

Office of the Auditor General

1888 Brunswick Street Suite 302 Halifax, Nova Scotia, B3J 3J8

Bus: (902) 424-5907 Fax: (902) 424-4350

Auditor's Report

To the Members of the Legislative Assembly of Nova Scotia; and To the Minister of Finance

I have audited the statement of net assets available for benefits and accrued pension benefits net of deficiency of the Nova Scotia Teachers' Pension Fund as at December 31, 2002 and the statement of changes in net assets available for benefits for the year then ended. These financial statements are the responsibility of the fund's management. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the net assets available for benefits and accrued pension benefits net of deficiency of the fund as at December 31, 2002 and the changes in net assets available for benefits for the year then ended in accordance with Canadian generally accepted accounting principles.

E. Roy Salmon, FCA Auditor General

S. R. Salman

Halifax, Nova Scotia May 23, 2003

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PROVINCE OF NOVA SCOTIA NOVA SCOTIA TEACHERS' PENSION FUND STATEMENT OF NET ASSETS AVAILABLE FOR BENEFITS AND ACCRUED PENSION BENEFITS NET OF DEFICIENCY AS AT DECEMBER 31, 2002

	2002	2001
NET ASSETS AVAILABLE FOR BENEFITS	(in tho	usands)
Assets		
Investments (Note 4)	\$ 3,230,736	\$ 3,437,725
Receivable from the Province of Nova Scotia (Note 1)	84,376	171,430
Contributions receivable		
Employees'	1,564	1,378
Employers'	4,137	3,907
Net investment transactions outstanding	30,095	-
Accrued income	20,956	19,977
Cash	1,092	1,301
Total assets	3,372,956	3,635,718
Liabilities		
Net investment transactions outstanding	-	16,090
Accounts payable	22,244	20,910
Total liabilities	22,244	37,000
Net assets available for benefits	3,350,712	3,598,718
Actuarial asset value adjustment (Note 5)	14,043	30,657
Actuarial value of net assets available for benefits	\$ 3,364,755	\$ 3,629,375
ACCRUED PENSION BENEFITS NET OF DEFICIENCY		
Accrued pension benefits (Note 6)	\$ 4,380,224	\$ 4,197,692
Deficiency (Note 6)	(1,015,469)	(568,317)
Accrued pension benefits net of deficiency	\$ 3,364,755	\$ 3,629,375

Approved:

Minister of Finance

See accompanying notes to financial statements.

PROVINCE OF NOVA SCOTIA NOVA SCOTIA TEACHERS' PENSION FUND STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS FOR THE YEAR ENDED DECEMBER 31, 2002

	2002	2001
	(in thou	sands)
Increase In Assets		
Interest on receivable from Province of Nova Scotia	\$ 8,787	\$ 12,555
		·
Contributions		
Employers' - matched	50,437	50,601
Employees' - matched	50,437	50,601
Employers' - unmatched - Province	18,058	16,798
Employees' - unmatched	1,934	2,617
Transfers from other pension plans	1,723	983
	122,589	121,600
Total increase in assets	131,376	13/1155
Total increase in assets	131,370	134,155
Decrease In Assets		
Investment activities (Note 4)	162,120	73,008
Benefits paid	207,158	193,934
Operating expenses (Note 7)	7,877	7,806
Refund of contributions and interest and		
transfers to other pension plans	2,227	2,536
Total decrease in assets	379,382	277,284
Decrease in Net Assets	(248,006)	(143,129)
Net Assets Available for Benefits at Beginning of Year	3,598,718	3,741,847
Net Assets Available for Benefits at End of Year	<u>\$ 3,350,712</u>	\$ 3,598,718

See accompanying notes to financial statements.

1. Authority and Description of Plan

The Teachers' Pension Fund (the "Fund") was established by the Teachers' Pension Act (the "Act"). It is the funding vehicle for the Teachers' Pension Plan (the "Plan"), a pension plan which covers public school and community college teachers. The detailed provisions of the Plan, including pension eligibility criteria and benefit formulas are also contained in the Act and in the Regulations made under the Act.

The following description is a summary only. For more complete information, reference should be made to the Plan agreements.

