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# **Actuarial Report as at December 31, 2009**

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**Civil Service Superannuation Fund**

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

**June, 2010**

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## 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, 2009, 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 Act) as at December 31, 2009. 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 experience has been less favourable than expected during the period 2008-2009. 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, 2009 that were provided by the staff of the Board.
- The benefits used in the calculations are based on the Plan as amended to December 31, 2009 (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.
- The Fund has no excess surplus based on the requirements found in Section 147.2 of the Income Tax Act.
- Contribution rates in respect of future service are recommended to be increased in the near future as discussed in the Subsequent Events section on page 10 of this Report.

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 for this Report. 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. Given that the solvency ratio of the Plan is less than 90%, Paragraph 4.12(1) of the Regulations to the Manitoba Pension Benefits Act requires the next Valuation occur no later than December 31, 2010. It is recommended the Board continue to monitor the adequacy of the contribution rates, so that it may monitor and ensure the financial health of the Fund. An annual valuation will allow the Board to monitor the deficiency in the contribution rates and assist in meeting the increased accounting standards that will be required in 2011 and later.



Dennis Ellement, F.S.A., F.C.I.A.  
Winnipeg, Manitoba June 18, 2010

## 2. EXECUTIVE SUMMARY

GOING CONCERN VALUATION	31-Dec-09	31-Dec-07
Assets Available for Basic Benefits	\$ 2,948,141,000	\$ 3,375,344,000
▪ Expense Reserve	-	-
▪ Asset Smoothing Reserve	294,814,000	(375,202,000)
Liability for Basic Benefits		
▪ Active Participants	(1,873,611,277)	(1,531,516,000)
▪ Other Participants	(75,859,556)	(76,894,000)
▪ Pensions in Payment	(1,499,107,013)	(1,189,235,000)
▪ Reserves:		
▫ indexing	-	(145,068,000)
▫ contribution deficiency	(66,854,650)	(57,429,000)
Surplus/(Unfunded Liability) - including asset smoothing	\$ (272,477,496)	\$ -
Surplus/(Unfunded Liability) - excluding asset smoothing	\$ (567,291,496)	\$ 375,202,000
Funding Ratio (including asset smoothing)	92.25%	100.00%
Funding Ratio (excluding asset smoothing)	83.86%	112.51%

SOLVENCY TEST*	31-Dec-09	31-Dec-07
Assets Available for Basic Benefits	\$ 2,948,141,000	\$ 3,375,344,000
▪ Expense Reserve	(14,741,000)	(16,877,000)
▪ Asset Smoothing Reserve	294,814,000	(375,202,000)
Liability for Basic Benefits		
▪ Active Participants	(2,540,793,911)	(2,009,022,000)
▪ Other Participants	(87,244,634)	(90,014,000)
▪ Pensions in Payment	(1,721,930,057)	(1,449,722,000)
▪ Reserves:		
▫ indexing	-	-
▫ contribution deficiency	-	-
Solvency Excess/(Deficiency) - including asset smoothing	\$ (1,121,754,602)	\$ (565,493,000)
Solvency Excess/(Deficiency) - excluding asset smoothing	\$ (1,416,568,602)	\$ (190,291,000)
Solvency Ratio (including asset smoothing)	74.21%	84.07%
Solvency Ratio (excluding asset smoothing)	67.43%	94.64%

\* 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.

ANNUAL CONTRIBUTION REQUIREMENTS	2010 <CPPE / ≥CPPE	2008 <CPPE / ≥CPPE
Required Contributions for Basic Benefits		
▪ Required Contributions:		
▫ Employee Required Contributions	6.00% / 7.00%	6.00% / 7.00%
▫ Employer (Matching) Required Contributions	5.10% / 7.00%	5.10% / 7.00%
Blended Required Contributions	5.96% / 7.00%	5.96% / 7.00%
▪ Indexing Account Allocation	(0.61%) / (0.71%)	(0.61%) / (0.71%)
Total Required Contributions for Basic Benefits	5.34% / 6.29%	5.34% / 6.29%
Total Theoretical Contributions for Basic Benefits	(7.10%) / (8.37%)	(6.54%) / (7.70%)
Contribution Margin/(Deficiency) for Basic Benefits	(1.76%) / (2.08%)	(1.20%) / (1.41%)

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

### 3. GOING CONCERN VALUATION

	31-Dec-09	31-Dec-07
<b>Assets Available for Basic Benefits (Appendix I)</b>		
▪ Fixed Income Investments (market value)	\$ 1,385,300,000	\$ 1,263,303,000
▪ Equity Investments (market value)	2,615,889,000	2,710,472,000
Total Investments	\$ 4,001,189,000	\$ 3,973,775,000
▪ Net Receivables/Payables (includes a Province Trust Account)	96,332,000	16,774,000
▪ Debt due from the Province of Manitoba	1,826,000	1,826,000
▪ Correctional Officers' Trust Account	(4,145,000)	(4,041,000)
▪ Employer Trust Accounts	(52,057,000)	(53,931,000)
▪ Money Purchase Accounts Plan	(19,477,000)	(16,412,000)
▪ Province Unfunded Pension Liability Trust Accounts	(732,977,000)	(330,740,000)
Net Assets Available for Benefits	\$ 3,290,691,000	\$ 3,587,251,000
▪ Superannuation Adjustment Account	(342,550,000)	(211,907,000)
<b>Total Assets Available for Basic Benefits</b>	<b>\$ 2,948,141,000</b>	<b>\$ 3,375,344,000</b>
▪ Expense Reserve	-	-
▪ Asset Smoothing Reserve	294,814,000	(375,202,000)
<b>Actuarial Assets Available for Basic Benefits</b>	<b>\$ 3,242,955,000</b>	<b>\$ 3,000,142,000</b>
<b>Liabilities for Basic Benefits (Appendix II, III)</b>		
▪ Active Participants:		
▫ not eligible to retire	\$ 1,250,673,102	\$ 1,063,542,000
▫ eligible to retire reduced	100,888,241	76,042,000
▫ eligible to retire unreduced	522,049,934	391,932,000
	\$ 1,873,611,277	\$ 1,531,516,000
▪ Other Participants:		
▫ not eligible to retire	63,332,055	65,634,000
▫ eligible to retire reduced	6,513,447	5,892,000
▫ eligible to retire unreduced	6,014,054	5,368,000
	\$ 75,859,556	\$ 76,894,000
▪ Pensions in Payment:		
▫ retirement pensions	1,403,477,260	1,108,260,000
▫ survivors' pensions	95,629,753	80,975,000
	\$ 1,499,107,013	\$ 1,189,235,000
Total Liabilities before Reserves	\$ 3,448,577,846	\$ 2,797,645,000
▪ Indexing Reserve	-	145,068,000
▪ Contribution Deficiency Reserve	66,854,650	57,429,000
<b>Total Liabilities for Basic Benefits</b>	<b>\$ 3,515,432,496</b>	<b>\$ 3,000,142,000</b>
<b>Surplus/(Unfunded Liability) - including asset smoothing</b>	<b>\$ (272,477,496)</b>	<b>\$ -</b>
<b>Surplus/(Unfunded Liability) - excluding asset smoothing</b>	<b>\$ (567,291,496)</b>	<b>\$ 375,202,000</b>
Funding Ratio - including asset smoothing	92.25%	100.00%
Funding Ratio - excluding asset smoothing	83.86%	112.51%

#### 4. SOLVENCY TEST\*

	31-Dec-09	31-Dec-07
<b>Assets Available for Basic Benefits (Appendix I)</b>		
▪ Fixed Income Investments (market value)	\$ 1,385,300,000	\$ 1,263,303,000
▪ Equity Investments (market value)	2,615,889,000	2,710,472,000
Total Investments	\$ 4,001,189,000	\$ 3,973,775,000
▪ Net Receivables/Payables (includes a Province Trust Account)	96,332,000	16,774,000
▪ Debt due from the Province of Manitoba	1,826,000	1,826,000
▪ Correctional Officers' Trust Account	(4,145,000)	(4,041,000)
▪ Employer Trust Accounts	(52,057,000)	(53,931,000)
▪ Money Purchase Accounts Plan	(19,477,000)	(16,412,000)
▪ Province Unfunded Pension Liability Trust Accounts	(732,977,000)	(330,740,000)
Net Assets Available for Benefits	\$ 3,290,691,000	\$ 3,587,251,000
▪ Superannuation Adjustment Accounts	(342,550,000)	(211,907,000)
<b>Total Assets Available for Basic Benefits</b>	<b>\$ 2,948,141,000</b>	<b>\$ 3,375,344,000</b>
▪ Expense Reserve	(14,741,000)	(16,877,000)
▪ Asset Smoothing Reserve	294,814,000	(375,202,000)
<b>Actuarial Assets Available for Basic Benefits</b>	<b>\$ 3,228,214,000</b>	<b>\$ 2,983,265,000</b>
<b>Liabilities for Basic Benefits (Appendix II, III)</b>		
▪ Active Participants:		
▪ not eligible to retire	\$ 1,657,175,398	\$ 1,360,380,000
▪ eligible to retire reduced	148,889,227	108,209,000
▪ eligible to retire unreduced	734,729,286	540,433,000
	\$ 2,540,793,911	\$ 2,009,022,000
▪ Other Participants:		
▪ not eligible to retire	72,600,274	76,322,000
▪ eligible to retire reduced	7,657,892	7,193,000
▪ eligible to retire unreduced	6,986,468	6,499,000
	\$ 87,244,634	\$ 90,014,000
▪ Pensions in Payment:		
▪ retirement pensions	1,614,264,906	1,354,179,000
▪ survivors' pensions	107,665,151	95,543,000
	\$ 1,721,930,057	\$ 1,449,722,000
Total Liabilities before Reserves	\$ 4,349,968,602	\$ 3,548,758,000
▪ Indexing Reserve	-	-
▪ Contribution Deficiency Reserve	-	-
<b>Total Liabilities for Basic Benefits</b>	<b>\$ 4,349,968,602</b>	<b>\$ 3,548,758,000</b>
<b>Solvency Excess/(Deficiency) - including asset smoothing</b>	<b>\$ (1,121,754,602)</b>	<b>\$ (565,493,000)</b>
<b>Solvency Excess/(Deficiency) - excluding asset smoothing</b>	<b>\$ (1,416,568,602)</b>	<b>\$ (190,291,000)</b>
Solvency Ratio - including asset smoothing	74.21%	84.07%
Solvency Ratio - excluding asset smoothing	67.43%	94.64%

\* 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:

		2010		2008		
		< CPPE / ≥ CPPE *		< CPPE / ≥ CPPE		
<b>Current Contributions for Basic Benefits</b>						
▪ Employee Current Contributions:						
▫ not eligible to retire	\$ 88,579,812	6.00%	7.00%	\$ 75,597,000	6.00%	7.00%
▫ eligible to retire	4,088,359	6.00%	7.00%	3,397,000	6.00%	7.00%
▫ eligible to retire unreduced	12,842,331	6.00%	7.00%	10,580,000	6.00%	7.00%
▫ indexing account allocation	(10,762,071)	(0.61%)	(0.71%)	(9,137,000)	(0.61%)	(0.71%)
▪ Employer (Matching) Current Contributions:						
▫ not eligible to retire	6,503,446	5.10%	7.00%	4,853,000	5.10%	7.00%
▫ eligible to retire	242,135	5.10%	7.00%	160,000	5.10%	7.00%
▫ eligible to retire unreduced	428,439	5.10%	7.00%	291,000	5.10%	7.00%
▫ indexing account allocation	(731,750)	(0.52%)	(0.71%)	(541,000)	(0.52%)	(0.71%)
<b>Total Current Contributions for Basic Benefits</b>	<b>\$ 101,190,701</b>	<b>5.34%</b>	<b>/ 6.29%</b>	<b>\$ 85,200,000</b>	<b>5.34%</b>	<b>/ 6.29%</b>
<b>Normal Actuarial Cost for Basic Benefits</b>						
▪ Active Participants:						
▫ not eligible to retire	\$ 108,389,465	6.78%	/ 7.98%	\$ 84,909,000	6.28%	/ 7.39%
▫ eligible to retire reduced	6,427,998	8.83%	/ 10.40%	4,812,000	8.04%	/ 9.48%
▫ eligible to retire unreduced	19,800,563	8.87%	/ 10.45%	14,622,000	8.00%	/ 9.42%
Blended Active Participant Theoretical Rate	\$ 134,618,026	7.10%	/ 8.37%	\$ 104,343,000	6.54%	/ 7.70%
▪ 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%
<b>Total Normal Actuarial Cost for Basic Benefits</b>	<b>\$ 134,618,026</b>	<b>7.10%</b>	<b>/ 8.37%</b>	<b>\$ 104,343,000</b>	<b>6.54%</b>	<b>/ 7.70%</b>
<b>Contribution Margin/(Deficiency) for Basic Benefits</b>	<b>\$ (33,427,325)</b>	<b>(1.76%)</b>	<b>/ (2.08%)</b>	<b>\$ (19,143,000)</b>	<b>(1.20%)</b>	<b>/ (1.41%)</b>

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

A provision for the \$33,427,325 annual contribution deficiency has been made on the Valuation Balance Sheet. This provision is equal to \$66,854,650 for the next 2 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 \$272,477,496 could be amortized by 15 annual payments of \$27,245,605 (must be divided by 12 and paid monthly) which is equivalent to 1.59% to 1.89% of salary over the next 15 years, as indicated in the table on page 10. Although it is not recommended that deficit recovery occur at this time, 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.

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.

