
25 - 29	2,615	109.62	78.20	-	-	187.82
30 - 34	3,456	194.32	138.05	-	-	332.38
35 - 39	3,799	290.00	206.37	0.01	0.01	496.39
40 - 44	4,206	436.28	308.62	0.03	0.04	744.97
45 - 49	5,502	619.89	469.73	0.23	0.23	1,090.07
50 - 54	6,064	738.23	579.91	0.62	0.56	1,319.32
55 - 59	6,305	928.12	736.51	6.35	6.29	1,677.27
60 - 64	5,635	941.92	768.22	31.20	32.32	1,773.65
65 - 69	4,003	815.10	670.99	71.28	73.45	1,630.82
70 - 74	2,696	651.35	532.94	112.84	116.03	1,413.15
75 - 79	2,075	538.00	437.83	141.28	147.27	1,264.38
80 - 84	1,525	449.44	379.43	162.70	167.92	1,159.49
85 - 89	1,010	366.72	298.73	182.07	193.25	1,040.77
90 - 94	389	286.02	254.76	202.53	202.92	946.23
95 - 99	71	188.04	162.56	190.64	195.36	736.60
100 - 104	2	90.66	82.16	179.02	179.01	530.85
31-Dec-11	50,487	\$ 600.30	\$473.26	\$ 32.25	\$ 33.34	\$ 1,139.15
31-Dec-10	49,543	\$ 579.46	\$464.33	\$ 29.84	\$ 30.84	\$ 1,104.47

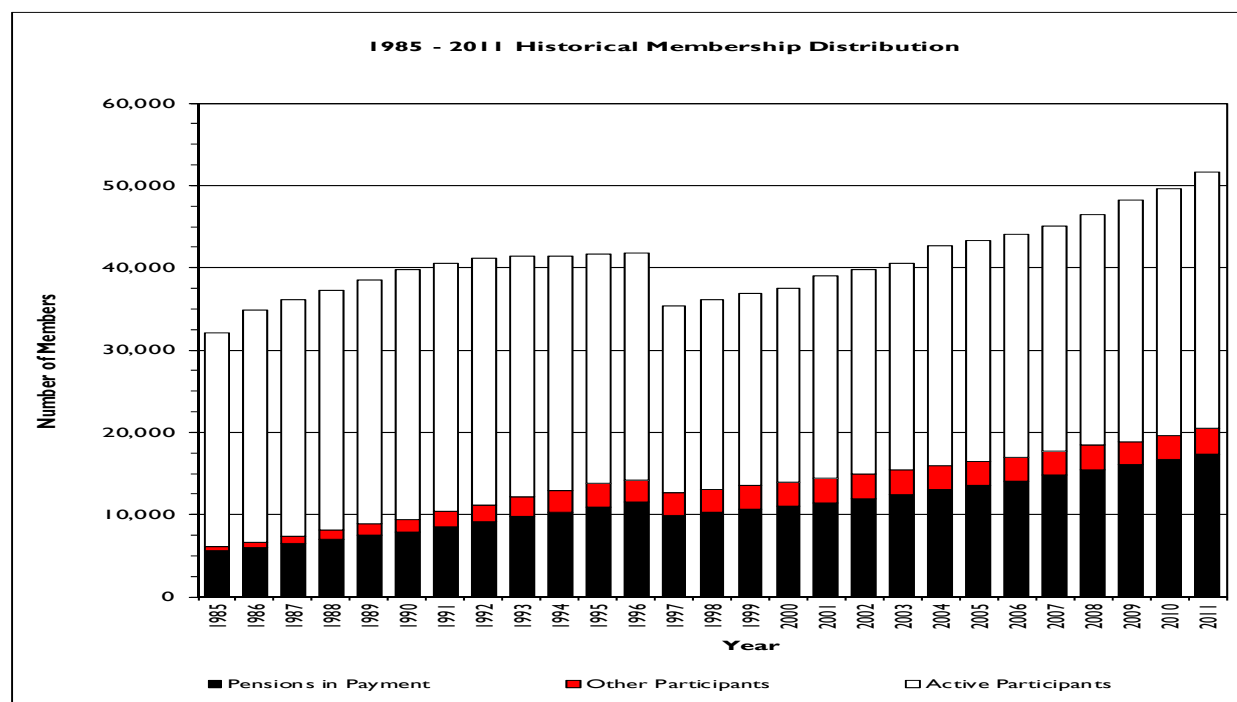
* The indexing shown above is averaged over the total membership at each age band.



9. Membership Distribution by Year (extracted from General Manager's Report)

Year	Participants			Pensions in Payment				Grand Total
	Actives	Other	Total	Pensioners	Beneficiaries	Spouses	Total	
1985	26,027	454	26,481	4,830	456	355	5,641	32,122
1986	28,182	568	28,750	5,191	489	370	6,050	34,800
1987	28,832	794	29,626	5,614	529	398	6,541	36,167
1988	29,107	1,153	30,260	6,003	597	423	7,023	37,283
1989	29,665	1,370	31,035	6,368	663	444	7,475	38,510
1990	30,350	1,562	31,912	6,670	719	482	7,871	39,783
1991	30,106	1,864	31,970	7,254	798	514	8,566	40,536
1992	29,921	2,058	31,979	7,739	870	545	9,154	41,133
1993	29,209	2,344	31,553	8,356	930	542	9,828	41,381
1994	28,544	2,608	31,152	8,679	1,031	558	10,268	41,420
1995	27,952	2,885	30,837	9,165	1,113	591	10,869	41,706
1996	27,629	2,705	30,334	9,690	1,188	604	11,482	41,816
1997	22,658	2,774	25,432	8,308	1,060	528	9,896	35,328
1998	22,980	2,842	25,822	8,573	1,160	533	10,266	36,088
1999	23,350	2,827	26,177	8,883	1,279	535	10,697	36,874
2000	23,575	2,933	26,508	9,096	1,313	590	10,999	37,507
2001	24,640	2,961	27,601	9,446	1,438	549	11,433	39,034
2002	24,885	2,982	27,867	9,874	1,509	542	11,925	39,792
2003	25,136	2,996	28,132	10,322	1,587	545	12,454	40,586
2004	26,659	2,952	29,611	10,772	1,674	553	12,999	42,610
2005	26,792	2,958	29,750	11,225	1,747	556	13,528	43,278
2006	27,112	2,893	30,005	11,704	1,829	568	14,101	44,106
2007	27,403	2,893	30,296	12,354	1,886	572	14,812	45,108
2008	27,978	3,024	31,002	12,908	1,961	581	15,450	46,452
2009	29,353	2,857	32,210	13,429	2,007	587	16,023	48,233
2010	29,983	2,901	32,884	14,011	1,992	658	16,661	49,545
2011	31,057	3,155	34,212	14,632	2,061	677	17,370	51,582 *

* The 50,487 membership records processed for liability calculations is less than the 51,582 shown in the above table largely due to the exclusion of members who terminated between the end of 2011 and the date the valuation file was sent to the actuary (these records are held as accounts payable).



10. Reconciliation

Participant Reconciliation (extracted from General Manager's Report)

Year	Jan. 1	Entered*	Withdrew	Retired	Disabled	Died	Dec. 31
1985	25,673	2,271	(908)	(468)	(28)	(59)	26,481
1986	26,481	3,857	(1,028)	(489)	(29)	(42)	28,750
1987	28,750	2,787	(1,272)	(541)	(52)	(46)	29,626
1988	29,626	2,655	(1,387)	(536)	(52)	(46)	30,260
1989	30,260	2,710	(1,307)	(528)	(49)	(51)	31,035
1990	31,035	2,718	(1,273)	(470)	(50)	(48)	31,912
1991	31,912	2,311	(1,389)	(768)	(42)	(54)	31,970
1992	31,970	1,844	(1,125)	(640)	(31)	(39)	31,979
1993	31,979	1,739	(1,296)	(808)	(31)	(30)	31,553
1994	31,553	1,438	(1,189)	(575)	(32)	(43)	31,152
1995	31,152	1,675	(1,324)	(569)	(30)	(67)	30,837
1996	30,837	2,353	(1,992)	(763)	(54)	(47)	30,334
1997	30,334	(3,272)	(1,082)	(478)	(41)	(29)	25,432
1998	25,432	2,155	(1,182)	(494)	(47)	(42)	25,822
1999	25,822	2,040	(991)	(585)	(52)	(57)	26,177
2000	26,177	2,024	(1,105)	(505)	(48)	(35)	26,508
2001	26,508	2,803	(1,017)	(598)	(35)	(60)	27,601
2002	27,601	2,068	(1,016)	(683)	(56)	(47)	27,867
2003	27,867	1,993	(909)	(710)	(68)	(41)	28,132
2004	28,132	3,196	(858)	(751)	(60)	(48)	29,611
2005	29,611	2,074	(1,060)	(755)	(63)	(57)	29,750
2006	29,750	2,388	(1,251)	(777)	(63)	(42)	30,005
2007	30,005	2,538	(1,172)	(948)	(65)	(62)	30,296
2008	30,296	3,126	(1,408)	(906)	(53)	(53)	31,002
2009	31,002	3,415	(1,243)	(841)	(72)	(51)	32,210
2010	32,210	2,860	(1,171)	(907)	(61)	(47)	32,884
2011	32,884	3,448	(1,033)	(965)	(68)	(54)	34,212 **
		<u>61,214</u>	<u>(31,988)</u>	<u>(18,058)</u>	<u>(1,332)</u>	<u>(1,297)</u>	