Employee and employer contributions and investment earnings are credited to the Fund. Pensions, payments to terminating employees and administration expenses are charged to the Fund. The Minister of Finance is trustee of the Fund which is invested in federal, provincial, municipal and corporate securities which qualify as eligible investments under the Provincial Finance Act.

The Plan is funded by employee and matching employer contributions of 8.3% of salary up to the Year's Maximum Pensionable Earnings ("YMPE") per the Canada Pension Plan ("CPP") and 9.9% of salary above the YMPE. The basic pension formula is 2% for each year of pensionable service times the number of years of pensionable service. Pensions are integrated with CPP benefits at age 65. Pensions in pay are increased on January 1 of each year at a rate equal to the increase in the Consumer Price Index for Canada less 1%, to a maximum of 6%.

Plan members are eligible for a pension upon reaching any of the following criteria:

- ► 35 years of service;
- age 50 with 30 years of service (reduced pension);
- ► age 55 with an age plus pensionable service factor of 85 "Rule of 85";
- age 55 with two years of service (reduced pension);
- age 60 with 10 years of service;
- age 65 with two years of service.

On July 22, 1994 the Governor in Council authorized an early retirement program (ERP) for Plan members. Each employing school board was required to pay into the Plan an amount in respect of each eligible teacher in the employ of the school board who retired in accordance with these regulations. This receivable is repayable over 8 years and bears interest at 8%. At December 31, 2002 the balance outstanding was \$ 84.4 million (December 31, 2001 - \$171.4 million). Order-in Council 2002-181 dated April 26, 2002 transferred responsibility for making these payments from the school boards to the Province.

2. Summary of Significant Accounting Policies

(a) Basis of Presentation

These financial statements are prepared on a going concern basis and present the aggregate financial position of the Fund as a separate financial reporting entity. In the event there are insufficient funds within the Fund to make all payments required by the Act, the Province of Nova Scotia guarantees cash flow assistance with respect to the pension benefits in pay. These financial statements are prepared in accordance with Canadian generally accepted accounting principles.

(b) Foreign Currency Translation

Transactions denominated in foreign currencies are translated into Canadian dollars at the rates of exchange prevailing on the dates of the transactions. The market value of foreign investments and cash balances held at year end are translated at the rates in effect at that date. The resulting gain or loss from changes in these rates is included in current period change in market value of investments.

(c) Investments

- (i) Investments are reported as of the trade date and are stated at market value. Market value is the amount of the consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act.
- (ii) The derivative contracts held by the Fund are recorded at market value with the resulting gains or losses being recognized in the current period change in market value of investments.
- (iii) Investments held in the Fund include debentures of the Province of Nova Scotia and the Nova Scotia Municipal Finance Corporation with total market value of \$65.3 million (1.9% of total assets) as at December 31, 2002 (\$65.6 million (1.8% of total assets) as at December 31, 2001).

3. Agreement to Address Unfunded Liability

On November 25, 1993, the Act was amended to incorporate the terms of an agreement signed May 13, 1993 between the Nova Scotia Teachers' Union and the Province of Nova Scotia to address the unfunded liability in the Plan.

As part of this agreement the Province agreed to pay \$300 million into the Fund. By July 18, 1997 the Province had paid the amount in full.

The Province also agreed to make payments over a ten year period equal to \$10 million per year in 1993, increased by 7.5% per year. This commitment is set out in Schedule B of the Teachers' Pension Act (note 5).

4. Investments and Derivatives

The investment objectives of the Plan are to provide long-term security of pension benefits to members and to minimize any increases in contributions required by members and the employer. A strategy of investing in assets of Canadian and foreign equities, bonds, debentures, mortgages and money market securities is aimed at achieving these objectives.

(a) Market value of investments and related income before allocating the effects of derivative contracts.