## 6. ANALYSIS OF RESULTS

### Reconciliation of Surplus

Operation of the Basic Benefits Account	Assets	Liabilities	Reserves	Surplus
2007 Opening Financial Position: 2007 Basis	\$ 3,375,344,000	\$ 2,797,645,000	\$ 577,699,000	\$ -
▫ Contributions/Benefits Accrued	222,807,000	109,399,000	-	113,408,000
▫ Benefit Experience & Operating Expenses	(268,391,000)	(133,685,000)	-	(134,706,000)
▫ Investment Experience Net: (17.51%)	(586,876,000)	181,058,000	-	(767,934,000)
▫ Actuarial Reserve Projection PfAD	-	37,996,000	-	(37,996,000)
▫ Indexing Reserve	-	-	(68,000)	68,000
▫ Contribution Deficiency Reserve	-	-	3,733,000	(3,733,000)
▫ Asset Smoothing Reserve	-	-	(649,490,000)	649,490,000
2008 Financial Statements Projected Position	\$ 2,742,884,000	\$ 2,992,413,000	\$ (68,126,000)	\$ (181,403,000)
▫ Contributions/Benefits Accrued	236,239,000	119,166,000	-	117,073,000
▫ Benefit Experience & Operating Expenses	(422,743,000)	(137,365,000)	-	(285,378,000)
▫ Investment Experience Net: 14.79%	391,761,000	193,915,000	-	197,846,000
▫ Actuarial Reserve Projection PfAD	-	38,385,000	-	(38,385,000)
▫ Indexing Reserve	-	-	(145,000,000)	145,000,000
▫ Contribution Deficiency Reserve	-	-	3,975,000	(3,975,000)
▫ Asset Smoothing Reserve	-	-	(20,526,000)	20,526,000
2009 Financial Statements Projected Position	\$ 2,948,141,000	\$ 3,206,514,000	\$ (229,677,000)	\$ (28,696,000)
▫ Actuarial Reserve Projection PfAD release	-	(76,381,000)	-	76,381,000
▫ ITA Maximum Pensionable Salary Limit	-	3,351,723	-	(3,351,723)
▫ Salary Loss 2-Year Experience	-	41,209,890	-	(41,209,890)
▫ Demographic Retirement Gain 2-Year Experience	-	(3,374,060)	-	3,374,060
▫ Demographic Termination Loss 2-Year Experience	-	12,185,673	-	(12,185,673)
▫ Demographic Death Loss 2-Year Experience	-	3,206,514	-	(3,206,514)
▫ Methodology et al (vesting immediate, etc.)	-	478,669	-	(478,669)
▫ Indexing Reserve	-	-	-	-
▫ Contribution Deficiency Reserve	-	-	2,124,162	(2,124,162)
▫ Asset Smoothing Reserve	-	-	-	-
2009 Preliminary Going Concern Position	\$ 2,948,141,000	\$ 3,187,191,409	\$ (227,552,838)	\$ (11,497,571)
▫ Vacation pay allowance 35 to 45 days	-	14,050,260	1,965,617	(16,015,877)
▫ Mortality GAM94 to UP2020	-	78,167,753	10,935,586	(89,103,339)
▫ Inflation 2.50% to 2.00% (interest 6.50% to 6.00%)	-	169,168,424	(13,307,715)	(155,860,709)
2009 Closing Going Concern: 2009 Basis	\$ 2,948,141,000	\$ 3,448,577,846	\$ (227,959,350)	\$ (272,477,496)

### Average Actuarial Factors

Category	Age	# Members	Fund Pension	Actuarial Factor *	Liability
<b>31-Dec-09</b>					
▫ Active Participants	44.07	29,353	x 12 x \$ 548.82	x 9.6921 =	\$ 1,873,611,277
▫ Other Participants	48.57	2,857	x 12 x 216.67	x 10.2122 =	75,859,556
▫ Pensions in Payment	69.31	16,210	x 12 x 696.24	x 11.0690 =	1,499,107,013
▫ Reserves	-	-	-	-	(227,959,350)
▫ Surplus/(Unfunded)	-	-	-	-	(272,477,496)
Total/Average	52.79	48,420	x 12 x \$ 578.57	x 8.7697 =	\$ 2,948,141,000
<b>31-Dec-07</b>					
▫ Active Participants	44.93	27,307	x 12 x \$ 531.66	x 8.7909 =	\$ 1,531,516,000
▫ Other Participants	48.34	2,900	x 12 x 218.49	x 10.1133 =	76,894,000
▫ Pensions in Payment	69.79	14,913	x 12 x 639.89	x 10.3852 =	1,189,235,000
▫ Reserves	-	-	-	-	577,699,000
▫ Surplus/(Unfunded)	-	-	-	-	-
Total/Average	53.37	45,120	x 12 x \$ 547.30	x 11.3905 =	\$ 3,375,344,000

\* Individual actuarial factors have been strengthened for this Valuation. However, the overall actuarial factor has declined from 11.3905 to 8.7697 largely due to unfavourable investment experience and the change in the asset smoothing reserve from a write-down to a write-up.



## 7. FUND BASIC BENEFIT LIABILITIES EMPLOYER PROFILE

Name of Employer	Code	Active Participants	Other Participants	Pensions in Payment	2009 Total	%
<b>Non-Matching Employers</b>						
1 Province of Manitoba Civil Service	CS	\$ 954,940,962	\$ 49,310,647	\$ 895,557,199	\$ 1,899,808,808	55.09%
2 Manitoba Hydro-Electric Board	MH	460,372,003	7,002,633	360,014,422	827,389,058	23.99%
3 Manitoba Public Insurance	AI/AIE	100,518,372	4,127,804	49,831,401	154,477,577	4.48%
4 Division of Driver and Vehicle Licensing	AIL	4,172,016	116,269	710,173	4,998,458	0.14%
5 Red River College	RCC	51,817,109	1,133,281	25,865,533	78,815,923	2.29%
6 Liquor Control Commission	LC	27,803,785	1,041,777	26,589,083	55,434,645	1.61%
7 Manitoba Agricultural Services Corporation	AC	3,334,731	171,154	2,475,462	5,981,347	0.17%
8 Addictions Foundation of Manitoba	AF	12,207,207	487,476	8,776,032	21,470,715	0.62%
9 Assiniboine Community College	ACC	11,105,073	697,247	6,442,189	18,244,509	0.53%
10 University College of The North	KCC	10,043,384	529,522	4,803,491	15,376,397	0.45%
11 The Legal Aid Services Society of Manitoba	LA	11,476,950	506,281	4,495,174	16,478,405	0.48%
12 Manitoba Centennial Centre Corporation	CC	2,878,029	59,611	3,015,240	5,952,880	0.17%
13 Teachers' Retirement Allowance Fund Board	TR	1,954,928	198,866	855,994	3,009,788	0.09%
14 Communities Economic Development Fund	CE	1,152,041	80,097	536,923	1,769,061	0.05%
15 The Council on Post-Secondary Education	UG	452,557	32,094	500,307	984,958	0.03%
16 Manitoba Horse Racing Commission	RC	86,916	29,259	209,627	325,802	0.01%
17 Diagnostic Services of Manitoba	DSM	593,991	-	49,257	643,248	0.02%
18 Regional Health Authority - Winnipeg	RWA	12,091,334	227,553	3,046,505	15,365,392	0.45%
19 Regional Health Authority - Brandon	RBH	9,841,495	189,898	4,368,819	14,400,212	0.42%
20 Regional Health Authority - Central	RCA	4,331,829	107,044	1,947,552	6,386,425	0.19%
21 Regional Health Authority - Assiniboine	ARH et al	4,457,972	16,053	1,666,629	6,140,654	0.18%
22 Regional Health Authority - Parkland	RPL	3,088,402	99,778	1,700,977	4,889,157	0.14%
23 Regional Health Authority - Interlake	RIL	3,282,999	1,531	1,971,369	5,255,899	0.15%
24 Regional Health Authority - South Eastman	RSE	1,784,288	27,758	359,539	2,171,585	0.06%
25 Regional Health Authority - Nor-Man	RNF/RNM	1,183,450	54,040	486,673	1,724,163	0.05%
26 Regional Health Authority - North Eastman	RNE	1,209,203	-	570,281	1,779,484	0.05%
27 Regional Health Authority - Burntwood	RBW	451,144	38,601	233,682	723,427	0.02%
28 Manitoba Development Corporation	MDC	102,459	-	-	102,459	0.00%
29 Workers' Compensation Board	WC	-	-	80,738	80,738	0.00%
30 WECO	WEC	-	-	839,143	839,143	0.02%
		<b>\$ 1,696,734,629</b>	<b>\$ 66,286,274</b>	<b>\$ 1,407,999,414</b>	<b>\$ 3,171,020,317</b>	<b>91.95%</b>
<b>Matching Employers</b>						
1 Manitoba Lotteries Corporation	LF	33,800,261	2,217,178	6,196,750	42,214,189	1.22%
2 Manitoba Housing Authority	HA	20,449,761	971,139	13,263,569	34,684,469	1.01%
3 Manitoba Agricultural Services Corporation	MAS	5,380,256	42,876	380,320	5,803,452	0.17%
4 Manitoba Crop Insurance Corporation	CI /CIC	12,619,802	529,627	11,574,215	24,723,644	0.72%
5 Manitoba Government and General Employees' Union	EA	9,190,766	203,135	9,210,506	18,604,407	0.54%
6 Manitoba Hydro Utilities Service	MHU	801,372	47,177	-	848,549	0.02%
7 Child and Family All Nations Coordinated Network	ANR	955,956	26,899	-	982,855	0.03%
8 The Civil Service Superannuation Board	SB	6,580,011	874,395	4,063,139	11,517,545	0.33%
9 Gaming Control Commission	GC	2,717,565	15,428	485,939	3,218,932	0.09%
10 Travel Manitoba	TM	1,122,394	18,021	148,215	1,288,630	0.04%
11 Food Development Centre	FD	1,087,952	414,748	104,314	1,607,014	0.05%
12 Manitoba Floodway Expansion Authority Inc.	MFA	1,119,452	90,985	15,530	1,225,967	0.04%
13 Dairy Farmers of Manitoba	MC	1,200,088	125,524	2,746,154	4,071,766	0.12%
14 Industrial Technology Centre	IT	1,860,010	236,392	314,079	2,410,481	0.07%
15 Manitoba Pork Marketing Co-Op Inc.	HM	1,423,663	72,432	2,780,870	4,276,965	0.12%
16 Manitoba Film and Sound	MFS	260,694	24,597	-	285,291	0.01%
17 Manitoba Pork Council	PC	427,623	35,709	801,803	1,265,135	0.04%
18 Manitoba Arts Council	MA	276,490	30,370	430,560	737,420	0.02%
19 Manitoba Chicken Producer Board	CB	301,091	-	158,168	459,259	0.01%
20 Sport Manitoba	SM	676,150	13,995	43,530	733,675	0.02%
21 Crown Corporations Council	CR	1,039,689	-	903,417	1,943,106	0.06%
22 Manitoba Cattle Enhancement Council	MCE	71,931	-	-	71,931	0.00%
23 Manitoba Turkey Producers	TB	112,362	4,968	663,952	781,282	0.02%
24 Paletta & Company Hotels	PCH	40,235	-	2,939	43,174	0.00%
25 Venture Manitoba Tours Ltd.	VT	254,825	-	45,794	300,619	0.01%
26 Economic Innovation and Technology Council	MR	1,122,925	1,444,039	2,865,959	5,432,923	0.16%
27 Manitoba Development Corporation	DFP	19,440	90,160	624,148	733,748	0.02%
28 Manitoba Hazardous Waste	HW	-	-	513,069	513,069	0.01%
29 Manitoba Water Services Board	WVS	-	103,318	469,005	572,323	0.02%
30 Human Resources and Employment Centres	R's/HE	1,340,341	246,665	2,356,594	3,943,600	0.11%
31 Manitoba Beef Commission	BC	148,715	-	320,958	469,673	0.01%
32 Local Government Districts	LG	-	-	147,189	147,189	0.00%
33 Manitoba Mineral Resources Limited	MM	-	-	39,241	39,241	0.00%
34 Manitoba Data Services	DS	-	-	372,589	372,589	0.01%
35 Money Purchase Plan Annuity	MPP	-	-	5,187,583	5,187,583	0.15%
36 No Billing (Charged to Fund)	NB	70,474,828	1,693,505	23,877,501	96,045,834	2.79%
		<b>\$ 176,876,648</b>	<b>\$ 9,573,282</b>	<b>\$ 91,107,599</b>	<b>\$ 277,557,529</b>	<b>8.05%</b>
31-Dec-09 Total Fund Liabilities		<b>\$ 1,873,611,277</b>	<b>\$ 75,859,556</b>	<b>\$ 1,499,107,013</b>	<b>\$ 3,448,577,846</b>	<b>100.00%</b>
31-Dec-07 Total Fund Liabilities		<b>\$ 1,531,515,900</b>	<b>\$ 76,893,700</b>	<b>\$ 1,189,235,400</b>	<b>\$ 2,797,645,000</b>	<b>100.00%</b>

## 8. 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 has 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, 2009, where the liabilities have been calculated using a nominal interest rate of 6.00% (comprised of 4.00% real rate and 2.00% inflation rate) and a mortality table of UP2020. Small 0.25% changes in the inflation or the real rate have been examined to determine the duration of the liabilities.

Real Rate	4.00%	Decrease Inflation Rate ¼%			Decrease Real Rate ¼%		
		4.00%			3.75%		
Inflation Rate	2.00%	1.75%			2.00%		
Nominal Rate	6.00%	5.75%			5.75%		
Mortality	UP2020	UP2020	% Change in	Estimated	UP2020	% Change in	Estimated
Liability Category	Liability	Liability	Liability	Duration	Liability	Liability	Real Duration
Active Participants	\$ 1,873,611,277	\$ 1,927,876,284	2.90%	11.59	\$ 1,950,038,612	4.08%	16.32
Other Participants	75,859,556	77,742,154	2.48%	9.93	78,379,064	3.32%	13.29
Pensions in Payment	1,499,107,013	1,531,746,481	2.18%	8.71	1,531,174,340	2.14%	8.56
Reserves	66,854,650	74,167,727	10.94%	-	80,616,787	20.59%	-
Surplus/(Unfunded)	(272,477,496)	(368,577,646)	-	-	(397,253,803)	-	-
Total	\$ 3,242,955,000	\$ 3,242,955,000	2.73%	10.93	\$ 3,242,955,000	3.55%	14.20
Increase/(Decrease) in Liabilities		\$ 96,100,150			\$ 124,776,307		

The higher the duration, the more sensitive the financial position of the Fund is to a change in actuarial assumption.