Pensioner (excludes survivors) Reconciliation (extracted from General Manager's Report)

Year	Jan. 1	Other*	Retired	Disabled	Died	Dec. 31
1985	4,519	-	468	28	(185)	4,830
1986	4,830	1	489	29	(158)	5,191
1987	5,191	-	541	52	(170)	5,614
1988	5,614	(6)	536	52	(193)	6,003
1989	6,003	(9)	528	49	(203)	6,368
1990	6,368	(18)	470	50	(200)	6,670
1991	6,670	5	768	42	(231)	7,254
1992	7,254	34	640	31	(220)	7,739
1993	7,739	12	808	31	(234)	8,356
1994	8,356	-	575	32	(284)	8,679
1995	8,679	142	569	30	(255)	9,165
1996	9,165	-	763	54	(292)	9,690
1997	9,690	(1,649)	478	41	(252)	8,308
1998	8,308	16	494	47	(292)	8,573
1999	8,573	-	585	52	(327)	8,883
2000	8,883	(20)	505	48	(320)	9,096
2001	9,096	(1)	598	35	(282)	9,446
2002	9,446	(8)	683	56	(303)	9,874
2003	9,874	(24)	710	68	(306)	10,322
2004	10,322	(24)	751	60	(337)	10,772
2005	10,772	(29)	755	63	(336)	11,225
2006	11,225	(28)	777	63	(333)	11,704
2007	11,704	(23)	948	65	(340)	12,354
2008	12,354	(25)	906	53	(380)	12,908
2009	12,908	(38)	841	72	(354)	13,429
2010	13,429	(16)	907	61	(370)	14,011
2011	14,011	(16)	965	68	(396)	14,632 **
		<u>(1,724)</u>	<u>18,058</u>	<u>1,332</u>	<u>(7,553)</u>	

* This category reflects other adjustments. For example, in 1997, this category reflects the privatization of MTS.

** The actual number of participants and pensioners processed for liability calculations is different from the amount shown in the above table, largely due to the inclusion of members who retired between the end of 2011 and the date the valuation file was sent to the actuary.

II. Membership Distribution by Employer

Name of Employer	Code	Active Participants	Other Participants	Pensions in Payment	2011 Total
Non-Matching Employers					
1 Province of Manitoba Civil Service	CS	15,032	2,078	11,265	28,375
2 Manitoba Hydro - Electric Board	MH	5,830	235	2,892	8,957
3 Manitoba Public Insurance	AI/AIE	1,721	169	550	2,440
4 Division of Driver and Vehicle Licencing	AIL	155	5	82	242
5 Red River College	RCC	1,300	115	484	1,899
6 Liquor Control Commission	LC	703	70	378	1,151
7 Manitoba Agricultural Services Corporation	AC	-	9	31	40
8 Addictions Foundation of Manitoba	AF	333	35	161	529
9 Assiniboine Community College	ACC	328	43	120	491
10 University College of The North	KCC	298	52	79	429
11 The Legal Aid Services Society of Manitoba	LA	161	14	35	210
12 Manitoba Centennial Centre Corporation	CC	54	6	71	131
13 Teachers' Retirement Allowance Fund Board	TR	31	8	8	47
14 Communities Economic Development Fund	CE	13	2	8	23
15 The Council on Post-Secondary Education	UG	13	2	11	26
16 Manitoba Horse Racing Commission	RC	2	1	5	8
17 Diagnostic Services of Manitoba	DSM	94	3	35	132
18 Regional Health Authority - Winnipeg	RVWA	159	17	130	306
19 Regional Health Authority - Brandon	RBH	134	12	171	317
20 Regional Health Authority - Central	RCA	37	3	56	96
21 Regional Health Authority - Assiniboine	ARH et al	30	4	45	79
22 Regional Health Authority - Parkland	RPL	29	6	44	79
23 Regional Health Authority - Interlake	RIL	30	2	52	84
24 Regional Health Authority - South Eastman	RSE	17	2	17	36
25 Regional Health Authority - Nor-Man	RNF/RNM	17	6	11	34
26 Regional Health Authority - North Eastman	RNE	7	-	19	26
27 Regional Health Authority - Burntwood	RBW	6	3	10	19
28 Manitoba Development Corporation	MDC	-	-	-	-
29 Workers' Compensation Board	WC	-	-	1	1
30 WECO	WEC	-	-	53	53
		<u>26,534</u>	<u>2,902</u>	<u>16,824</u>	<u>46,260</u>
Matching Employers					
1 Manitoba Lotteries Corporation	LF	1,511	75	64	1,650
2 Manitoba Housing Authority	HA	455	38	189	682
3 WCFS CUPE Support Workers	CSW	278	1	-	279
4 Manitoba Agricultural Services Corporation	MAS	153	7	23	183
5 Manitoba Crop Insurance Corporation	CI/CIC	129	24	142	295
6 Manitoba Government and General Employees' Un	EA	84	5	40	129
7 Manitoba Hydro Utilities Services	MHU	77	7	1	85
8 Child and Family All Nations Coordinated Respons	ANR	144	14	-	158
9 The Civil Service Superannuation Board	SB	54	12	19	85
10 Manitoba Gaming Control Commission	GC	52	2	12	66
11 Travel Manitoba	TM	36	3	8	47
12 Food Development Centre	FD	38	9	2	49
13 Manitoba Floodway Authority	MFA	54	2	4	60
14 Dairy Farmers of Manitoba	MC	20	4	14	38
15 Industrial Technology Centre	IT	21	7	7	35
16 Hams Marketing Services Co-Op Inc.	HM	16	3	20	39
17 Manitoba Film and Sound Recording Development	MFS	9	1	-	10
18 Manitoba Pork Council	PC	10	2	6	18
19 Manitoba Arts Council	MA	13	2	4	19
20 Manitoba Chicken Producer Board	CB	5	-	1	6
21 Sport Manitoba	SM	4	1	1	6
22 Crown Corporations Council	CR	4	-	5	9
23 Horizon Lab Ltd.	MTR	4	-	-	4
24 Manitoba Cattle Enhancement Council	MCE	3	-	-	3
25 Manitoba Turkey Producers	TB	3	1	5	9
26 Paletta & Company Hotels	PCH	3	-	1	4
27 Venture Manitoba Tours Ltd.	VT	3	-	2	5
28 Economic Innovation and Technology Council	MR	-	17	35	52
29 Manitoba Development Corporation	DFP	-	2	7	9
30 Manitoba Hazardous Waste	HW	-	-	3	3
31 Manitoba Water Services Board	WS	-	2	12	14
32 Human Resources and Employment Centres	R's/HE	-	6	13	19
33 Manitoba Beef Commission	BC	-	-	1	1
34 Local Government Districts	LG	-	-	2	2
35 Manitoba Mineral Resources Limited	MM	-	-	1	1
36 Manitoba Data Services	DS	-	3	2	5
37 Money Purchase Plan Annuity	MPP	-	-	145	145
38 No Billing (Charged to Fund)	NB	-	3	-	3
		<u>3,183</u>	<u>253</u>	<u>791</u>	<u>4,227</u>
31-Dec-11 Total Membership		<u>29,717</u>	<u>3,155</u>	<u>17,615</u>	<u>50,487</u>
31-Dec-10 Total Membership		<u>29,956</u>	<u>2,901</u>	<u>16,686</u>	<u>49,543</u>

12. Data Checks (Source: Staff of the Civil Service Superannuation Board)

- Active Participants: An electronic file which provided information for each active participant as at December 31, 2011. Details of the information provided included: employer code, social insurance number, employee number, sex, date of birth, date of entry into the Fund, annualized salary at December 31, 2011, salary rate at December 31, 2011, the proportion of 2011 worked, qualifying service, required employee contributions and total interest on these contributions accumulated to the valuation date. Any reductions in pension as a result of marriage break-up cases, which have been processed, were also provided. We had available copies of prior Actuarial Reports on the financial position of the Fund.

The file was checked for missing information. This check revealed that there were only a few records that, for various reasons, such as approved leaves of absence, did not contain salary information for 2011. Average salary information for the remaining group was used to complete these records.

- Pensions in Payment: An electronic file which provided information for each pensioner as at December 31, 2011. Details of the information provided included: employer code, name, social insurance number, sex, date of birth, date of commencement of pension, type of pension, and amount of monthly pension. For each pensioner, the portion of the pension charged to the Fund, now and in the future, was also provided. Similar information was provided for each beneficiary or potential beneficiary.

