

# ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## Financial Statements

YEAR ENDED MARCH 31, 2003

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# AUDITOR'S REPORT



## To the Minister of Revenue

I have audited the balance sheet of the Alberta Heritage Science and Engineering Research Endowment Fund as at March 31, 2003 and the statements of loss and deficit and changes in financial position 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 financial position of the Fund as at March 31, 2003 and the results of its operations and the changes in its financial position for the year then ended in accordance with Canadian generally accepted accounting principles.

I also report that Section 8 (2) of the *Alberta Heritage Foundation for Science and Engineering Research Act* states that "The Provincial Treasurer shall not pay money out of the Endowment Fund if in the opinion of the trustees of the Foundation, on consultation with the Provincial Treasurer, the payment would impair the real value of the Endowment Fund over the long term." As the terms "real value" and "over the long term" are not defined in the legislation, I am unable to assess whether transfers from the Endowment Fund were made in compliance with this section of the Act.

[original signed]

Edmonton, Alberta  
May 22, 2003

FCA  
Auditor General

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## BALANCE SHEET

March 31, 2003 (*thousands*)

	2003	2002
<b>Assets</b>		
Portfolio investments (Note 3)	\$ 473,192	\$ 513,146
Accrued investment income	319	-
Receivable from sale of investments	-	428
Administration expense receivable	-	3
	\$ 473,511	\$ 513,577
<b>Liabilities, Endowment and Retained Earnings</b>		
Administration expense payable	\$ 1	\$ -
Liabilities for investment purchases	-	428
	1	428
Endowment (Note 6)	500,000	500,000
Retained earnings (deficit) (Note 6)	(26,490)	13,149
	\$ 473,511	\$ 513,577

## STATEMENT OF LOSS AND DEFICIT

Year Ended March 31, 2003 (*thousands*)

	Budget	2003 Actual	2002 Actual
<b>Income</b>			
Investment income (loss) (Note 7)	\$ 12,664	\$ (33,314)	\$ (4,754)
<b>Expenses</b>			
Transfers to the Alberta Heritage Foundation for Science and Engineering Research	10,700	6,325	1,550
<b>Net income (loss)</b>	\$ 1,964	(39,639)	(6,304)
<b>Retained earnings at beginning of year</b>		13,149	19,453
<b>Retained earnings (deficit) at end of year</b>		\$ (26,490)	\$ 13,149

The accompanying notes and schedules are part of these financial statements.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## STATEMENT OF CHANGES IN FINANCIAL POSITION

Year Ended March 31, 2003 (*thousands*)

	<b>2003</b>		<b>2002</b>
<b>Operating transactions</b>			
Net loss	\$ (39,639)	\$	(6,304)
Non-cash items included in net loss	796		4,669
	(38,843)		(1,635)
Decrease in receivables	112		161
Decrease in payables	(427)		(4,010)
Cash applied to operating transactions	(39,158)		(5,484)
<b>Investing transactions</b>			
Proceeds from disposals, repayments and redemptions of investments	81,542		68,799
Purchase of investments	(40,557)		(64,440)
Cash provided by investing transactions	40,985		4,359
<b>Increase (decrease) in cash</b>	1,827		(1,125)
<b>Cash at beginning of year</b>	12,563		13,688
<b>Cash at end of year</b>	\$ 14,390	\$	12,563
<b>Consisting of Deposits in the Consolidated Cash Investment Trust Fund (Note 3)</b>	\$ 14,390	\$	12,563

The accompanying notes and schedules are part of these financial statements.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## NOTES TO THE FINANCIAL STATEMENTS

March 31, 2003

**NOTE 1 AUTHORITY AND PURPOSE**

The Alberta Heritage Science and Engineering Research Endowment Fund ("the Fund") operates under the authority of the *Alberta Heritage Foundation for Science and Engineering Research Act*, Chapter A-22, Revised Statutes of Alberta 2000.

The purpose of the Fund is to invest the endowment made to the Fund. The Fund has been managed with the objectives of providing an annual level of income for transfer to the Alberta Heritage Foundation for Science and Engineering while preserving the capital of the endowment over the long term. The portfolio is comprised of high quality fixed-income securities, equities, real estate, absolute return strategy investments and derivative financial instruments.