Active participant liabilities are more sensitive (volatile) to a change in the assumed rates than other participants. Pensions in payment liabilities are the least sensitive.

The inflation rate changes have about 75% of the impact as an equal change in the real rate.

Further details of the historical inflation and real rates are found in Appendix I.

## **9. PROVISION FOR FUTURE ADVERSE DEVIATIONS (PfADs)**

### **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 1.02% (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.

### **Retirement Rates**

Current expected retirement rates allow for about 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 Rates**

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.

### **Indexing Reserve**

A provision for the anticipated movement of the 2007 Report going concern surplus equal to \$145,068,000 from the Basic Account to the Indexing Account was made for the 2007 Report. The movement of this amount was agreed to by the Liaison and Advisory Committees and occurred in 2009. As a result, the indexing reserve is nil at this time.

### **Contribution Deficiency Reserve**

A provision for the \$33,427,325 annual contribution deficiency has been made on the Going Concern Valuation Balance Sheet. This provision is equal to \$66,854,650 for the next 2 years. This provision assumes that there will be no change in the contribution rates to the Fund in the next 2 years.

Contribution rates to the Fund need to be increased in the near future to eliminate the current contribution deficiency so that future benefit accruals do not cause further increases in the unfunded liability in the Fund.

### **Asset Smoothing Reserve**

An asset smoothing reserve to buffer past and possible future adverse investment experience has been utilized for this Report and is equal to \$294,814,000 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 to mitigate in full, or in part, past and possible future adverse investment experience.

## 10. SUBSEQUENT EVENTS

- This Valuation reflects the new CIA commuted value standards effective April 1, 2009, but not investment or demographic experience that has occurred after 2009, nor is it required for this Report.
- Changes to the Manitoba Pension Benefits Act largely effective May 31, 2010 are not expected to have a material impact on the financial health of the Plan; however, a legal opinion is being obtained on some of the more unclear provisions.
- Possible budget constraints in the Province of Manitoba may lead to salary gains in the next 2 years. These gains, when and if they occur, will be reflected in the next valuation of the Plan as at December 31, 2010.
- In respect of future service, it is recommended contribution rates of employees and matching employers to the Basic Account be increased as indicated in the table below, in the near future, to eliminate the current contribution deficiency so that future benefit accruals do not cause an unfunded liability in the Fund. If 10.2% of the contribution increase is allocated to the Indexing Account, then the contribution increase requirements are even higher, as indicated in the table below.
- 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 \$272,477,496 could be amortized by 15 annual payments of \$27,245,605 (must be divided by 12 and paid monthly) which is equivalent to 1.59% to 1.89% of salary over the next 15 years, as indicated in the table below. Although it is not recommended that deficit recovery occur at this time, 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.

Possible Contribution Increases to be considered separately for both Employees and Matching Employers	Basic Account Only				Basic & Indexing Account			
	Without a 10.2% of Contribution Allocation to the Indexing Account				With a 10.2% of Contribution Allocation to the Indexing Account			
	< CPPE / ≥ CPPE *				< CPPE / ≥ CPPE			
A Future Service > Valuation date								
Recommended Contribution Increase	\$	33,427,325	1.76%	2.08%	\$	37,224,193	1.96%	2.32%
B Past Service < Valuation date								
Possible Amortization of Going Concern Deficit of (\$272,477,496) over 15 years		27,245,605	1.43%	1.70%		30,340,317	1.59%	1.89%
C Total Potential Increase	\$	60,672,930	3.19%	3.78%	\$	67,564,510	3.55%	4.21%

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

- 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, 2009.

## **A P P E N D I X I**

### **Financial & Membership Data**

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

	31-Dec-09	31-Dec-07
<b>Assets</b>		
Fixed Income Investments (market value)	\$ 1,385,300,000	\$ 1,263,303,000
Equity Investments (market value)	2,615,889,000	2,710,472,000
	<u>\$ 4,001,189,000</u>	<u>\$ 3,973,775,000</u>
Net Receivables/Payables (includes a Province Trust Account) (Note 5)	96,332,000	16,774,000
Debt due from the Province of Manitoba (Note 1)	1,826,000	1,826,000
Correctional Officers' Trust Account (Note 2)	(4,145,000)	(4,041,000)
Employer Trust Accounts (Note 3)	(52,057,000)	(53,931,000)
Money Purchase Accounts Plan (Note 4)	(19,477,000)	(16,412,000)
The Province of Manitoba Unfunded Pension Liability Trust Account 1 & 2 (Note 5)	(732,977,000)	(330,740,000)
	<u>\$ 3,290,691,000</u>	<u>\$ 3,587,251,000</u>
Superannuation Adjustment Account	(342,550,000)	(211,907,000)
Expense Reserve	-	-
Asset Smoothing Reserve	294,814,000	(375,202,000)
<b>Total Assets Available for Basic Benefits</b>	<u><u>\$ 3,242,955,000</u></u>	<u><u>\$ 3,000,142,000</u></u>

Note 1: Under Section 24(1) of the Act, 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.

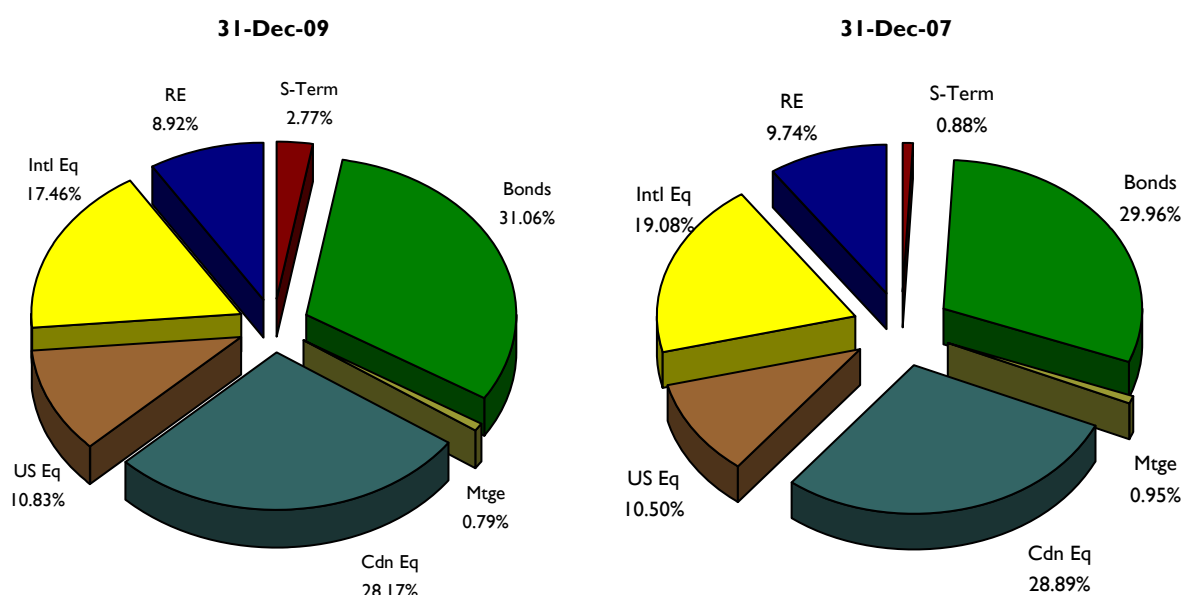
Note 3: The Fund is responsible for providing enhanced benefits enacted in the 1992 legislation agreed to by the Employee Liaison Committee and the Employer Pension Advisory Committee. These benefits are 100% financed from the Fund's net assets available for benefits. To facilitate this funding, trust 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 Act, 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.

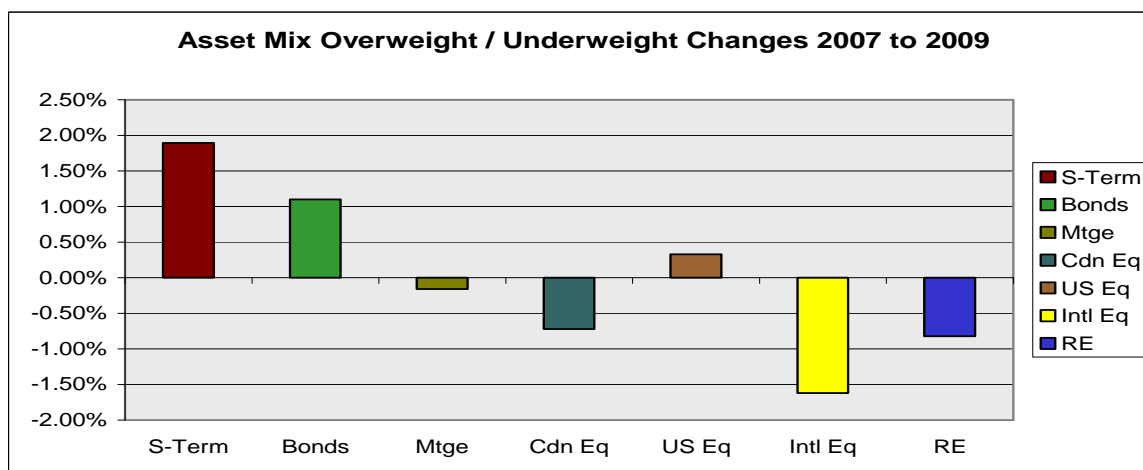
Note 5: The Province of Manitoba has established a fund for the purpose of accumulating funds for the eventual retirement of the Province of Manitoba's unfunded pension obligation. Under the terms of March 6, 2001 and March 30, 2009 agreements between the Province of Manitoba and the Board, the Province 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-09		31-Dec-07	
1.	Short Term (S-Term)	\$ 110,720,000	2.77%	\$ 34,985,000	0.88%
2.	Bonds and Debentures (Bonds)	1,242,838,000	31.06%	1,190,472,000	29.96%
3.	Mortgages (Mtge)	31,742,000	0.79%	37,846,000	0.95%
Fixed Income		\$ 1,385,300,000	34.62%	\$ 1,263,303,000	31.79%
4.	Canadian Equities (Cdn Eq)	1,126,959,000	28.17%	1,147,945,000	28.89%
5.	U.S. Equities (US Eq)	433,423,000	10.83%	417,340,000	10.50%
6.	Non-North American Equities (Intl Eq)	698,610,000	17.46%	758,188,000	19.08%
7.	Real Estate (RE)	356,897,000	8.92%	386,999,000	9.74%
Equity		\$ 2,615,889,000	65.38%	\$ 2,710,472,000	68.21%
		\$ 4,001,189,000	100.00%	\$ 3,973,775,000	100.00%



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 37% fixed income and 63% equity (Source: Audited Financial Statements).

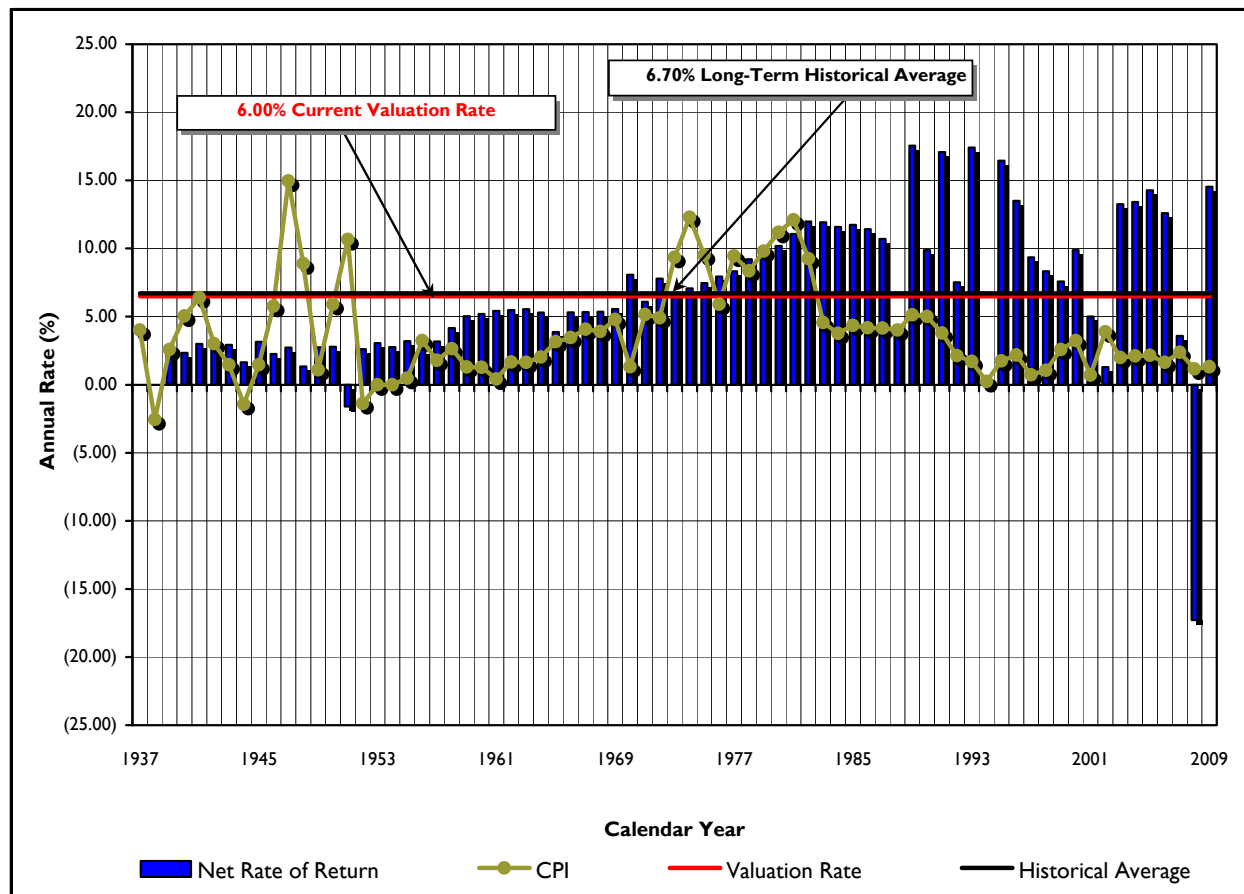


### 3. Historical Cash Flow: 71 Years (Basic Account and Indexing Account)

[1] Year**	[2] Opening Assets	[3] Fund & Pay-as-you-go Contributions	[4] Benefits	[5] Expenses	[6] Investment Fees	[7] Investment Income	[8] Closing Assets	[9] 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%
	\$ 3,804,272,375	\$ 4,357,956,325	\$ (32,981,448)	\$ (53,737,979)	\$ 3,926,071,469			6.70%