The pensioner information was provided in 53,958 separate records (trailers) in respect of the 17,615 pensions in payment, which gave details on the pension payable from various sources.

Billing Type	Number	Basic Pension		Indexing	
		Fund	Employer	Employer	Account
A	85	\$ -	\$ 2,642.53	\$ 2,780.20	\$ -
B	37,953	13,242,305.67	10,611,342.59	1,599,753.94	1,668,129.19
C	2,826	(53,981.45)	(53,473.22)	-	-
D	2	89.74	-	-	-
E	38	-	327.85	-	-
F	2,295	39,110.07	27,249.79	1,315.03	1,556.73
I	670	74,305.12	36,531.41	-	-
J	2,637	45,170.08	20,352.28	3,771.42	7,202.98
K	36	-	107,799.59	5,468.97	-
L	903	494.45	160,068.60	-	-
M	16	-	781.14	37.15	-
N	379	-	159,708.78	9,466.30	-
O	4,639	(135,051.50)	(133,615.38)	-	-
P	1,356	25,409.03	9,935.57	3,836.00	6,541.58
Q	2	-	1.85	0.47	-
U	-	-	-	-	-
V	89	-	274.38	425.68	-
X	27	-	19,302.30	1,548.31	-
Y	5	-	1,304.16	-	-
	<u>53,958</u>	<u>\$ 13,237,851.21</u>	<u>\$ 10,970,534.22</u>	<u>\$ 1,628,403.47</u>	<u>\$ 1,683,430.48</u>

- The General Manager's and Chief Investment Officer's Reports for 2011. This Report included detailed lists of investments held and financial statements of the Fund, including balance sheets, and income and expenditure statements.
- The Annual Report of the Superannuation Board for 2011.
- A copy of the CSSA, with amendments, to December 31, 2011. The 2007 surplus transfer to the Indexing Account has now occurred at the time of this Report.
- An electronic file containing the billing percentages to be used to allocate payments and liabilities amongst the participating employers pursuant to subsection 22(11) of the CSSA.

DATA CERTIFICATE


with respect to

The Civil Service Superannuation Fund

forming part of

The Actuarial Valuation Report as at December 31, 2011

I hereby certify that, to the best of my knowledge and belief, the data on which the valuation is based is a complete and accurate representation of all persons at the valuation date who are entitled to benefits or will become entitled to benefits under the terms of the Civil Service Superannuation Act (CSSA). It is appropriate to value the benefits of these persons in accordance with the provisions of the Act at the valuation date.


Signed

Director - Client Services Admin
Title

Sept 11, 2012
Date

A P P E N D I X I I

Summary of the Plan

The calculations in this Report are based on the Civil Service Superannuation Act (CSSA) as amended to the valuation date. The Civil Service Superannuation Board (Board) is responsible for administering the CSSA. The Fund is a contributory defined benefit final pay pension plan that covers eligible employees of the Province of Manitoba and its participating Agencies. The following is a brief summary of the benefits as they existed at the valuation date. For a more complete description of the benefits, reference should be made to the CSSA.

I. Effective Date:

The Board and Fund were established under the CSSA in May, 1939.

2. Recent Changes:

Contribution rates to the Plan are now scheduled to increase over a four year period until the contribution rates are 2% higher than they were previously. The increased contributions are not intended to provide increased pension benefits, but are necessary to fund existing benefits in the future.

Effective May 31, 2010, the Manitoba Pension Benefits Act was amended to provide immediate vesting (previously 2 years of service required) which has been reflected in this Valuation. Other changes dealing with the payment of commuted values, interest credits, marriage breakups, etc. are not expected to have a material cost to the Plan.

Effective January 1, 2001, the employee contribution rate will be 6.0% of pensionable earnings up to Canada Pension Plan (CPP) maximum pensionable earnings and 7.0% of pensionable earnings above the CPP maximum each year. On pensionable earnings up to the CPP maximum, the matching employer contribution rate remains the same at 5.1%.

Effective September 1, 2000, the CSSA was amended to provide benefit improvements. The most significant benefit improvement was to amend the pension formula to increase the pension benefits payable effective September 1, 2000 from 1.4% to 1.6% of average earnings below the average CPP maximum. There were also changes to buy back provisions respecting pensionable service as well as to other administrative matters. The cost of these benefit improvements will be funded by the Fund and by an increase in employee contribution rates.

Employer Billings: Effective January 1, 1998, pursuant to subsection 22(11) of the CSSA, employer funding for employees of more than one non-matching Agency shall be on a pro-rata basis in accordance with the portion of the amount paid or transferred to the employee in respect of which no employer matching contributions were made effective for events on or after January 1, 1998.

Correctional Officers Rule of 75: Effective November 19, 1996, employees who are members of the Province of Manitoba's Corrections Component are required to contribute an additional 1.00% of pensionable earnings. These additional contributions, which are credited to the Correctional Officers' Trust Account, are intended to fund the additional pension benefits for eligible employees who may retire as early as age 50 with no reduction for early retirement providing age and qualifying service are equal to a total of 75 or greater.

3. Eligibility:

Each full-time employee of the Province of Manitoba or an Agency immediately begins to participate in the Fund.

Each part-time, temporary or term employee must become a participant upon completing 2 consecutive years of employment in which salary exceeds 25% of the Year's Maximum Pensionable Earnings as defined in the Interpretation Section of the Canada Pension Plan. Any such employee has the option to participate in the Fund any time after employment commences.

4. Contributions:

The Fund is financed by contributions required to be made by employees who are participants in the Fund and by participating employers.

A contribution rate change to the Plan to increase the rates by 2.00% of salary (matched by employers) is to be graded into the Fund in the next 4 years.

The rates of required contributions for employees who are participants in the Fund are scheduled as follows:

For pay periods ending:	Contribution rate on salary up to CPP earnings	Contribution rate on salary over CPP earnings
before July 1, 2012	6.00%	7.00%
on or after July 1, 2012 but before 2013	6.50%	7.50%
in 2013	7.00%	8.00%
in 2014	7.50%	8.50%
after 2014	8.00%	9.00%

In accordance with the CSSA, 10.2% of the contributions are allocated to the Indexing Account.

Some of the participating employers are "matching" the contributions made by their employees. The remaining employers are financing their portion of benefits on a pay-as-you-go basis. Correctional Officers are required to contribute an additional 1.00% of salary.

5. Pension Formula:

The lifetime pension formula equals:

- 2.00% of a member's best 5-year average pensionable earnings multiplied by pensionable service, minus
- .4% of the average Canada Pension Plan's earnings for the same period multiplied by pensionable service since January 1, 1966.

The lifetime pension is subject to an overall maximum of 70% of the average earnings. Some pensions for members retiring prior to age 60 are subject to an early retirement reduction.

6. Retirement:

A participant receives an unreduced pension if such a participant retires on the last day of the calendar year in which the member attains age 71; on or after age 65 with one year of qualifying service; on or after age 60 with 10 years of qualifying service; or on or after age 55 if age plus qualifying service is equal to 80.

A participant is eligible to receive a reduced pension if such a participant retires on or after age 55 having completed 10 years of qualifying service. The 10-year service requirement has been eliminated after May 31, 2010.

Eligible members of the Province of Manitoba's Corrections Component may retire as early as age 50 if their age plus qualifying service total 75 or more.

The pension is paid for as long as a retired participant lives. If the participant dies before the total of the pension payments is at least equal to the participant's contributions with interest, the excess amount of these contributions over the pension payments made is paid to the participant's beneficiary or estate, whichever is applicable.

If the participant has a spouse at the date of retirement, a joint annuity is payable during the lives of the participant and the spouse. This annuity is reduced by one-third on the death of the participant. This annuity is reduced so that it is actuarially equivalent in value to the pension that would otherwise be payable. This form of payment is also guaranteed so that the total payments are at least equal to the participant's contributions with interest.

This form of payment can be waived if the spouse signs the appropriate waiver form.

7. Termination:

Pension entitlements are protected (vested) for participants immediately (previously 2 or more years of qualifying service required). These entitlements are portable and may be transferred to another pension plan or to a suitable locked-in vehicle. Calculation of a commuted value of pension in respect of service is performed at the time of termination, death, or retirement. A test is made to ensure that the participant's required contributions plus interest (less 10.2% allocated to the Indexing Account) provide no more than 50% of the benefit in respect of eligible service. This test may cause an additional benefit to be paid for such eligible service.

8. Disability:

A participant who has 10 or more years of qualifying service, has not reached age 60 and suffers from a disability may apply for a disability allowance.

If the disability is total and permanent, the participant qualifies immediately for an allowance calculated as a normal retirement pension.

Average annual salaries are determined at the date of disablement.

9. Death:

If a participant dies prior to retirement and has not 10 completed years of qualifying service, the death benefits are equal to the commuted value of the participant's accrued pension. This amount may be paid as an annuity if there is a surviving spouse.

If a participant dies prior to retirement and has completed 10 years of qualifying service, the participant's spouse receives an annuity equal to 60% of the participant's accrued pension. The value of the spouse's annuity must be at least equal to the commuted value of the participant's accrued pension.