**NOTE 2 SIGNIFICANT ACCOUNTING POLICIES AND REPORTING PRACTICES**

These financial statements are prepared in accordance with Canadian generally accepted accounting principles.

The accounting policies of significance to the Fund are as follows:

**a) Portfolio investments**

Fixed-income securities, mortgages, equities, real estate investments and absolute return strategy investments held directly by the Fund or by pooled investment funds are recorded at cost. Cost includes the amount of applicable amortization of discount or premium using the straight-line method over the life of the investments.

Investments are recorded as of the trade date.

The cost of disposals is determined on the average cost basis.

Where there has been a loss in value of an investment that is other than a temporary decline, the investment is written down to recognize the loss. The written down value is deemed to be the new cost.

**b) Income Recognition**

Investment income is recorded on the accrual basis. Gains and losses arising as a result of disposals are included in the determination of investment income. Income and expense from derivative contracts are included in investment income.

**c) Foreign Currency**

Foreign currency transactions are translated into Canadian dollars using average rates of exchange, except for hedged foreign currency transactions which are translated at rates of exchange established by the terms of the forward exchange contracts. Exchange differences on unhedged transactions are included in the determination of investment income.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 2** (continued)**d) Investment Valuation**

Fair value is the amount of consideration agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act. Fair values of investments held either directly by the Fund or by pooled investment funds are determined as follows:

- (i) Public fixed-income securities and equities are valued at the period-end closing sale price, or the average of the latest bid and ask prices quoted by an independent securities valuation company.
- (ii) Private fixed-income securities and mortgages are valued based on the net present value of future cash flows. These cash flows are discounted using Government of Canada bond rates adjusted for a risk premium estimated by management.
- (iii) Real estate investments are reported at their most recent appraised value, net of any liabilities against the real property. Real estate properties are appraised annually by qualified external real estate appraisers.
- (iv) The fair value of Absolute Return Strategy Pool investments is estimated by external managers.
- (v) The fair value of deposits, receivables, accrued interest and payables are estimated to approximate their book values.
- (vi) The fair value of investments and any other assets and liabilities denominated in a foreign currency are translated at the year-end exchange rate.

**e) Valuation of Derivative Contracts**

Derivative contracts include equity and bond index swaps, interest rate swaps, forward foreign exchange contracts, equity index futures contracts and cross-currency interest rate swaps. As disclosed in Note 5, the value of derivative contracts is included in the fair value of pooled investment funds. The estimated amount receivable or payable from derivative contracts at the reporting date is determined by the following methods:

- (i) Equity and bond index swaps are valued based on changes in the appropriate market based index net of accrued floating rate interest.
- (ii) Interest rate swaps and cross-currency interest rate swaps are valued based on discounted cash flows using current market yields. The fair value of cross-currency interest rate swaps was not available in prior years. Consequently, no amount is provided for comparative purposes.
- (iii) Forward foreign exchange contracts and equity index futures contracts are based on quoted market prices.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 3 PORTFOLIO INVESTMENTS***(thousands)*