- \* 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 Act 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	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
2005	\$ 2,597,604,000	\$ 183,144,000	\$ (200,016,000)	\$ (1,478,000)	\$ (4,312,000)	\$ 374,372,000	\$ 2,949,314,000	14.30%
2006	2,949,314,000	203,958,000	(222,541,000)	(1,540,000)	(4,035,000)	374,648,000	3,299,804,000	12.61%
2007	3,299,804,000	205,565,000	(244,696,000)	(1,482,000)	(5,459,000)	121,612,000	3,375,344,000	3.54%
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%
		<u>\$ 1,051,713,000</u>	<u>\$ (1,355,638,000)</u>	<u>\$ (7,249,000)</u>	<u>\$ (19,367,000)</u>	<u>\$ 681,078,000</u>		<u>5.55%</u>



#### 4. Membership Summary (records processed for liability calculations)

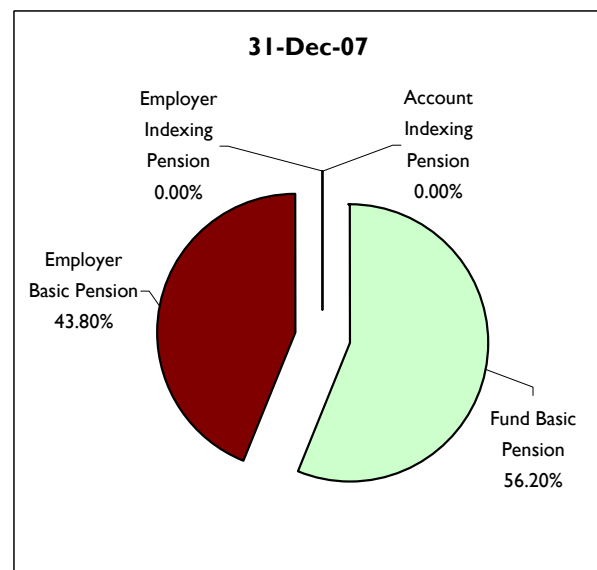
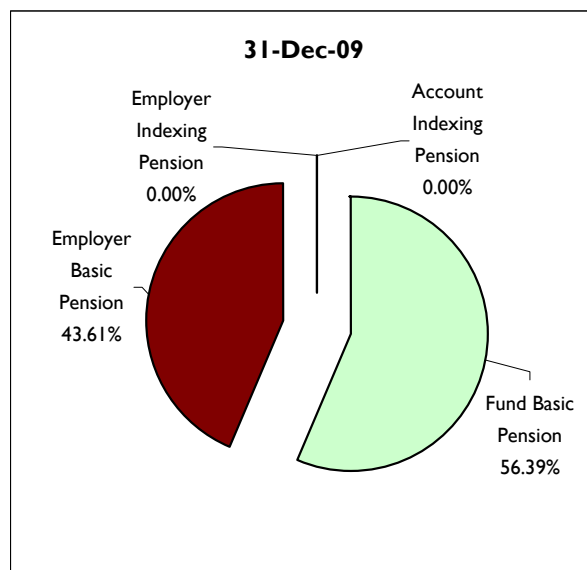
Category	31-Dec-09			31-Dec-07		
	Males	Females	Total	Males	Females	Total
Active Participants	14,980	14,373	29,353	14,056	13,251	27,307
Other Participants						
- Long-Term Disability	40	103	143	42	117	159
- Deferred Annuities	1,157	1,432	2,589	1,180	1,420	2,600
- Transfers	75	50	125	83	58	141
	<u>1,272</u>	<u>1,585</u>	<u>2,857</u>	<u>1,305</u>	<u>1,595</u>	<u>2,900</u>
Pensions in Payment						
- Pensioners	8,299	5,282	13,581	7,777	4,639	12,416
- Survivors	248	2,381	2,629	225	2,272	2,497
	<u>8,547</u>	<u>7,663</u>	<u>16,210</u>	<u>8,002</u>	<u>6,911</u>	<u>14,913</u>
Total	<u>24,799</u>	<u>23,621</u>	<u>48,420</u>	<u>23,363</u>	<u>21,757</u>	<u>45,120</u>

	31-Dec-09			31-Dec-07		
	Number	Average Age	Fund Average Monthly Pension	Number	Average Age	Fund Average Monthly Pension
Active Participants	29,353	44.07	\$ 548.82	27,307	44.93	\$ 531.66
Other Participants	2,857	48.57	216.67	2,900	48.34	218.49
Pensions in Payment	16,210	69.31	696.24	14,913	69.79	639.89
Total	<u>48,420</u>	<u>52.79</u>	<u>\$ 578.57</u>	<u>45,120</u>	<u>53.37</u>	<u>\$ 547.30</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, 2009, 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 are reported separately.

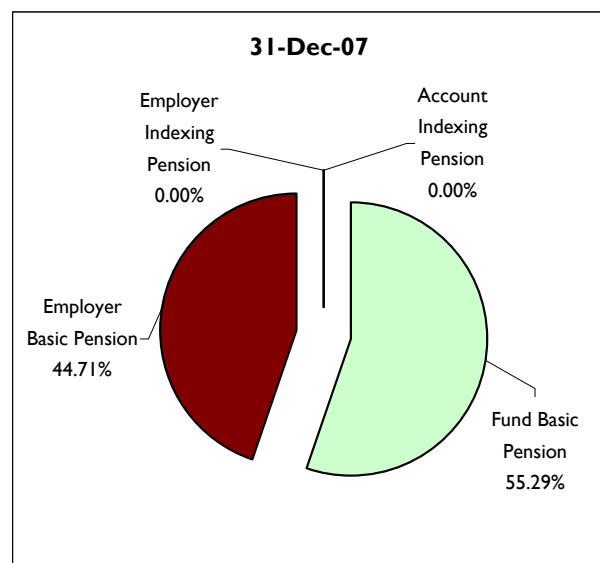
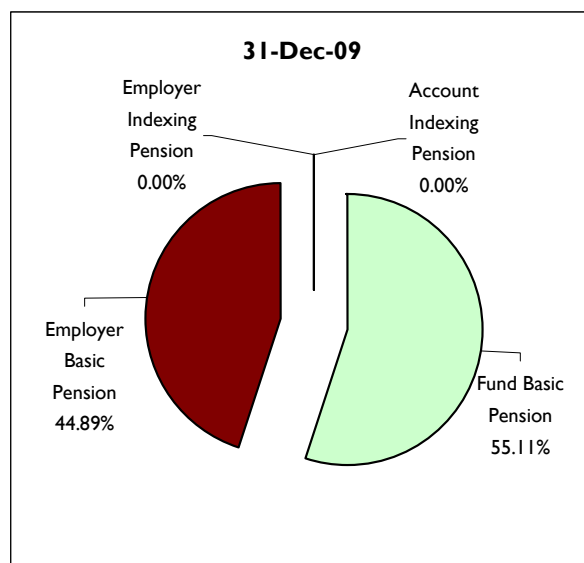
**5. Active Participants Age Profile** (This Report is in respect of Fund obligations only. Employer in the information below refers to pay-as-you-go employers. The Fund includes matching employer pension information.)

		Average Monthly Pension				
Age Band	Number	Basic Pension		Indexing		Total
		Fund	Employer	Employer	Account	
15 - 19	53	\$ 10.26	\$ 5.81	\$ -	\$ -	\$ 16.07
20 - 24	1,153	40.06	27.29	-	-	67.35
25 - 29	2,376	95.69	68.23	-	-	163.92
30 - 34	3,014	187.82	136.38	-	-	324.20
35 - 39	3,336	298.21	213.96	-	-	512.17
40 - 44	3,934	467.41	346.88	-	-	814.29
45 - 49	4,977	641.87	492.59	-	-	1,134.46
50 - 54	5,063	839.06	656.12	-	-	1,495.18
55 - 59	3,683	925.43	729.11	-	-	1,654.54
60 - 64	1,502	889.78	715.14	-	-	1,604.92
65 - 69	262	947.21	915.34	-	-	1,862.55
70 - 74	-	-	-	-	-	-
75 - 79	-	-	-	-	-	-
80 - 84	-	-	-	-	-	-
85 - 89	-	-	-	-	-	-
90 - 94	-	-	-	-	-	-
95 - 99	-	-	-	-	-	-
100 - 104	-	-	-	-	-	-
31-Dec-09	29,353	\$ 548.82	\$ 424.36	\$ -	\$ -	\$ 973.18
31-Dec-07	27,307	\$ 531.66	\$ 414.40	\$ -	\$ -	\$ 946.06



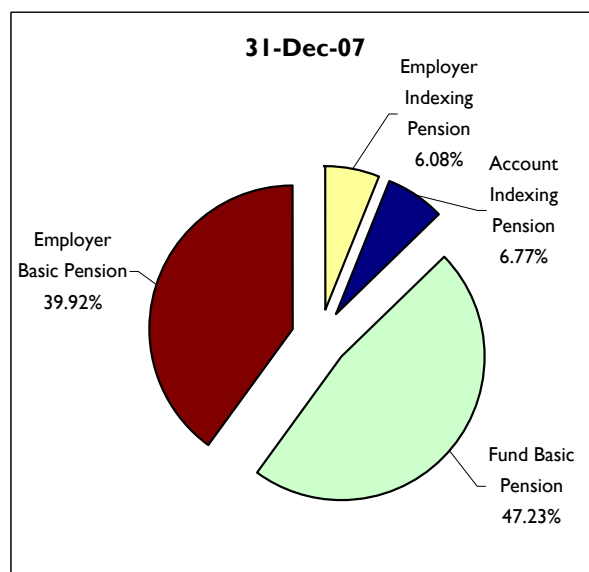
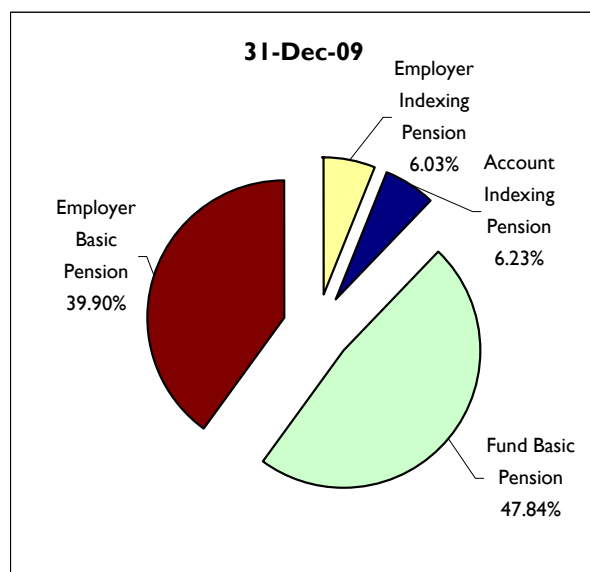
**6. Other Participants Age Profile** (This Report is in respect of Fund obligations only. Employer in the information below refers to pay-as-you-go employers. The Fund includes matching employer pension information.)

		Average Monthly Pension				
Age Band	Number	Basic Pension		Indexing		Total
		Fund	Employer	Employer	Account	
15 - 19	-	\$ -	\$ -	\$ -	\$ -	\$ -
20 - 24	6	36.61	20.15	-	-	56.76
25 - 29	62	71.65	45.42	-	-	117.07
30 - 34	138	107.56	65.40	-	-	172.96
35 - 39	206	129.67	102.06	-	-	231.73
40 - 44	394	174.65	127.50	-	-	302.15
45 - 49	659	220.96	171.38	-	-	392.34
50 - 54	800	305.38	248.54	-	-	553.92
55 - 59	385	200.17	205.45	-	-	405.62
60 - 64	191	182.88	148.47	-	-	331.35
65 - 69	14	135.09	116.17	-	-	251.26
70 - 74	2	91.29	37.06	-	-	128.35
75 - 79	-	-	-	-	-	-
80 - 84	-	-	-	-	-	-
85 - 89	-	-	-	-	-	-
90 - 94	-	-	-	-	-	-
95 - 99	-	-	-	-	-	-
100 - 104	-	-	-	-	-	-
31-Dec-09	2,857	\$ 216.67	\$ 176.46	\$ -	\$ -	\$ 393.13
31-Dec-07	2,900	\$ 218.49	\$ 176.68	\$ -	\$ -	\$ 395.17