If a participant dies prior to retirement and has completed 10 years of qualifying service but there is no surviving spouse, the value of the death benefit must be at least equal to the commuted value of the participant's accrued pension.

If there is no spouse, the commuted value benefit will be paid to the estate. If the participant dies prior to retirement and does not have a spouse, the death benefit is at least the commuted value of the participant's accrued pension.

10. Indexing:

Post-retirement: Increases to pensions in payment of up to 2/3 of the change in the Consumer Price Index (CPI) are granted if there is a sufficient amount available in the Indexing Account and there is an increase in the cost of living. A separate report has been prepared on the Indexing Account. Such amounts are not charged to the basic part of the Fund.

Pre-retirement: Increases to deferred annuities of up to 2/3 of the change in CPI are prefunded on the Valuation Balance Sheet between the date of termination and date of pension commencement. Such amounts are charged to the basic part of the Fund.

11. Valuation Process:

For each event and resulting benefit in the actuarial valuation, we examine the eligibility criteria, benefit amount and maturity value in order to determine the value of that benefit. A description of these items follows:

- Eligibility - benefits usually depend on some combination of attained age and years of qualifying service recognized in the CSSA.
- Benefit Amount - pensions are based on the number of years of pensionable service and the average of the best 5 years' pensionable earnings.
- Maturity Value - a lump-sum cash settlement and/or a pension. If the benefit is a pension, the normal form of payout is life refunding if single. If married, the normal form of payout is joint-life, reducing to 2/3 on the participant's death (actuarially equivalent to life refunding). Other optional forms of payout are available with different death benefits.

Vested and locked-in pensions can be commuted and transferred to a suitable locked-in vehicle.

APPENDIX III

Actuarial Assumptions

A. Going Concern

Actuarial Assumptions and Methods	2011 Going Concern	2010 Going Concern
1. Actuarial Cost Method		
▪ accrued benefit cost method (ABCM)	ABCM with salary projection	same
▪ contribution deficiency contingency	\$65,120,655	\$68,468,337
▪ funding methodology	excludes pay-as-you-go	same
2. Asset Valuation Method		
▪ accrued assets	market value	same
▪ asset smoothing adjustment	\$185,662,640 write-up	\$59,448,821 write-up
3. Expenses		
▪ explicit valuation balance sheet reserve	none	same
▪ explicit contribution rate allowance	none	same
▪ implicit assumed rate of return MER	0.20%	same
4. Assumed Rate of Return		
▪ inflation rate	2.00%	same
▪ real rate	<u>4.00%</u>	<u>same</u>
total nominal rate	6.00%	same
5. Assumed Salary Increase Rate		
▪ inflation rate	2.00%	same
▪ real rate	0.75%	same
▪ service, merit, & promotion (SMP) - average	<u>1.00%</u>	<u>same</u>
total nominal rate	3.75%	same
▪ vacation pay allowance (currently 45 days)	3.45%	same
6. Indexing		
▪ if retired or eligible to retire	none	same
▪ existing deferreds during deferral period	1.33%	same
▪ indexing reserve	none	same
7. Annual Employee Contributions Interest Credit	4.00%	same
8. Annual Rate of Increase in CPP Earnings Maximum	2.75%	same
9. Rate of CRA Maximum Pension Increase	2012: \$2,647 increased at 2.75% thereafter	2011: \$2,552 same
10. Retirement Rates		
▪ if retired	immediate	same
▪ otherwise	vary by age & sex	same
11. Termination Rates	vary by age & sex	same
12. Disability Rates	vary by age & sex	same
13. Mortality Rates		
▪ pre-retirement } ▪ post-retirement }	UPI994 - Generational Mortality Projected Using Scale AA	UP2020
▪ spousal proportion (generally)	90%(male) / 71%(female)	same
▪ spousal ages	-5/+3 or exact, if available	same
▪ unisex weightings	sex distinct	same

I. Actuarial Cost Method

The actuarial cost method for the 2011 Valuation continues to be the accrued benefit cost method (ABCM) with salary projection. ABCM anticipates that the current service cost with interest, when added to the opening liabilities, will be sufficient to finance the liabilities at the end of the next year, after reflecting expected retirements, terminations, disablements, and deaths. This method of valuation is used by approximately 90% of defined benefit pension plans in funding their benefit promises. This method is however more sensitive to an aging demographic active population and will result in increasingly higher current service cost as the population ages. The ABCM method is the preferred method used in the accounting profession for reporting financial obligations of pension plans.

A contribution deficiency reserve of \$65,120,655 has been held on the going concern Valuation Balance Sheet to allow for the annual expected contribution deficiency in the next 4 years.

The Fund consists of the accumulation of those contributions and other payments that were made during the period of employment of the present members. This accumulation will be used to finance a portion or all of the benefits which these members have been promised under the CSSA. The portion of the benefits so financed includes:

- 100% of the pensions and other benefits to be paid to employees for service if employed by an employer who matched the contributions made by employees,
- 50% of the pensions to be paid to those employees who are employed by an employer who is not matching employee contributions,
- 50% of the commuted value of pensions or benefits generated as a result of all service,
- 100% of the value of the excess contributions paid by employees as a result of service on or after January 1, 1985,
- the value of employee contributions transferred under reciprocal agreements,
- a specified portion of each pension currently being paid, excluding that part of the pension which is charged to the Indexing Account, plus
- notwithstanding the above cost sharing, the Fund is responsible for 100% of the .2% benefit formula improvement, which was effective September 1, 2000.

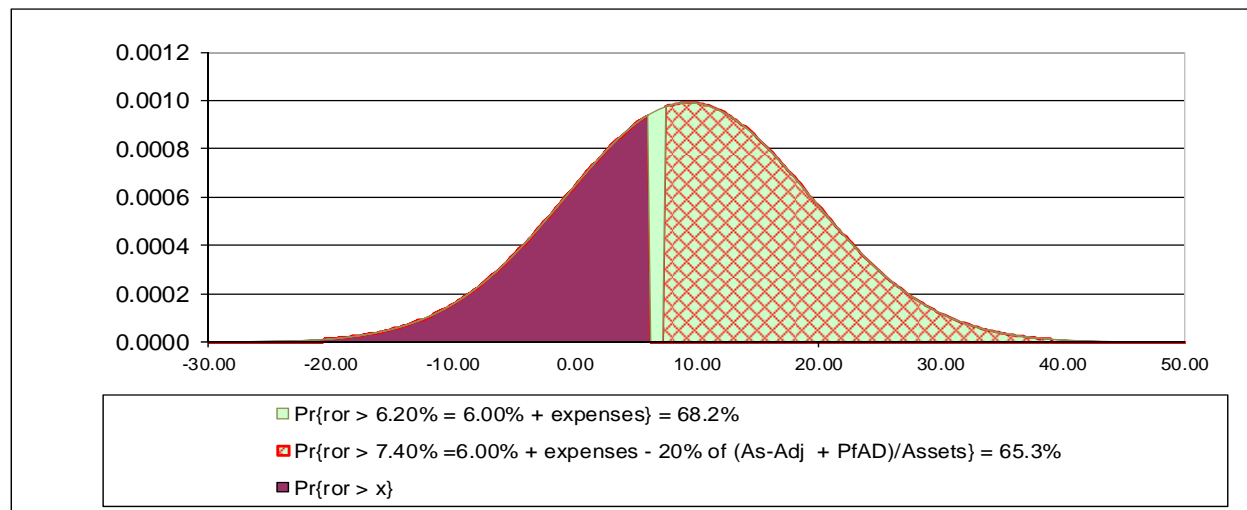
The remainder of the benefits is financed by the Province of Manitoba and its Agencies on a pay-as-you-go-basis (non-matching) or is withdrawn out of amounts set aside in accounts established within the Fund for this purpose. This actuarial valuation relates to the benefits which accrued during employment and the assets and contributions available to finance these benefits. The portion of the benefits to be financed by the Province of Manitoba and its Agencies by payments to the Fund is not considered to be a liability of the Fund.

Pursuant to CSSA subsection 22(1), employer funding for employees of more than one non-matching Agency shall be on a pro rata basis in accordance with the portion of the amount paid or transferred to the employee in respect of which no employer matching contributions were made effective for events on or after January 1, 1998.