	As at December 3		For the <u>Year</u>	As at <u>December 31,</u>	2001	For the <u>Year</u>
	Assets	%	Income * (Loss)	Assets	%	Income * (Loss)
	(000's)		(000's)	(000's)		(000's)
Money market	\$ 276,780	8.6%	\$ 5,079	\$ 287,494	8.4%	\$ 12,125
Fixed income	1,229,884	38.1%	124,021	1,292,418	37.6%	97,686
Real Estate - Canadian	35,409	1.1%	465	-	0.0%	-
Equities						
- Canadian	898,299	27.8%	(75,239)	922,947	26.8%	(67,482)
- US	530,382	16.4%	(120,005)	617,513	18.0%	(23,168)
- Other foreign	253,346	7.8%	(63,321)	302,413	8.8%	(64,696)
Derivatives	6,636	0.2%	(33,146)	14,940	0.4%	(27,533)
Other		0.0%	<u>26</u>	_	0.0%	60
	\$3,230,736	<u>100.0%</u>	<u>\$(162,120)</u>	<u>\$3,437,725</u>	100.0%	<u>\$ (73,008)</u>

^{*} Includes realized losses of \$14.1 million (\$25.2 million - 2001) and unrealized losses of \$231.8 million (\$122.4 million - 2001).

4. Investments and Derivatives (Continued)

(b) Derivative contracts

Derivatives are financial contracts, the value of which is 'derived' from the value of underlying assets or interest or exchange rates. Derivatives provide flexibility in implementing investment strategy. Money market-to-equity swaps have been used during the year to adjust the asset mix.

The following provides details of the derivative money market-to-equity swap contracts outstanding as at December 31, 2002. Notional amounts of these derivative contracts represent the volume of outstanding transactions and serve as the basis upon which the return from and the market value of the contracts are determined. These contracts are denominated in Canadian dollars and are reset quarterly.

tional Or ncipal	riginal <u>Tern</u>	<u>n</u> Credit Rating of <u>Counterparty</u>	Equity Index	BA Index	Market <u>Value</u>
		(in the	ousands)		
\$ 14,349	1.0 yrs	AA(low)	S&P/TSE60	CAD-BA-CDOR	\$ 393
55,355	1.0 yrs	AA(low)	S&P/TSE60	CAD-BA-CDOR	(567)
45,058	1.0 yrs	AA(low)	S&P/TSE60	CAD-BA-CDOR	2,532
 63,943	1.0 yrs	AA(low)	S&P/TSE60	CAD-BA-CDOR	4,278
\$ <u>178,705</u>					<u>\$ 6,636</u>

4. Investments and Derivatives (Continued)

(c) Market value of investments and related income after allocating the effect of derivative contracts.

	As a <u>December</u>		For the <u>Year</u>	As at December 31	1, 2001	For the <u>Year</u>
	Assets	%	Income * (Loss)	Assets	%	Income * (Loss)
	(000's)		(000's)	(000's)		(000's)
Money market	\$ 97,419	3.0%	\$ 1,015	\$ 73,913	2.1%	\$ 5,319
Fixed income	1,229,884	38.1%	124,021	1,292,418	37.6%	97,686
Real Estate - Canadian	35,409	1.1%	465	=	0.0%	-
Equities						
- Canadian	1,084,296	33.6%	(104,321)	1,151,468	33.5%	(88,209)
- US	530,382	16.4%	(120,005)	617,513	18.0%	(23,168)
- Other foreign	253,346	7.8%	(63,321)	302,413	8.8%	(64,696)
Other	_	0.0%	<u>26</u>	_	0.0%	60
	\$ 3,230,736	100.0%	<u>\$ (162,120)</u>	<u>\$ 3,437,725</u>	100.0%	<u>\$ (73,008)</u>

^{*} Includes realized losses of \$14.1 million (\$25.2 million - 2001) and unrealized losses of \$231.8 million (\$122.4 million - 2001).

(d) Interest rate risk

Interest rate risk refers to the fact that the Plan's financial position will change as market interest rates change. Interest rate risk is inherent in the nature of the pension plan business due to prolonged timing differences between cash flows related to the Plan's assets and cash flows related to the Plan's liabilities.