**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.)

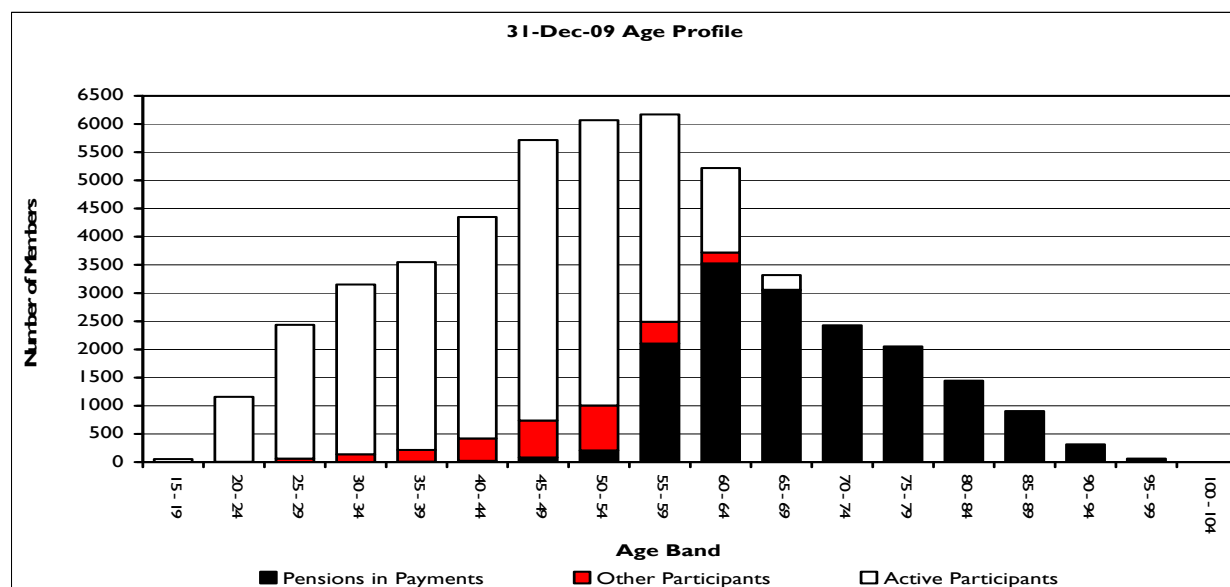
		Average Monthly Pension				
Age Band	Number	Basic Pension		Indexing		Total
		Fund	Employer	Employer	Account	
15 - 19	-	\$ -	\$ -	\$ -	\$ -	\$ -
20 - 24	-	-	-	-	-	-
25 - 29	-	-	-	-	-	-
30 - 34	2	235.18	221.74	2.27	2.27	461.46
35 - 39	9	194.89	185.11	4.07	4.06	388.13
40 - 44	23	249.89	202.26	10.39	10.68	473.22
45 - 49	80	398.31	352.01	16.06	16.33	782.71
50 - 54	205	380.49	571.99	19.69	17.98	990.15
55 - 59	2,105	1,008.78	846.47	16.19	16.02	1,887.46
60 - 64	3,528	946.87	777.74	45.41	46.88	1,816.90
65 - 69	3,046	734.02	603.30	77.13	79.10	1,493.55
70 - 74	2,427	592.40	476.10	106.23	109.86	1,284.59
75 - 79	2,052	506.81	427.02	134.33	139.82	1,207.98
80 - 84	1,447	417.60	364.36	152.85	161.15	1,095.96
85 - 89	906	327.26	284.57	180.73	184.75	977.31
90 - 94	315	249.28	221.11	181.15	184.89	836.43
95 - 99	63	176.71	158.82	195.16	201.20	731.89
100 - 104	2	79.43	74.76	142.67	142.67	439.53
31-Dec-09	16,210	\$ 696.24	\$ 580.64	\$ 87.78	\$ 90.72	\$ 1,455.37
31-Dec-07	14,913	\$ 639.89	\$ 540.85	\$ 82.31	\$ 91.62	\$ 1,354.67



**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	53	\$ 10.26	\$ 5.81	\$ -	\$ -	\$ 16.07
20 - 24	1,159	40.04	27.25	-	-	67.30
25 - 29	2,438	95.08	67.65	-	-	162.73
30 - 34	3,154	184.34	133.33	0.00	0.00	317.67
35 - 39	3,551	288.17	207.40	0.01	0.01	495.59
40 - 44	4,351	439.75	326.25	0.05	0.06	766.11
45 - 49	5,716	589.93	453.59	0.22	0.23	1,043.98
50 - 54	6,068	753.21	599.54	0.67	0.61	1,354.02
55 - 59	6,173	908.62	736.47	5.52	5.46	1,656.07
60 - 64	5,221	902.50	736.71	30.69	31.68	1,701.57
65 - 69	3,322	748.31	625.86	70.72	72.53	1,517.42
70 - 74	2,429	591.99	475.74	106.14	109.77	1,283.64
75 - 79	2,052	506.81	427.02	134.33	139.82	1,207.98
80 - 84	1,447	417.60	364.36	152.85	161.15	1,095.96
85 - 89	906	327.26	284.57	180.73	184.75	977.31
90 - 94	315	249.28	221.11	181.15	184.89	836.43
95 - 99	63	176.71	158.82	195.16	201.20	731.89
100 - 104	2	79.43	74.76	142.67	142.67	439.53
31-Dec-09	48,420	\$ 578.57	\$ 462.05	\$ 29.39	\$ 30.37	\$ 1,100.38
31-Dec-07	45,120	\$ 547.30	\$ 440.92	\$ 27.20	\$ 30.28	\$ 1,045.70

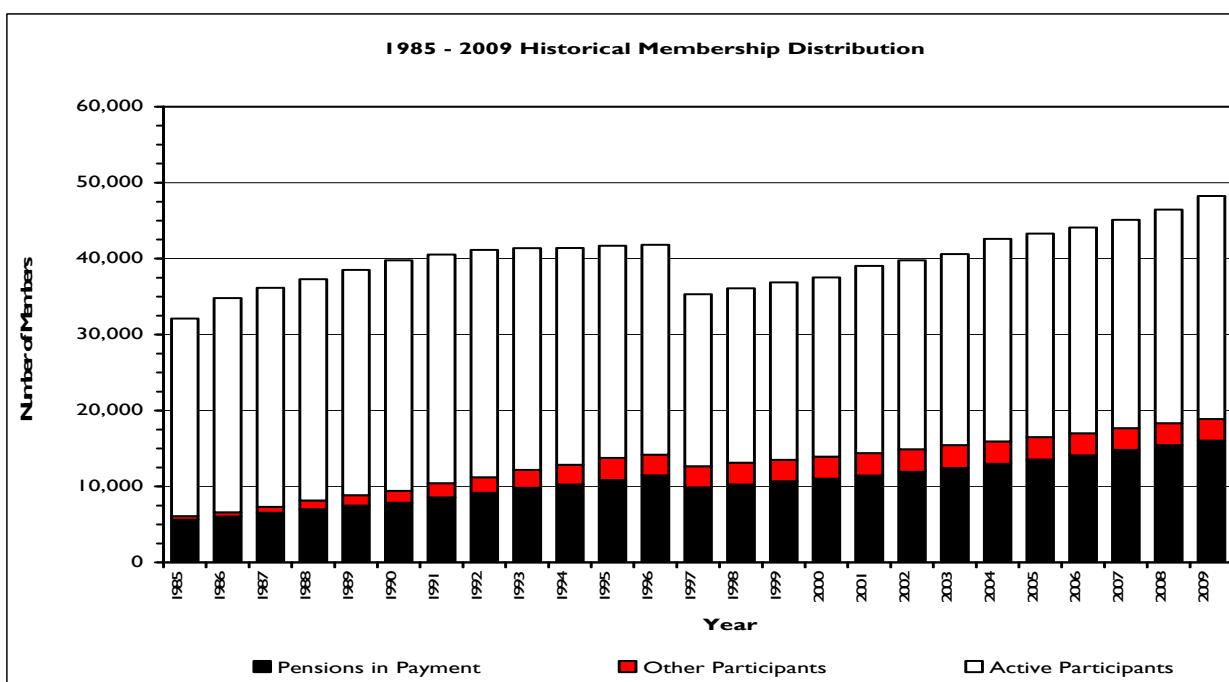
\* The indexing shown above is averaged over the total membership at each age band.



## 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	28,127	2,875	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 *

\* The 48,420 membership records processed for liability calculations is greater than the 48,233 shown in the above table largely due to the inclusion of members who retired between the end of 2009 and the date the valuation file was sent to the actuary.



## 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	3,094	(1,408)	(906)	(53)	(21)	31,002
2009	31,002	3,415	(1,243)	(841)	(72)	(51)	32,210 ***
		<u>54,874</u>	<u>(29,784)</u>	<u>(16,186)</u>	<u>(1,203)</u>	<u>(1,164)</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 ***
		<u>(1,692)</u>	<u>16,186</u>	<u>1,203</u>	<u>(6,787)</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 2009 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	2009 Total
<b>Non-Matching Employers</b>					
1 Province of Manitoba Civil Service	CS	15,179	1,955	10,506	27,640
2 Manitoba Hydro - Electric Board	MH	5,668	221	2,686	8,575
3 Manitoba Public Insurance	AI/AIE	1,759	133	461	2,353
4 Division of Driver and Vehicle Licensing	AIL	197	3	46	246
5 Red River College	RCC	1,235	87	407	1,729
6 Liquor Control Commission	LC	657	60	359	1,076
7 Manitoba Agricultural Services Corporation	AC	-	9	32	41
8 Addictions Foundation of Manitoba	AF	316	33	138	487
9 Assiniboine Community College	ACC	329	29	101	459
10 University College of The North	KCC	288	34	69	391
11 The Legal Aid Services Society of Manitoba	LA	151	15	29	195
12 Manitoba Centennial Centre Corporation	CC	50	7	72	129
13 Teachers' Retirement Allowance Fund Board	TR	32	5	8	45
14 Communities Economic Development Fund	CE	15	3	8	26
15 The Council on Post-Secondary Education	UG	12	1	12	25
16 Manitoba Horse Racing Commission	RC	4	1	5	10
17 Diagnostic Services of Manitoba	DSM	126	-	12	138
18 Regional Health Authority - Winnipeg	RVWA	187	21	101	309
19 Regional Health Authority - Brandon	RBH	172	12	133	317
20 Regional Health Authority - Central	RCA	44	5	48	97
21 Regional Health Authority - Assiniboine	ARH et al	34	4	43	81
22 Regional Health Authority - Parkland	RPL	33	7	40	80
23 Regional Health Authority - Interlake	RIL	37	2	47	86
24 Regional Health Authority - South Eastman	RSE	26	2	10	38
25 Regional Health Authority - Nor-Man	RNF/RNM	19	5	10	34
26 Regional Health Authority - North Eastman	RNE	12	-	16	28
27 Regional Health Authority - Burntwood	RBW	8	5	6	19
28 Manitoba Development Corporation	MDC	-	-	-	-
29 Workers' Compensation Board	WC	-	-	2	2
30 WECCO	WEC	-	-	62	62
		26,590	2,659	15,469	44,718
<b>Matching Employers</b>					
1 Manitoba Lotteries Corporation	LF	1,486	38	49	1,573
2 Manitoba Housing Authority	HA	403	38	182	623
3 Manitoba Agricultural Services Corporation	MAS	158	5	12	175
4 Manitoba Crop Insurance Corporation	CI/CIC	122	26	148	296
5 Manitoba Government and General Employees' Union	EA	81	2	36	119
6 Manitoba Hydro Utilities Service	MHU	80	1	-	81
7 Child and Family All Nations Coordinated Network	ANR	110	3	-	113
8 The Civil Service Superannuation Board	SB	52	12	18	82
9 Gaming Control Commission	GC	50	2	11	63
10 Travel Manitoba	TM	39	1	6	46
11 Food Development Centre	FD	36	7	2	45
12 Manitoba Floodway Expansion Authority Inc.	MFA	34	2	1	37
13 Dairy Farmers of Manitoba	MC	20	5	14	39
14 Industrial Technology Centre	IT	18	6	6	30
15 Manitoba Pork Marketing Co-Op Inc.	HM	15	3	20	38
16 Manitoba Film and Sound	MFS	10	1	-	11
17 Manitoba Pork Council	PC	9	2	5	16
18 Manitoba Arts Council	MA	13	2	4	19
19 Manitoba Chicken Producer Board	CB	5	-	1	6
20 Sport Manitoba	SM	5	1	1	7
21 Crown Corporations Council	CR	5	-	4	9
22 Manitoba Cattle Enhancement Council	MCE	3	-	-	3
23 Manitoba Turkey Producers	TB	3	1	5	9
24 Paletta & Company Hotels	PCH	3	-	1	4
25 Venture Manitoba Tours Ltd.	VT	3	-	2	5
26 Economic Innovation and Technology Council	MR	-	23	29	52
27 Manitoba Development Corporation	DFP	-	2	8	10
28 Manitoba Hazardous Waste	HW	-	-	3	3
29 Manitoba Water Services Board	WS	-	2	13	15
30 Human Resources and Employment Centre	R's/HE	-	7	14	21
31 Manitoba Beef Commission	BC	-	-	1	1
32 Local Government Districts	LG	-	-	2	2
33 Manitoba Mineral Resources Limited	MM	-	-	1	1
34 Manitoba Data Services	DS	-	3	3	6
35 Money Purchase Plan Annuity	MPP	-	-	139	139
36 No Billing (Charged to Fund)	NB	-	3	-	3
		2,763	198	741	3,702
31-Dec-09 Total Membership		29,353	2,857	16,210	48,420
31-Dec-07 Total Membership		27,307	2,900	14,913	45,120



## 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, 2009. 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, 2009, salary rate at December 31, 2009, the proportion of 2009 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 a few records that, for various reasons, such as approved leaves of absence, did not contain salary information for 2009. 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, 2009. 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 49,231 separate records (trailers) in respect of the 16,210 pensions in payment, which gave details on the pension payable from various sources.

Billing Type	Number	Basic Pension		Indexing	
		Fund	Employer	Employer	Account
A	64	\$ -	\$ 1,523.56	\$ 1,784.25	\$ -
B	34,168	11,311,869.37	9,125,820.72	1,401,164.73	1,456,015.64
C	2,689	(59,386.99)	(57,110.93)	-	-
D	4	469.12	-	-	-
E	40	-	421.43	-	-
F	2,202	32,257.30	22,622.47	1,027.38	1,211.18
I	655	60,177.53	23,241.80	-	-
J	2,021	43,049.08	17,381.29	3,523.61	6,642.12
K	34	-	99,044.69	3,388.16	-
L	797	481.84	124,373.45	-	-
M	22	-	794.45	19.53	-
N	343	-	125,125.13	6,054.38	-
O	4,541	(141,089.20)	(138,793.80)	-	-
P	1,483	28,476.39	11,507.78	4,276.40	6,775.54
Q	2	-	1.85	0.41	-
U	29	9,724.27	40,555.38	-	-
W	107	-	300.16	461.68	-
X	25	-	13,920.04	1,152.53	-
Y	5	-	1,387.67	-	-
	<u>49,231</u>	<u>\$ 11,286,028.71</u>	<u>\$ 9,412,117.14</u>	<u>\$ 1,422,853.06</u>	<u>\$ 1,470,644.48</u>

- The General Manager's and Chief Investment Officer's Reports for 2008 and 2009. These Reports included detailed lists of investments held and financial statements of the Fund, including balance sheets, and income and expenditure statements.
- The Annual Reports of the Superannuation Board for 2008 and 2009.
- A copy of the Act, with amendments, to December 31, 2009. 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 Act.