	2003			2002		
	Cost	Fair Value	%	Cost	Fair Value	%
<b>Fixed income securities (Schedule A)</b>						
Deposit in the Consolidated Cash Investment Trust Fund (a)	\$ 14,390	\$ 14,390	3.4	\$ 12,563	\$ 12,563	2.6
Canadian Dollar Public Bond Pool (b)	126,849	128,755	30.7	151,668	151,362	31.8
Private Mortgage Pool (c)	19,491	19,784	4.7	18,114	17,912	3.8
	160,730	162,929	38.8	182,345	181,837	38.2
<b>Canadian equities (Schedule B)</b>						
Domestic Passive Equity Pooled Fund (d)	45,870	38,892	9.3	58,252	53,000	11.2
External Managers Canadian Large Cap Equity Pool (e)	40,117	30,011	7.1	17,039	15,838	3.3
Canadian Pooled Equity Fund (f)	36,984	24,502	5.8	67,981	50,755	10.7
External Managers Canadian Small Cap Equity Pool (g)	2,726	2,586	0.6	4,438	4,997	1.1
	125,697	95,991	22.8	147,710	124,590	26.3
Private Equity Pools (h)	61	61	-	-	-	-
	125,758	96,052	22.8	147,710	124,590	26.3
<b>United States equities (Schedule C)</b>						
External Managers US Large Cap Equity Pool (i)	31,923	24,805	5.9	33,762	30,980	6.5
External Manager US Passive Equity Pool (j)	20,718	18,156	4.3	41,100	35,169	7.4
S&P 500 Index Fund (k)	17,284	15,506	3.7	-	-	-
External Manager US Small/Mid Cap Equity Pool (l)	3,737	3,731	0.9	4,041	4,887	1.0
	73,662	62,198	14.8	78,903	71,036	14.9
Private Equity Pools (h)	286	274	0.1	-	-	-
	73,948	62,472	14.9	78,903	71,036	14.9
<b>Non-North American equities (Schedule D)</b>						
External Managers EAFE Core Equity Pool (m)	41,770	31,181	7.4	41,950	36,893	7.8
External Managers EAFE Plus Equity Pool (m)	18,724	15,352	3.6	18,693	18,598	3.9
External Manager EAFE Passive Equity Pool (n)	17,308	15,787	3.8	19,074	17,672	3.7
	77,802	62,320	14.8	79,717	73,163	15.4
<b>Real estate</b>						
Private Real Estate Pool (o)	24,124	25,546	6.1	24,471	24,724	5.2
<b>Absolute Return Strategies</b>						
Absolute Return Strategy Pool (p)	10,830	10,827	2.6	-	-	-
Total equities and real estate	312,462	257,217	61.2	330,801	293,513	61.8
<b>Total investments (q)</b>	<b>\$ 473,192</b>	<b>\$ 420,146</b>	<b>100.0</b>	<b>\$ 513,146</b>	<b>\$ 475,350</b>	<b>100.0</b>

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 3 (continued)**

The Fund's investments are held in pooled investment funds established and administered by Alberta Revenue. Pooled investment funds have a market based unit value that is used to allocate income to participants and to value purchases and sales of pool units. As at March 31, 2003, the Fund's percentage ownership, at market, in pooled investment funds is as follows:

	% Ownership	
	2003	2002
<b>Internally Managed Investment Pools</b>		
Canadian Dollar Public Bond Pool	1.6	1.7
Canadian Pooled Equity Fund	2.3	2.5
Domestic Passive Equity Pooled Fund	1.8	2.0
Foreign Private Equity Pool (02)	1.8	-
Private Equity Pool (02)	1.8	-
Private Mortgage Pool	2.0	2.0
Private Real Estate Pool	1.3	1.5
S&P 500 Index Fund	3.1	-
<b>Externally Managed Investment Pools</b>		
Absolute Return Strategy Pool	3.4	-
Canadian Large Cap Equity Pool	1.2	0.7
Canadian Small Cap Equity Pool	0.6	1.1
EAFE Core Equity Pool	1.3	1.3
EAFE Passive Equity Pool	2.7	2.0
EAFE Plus Equity Pool	1.3	1.3
US Large Cap Equity Pool	1.4	1.3
US Passive Equity Pool	2.9	2.4
US Small/Mid Cap Equity Pool	0.9	1.2

- a) The Consolidated Cash Investment Trust Fund is managed with the objective of providing competitive interest income to depositors while maintaining maximum security and liquidity of depositors' capital. The portfolio is comprised of high-quality short-term and mid-term fixed-income securities with a maximum term-to-maturity of three years. As at March 31, 2003, securities held by the Fund have an average effective market yield of 3.23% per annum (2002: 2.57% per annum).
- b) The Canadian Dollar Public Bond Pool is managed with the objective of providing above average returns compared to the total return of the Scotia Capital Universe Bond Index over a four-year period while maintaining adequate security and liquidity of participants' capital. The portfolio is comprised of high quality Canadian fixed-income instruments and related derivatives. Competitive returns are achieved through management of the portfolio duration and sector rotation. As at March 31, 2003, securities held by the Pool have an average effective market yield of 5.41% per annum (2002: 5.80% per annum) and the following term structure based on principal amount: under 1 year: 2% (2002: 7%); 1 to 5 years: 37% (2002: 34%); 5 to 10 years: 31% (2002: 31%); 10 to 20 years: 11% (2002: 10%); over 20 years: 19% (2002: 18%).



## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 3** (continued)

- c) The Private Mortgage Pool is managed with the objective of providing investment returns higher than attainable from the Scotia Capital Universe Bond Index over a four-year period or longer. The portfolio is comprised primarily of high quality commercial mortgage loans (94.6%) and provincial bond residuals (5.4%). To limit investment risk, mortgage loans are restricted to first mortgage loans, diversified by property usage and geographic location, and include a small portion of NHA insured loans. As at March 31, 2003, mortgages held by the Pool have an average market yield of 6.43% per annum (2002: 7.01% per annum) and the following term structure based on principal amount: under 1 year: 5% (2002: 10%); 1 to 5 years: 31% (2002: 21%); 5 to 10 years: 20% (2002: 23%); 10 to 20 years: 24% (2002: 26%); and over 20 years: 20% (2002: 20%).
- d) The Domestic Passive Equity Pooled Fund is managed on a passive approach with the objective of providing investment returns comparable to the S&P/TSX Index. The portfolio is comprised of publicly traded equities in Canadian corporations similar in weights to the S&P/TSX Index. To enhance investment returns with no substantial increase in risks, the pool uses structured investments such as domestic equity index swaps. The Pool's investment in units of the Floating Rate Note Pool (FRNP) are used as the underlying securities to support the index swaps of the Pool. FRNP is managed with the objective of generating floating rate income needed for the swap obligations in respect of structured investments in foreign equities, domestic equities and bonds. Through the use of interest rate swaps, FRNP provides investment opportunities in high quality floating-rate instruments with remaining term-to-maturity of ten years or less.
- e) The Canadian Large Cap Equity Pool consists of multiple portfolios of publicly traded Canadian equities. Each portfolio is actively managed by an external manager with expertise in the Canadian large cap equity market. The performance objective is to provide returns higher than the total return of the TSX Index over a four-year period. Return volatility is reduced through multiple manager investment style and market capitalization focus.
- f) The Canadian Pooled Equity Fund is managed with the objective of providing competitive returns comparable to the total return of the S&P/TSX Index. The portfolio is comprised of publicly traded equities in Canadian corporations. Risk is reduced by prudent security selection and sector rotation.
- g) The Canadian Small Cap Equity Pool consists of multiple portfolios of publicly traded Canadian equities with market capitalization of .15% of the S&P/TSX Index total market capitalization at time of purchase. Each portfolio is actively managed by an external manager with expertise in the Canadian small cap equity market. The performance objective is to provide returns higher than the total return of the S&P/TSX Index over a four-year period and returns higher than the Nesbitt Burns Small Cap Index over shorter time periods. Return volatility is reduced through multiple manager investment style and small capitalization focus.
- h) Private Equity Pools are managed with the objective of providing investment returns higher than the Consumer Price Index (CPI) plus 8.0%. The Private Equity Portfolio consists of the Private Equity Pool (02) and the Foreign Private Equity Pool (02). Private equity investments are held in institutionally sponsored private equity pools. Risk is reduced by avoiding direct investments in private companies and by limiting holdings in any single pool.
- i) The US Large Cap Equity Pool consists of multiple portfolios of publicly traded United States equities. Each portfolio is actively managed by an external manager with expertise in the US large cap equity market. The performance objective is to provide returns higher than the total return of the Standard & Poor's (S&P) 500 Index over a four-year period. Return volatility is reduced through multiple manager investment style and large capitalization focus.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 3** (continued)