2. Asset Valuation Method

Calendar Year	Net Investment Income	Rate of Return		Investment Gain/(Loss)	Asset Smoothing Adjustment	
		Net	Assumed		Proportion	Amount
2007	\$ 116,153,000	3.74%	6.50%	\$ (85,717,187)	0.00%	\$ -
2008	(586,876,000)	(17.51%)	6.50%	(804,734,024)	20.00%	(160,946,805)
2009	391,761,000	14.79%	6.50%	219,587,471	40.00%	87,834,988
2010	363,016,000	12.42%	6.00%	187,645,952	60.00%	112,587,571
2011	(87,561,000)	(2.71%)	6.00%	(281,422,993)	80.00%	(225,138,394)
Calculated Asset Smoothing Adjustment: Preliminary						\$ (185,662,640)
Minimum Asset Smoothing Adjustment (-10.00% of assets): Min						(310,365,400)
Maximum Asset Smoothing Adjustment (+10.00% of assets): Max						310,365,400
As-Adj						(185,662,640)
Provision for future Adverse Deviation: PfAD						-
Final Asset Smoothing Adjustment 31-Dec-2011: As-Adj+PfAD						\$ (185,662,640)

Estimated Probability of Achieving the Required Asset Return *



50-Year Rate of Return (ror) History *

Year	Rate	Year	Rate	Year	Rate	Year	Rate
1962	-3.77	1975	20.81	1988	11.96	2001	-5.24
1963	14.72	1976	12.25	1989	16.73	2002	-6.42
1964	15.95	1977	11.75	1990	-6.61	2003	13.34
1965	7.19	1978	20.35	1991	15.97	2004	9.79
1966	-5.03	1979	15.78	1992	4.69	2005	12.56
1967	14.63	1980	21.74	1993	22.91	2006	14.78
1968	11.80	1981	-0.88	1994	1.81	2007	2.63
1969	-3.17	1982	16.77	1995	17.55	2008	-13.32
1970	2.10	1983	20.89	1996	15.86	2009	11.31
1971	13.24	1984	9.48	1997	16.19	2010	9.55
1972	19.96	1985	32.81	1998	16.35	2011	1.73
1973	-0.99	1986	24.64	1999	14.26		
1974	-12.23	1987	7.35	2000	3.25		

*SIPP Asset Mix Assumed to be Invested in Historical Indices

3. Expenses

- Valuation Balance Sheet Reserve

No explicit expense reserve has been held on the going concern Valuation Balance Sheet, but \$15,518,000 has been held in the Solvency Test.

- Contribution Rate Allowance

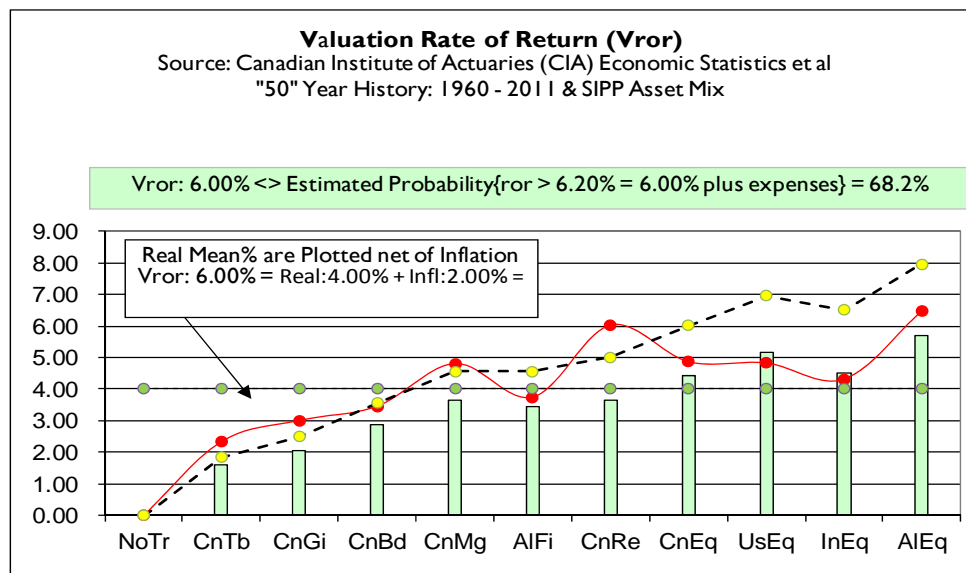
No explicit expense allowance has been made in the development of the normal actuarial cost of basic benefits.

- Assumed Rate of Return MER

An implicit management expense rate (MER) has been held in the development of the nominal assumed rate of return found as shown below and on the following page.

2011 Expense	Amount	Assets Under Management	MER
Investment	\$2,370,000	\$ 3,103,654,000	0.076%
Administration	1,485,000	3,103,654,000	0.048%
Provision for future Adverse Deviation (PfAD)			0.076%
Total			0.200%

4. Assumed Rate of Return



Asset Class	Long-Term SIPP Asset Mix%	50-Year Historical Real StDev%	50-Year Historical Real Mean%	Active Management Rebalancing & Currency%	Best Estimate Real Mean%	Investment & Operating Fees%	PfAD%	Valuation Vror Real Mean%
NoTr	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CnTb	1.00	2.93	2.34	-0.51	1.83	-0.03	-0.19	1.61
CnGi	-	5.41	3.01	-0.51	2.50	-0.07	-0.38	2.05
CnBd	29.00	8.35	3.46	0.09	3.55	-0.10	-0.57	2.88
CnMg	-	5.89	4.81	-0.26	4.55	-0.13	-0.77	3.65
AlFi	-	9.14	3.75	0.80	4.55	-0.16	-0.96	3.43
CnRe	10.00	8.32	6.03	-1.02	5.01	-0.20	-1.15	3.66
CnEq	24.00	16.12	4.87	1.14	6.01	-0.23	-1.34	4.44
UsEq	15.00	16.55	4.83	2.13	6.96	-0.26	-1.53	5.17
InEq	21.00	19.90	4.32	2.19	6.51	-0.29	-1.72	4.50
AlEq	-	28.28	6.48	1.48	7.96	-0.33	-1.92	5.71
Real	100.00	9.95	4.97	0.43	5.40	-0.20	-1.20	4.00
Rounding et al			0.21	-0.21	0.00			
Infl		3.18	4.15	-2.15	2.00	0.00	0.00	2.00
Vror		10.06	9.33	-1.93	7.40	-0.20	-1.20	6.00

NoTr Not Traded

CnTb Cash

VI22541 91-day T-Bills: 1934-2011

CIA-T1B

CnGi Guaranteed Investments

VI22526: 5-year GICs: 1965-2011 & VI22485: 1960-1964

CIA-T3C&T4C

CnBd Canadian Bonds

VI22558 (5%)&VI22485 (15%)&VI22486 (35%)&VI22487 (45%): 1952-2011

CIA-T4C

CnMg Canadian Mortgages

VI22497 5-year conventional mortgages: 1952-2011

CIA-T3C

AlFi Alternative Fixed Income

CnBd: 1952-2011 adjusted to increase mean 1.00% last 50 years

CIA-T4C

CnRe Real Estate

ICREIM/IPD: 1973-2011 & S&PTSX: 1960-1972 less 1.00%

CIA-T1B&T7

CnEq Canadian Equity

S&PTSX: 1924-2011

CIA-T1B

UsEq United States Equity

S&P500(C\$): 1938-2011

CIA-T1B

InEq International Equity

EAFE: 1970-2011 & S&P500(C\$): 1960-1969

CIA-T1B&EAFE

AlEq Alternative Equity

UsEq: 1952-2011 adjusted to increase mean 1.00% last 50 years

CIA-T1B

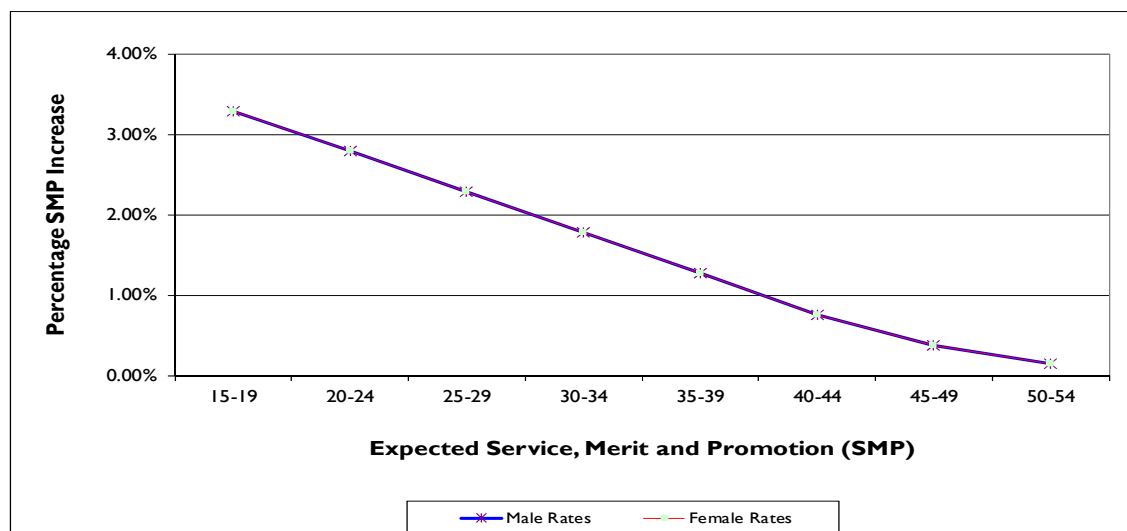
5. Assumed Salary Increase Rate

The 2010 general salary increase rate (SINR = inflation plus productivity) has been continued at 2.75% per year as noted below and the service merit and promotional rates (SMP) are also continued for the 2011 Report. The expected SINR exceeds the recent actual SINR and as a result provides a reasonable best estimate of Plan experience plus a possible provision for future adverse deviation (PfAD). In addition, SMP rates start at age 16, are unisex, and reach 0.00% at age 55.