## DATA CERTIFICATE

with respect to

**The Civil Service Superannuation Fund**

forming part of

**The Actuarial Valuation Report as at December 31, 2009**

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 (Act). It is appropriate to value the benefits of these persons in accordance with the provisions of the Act at the valuation date.

ORPpawich  
Signed

Director - CSA  
Title

June 16, 2010  
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 (Act) as amended to the valuation date. The Civil Service Superannuation Board (Board) is responsible for administering the Act. 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 Act.

#### **I.      Effective Date:**

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

#### **2.      Recent Changes:**

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 but are pending legal interpretation.

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 Act 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 Act, 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.

At December 31, 2009, the rates of required contributions for employees who are participants in the Fund were as follows:

	Employees	Matching Employers
On CPP portion of salary	6.00%	5.10%
On portion of salary in excess of CPP earnings	7.00%	7.00%

In accordance with the Act, 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 plus the pension which can be provided by the .2% benefit improvement which was effective September 1, 2000. 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 69; 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 will be 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). This type of protection applies from January 1, 1985. 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 on and after January 1, 1985 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. This test may cause an additional benefit to be paid for service on or after January 1, 1985.

Pension entitlements for service prior to January 1, 1985 are protected for participants over age 45 with 10 or more years of qualifying service.

Where all or a portion of a participant's pension entitlements are not protected, the terminating participant may elect a cash settlement equal to the contributions with interest in respect of that portion.

## **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 completed 2 years of qualifying service, the death benefit is a cash settlement equal to the participant's contributions with interest.

If a participant dies prior to retirement and has completed 2 years but not 10 years of qualifying service, the death benefits are equal to:

- the participant's contributions with interest for service prior to January 1, 1985, and

- the commuted value of the participant's accrued pension for service on and after January 1, 1985. 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 for service on and after January 1, 1985.

If a participant dies prior to retirement and has completed 10 years of qualifying service but there is no surviving spouse, the death benefit is equal to the participant's contributions with interest. The value of the death benefit must be at least equal to the commuted value of the participant's accrued pension for service on and after January 1, 1985.

If there are also eligible survivors, the annuity will be guaranteed for 10 years. If there is no spouse but there is(are) eligible survivor(s), the annuity will be guaranteed up to a maximum of 10 years.

If the participant dies prior to retirement and does not have a spouse or eligible survivor(s), the death benefit is a cash settlement equal to the participant's contributions with interest for service prior to January 1, 1985 and equal to at least the commuted value of the participant's accrued pension for service on and after January 1, 1985.

## **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:**

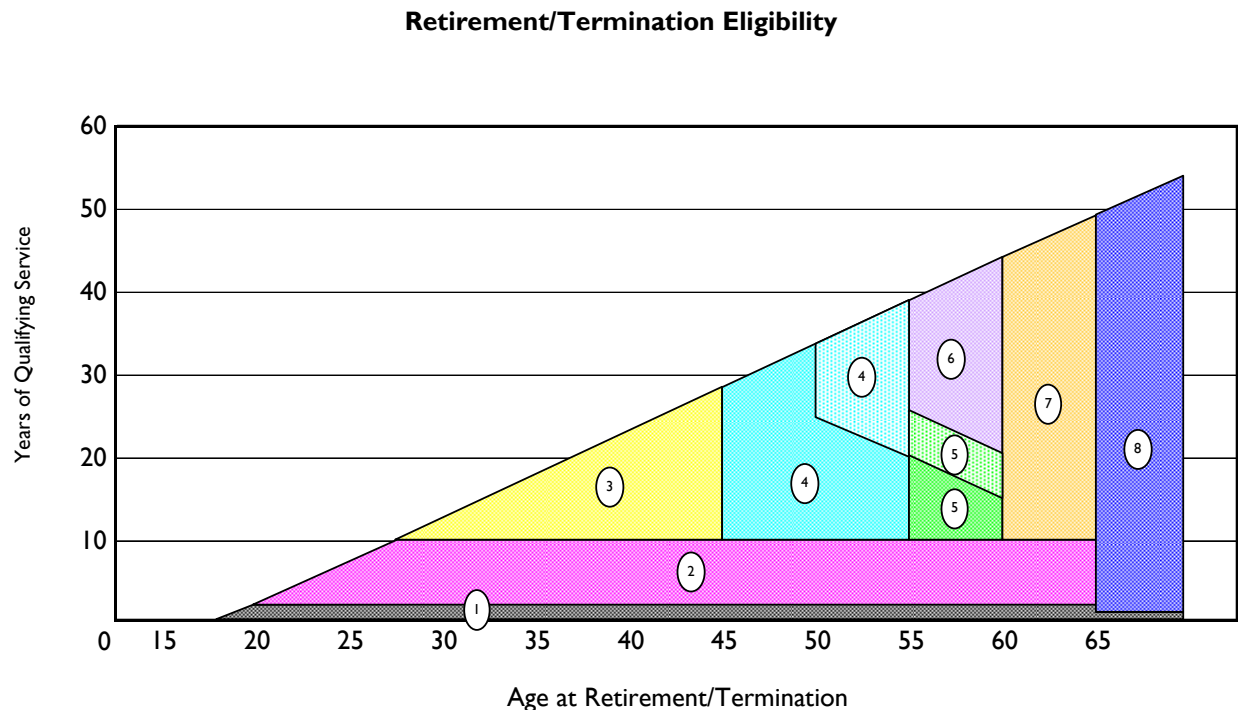
For each event and resulting benefit in the actuarial valuation, we examine the eligibility criteria, benefit amount and maturity value in order to determine the value of that benefit. A description of these items follows:

- Eligibility - benefits usually depend on some combination of attained age and years of qualifying service recognized in the Act.
- Benefit Amount - cash settlements usually equal the participant's required contributions with interest. 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.

## 12. Benefit Chart:

A chart summarizing the main eligibility and benefit amounts on retirement and termination follows:



- 1 Termination ( $t < 1$ , or  $1 < t < 2$  and  $x < 65$ ): cash settlement, vested, generally not locked-in
- 2 Termination ( $x < 65$  and  $t \geq 2$  but  $< 10$ ): locked-in vested pension deferred to age 65 for post-1984 service. For pre-1985 service, a choice of cash settlement or deferred pension is available.
- 3 Termination ( $x < 45$  and  $t \geq 10$ ): locked-in vested pension deferred to age 55 for post-1984 service. For pre-1985 service, a choice of cash settlement or deferred pension is available.
- 4 Termination ( $x \geq 45$  but  $< 55$  and  $t \geq 10$ ): locked-in vested pension deferred to age 55 for all service. Correctional Officers can retire as early as age 50 with an unreduced pension if age plus service total 75 or more.
- 5 Early Retirement ( $x \geq 55$  but  $< 60$  and  $t \geq 10$  and  $<$  rule of 80): immediate reduced pension (bridging may occur). Correctional Officers can retire as early as age 50 with an unreduced pension if age plus service total 75 or more.
- 6 Early Retirement ( $x \geq 55$  but  $< 60$  and  $\geq$  rule of 80): immediate unreduced pension
- 7 Early Retirement ( $x \geq 60$  but  $< 65$  and  $t \geq 10$ ): immediate unreduced pension
- 8 Normal and Postponed Retirement ( $x \geq 65$  and  $t \geq 1$ ): immediate unreduced pension

Changes to the Manitoba Pension Benefits Act effective May 31, 2010 may alter the above presentation, pending legal interpretation that is being obtained.

## APPENDIX III

### Actuarial Assumptions

#### A. Going Concern

Actuarial Assumptions and Methods	2009 Going Concern	2007 Going Concern
1. Actuarial Cost Method		
▪ accrued benefit cost method (ABCM)	ABCM with salary projection	same
▪ contribution deficiency reserve	next 2 years	next 3 years
▪ funding methodology	excludes pay-as-you-go	same
2. Asset Valuation Method		
▪ accrued assets	market value	same
▪ asset smoothing reserve	\$294,814,000 write-up	\$375,202,000 write-down
3. Expenses		
▪ explicit valuation balance sheet reserve	none	same
▪ explicit contribution rate allowance	none	same
▪ implicit assumed rate of return MER	0.20%	0.20%
4. Assumed Rate of Return		
▪ inflation rate	2.00%	2.50%
▪ real rate	<u>4.00%</u>	<u>4.00%</u>
total nominal rate	6.00%	6.50%
5. Assumed Salary Increase Rate		
▪ inflation rate	2.00%	2.50%
▪ real rate	0.75%	0.75%
▪ service, merit, & promotion (SMP) - average	<u>1.00%</u>	<u>1.00%</u>
total nominal rate	3.75%	4.25%
▪ vacation pay allowance (currently 45 days)	3.45%	2.68%
6. Indexing		
▪ if retired or eligible to retire	none	same
▪ existing deferreds during deferral period	1.33%	1.67%
▪ indexing reserve	none	\$145,068,000
7. Annual Employee Contributions Interest Credit	4.00%	4.50%
8. Annual Rate of Increase in CPP Earnings Maximum	2.75%	3.25%
9. Rate of CRA Maximum Pension Increase	2010 \$2,494 increased at 2.75% thereafter	2007: \$2,222 2008: \$2,333 2009: \$2,444 increased at 3.25% thereafter
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	UP2020	GAM94
▪ post-retirement	UP2020	GAM94
▪ 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 2009 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 \$66,854,650 has been held on the going concern Valuation Balance Sheet to allow for the annual expected contribution deficiency of \$33,427,325 in the next 2 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 Act. 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 service on or after January 1, 1985,
- 100% of the value of the excess contributions paid by employees as a result of service on or after January 1, 1985,
- cash settlements paid on termination of service (refunds of employee contributions plus interest),
- cash settlements paid on death before retirement (employee contributions),
- 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.

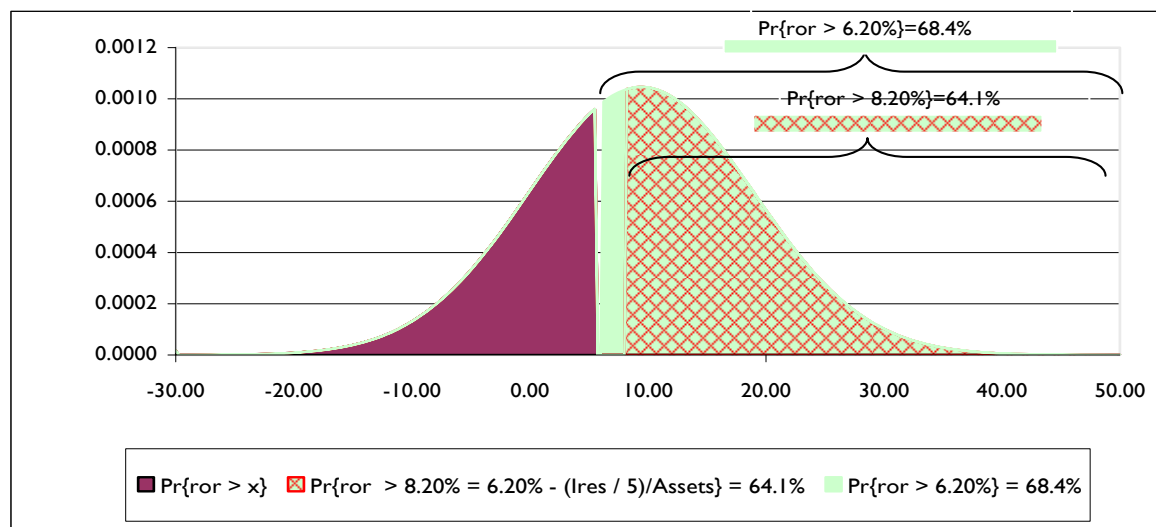
The remainder of the benefits is financed by the Province of Manitoba and its Agencies on a pay-as-you-go-basis (non-matching) or is withdrawn out of amounts set aside in accounts established within the Fund for this purpose. This actuarial valuation relates to the benefits which accrued during employment 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 Reserve	
		Net	Assumed		Proportion	Amount
2005	\$ 370,060,000	14.30%	6.50%	\$ 201,850,909	0.00%	\$ -
2006	370,613,000	12.61%	6.50%	179,575,371	20.00%	35,915,074
2007	116,153,000	3.54%	6.50%	(97,122,282)	40.00%	(38,848,913)
2008	(586,876,000)	(17.51%)	6.50%	(804,734,024)	60.00%	(482,840,414)
2009	391,749,000	14.79%	6.50%	219,580,744	80.00%	175,664,595
Calculated Asset Smoothing Reserve: Preliminary						\$ (310,109,658)
Minimum Asset Smoothing Reserve (-10.00% of assets): Min						(294,814,000)
Maximum Asset Smoothing Reserve (+10.00% of assets): Max						294,814,000
Ires						(294,814,000)
Provision for future Adverse Deviation: PfAD						-
Final Asset Smoothing Reserve 31-Dec-2009: Ires+PfAD						\$ (294,814,000)

### Estimated Probability of Achieving the Required Asset Return



### 50-Year Rate of Return (ror) History \*

Year	Rate	Year	Rate	Year	Rate	Year	Rate
1960	4.46%	1973	(1.23%)	1986	22.18%	1999	13.41%
1961	23.98%	1974	(11.23%)	1987	6.76%	2000	3.78%
1962	(3.09%)	1975	19.14%	1988	11.40%	2001	(4.28%)
1963	13.64%	1976	12.49%	1989	16.62%	2002	(5.73%)
1964	14.86%	1977	10.71%	1990	(5.00%)	2003	12.74%
1965	6.77%	1978	18.53%	1991	16.54%	2004	9.10%
1966	(4.05%)	1979	15.86%	1992	5.57%	2005	11.60%
1967	13.53%	1980	20.91%	1993	22.25%	2006	13.43%
1968	11.21%	1981	(0.78%)	1994	1.15%	2007	2.67%
1969	(2.37%)	1982	18.14%	1995	17.92%	2008	(11.66%)
1970	3.62%	1983	20.43%	1996	15.98%	2009	10.97%
1971	12.25%	1984	9.26%	1997	15.49%		
1972	17.98%	1985	30.65%	1998	15.07%		

\*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.