- j) Publicly traded US equities held in the externally managed US Passive Equity Pool replicate the Standard & Poor's (S&P) 500 Index. The performance objective is to provide returns comparable to the total return of the S&P 500 index over a four-year period.
- k) Publicly traded US equities held in the S&P 500 Index Fund replicate the Standard & Poor's (S&P) 500 Index. The performance objective is to provide returns comparable to the total return of the S&P 500 Index over a four-year period. The Pool's investment in units of the Floating Rate Note Pool (FRNP) are used as the underlying securities to support the index swaps of the Pool (see Note 3d).
- l) The US Small/Mid Cap Equity Pool consists of one portfolio of publicly traded United States equities. The portfolio is actively managed by an external manager with expertise in the small cap and mid cap US equity market. The performance objective is to provide returns higher than the total return of the Russell 2500 index over a four-year period.
- m) The Europe, Australasia and Far East (EAFE) Core and Plus Equity Pools consist of multiple portfolios of publicly traded non-North American equities. EAFE Core portfolios are actively managed by external managers with European and Pacific Basin mandates. EAFE core managers have constraints on foreign currency management and deviations from the MSCI EAFE index asset mix by country. The EAFE Plus portfolios are actively managed by external managers with less constraints on country allocation, stock selection, currency management and investments in emerging markets. The performance objective is to provide returns higher than the total return of the Morgan Stanley Capital International (MSCI) EAFE index over a four-year period.
- n) The externally managed EAFE Passive Equity Pool consists of one portfolio of non-North American publicly traded equities that replicate the MSCI EAFE Index. The performance objective is to provide returns comparable to the total return of the MSCI EAFE Index over a four-year period.
- o) The Private Real Estate Pool is managed with the objective of providing investment returns higher than the Consumer Price Index (CPI) plus 5% over a four-year period. Real estate is held through intermediary companies which have issued to the Pool, common shares and participating debentures secured by a charge on real estate. Risk is reduced by investing in properties that provide diversification by geographic location, by property type and by tenancy. As real estate returns tend to be positively correlated to inflation and negatively correlated to returns from fixed income securities and equities, the Pool provides diversification from the securities market with opportunities for high returns.
- p) The Absolute Return Strategy Pool is managed with the objective of providing investment returns higher than the Consumer Price Index (CPI) plus 6%. The Pool uses external managers who employ various investment strategies. These strategies are expected to produce absolute positive investment returns with lower volatility.
- q) Where there has been a loss in value of an investment that is other than a temporary decline, the cost of the investment is written down to recognize the loss (see Note 2 (a)). Where the fair value remains less than cost, after recording a writedown, it is management's best judgement that the decline in value is caused by short term market trends and are temporary in nature.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 4 INVESTMENT RISK MANAGEMENT**

Income and financial returns of the Fund are exposed to credit risk and price risk. Credit risk relates to the possibility that a loss may occur from the failure of another party to perform according to the terms of a contract. Price risk is comprised of currency risk, interest rate risk and market risk. Currency risk relates to the possibility that the investments will change in value due to future fluctuations in foreign exchange rates. Interest rate risk relates to the possibility that the investments will change in value due to future fluctuations in market interest rates. Market risk relates to the possibility that the investments will change in value due to future fluctuations in market prices.

In order to earn an optimal financial return at an acceptable level of risk, management of the Fund established the following long-term policy asset mix for the 2002-2003 fiscal year:

Fixed-income securities	35% to 25%
Equities	65% to 75%

Risk is reduced through asset class diversification, diversification within each asset class, quality constraints on fixed-income instruments, and restrictions on amounts exposed to countries designated as emerging markets. Controls are in place respecting the use of derivatives (see Note 5). Forward foreign exchange contracts may be used to manage currency exposure in connection with securities purchased in foreign currency (see Note 5).

**NOTE 5 DERIVATIVE CONTRACTS**

Derivative contracts are financial contracts, the value of which is derived from the value of underlying assets, indices, interest rates or currency rates. The Fund participates in investment funds that hold derivative contracts to enhance return, manage exposure to interest rate risk and foreign currency risk and for asset mix management purposes. The notional value of a derivative contract represents the amount to which a rate or price is applied in order to calculate the exchange of cash flows.

- (i) A swap is a contractual agreement between two counter-parties to exchange a series of cash flows based on a notional amount. An equity or bond index swap involves the exchange of a floating interest rate cash flow for one based on the performance of a market index. For interest rate swaps, parties generally exchange fixed and floating rate interest cash flows based on a notional amount. Cross-currency interest rate swaps are contractual obligations in which the principal amounts of Canadian fixed-income securities denominated in foreign currency are exchanged for Canadian currency amounts both initially and at maturity. Over the term of the cross-currency swap, counter-parties exchange fixed to fixed and fixed to floating interest rate cash flows in the swapped currencies. There are underlying securities supporting all swaps. Leveraging is not allowed.
- (ii) Foreign exchange contracts are contractual agreements to exchange specified currencies at an agreed upon exchange rate and on an agreed settlement date in the future.
- (iii) An equity index futures contract is an agreement to receive or pay cash based on changes in the level of the specified stock index.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 5 (continued)**

The following is a summary of the Fund's proportionate share of the notional amount and fair value of derivative contracts held by pooled funds at March 31, 2003.