Salary Increase Rate Components	2010 Report	50-Year Average	25-Year Average	2011 Report
Inflation (source CIA Economic Statistics)	2.00%	4.15%	2.38%	2.00%
Productivity (source CIA Economic Statistics)	0.75%	0.96%	0.38%	0.75%
General Salary Increase Rate (SINR)	2.75%	5.11%	2.76%	2.75%
SMP (varies by age as shown in chart below)	1.00%	1.00%	1.00%	1.00%
Total salary increase rate *	3.75%	6.11%	3.76%	3.75%

*To allow for the fact that up to 50 days vacation pay may be used to enhance the best 5 years of salary used in the pension calculation, we have increased liabilities by 3.45% (also 3.45% in 2010) which is based on 45 days of vacation being used ($3.45\% = 45/261 * 1/5$). In future, it may be necessary to increase this allowance.

Males					Females				
Age	Active Employees	Average Service	Average Salary	Expected SMP Rates	Age	Active Employees	Average Service	Average Salary	Expected SMP Rates
15-19	10	0.31	34,888	3.29%	15-19	6	0.30	28,794	3.29%
20-24	520	1.61	40,373	2.79%	20-24	362	1.33	37,529	2.79%
25-29	1,255	3.23	50,033	2.29%	25-29	1,162	2.59	45,897	2.29%
30-34	1,603	4.92	56,762	1.78%	30-34	1,630	3.96	51,263	1.78%
35-39	1,758	6.68	60,063	1.28%	35-39	1,765	5.84	55,411	1.28%
40-44	1,923	9.60	64,542	0.76%	40-44	1,797	8.37	57,294	0.76%
45-49	2,311	14.32	66,490	0.38%	45-49	2,427	12.76	58,557	0.38%
50-54	2,408	17.64	66,386	0.15%	50-54	2,586	16.56	57,975	0.15%
55-59	2,010	20.12	67,497	0.00%	55-59	1,920	17.35	57,795	0.00%
60-64	1,024	19.00	66,520	0.00%	60-64	780	16.06	57,664	0.00%
>=65	277	17.50	69,428	0.00%	>=65	183	13.69	54,826	0.00%
31-Dec-11	15,099	12.14	62,346	1.00%	31-Dec-11	14,618	10.77	55,372	1.00%
31-Dec-10	15,220	12.29	60,900		31-Dec-10	14,736	10.76	54,559	
2011 Actual SINR +1.00%				3.37%	2011 Actual SINR +1.00%				2.49%
2012 Expected SINR +1.00%				3.75%	2012 Expected SINR +1.00%				3.75%



6. Indexing

- If retired or eligible to retire

No allowance for post-retirement indexing in this Valuation of the basic benefits. Separately, a report is prepared on the Indexing Account and separate reports for each of the pay-as-you-go employers which allows for some post-retirement indexing.

- Existing deferred pensions during deferral period.

For the 2011 Report, the existing terminated employees who have elected a deferred pension in the Fund continue to have indexation of their otherwise static pension by 2/3rds of the increase in inflation, equal to 1.33% for this Valuation.

7. Annual Employee Contributions Interest Credit

The annual employee contribution interest credit is equal to 4.00% for the 2011 Report. This rate is based on 5-year personal fixed term deposits (CANSIM V122515, effective May 31, 2010) and generally assumed to be 2.00% lower than the nominal assumed rate of return, currently equal to 6.00%.

8. Annual Rate of Increase in CPP Earnings Maximum

The annual rate of increase in the CPP Earnings Maximum is equal to 2.75% for the 2011 Report. The rate continues to be based on the general salary increase rates (SINR = inflation plus productivity) found in this Report.

9. Rate of CRA Maximum Pension Increase

The rate of increase in the CRA Maximum Pension is equal to 2.75% for the 2011 Report. The rate continues to be based on the general salary increase rates (SINR = inflation plus productivity) found in this Report, after the stipulated rate for 2011 encoded in the Income Tax Act, has occurred.

10. Retirement Rates

The 2010 retirement rates are continued for the 2011 Report. The expected retirements exceed the recent actual retirements and as a result, they may provide a reasonable best estimate of Plan experience plus a provision for future adverse deviation (PfAD). There is some concern that the number of retirements may increase substantially in the next 3 years. Rates start at age 55, vary by sex, and reach 100.00% at age 65.

Males				Females			
Age	Participants Exposed	Expected Retirements	Expected Rates	Age	Participants Exposed	Expected Retirements	Expected Rates
15-49	10,076	-	0.00%	15-49	9,974	-	0.00%
50-54	2,762	-	0.00%	50-54	3,043	-	0.00%
55	573	142.45	24.86%	55	569	139.35	24.49%
56	463	53.29	11.51%	56	478	40.20	8.41%
57	427	45.65	10.69%	57	446	40.68	9.12%
58	386	43.12	11.17%	58	400	36.80	9.20%
59	373	47.74	12.80%	59	340	33.76	9.93%
60	325	88.08	27.10%	60	282	60.49	21.45%
61	258	40.04	15.52%	61	202	28.72	14.22%
62	215	37.63	17.50%	62	187	28.74	15.37%
63	179	32.42	18.11%	63	126	22.33	17.72%
64	167	54.83	32.83%	64	108	34.91	32.32%
>=65	297	297.00	100.00%	>=65	216	213.00	98.61%
	16,501	882.25			16,371	678.98	

2009	Actual Male & Female Retirements	841
2010	Actual Male & Female Retirements	907
2011	Actual Male & Female Retirements	965
2012	Expected Male & Female Retirements	1,561.23 2010QARRATE

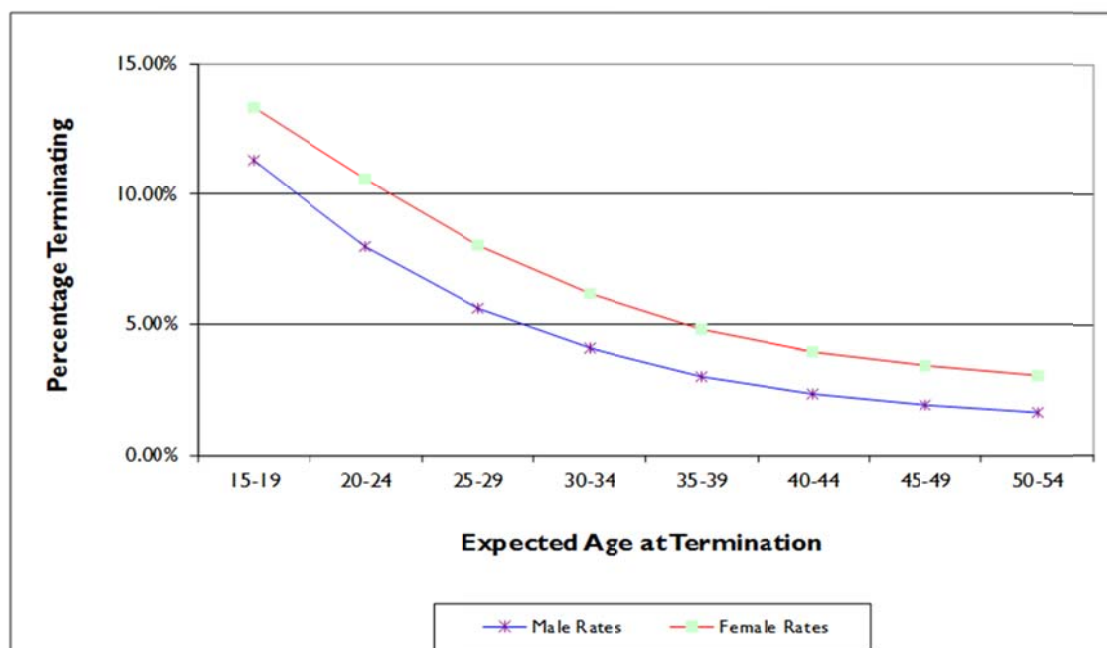


II. Termination Rates

The 2010 termination rates are continued for the 2011 Report. The expected terminations are less than recent actual terminations, which in turn mean that more participants are assumed to continue in the work force and eventually retire, and as a result, they provide a reasonable best estimate of Plan experience plus a provision for future adverse deviation (PfAD). Rates start at age 16, vary by sex, and reach 0.00% at age 55.