- Contribution Rate Allowance

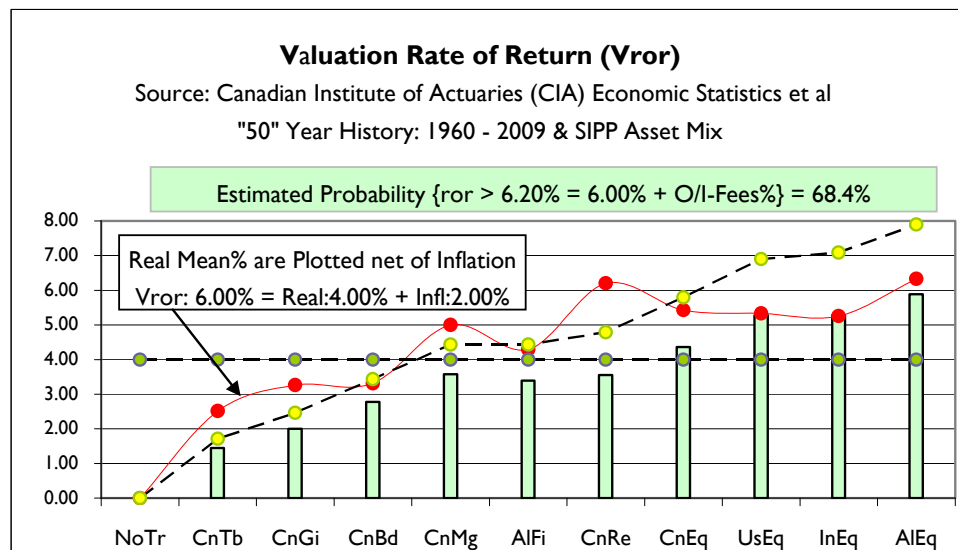
No explicit expense allowance has been made in the development of the normal actuarial cost of basic benefits.

- 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.

2009 Expense	Amount	Assets Under Management	MER
Investment	\$ 3,409,000	\$ 2,948,140,000	0.116%
Administration	1,484,000	2,948,140,000	0.050%
Provision for future Adverse Deviation (PfAD)			0.034%
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
1 CnTb	1.00	2.82	2.51	-0.80	1.71	-0.09	-0.17	1.45
2 CnGi	-	5.39	3.26	-0.80	2.46	-0.12	-0.34	2.00
3 CnBd	36.00	7.37	3.31	0.12	3.43	-0.14	-0.51	2.78
4 CnMg	-	5.91	5.00	-0.57	4.43	-0.16	-0.69	3.58
5 AIFi	-	9.78	4.29	0.14	4.43	-0.18	-0.86	3.39
6 CnRe	7.00	9.05	6.20	-1.41	4.79	-0.21	-1.03	3.55
7 CnEq	24.00	16.34	5.43	0.36	5.79	-0.23	-1.20	4.36
8 UsEq	15.00	17.02	5.33	1.57	6.90	-0.25	-1.37	5.28
9 InEq	17.00	20.10	5.26	1.83	7.09	-0.27	-1.54	5.28
10 AIEq	-	21.96	6.33	1.57	7.90	-0.30	-1.71	5.89
Real	100.00	9.64	5.16	0.06	5.22	-0.20	-1.02	4.00
Infl		3.24	4.09	-2.09	2.00	0.00	0.00	2.00
Vror		9.53	9.63	-2.41	7.22	-0.20	-1.02	6.00

NoTr Not Traded

1 CnTb	Cash	V122541 91-day T-Bills: 1934-2009	CIA-T1B
2 CnGi	Guaranteed Investments	V122526: 5-year GICs: 1965-2009 & V122485: 1960-1964	CIA-T3C&T4C
3 CnBd	Canadian Bonds	V122558 (5%)&V122485 (15%)&V122486 (35%)&V122487 (45%): 1952-2009	CIA-T4C
4 CnMg	Canadian Mortgages	V122497 5-year conventional mortgages: 1952-2009	CIA-T3C
5 AIFi	Alternative Fixed Income	CnBd: 1952-2009 adjusted to increase mean 1.00% last 50 years	CIA-T4C
6 CnRe	Real Estate	ICREIM/IPD: 1973-2009 & S&PTSX: 1960-1972 less 1.00%	CIA-T1B&T7
7 CnEq	Canadian Equity	S&PTSX: 1924-2009	CIA-T1B
8 UsEq	United States Equity	S&P500(C\$): 1938-2009	CIA-T1B
9 InEq	International Equity	EAFE: 1970-2009 & S&P500(C\$): 1960-1969	CIA-T1B&EAFE
10 AIEq	Alternative Equity	UsEq: 1952-2009 adjusted to increase mean 1.00% last 50 years	CIA-T1B

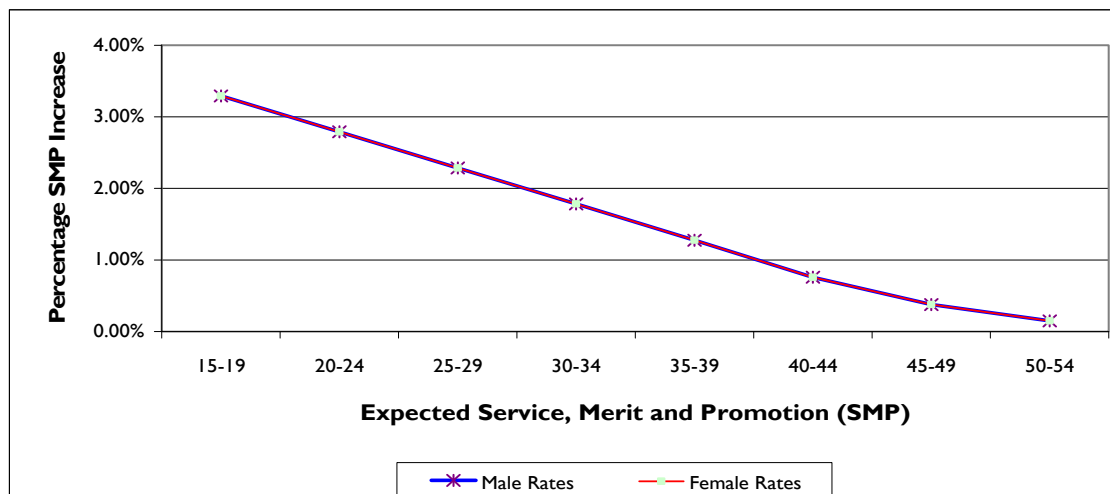
## 5. Assumed Salary Increase Rate

The 2009 general salary increase rate (SINR = inflation plus productivity) has been changed from 3.25% to 2.75% per year as noted below and the service merit and promotional rates (SMP) are continued for the 2009 Report. The expected SINR exceeds the recent actual SINR and as a result provides a reasonable best estimate of Plan experience. In addition, SMP rates start at age 16, are unisex, and reach 0.00% at age 55.

Salary Increase Rate Components	2007 Report	50-Year Average	25-Year Average	2009 Report
Inflation (source CIA Economic Statistics)	2.50%	4.09%	2.53%	2.00%
Productivity (source CIA Economic Statistics)	0.75%	0.99%	0.25%	0.75%
General Salary Increase Rate (SINR)	3.25%	5.08%	2.78%	2.75%
SMP (varies by age as shown in chart below)	1.00%	1.00%	1.00%	1.00%
Total salary increase rate *	4.25%	6.08%	3.78%	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% (2.68% in 2007) which is based on 45 days (35 days in 2007) of vacation being applied ( $3.45\% = 45/261 * 1/5$ ). 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	30	0.42	32,264	3.29%	15-19	23	0.35	25,231	3.29%
20-24	654	1.42	39,264	2.79%	20-24	499	1.18	37,341	2.79%
25-29	1,206	2.79	48,332	2.29%	25-29	1,170	2.28	45,179	2.29%
30-34	1,513	4.74	54,853	1.78%	30-34	1,501	3.86	51,169	1.78%
35-39	1,720	6.75	59,619	1.28%	35-39	1,616	5.61	55,525	1.28%
40-44	1,971	10.37	63,368	0.76%	40-44	1,963	8.87	56,311	0.76%
45-49	2,411	14.41	63,325	0.38%	45-49	2,566	12.97	56,248	0.38%
50-54	2,506	18.74	64,978	0.15%	50-54	2,557	16.76	57,660	0.15%
55-59	1,922	20.57	67,009	0.00%	55-59	1,761	17.10	57,190	0.00%
60-64	881	19.39	66,302	0.00%	60-64	621	16.26	56,244	0.00%
>=65	166	19.37	72,066	0.00%	>=65	96	12.33	53,749	0.00%
31-Dec-09	14,980	12.35	60,751		31-Dec-09	14,373	10.65	54,388	
31-Dec-07	14,056	13.30	56,484		31-Dec-07	13,251	11.19	48,749	
2009 Actual SINR				3.71%	2009 Actual SINR				3.72%
2010 Expected SINR +1.00%				3.75%	2010 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 2009 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 2009 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 2009 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 2009 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 2010 encoded in the Income Tax Act, has occurred.

## 10. Retirement Rates

The 2007 retirement rates are continued for the 2009 Report. The expected retirements exceed the recent actual retirements 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 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	10,171	-	0.00%	15-49	10,144	-	0.00%
50-54	2,851	-	0.00%	50-54	3,017	-	0.00%
55	518	128.77	24.86%	55	538	131.76	24.49%
56	470	54.10	11.51%	56	443	37.26	8.41%
57	385	41.16	10.69%	57	377	34.38	9.12%
58	361	40.32	11.17%	58	335	30.82	9.20%
59	353	45.18	12.80%	59	282	28.00	9.93%
60	273	73.98	27.10%	60	207	44.40	21.45%
61	224	34.76	15.52%	61	158	22.47	14.22%
62	182	31.85	17.50%	62	150	23.06	15.37%
63	175	31.69	18.11%	63	125	22.15	17.72%
64	116	38.08	32.83%	64	77	24.89	32.32%
>=65	173	173.00	100.00%	>=65	105	104.00	99.05%
16,252		692.89		15,958		503.19	

2007	Actual Male & Female Retirements	948
2008	Actual Male & Female Retirements	906
2009	Actual Male & Female Retirements	841
2010	Expected Male & Female Retirements	1,196.08

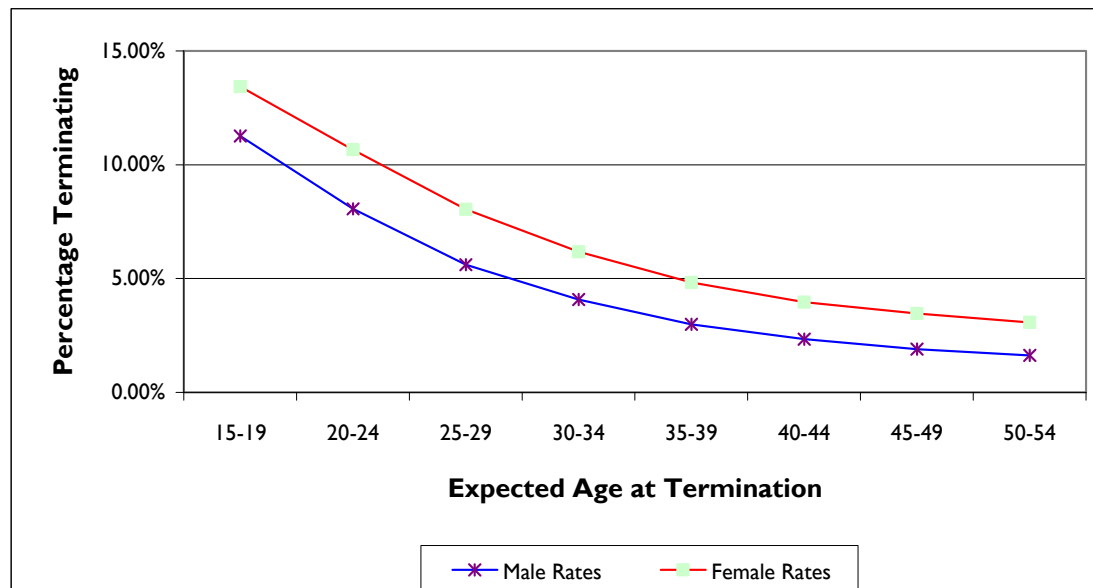


## II. Termination Rates

The 2007 termination rates are continued for the 2009 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	30	3.38	11.27%	15-19	23	3.09	13.43%
20-24	658	53.02	8.06%	20-24	501	53.39	10.66%
25-29	1,241	69.58	5.61%	25-29	1,197	96.28	8.04%
30-34	1,579	64.44	4.08%	30-34	1,573	97.21	6.18%
35-39	1,825	54.50	2.99%	35-39	1,717	82.80	4.82%
40-44	2,150	50.28	2.34%	40-44	2,178	86.27	3.96%
45-49	2,688	51.03	1.90%	45-49	2,955	102.29	3.46%
50-54	2,851	46.18	1.62%	50-54	3,017	92.51	3.07%
55-59	2,087	-	0.00%	55-59	1,975	-	0.00%
60-64	970	-	0.00%	60-64	717	-	0.00%
>=65	173	-	0.00%	>=65	105	-	0.00%
16,252		392.41		15,958		613.84	