(thousands)

	Under 1 Year	1 to 3 Years	Maturity Over 3 Years	2003		2002	
				Notional Amount	Fair Value (a)	Notional Amount	Fair Value (a)
Equity index swap contracts	91%	9%	-	\$ 21,261	\$ (492)	\$ 24,627	\$ 372
Bond index swap contracts	100%	-	-	2,239	(7)	2,555	(23)
Interest rate swap contracts	34%	64%	2%	15,079	(516)	11,003	(403)
Forward foreign exchange contracts	100%	-	-	23,405	807	9,683	7
Equity index futures contracts	100%	-	-	502	16	-	-
Cross-currency interest rate swaps	20%	15%	65%	11,200	(2,206)	17,966	(b)
				<b>\$ 73,686</b>	<b>\$ (2,398)</b>	<b>\$ 65,834</b>	<b>\$ (47)</b>

- (a) The method of determining the fair value of derivative contracts is described in note 2 (e).  
 (b) Comparative figures at March 31, 2002 are not provided as the fair value of cross-currency interest rate swaps was not available in prior years.

**NOTE 6 ENDOWMENT AND RETAINED EARNINGS**

The endowment was received from the General Revenue Fund during the fiscal year ended March 31, 2001. The *Alberta Heritage Foundation for Science and Engineering Research Act* provides that money required by the Foundation for the furtherance of its objectives shall be paid from the Fund, but no money shall be paid out of the Fund if the payments would impair the real value of the Endowment Fund over the long term.

**NOTE 7 NET INVESTMENT LOSS**

(thousands)

	2003	2002
Deposits and fixed-income securities	\$ 12,615	\$ 11,956
Canadian equities	(14,413)	(4,805)
United States equities	(19,501)	(2,372)
Non-North American equities	(13,258)	(11,002)
Real estate	1,153	1,585
Absolute return strategies	175	-
<b>Investment loss</b>	<b>(33,229)</b>	<b>(4,638)</b>
Direct administrative expenses (Note 8)	(85)	(116)
<b>Net investment loss</b>	<b>\$ (33,314)</b>	<b>\$ (4,754)</b>

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 7** (continued)

Investment income (loss) is comprised of interest, dividends, amortization of discount or premium, swap income, security lending income and realized gains and losses, net of write-downs on investments. The Fund's share of income (loss) earned from externally and internally managed investment pools is net of administrative expenses incurred by the pools (see Note 8).

The investment loss for the year ended March 31, 2003 includes writedowns of \$25,999,000 (2002: \$15,249,000).

**NOTE 8 ADMINISTRATIVE EXPENSES**

Administrative expenses include investment management, cash management and safekeeping costs and other expenses charged on a cost-recovery basis directly by Alberta Revenue. The Fund's total administrative expenses for the period, including amounts deducted directly from investment income of pooled investment funds is as follows:

*(thousands)*

	<b>2003</b>	<b>2002</b>
Direct fund expenses	\$ 85	\$ 116
Externally managed investment pools	419	371
Internally managed investment pools	104	88
Total	<u>\$ 608</u>	<u>\$ 575</u>
Expenses as a percentage of net assets at fair value	<u>0.145%</u>	<u>0.121%</u>

**NOTE 9 SUBSEQUENT EVENT**

On April 8, 2003, the Government of Alberta announced in Budget 2003 that it intends to transfer \$21 million in assets to the Fund in 2003-04 to increase the endowment's net assets, at cost, to above \$500 million.

**NOTE 10 COMPARATIVE FIGURES**

Certain 2002 figures have been reclassified to conform to 2003 presentation.