The value of the Plan's assets is affected by short-term changes in nominal interest rates and equity markets. Pension liabilities are exposed to the long-term expectation of rate of return on the investments as well as expectations of inflation and salary escalation. To meet these liabilities the Plan has established an asset mix policy of approximately 60% equities and 40% fixed income securities. Long-term equity returns have historically shown high correlation with changes in inflation and salary escalation, while fixed income securities are sensitive to changes in nominal interest rates. At December 31, 2002 the \$1,229.9 million fixed income securities had a modified duration of 5.8 years. This means a 1% decrease in nominal interest rates would increase their market value by approximately 5.8 %.

4. Investments and Derivatives (Continued)

(e) Credit risk

Credit risk is the risk of loss in the event the counterparty to a transaction fails to discharge an obligation and causes the other party to incur a loss.

The Plan limits credit risk by purchasing fixed income securities with a credit rating of "BBB" and higher. In addition, the Plan limits derivative contract risk by dealing with counterparties that have a minimum "A" credit rating.

(f) Foreign currency risk

Foreign currency exposure arises from the Plan's holding of foreign currency-denominated equities. From time to time some of this exposure will be hedged based on interest rate spreads or other economic fundamentals.

The Plan's foreign currency exposure as at December 31, 2002 is summarized in the following table.

Currency	<u>2002</u>	<u>2001</u>
	(in thousands)	
Canada	\$ 2,461,461	\$ 2,517,303
Eurozone	66,539	85,310
Japan	27,510	36,204
United Kingdom	58,155	54,293
United States	566,599	672,110
Other	72,520	93,783
Total	\$ 3,252,784	\$ 3,459,003

5. Actuarial Asset Value Adjustment

The actuarial asset value adjustment is comprised of the present value of future payments under Schedule B of the Act. As at December 31, 2002, the present value of these future payments was \$14.0 million (2001 - \$30.7 million).

6. Actuarial Valuation

Actuarial valuations of the Fund are required every year by the Act, and provide an estimate of the accrued pension benefits (Fund liabilities) calculated using various economic and demographic assumptions, based on membership data as at the valuation date. The Plan's consulting actuaries, William M. Mercer Limited, performed a valuation as at December 31, 2002 and issued their report in May 2003. The report indicated that the Plan had an unfunded liability of \$1,015.5 million (2001 - \$568.3 million).

The actuarial valuation projects liabilities for each member on the basis of service earned to date and the employee's projected five year average salary at the expected date of retirement. The projected unit credit method was adopted for the actuarial valuation to determine the current cost and actuarial liability. The major economic and demographic assumptions used in the valuation are as follows:

	Valuation <u>December 31, 2002</u>	Valuation <u>December 31, 2001</u>
Inflation	3.0% per annum	3.0% per annum
Average Salary Increase	0.5% per annum real plus merit ranging from 0.0% to 2.75% based on 5 year age bands	0.5% per annum real plus merit ranging from 0.0% to 2.75% based on 5 year age bands
Real Rate of Return on Investments	4.25% per annum	4.25% per annum
Average Retirement Age	60% - Retire at earliest date first eligible for an unreduced pension	60% - Retire at earliest date first eligible for an unreduced pension
	40% - Retire at the earliest of: - age 65; - 35 years of service; or - age 60 with 10 years of service	40% - Retire at the earliest of:- age 65;- 35 years of service; or- age 60 with 10 years of service
Mortality	1994 Group Annuitant Mortality Table projected to 2000 using scale AA	1994 Group Annuitant Mortality Table projected to 2000 using scale AA

6. Actuarial Valuation (continued)

There were no changes in the major actuarial assumptions and methodology used for the 2002 valuation as compared to the 2001 valuation.

7. Operating Expenses

The Fund is charged with administrative and certain other expenses incurred on behalf of the Fund by the Department of Finance. The following is a summary of these operating expenses.

	<u>2002</u>	<u>2001</u>
		(in thousands)
Plan Administration		
Professional services	\$ 150	\$ 136
Salaries	681	562
Supplies and services	658	378
Travel	6	7
Other	47	88
	1,542	<u>1,171</u>
Investment Expenses		
Investment management fees	5,827	6,219
Professional services	27	83
Salaries	344	265
Supplies and services	52	24
Travel	22	21
Other	63	23
	6,335	6,635
Total Operating Expenses	<u>\$ 7,877</u>	<u>\$ 7,806</u>