Males				Females			
Age	Participants Exposed	Expected Terminations	Expected Rates	Age	Participants Exposed	Expected Terminations	Expected Rates
15-19	10	1.13	11.30%	15-19	6	0.80	13.33%
20-24	536	42.81	7.99%	20-24	377	39.87	10.58%
25-29	1,309	73.62	5.62%	25-29	1,210	97.31	8.04%
30-34	1,676	68.24	4.07%	30-34	1,713	105.64	6.17%
35-39	1,866	55.96	3.00%	35-39	1,916	92.39	4.82%
40-44	2,098	49.30	2.35%	40-44	1,978	78.35	3.96%
45-49	2,581	48.92	1.90%	45-49	2,774	95.78	3.45%
50-54	2,762	44.80	1.62%	50-54	3,043	93.32	3.07%
55-59	2,222	-	0.00%	55-59	2,233	-	0.00%
60-64	1,144	-	0.00%	60-64	905	-	0.00%
>=65	297	-	0.00%	>=65	216	-	0.00%
	16,501	384.78			16,371	603.46	

2009	Actual Male & Female Terminations	1,243
2010	Actual Male & Female Terminations	1,171
2011	Actual Male & Female Terminations	1,033
2012	Expected Male & Female Terminations	988.24 2010QAWRATE

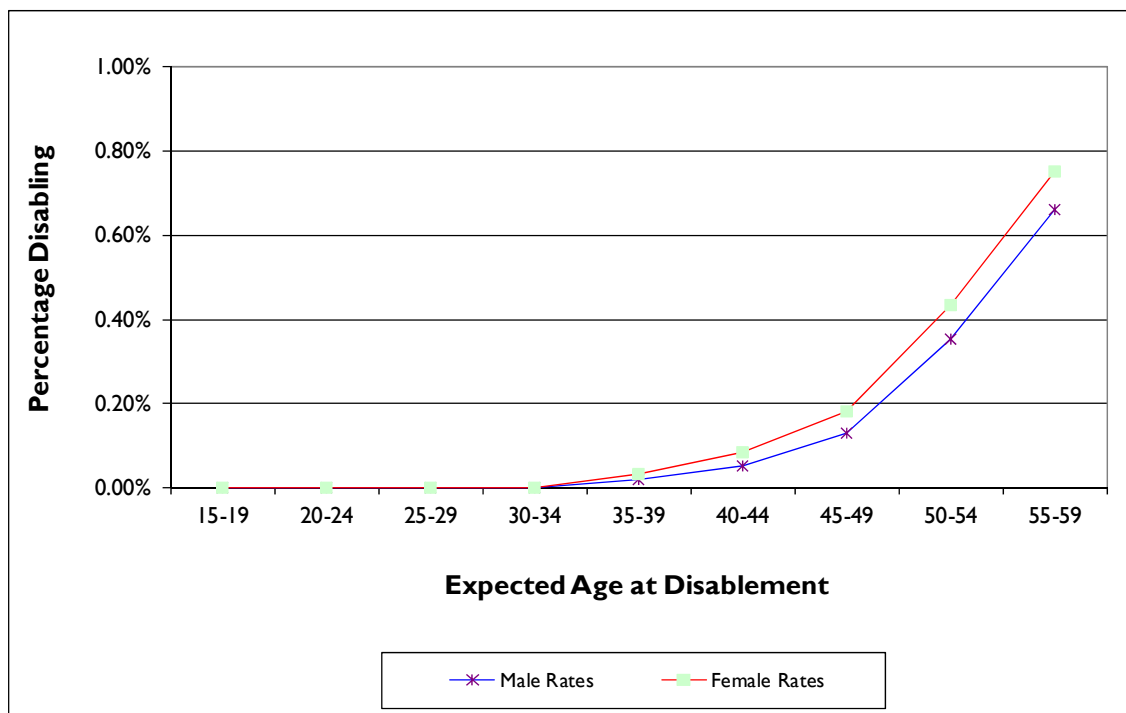


12. Disability Rates

The 2010 disability rates are continued for the 2011 Report. The expected disablements are close to the recent actual disablements, and as a result, they provide a reasonable best estimate of Plan experience. Rates start at age 35, vary by sex, and reach 0.00% at age 60.

Males				Females			
Age	Participants Exposed	Expected Disablements	Expected Rates	Age	Participants Exposed	Expected Disablements	Expected Rates
15-19	10	-	0.00%	15-19	6	-	0.00%
20-24	536	-	0.00%	20-24	377	-	0.00%
25-29	1,309	-	0.00%	25-29	1,210	-	0.00%
30-34	1,676	-	0.00%	30-34	1,713	-	0.00%
35-39	1,866	0.40	0.02%	35-39	1,916	0.65	0.03%
40-44	2,098	1.10	0.05%	40-44	1,978	1.69	0.09%
45-49	2,581	3.37	0.13%	45-49	2,774	5.06	0.18%
50-54	2,762	9.74	0.35%	50-54	3,043	13.20	0.43%
55-59	2,222	14.67	0.66%	55-59	2,233	16.79	0.75%
60-64	1,144	-	0.00%	60-64	905	-	0.00%
>=65	297	-	0.00%	>=65	216	-	0.00%
16,501		29.28		16,371		37.39	

2009	Actual Male & Female Disablements	72
2010	Actual Male & Female Disablements	61
2011	Actual Male & Female Disablements	68
2012	Expected Male & Female Disablements	66.67 2010QAIRATE



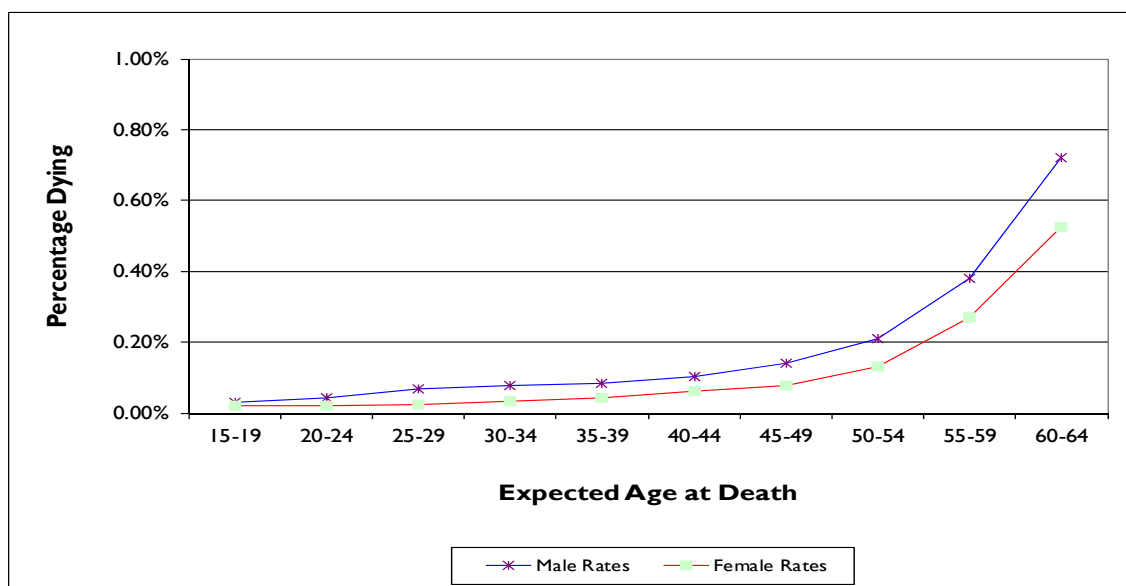
13. Death Rates - Pre-Retirement

The 2011 pre-retirement death rates (UPXGEN) have been used for the 2011 Report. The expected death rates are closer to the recent actual pre-retirement deaths, and as a result, they provide a reasonable best estimate of Plan experience. Rates start at age 16, vary by sex, and reach 0.00% at age 65. We note that lump-sum commuted value payouts are prescribed also on the basis of the UPXGEN mortality table at the valuation date.

Spousal status was assumed where required in calculating pre-retirement death benefits, generally 90% males and 71% females assumed to have a spouse at the higher ages and lower proportions at the younger ages. Spouse age difference was assumed generally to be minus 5 if a male participant and plus 3 if a female participant. All liabilities were valued on a sex distinct basis.