2007	Actual Male & Female Terminations	1,172
2008	Actual Male & Female Terminations	1,408
2009	Actual Male & Female Terminations	1,243
2010	Expected Male & Female Terminations	1,006.25



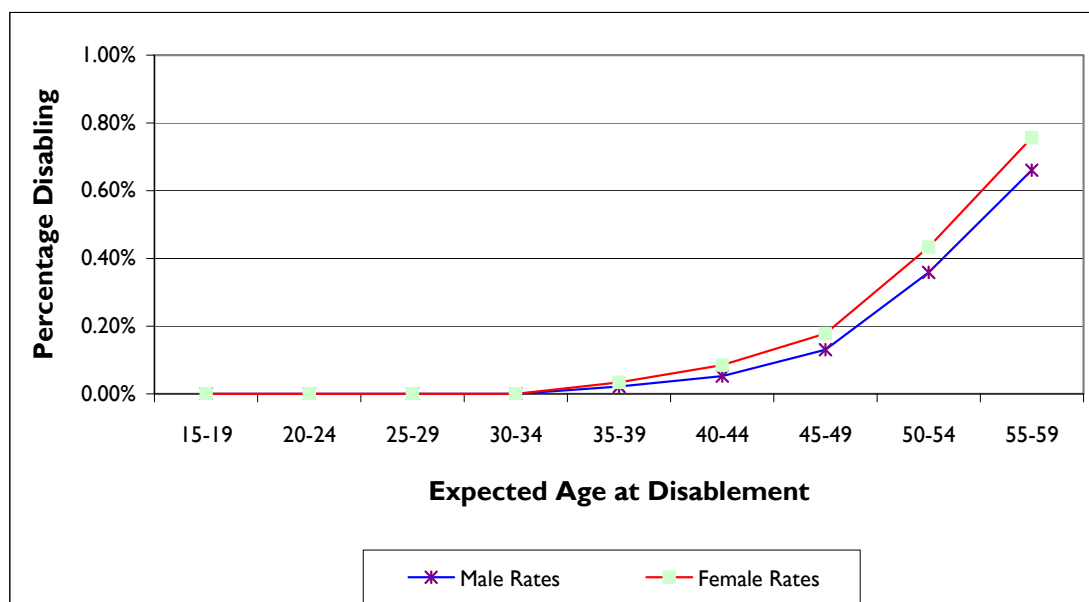


## 12. Disability Rates

The 2007 disability rates are continued for the 2009 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	30	-	0.00%	15-19	23	-	0.00%
20-24	658	-	0.00%	20-24	501	-	0.00%
25-29	1,241	-	0.00%	25-29	1,197	-	0.00%
30-34	1,579	-	0.00%	30-34	1,573	-	0.00%
35-39	1,825	0.40	0.02%	35-39	1,717	0.58	0.03%
40-44	2,150	1.14	0.05%	40-44	2,178	1.86	0.09%
45-49	2,688	3.50	0.13%	45-49	2,955	5.27	0.18%
50-54	2,851	10.22	0.36%	50-54	3,017	13.06	0.43%
55-59	2,087	13.79	0.66%	55-59	1,975	14.93	0.76%
60-64	970	-	0.00%	60-64	717	-	0.00%
>=65	173	-	0.00%	>=65	105	-	0.00%
16,252		29.05		15,958		35.70	

2007	Actual Male & Female Disablements	65
2008	Actual Male & Female Disablements	53
2009	Actual Male & Female Disablements	72
2010	Expected Male & Female Disablements	64.75



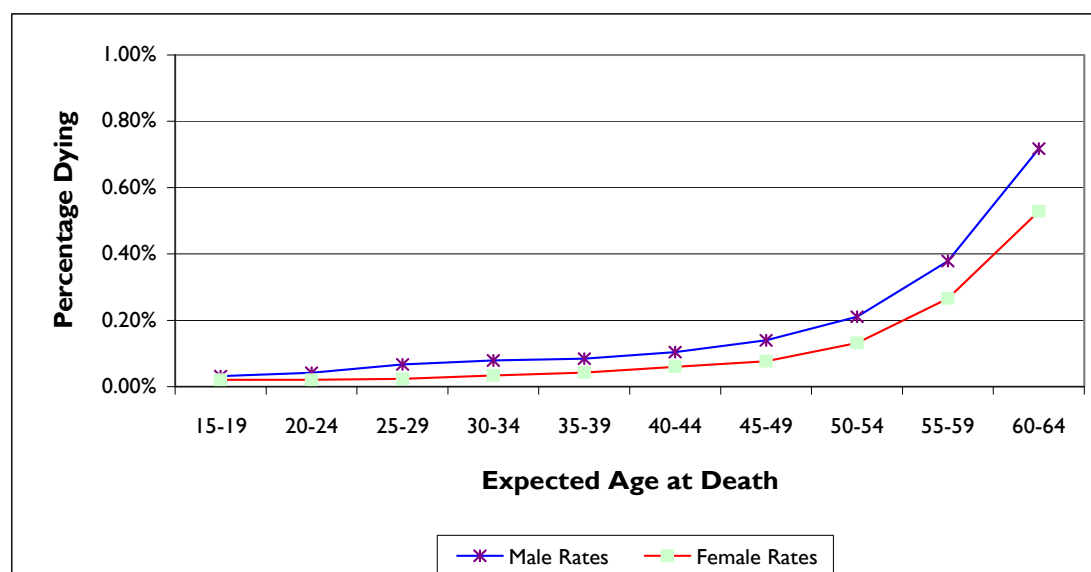
### 13. Death Rates - Pre-Retirement

The 2007 pre-retirement death rates (GAM94) have been reduced to the UP2020 mortality table for the 2009 Report. The expected death rates are now 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 UP2020 mortality table.

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	30	0.01	0.03%	15-19	23	0.00	0.02%
20-24	658	0.27	0.04%	20-24	501	0.10	0.02%
25-29	1,241	0.83	0.07%	25-29	1,197	0.29	0.02%
30-34	1,579	1.24	0.08%	30-34	1,573	0.53	0.03%
35-39	1,825	1.54	0.08%	35-39	1,717	0.73	0.04%
40-44	2,150	2.25	0.10%	40-44	2,178	1.31	0.06%
45-49	2,688	3.76	0.14%	45-49	2,955	2.27	0.08%
50-54	2,851	6.00	0.21%	50-54	3,017	3.98	0.13%
55-59	2,087	7.91	0.38%	55-59	1,975	5.25	0.27%
60-64	970	6.96	0.72%	60-64	717	3.79	0.53%
>=65	173	2.15	1.24%	>=65	105	1.00	0.95%
16,252		32.92		15,958		19.26	

2007	Actual Male & Female Deaths	62
2008	Actual Male & Female Deaths	21
2009	Actual Male & Female Deaths	51
2010	Expected Male & Female Deaths	52.18 UP2020
2010	Expected Male & Female Deaths	64.82 GAM94



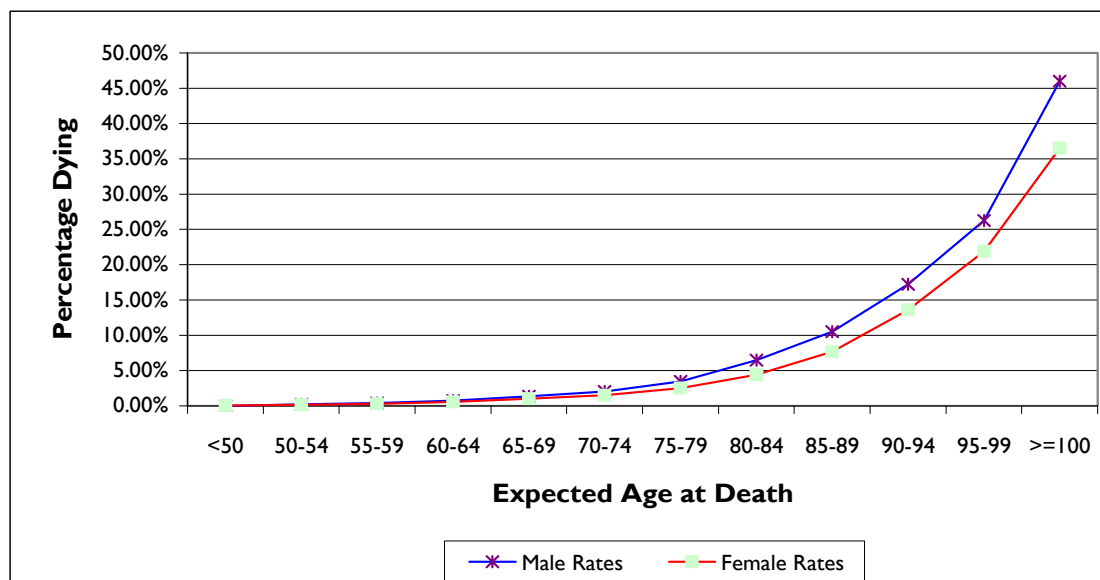
## Death Rates - Post-Retirement

The 2007 post-retirement death rates (GAM94) have been reduced to the UP2020 mortality table for the 2009 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 UP2020 mortality table.

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	16	-	0.00%	<50	33	0.01	0.03%
50-54	51	0.12	0.24%	50-54	72	0.10	0.14%
55-59	1,073	4.41	0.41%	55-59	876	2.53	0.29%
60-64	1,946	14.77	0.76%	60-64	1,292	7.12	0.55%
65-69	1,678	22.67	1.35%	65-69	1,058	10.64	1.01%
70-74	1,317	27.03	2.05%	70-74	714	10.71	1.50%
75-79	1,037	36.13	3.48%	75-79	559	14.07	2.52%
80-84	703	45.46	6.47%	80-84	357	15.68	4.39%
85-89	357	37.56	10.52%	85-89	206	15.83	7.68%
90-94	102	17.55	17.21%	90-94	96	13.07	13.61%
95-99	19	4.99	26.26%	95-99	17	3.72	21.88%
>=100	-	-	46.00%	>=100	2	0.73	36.50%
8,299		210.69		5,282		94.21	

2007	Actual Male & Female Deaths	340
2008	Actual Male & Female Deaths	380
2009	Actual Male & Female Deaths	354
2010	Expected Male & Female Deaths	304.90 UP2020
2010	Expected Male & Female Deaths	357.72 GAM94



## B. Solvency Test\*

Actuarial Assumptions and Methods	2009 Solvency Test			2007 Solvency Test		
1. Actuarial Cost Method	ABCM with no salary projection			same		
▪ accrued benefit cost method (ABCM)	none			same		
▪ contribution deficiency reserve	excludes pay-as-you-go			same		
▪ funding methodology						
2. Asset Valuation Method	market value			same		
▪ accrued assets	none			same		
▪ asset smoothing reserve						
3. Expenses	.50% of assets			same		
▪ explicit valuation balance sheet reserve	none			same		
▪ explicit contribution rate allowance	none			same		
▪ implicit assumed rate of return MER	none			same		
4. Assumed Rate of Return	Annuity	<u>Cash Settlements</u>		Annuity	<u>Cash Settlements</u>	
	<u>Purchases</u>	<u>&lt;10 Yrs</u>	<u>&gt;10 Yrs</u>	<u>Purchases</u>	<u>&lt;10 Yrs</u>	<u>&gt;10 Yrs</u>
▪ inflation rate	1.73%	1.73%	2.59%	2.24%	2.24%	2.34%
▪ real rate	<u>2.76%</u>	<u>2.17%</u>	<u>2.81%</u>	<u>2.26%</u>	<u>2.51%</u>	<u>2.66%</u>
total nominal rate	<u>4.49%</u>	<u>3.90%</u>	<u>5.40%</u>	<u>4.50%</u>	<u>4.75%</u>	<u>5.00%</u>
5. Assumed Salary Increase Rate	none			same		
▪ inflation rate	none			same		
▪ real rate	none			same		
▪ service, merit & promotion (SMP) -average	none			same		
total nominal rate	none			same		
▪ vacation pay allowance	3.45%			2.68%		
6. Indexing	none			same		
▪ if retired or eligible to retire	none			same		
▪ existing deferrals during deferral period	none			same		
▪ indexing reserve	none			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	2010: \$2,494			2007: \$2,222		
	Indexed at 0.00% thereafter			2008: \$2,333		
				2009: \$2,444		
				Indexed at 0.00% thereafter		
10. Retirement Age	immediate			same		
▪ if retired or eligible to retire	first age possible			same		
▪ otherwise						
11. Termination Rates	commuted value			same		
12. Disability Rates	commuted value			same		
13. Mortality Rates	none			same		
▪ pre-retirement	UP2020			UP2015		
▪ post-retirement	exact if available			same		
▪ spousal proportion (generally)	-5/+3 or exact, if available			same		
▪ spousal ages	unisex if not eligible to retire			same		
▪ unisex weightings						

\* 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.

## Development of the Solvency Test Rate of Return

### ■ 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. 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, 2009 is determined by the following table at the Valuation date in conjunction with the mortality table UP2020.

Annuity Purchases	Interest Rate
0	4.49%
$\geq 15,000,000$	4.49%

### ■ 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 2-month lag as required by the Canadian Institute of Actuaries (CIA) standards. Effective for events commencing in April, 2009, the Canadian Institute of Actuaries (CIA) standards utilize the 1994 Uninsured Pensioner Mortality Table (UPI994) projected for mortality improvement to 2020 (UP2020), 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:

CANSIM VI22542 OCTOBER, 2009 RATE ( $i_7$ ) = 2.97% (semi annual)

CANSIM VI22544 OCTOBER, 2009 RATE ( $i_L$ ) = 3.96% (semi annual)

First 10 Years:  $= i_7 + 0.90\% = 3.87\%$

After 10 Years:  $= i_L + 0.50 * (i_L - i_7) + 0.90\% = 5.36\%$

The final rates reflect the required annualization and rounding to the nearest 0.10%. As a result, the rates that have been used for cash settlements are equal to 3.90% for the first 10 years and 5.40% thereafter.