**NOTE 11 APPROVAL OF FINANCIAL STATEMENTS**

These financial statements were approved by the Deputy Minister of Revenue.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## SCHEDULES TO THE FINANCIAL STATEMENTS

## SCHEDULE OF INVESTMENTS IN FIXED INCOME SECURITIES

Schedule A

March 31, 2003 (thousands)

	Fund's share 2003		Fund's share 2002	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 14,751	\$ 14,751	\$ 14,331	\$ 14,331
<b>Fixed Income Securities (a)</b>				
Corporate, public and private	91,018	92,158	93,504	93,570
Government of Canada, direct and guaranteed	25,893	26,430	42,868	42,653
Provincial, direct and guaranteed:				
Alberta	286	317	443	472
Other provinces	24,665	25,062	27,421	27,003
Municipal	2,621	2,715	2,214	2,244
	144,483	146,682	166,450	165,942
Receivable from sale of investments and accrued investment income	1,779	1,779	3,625	3,625
Accounts payable and accrued liabilities	(283)	(283)	(2,061)	(2,061)
	1,496	1,496	1,564	1,564
	\$ 160,730	\$ 162,929	\$ 182,345	\$ 181,837

(a) Fixed income securities held as at March 31, 2003 have an average effective market yield of 5.55% per annum (2002: 5.93% per annum) and the following term structure based on principal amount:

	2003 %	2002 %
under 1 year	2	7
1 to 5 years	36	32
5 to 10 years	29	30
10 to 20 years	13	12
over 20 years	20	19
	100	100

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**SCHEDULE OF INVESTMENTS IN CANADIAN EQUITIES**

Schedule B

March 31, 2003 (thousands)

	Fund's share 2003		Fund's share 2002	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 965	\$ 965	\$ 1,616	\$ 1,616
<b>Public equities (a)(b)</b>				
Financial	37,129	30,907	39,635	36,699
Energy	16,207	14,990	15,198	16,156
Materials	20,684	14,663	23,259	18,187
Industrials	9,839	6,979	14,894	11,884
Consumer discretionary	10,969	6,817	14,201	9,997
Information technology	8,740	4,949	14,753	10,249
Telecommunication services	6,853	4,846	5,892	4,481
Consumer staples	4,925	4,041	5,215	4,758
Health Care	4,707	3,314	6,308	4,965
Utilities	4,183	3,252	3,751	3,240
	124,236	94,758	143,106	120,616
Passive index	940	712	2,311	1,681
	125,176	95,470	145,417	122,297
<b>Private equities</b>	59	59	-	-
Receivable from sale of investments and accrued investment income	282	282	1,038	1,038
Accounts payable and accrued liabilities	(724)	(724)	(361)	(361)
	(442)	(442)	677	677
	\$ 125,758	\$ 96,052	\$ 147,710	\$ 124,590

- (a) The Fund's effective net investment in Canadian public equities includes the fair value of deposits and floating rate notes, totalling \$20,396,000 (2002: \$24,627,000) which are used as underlying securities to support the notional amount of Canadian equity index swap contracts and equity index futures contracts.
- (b) The industrial classifications are those used by the S&P/TSX Index.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**SCHEDULE OF INVESTMENTS IN UNITED STATES EQUITIES**

Schedule C

March 31, 2003 (thousands)

	Fund's share 2003		Fund's share 2002	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 778	\$ 778	\$ 465	\$ 465
<b>Public equities (a) (b)</b>				
Financial	14,608	12,065	13,844	12,699
Consumer discretionary	12,188	10,219	10,942	9,804
Health Care	10,275	9,171	9,632	8,848
Information technology	9,927	8,407	13,319	11,339
Industrials	8,265	6,819	8,514	7,967
Consumer staples	6,758	5,719	7,433	6,857
Energy	4,841	3,951	5,459	4,996
Telecommunication services	2,109	1,782	3,283	2,545
Materials	2,144	1,716	2,656	2,480
Utilities	1,745	1,546	2,994	2,676
	72,860	61,395	78,076	70,211
Passive index	5	6	12	10
	72,865	61,401	78,088	70,221
<b>Private Equities</b>	272	260	-	-
Receivable from sale of investments and accrued investment income	149	149	690	690
Accounts payable and accrued liabilities	(116)	(116)	(340)	(340)
	33	33	350	350
	\$ 73,948	\$ 62,472	\$ 78,903	\$ 71,036

(a) The Fund's effective net investment in US public equities includes the fair value of deposits and floating rate notes, totalling \$1,367,000 (2002: \$Nil) which are used as underlying securities to support the notional amount of US equity index swap contracts and equity index futures contracts.

(b) The industrial classifications are those used by the Standard & Poor's indices.



## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**SCHEDULE OF INVESTMENTS IN NON-NORTH AMERICAN EQUITIES**

Schedule D

March 31, 2003 (thousands)

	Fund's share 2003		Fund's share 2002	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 2,303	\$ 2,303	\$ 1,148	\$ 1,148
<b>Public equities (a)</b>				
United Kingdom	21,124	16,552	19,479	18,050
Japan	12,613	9,831	15,300	12,416
France	7,112	5,514	8,718	8,084
Switzerland	5,930	4,726	6,219	5,842
Netherlands	4,999	3,782	6,287	5,809
Germany	3,990	2,951	5,317	4,771
Australia	3,472	3,238	2,867	2,941
Italy	3,393	2,738	2,510	2,418
Hong Kong	2,213	1,784	2,093	2,060
Spain	2,063	1,673	2,189	1,898
Finland	1,346	1,061	1,334	1,379
Sweden	1,151	1,027	1,112	1,221
Other	6,549	5,596	5,222	5,204
	75,955	60,473	78,647	72,093
Receivable from sale of investments and accrued investment income	486	486	1,245	1,245
Accounts payable and accrued liabilities	(942)	(942)	(1,323)	(1,323)
	(456)	(456)	(78)	(78)
	\$ 77,802	\$ 62,320	\$ 79,717	\$ 73,163

- (a) The Fund's effective net investment in Non-North American public equities includes the fair value of deposits and floating rate notes, totalling \$Nil (2002: \$63,000) which are used as underlying securities to support the notional amount of Non-North American equity index swap contracts and equity index futures contracts.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**SCHEDULE OF INVESTMENT RETURNS****Schedule E**

Year Ended March 31, 2003

The Fund uses the time-weighted rate of return based on market values to measure performance. The measure involves the calculation of the return realized by the Fund over a specified period and is a measure of the total return from an investment dollar initially invested. Total return includes cash distributions (interest and dividend payments) and capital gains or losses (realized and unrealized).

The time-weighted rate of return measures the compounded rate of growth of the initial investment over the specified period. It is designed to eliminate the effect that the size and timing of cash flows have on the internal rate of return. The investment industry uses time-weighted rates of return calculated using market values when comparing the returns of funds with other funds or indices.

Investment returns for the Fund are as follows:

	One Year Return		Two Year Compound Annualized Return
	2003	2002	
<b>Time-weighted rates of return</b>			
<b>Short-term fixed income</b>	<b>2.9</b>	<b>4.0</b>	<b>3.5</b>
Scotia Capital 91-day T-Bill Index	2.7	3.7	3.2
<b>Long-term fixed income</b>	<b>9.6</b>	<b>5.9</b>	<b>7.7</b>
Scotia Capital Universe Bond Index	9.2	5.1	7.1
<b>Canadian equities</b>	<b>(17.1)</b>	<b>4.2</b>	<b>(7.1)</b>
S&P/TSX	(17.6)	4.9	(7.0)
<b>United States equities</b>	<b>(30.4)</b>	<b>1.4</b>	<b>(16.0)</b>
S&P 500 Index	(30.7)	1.6	(16.1)
<b>Non-North American equities</b>	<b>(29.1)</b>	<b>(5.6)</b>	<b>(18.2)</b>
MSCI EAFE Index	(29.3)	(7.3)	(19.0)
<b>Private equities (1)</b>	<b>(4.3)</b>	<b>n/a</b>	<b>n/a</b>
Consumer Price Index (CPI) plus 8%	5.7	n/a	n/a
<b>Real estate (2)</b>	<b>9.8</b>	<b>7.3</b>	<b>8.6</b>
Consumer Price Index (CPI) plus 5%	8.9	9.9	9.4
<b>Absolute Return Strategies (1)</b>	<b>1.6</b>	<b>n/a</b>	<b>n/a</b>
Consumer Price Index (CPI) plus 6%	4.7	n/a	n/a
<b>Overall</b>	<b>(10.2)</b>	<b>3.0</b>	<b>(3.9)</b>
<b>Policy Benchmark</b>	<b>(10.6)</b>	<b>3.1</b>	<b>(4.0)</b>

- 1) Actual and benchmark returns are for six months.
- 2) Effective June 1, 2002, the benchmark changed from the Russell Canadian Property Index (RCPI) to CPI plus 5%. Therefore, the benchmark for two years is a combination of RCPI and CPI plus 5%.