Males				Females			
Age	Participants Exposed	Expected Deaths	Expected Rates	Age	Participants Exposed	Expected Deaths	Expected Rates
15-19	10	0.00	0.03%	15-19	6	0.00	0.02%
20-24	536	0.22	0.04%	20-24	377	0.08	0.02%
25-29	1,309	0.87	0.07%	25-29	1,210	0.29	0.02%
30-34	1,676	1.32	0.08%	30-34	1,713	0.58	0.03%
35-39	1,866	1.58	0.08%	35-39	1,916	0.82	0.04%
40-44	2,098	2.18	0.10%	40-44	1,978	1.19	0.06%
45-49	2,581	3.62	0.14%	45-49	2,774	2.14	0.08%
50-54	2,762	5.77	0.21%	50-54	3,043	4.02	0.13%
55-59	2,222	8.42	0.38%	55-59	2,233	6.00	0.27%
60-64	1,144	8.24	0.72%	60-64	905	4.75	0.53%
>=65	297	3.84	1.29%	>=65	216	2.10	0.97%
	16,501	36.07			16,371	21.97	

2009	Actual Male & Female Deaths	51
2010	Actual Male & Female Deaths	47
2011	Actual Male & Female Deaths	54
2012	Expected Male & Female Deaths	58.03 UP2020
		57.45 UPXGEN



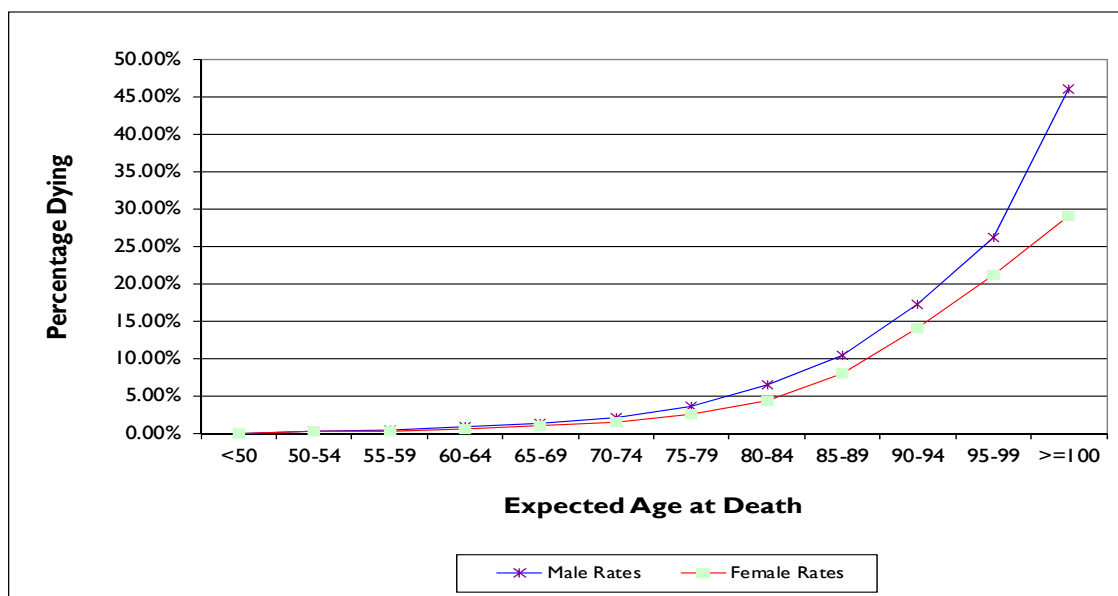
14. Death Rates - Post-Retirement

The 2011 post-retirement death rates (UPXGEN) have been used for the 2011 Report. The expected death rates are lower than the recent actual post-retirement deaths, and as a result, they provide a reasonable best estimate of Plan experience plus a provision for future adverse deviation (PfAD). Rates start at age 16, vary by sex, and reach 100.00% at age 115. We note that lump-sum commuted value payouts are prescribed on the basis of the UPXGEN mortality table at the valuation date.

Exact spousal status and spouse age was used for those pension options that were joint or for survivor pensions in payment. All liabilities were valued on a sex distinct basis.

Males (excludes Survivors)				Females (excludes Survivors)			
Age	Pensioners Exposed	Expected Deaths	Expected Rates	Age	Pensioners Exposed	Expected Deaths	Expected Rates
<50	12	-	0.00%	<50	28	-	0.00%
50-54	33	0.08	0.24%	50-54	52	0.08	0.15%
55-59	863	3.63	0.42%	55-59	870	2.57	0.30%
60-64	1,900	14.58	0.77%	60-64	1,483	8.35	0.56%
65-69	2,099	28.08	1.34%	65-69	1,294	12.80	0.99%
70-74	1,462	30.30	2.07%	70-74	922	13.94	1.51%
75-79	1,091	38.37	3.52%	75-79	566	14.39	2.54%
80-84	744	47.97	6.45%	80-84	416	17.92	4.31%
85-89	443	45.95	10.37%	85-89	244	19.59	8.03%
90-94	161	27.58	17.13%	90-94	96	13.47	14.03%
95-99	25	6.54	26.16%	95-99	28	5.92	21.14%
>=100	-	-	46.00%	>=100	3	0.87	29.00%
8,833		243.08		6,002		109.90	

2009	Actual Male & Female Deaths	354
2010	Actual Male & Female Deaths	370
2011	Actual Male & Female Deaths	396
2012	Expected Male & Female Deaths	352.98 UP2020
		349.45 UPXGEN



B. Solvency Test*

Actuarial Assumptions and Methods	2011 Solvency Test	2010 Solvency Test
1. Actuarial Cost Method <ul style="list-style-type: none"> accrued benefit cost method (ABCM) contribution deficiency contingency funding methodology 	ABCM with no salary projection none excludes pay-as-you-go	same same same
2. Asset Valuation Method <ul style="list-style-type: none"> accrued assets asset smoothing reserve 	market value none	same same
3. Expenses <ul style="list-style-type: none"> explicit valuation balance sheet reserve explicit contribution rate allowance implicit assumed rate of return MER 	.50% of assets (\$15,518,000) none none	.50% of assets (\$16,297,000) same same
4. Assumed Rate of Return **	Annuity <u>Cash Settlements</u> <u>Purchases</u> <u><10 Yrs</u> <u>>10 Yrs</u>	Annuity <u>Cash Settlements</u> <u>Purchases</u> <u><10 Yrs</u> <u>>10 Yrs</u>
<ul style="list-style-type: none"> inflation rate real rate total nominal rate 	1.31% 1.31% 2.44% <u>2.00%</u> <u>1.29%</u> <u>1.66%</u> <u>3.31%</u> <u>2.60%</u> <u>4.10%</u>	1.57% 1.57% 2.68% <u>2.91%</u> <u>1.73%</u> <u>2.32%</u> <u>4.48%</u> <u>3.30%</u> <u>5.00%</u>
5. Assumed Salary Increase Rate <ul style="list-style-type: none"> inflation rate real rate service, merit & promotion (SMP) -average total nominal rate vacation pay allowance (currently 45 days) 	none none none none 3.45%	same same same same same
6. Indexing <ul style="list-style-type: none"> if retired or eligible to retire existing deferreds during deferral period indexing reserve 	none none none	same same same
7. Annual Employee Contributions Interest Credit	none	same
8. Annual Rate of Increase in CPP Earnings Maximum	none	same
9. Rate of CRA Maximum Pension Increase	2012: \$2,647 Indexed at 0.00% thereafter	2011: \$2,552 Indexed at 0.00% thereafter
10. Retirement Age <ul style="list-style-type: none"> if retired or eligible to retire otherwise 	immediate first age possible	same same
11. Termination Rates	commuted value	same
12. Disability Rates	commuted value	same
13. Mortality Rates <ul style="list-style-type: none"> pre-retirement post-retirement spousal proportion (generally) spousal ages unisex weightings 	none UPI994 - Generational Mortality Projected Using Scale AA exact if available -5/+3 or exact, if available unisex if not eligible to retire	same UP2020 same same same

* The Plan is exempt from the funding requirements of the solvency test pursuant to Paragraph 4.5(2)(b) of the Regulations to the Manitoba Pension Benefits Act. However, it is a requirement of the Canadian Institute of Actuaries to report the wind-up position.

** For the non-retired participants the solvency calculations in 2011 were simplified by using an average flat rate of 3.35% which is a blend of the 2.60% for 10 years, 4.10% thereafter and the 3.31% annuity purchase rate for those eligible to retire. Similar simplification was used in 2010.

Development of the Solvency Test Rate of Return - Non-Indexed

■ If Retired or Eligible to Retire (Purchase of Annuities)

The solvency discount rate for annuities is based on the studies made by the Canadian Institute of Actuaries (CIA). The most recent study has found that the appropriate annuity interest rate to be used in performing solvency Valuations with effective dates as at December 31, 2011 is determined by the following table at the Valuation date in conjunction with the mortality table UPI994 generational mortality table projected using Scale AA.

Annuity Purchase Formula	Solvency Spot Rate	Solvency Used Rate
CANSIM V39062 DECEMBER, 2011 RATE + 0.90%	2.41%	3.31%

■ Otherwise (Cash Settlements)

The discount rates for cash settlements in the solvency Valuation are based on the same rates that are used for the commuted value calculations including the 1-month lag as required by the CIA standards. Effective for events commencing in February, 2011, the CIA standards utilize the 1994 Uninsured Pensioner Mortality Table (UPI994) generational mortality table projected using Scale AA, and the dual interest rates, one applicable to the first 10 years and the other applicable thereafter. These rates are based on the following CANSIM series and formulas:

Lump Sum Formula	Solvency Spot Rate	Solvency Used Rate
CANSIM V122542 NOVEMBER, 2011 RATE (i_7) =	1.71%	n/a
CANSIM V122544 NOVEMBER, 2011 RATE (i_L) =	2.69%	n/a
First 10 Years: = $i_7 + 0.90\%$ =	2.61%	2.60%
After 10 Years: = $i_L + 0.50 * (i_L - i_7) + 0.90\%$ =	4.08%	4.10%

