

# ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## Financial Statements YEAR ENDED MARCH 31, 2005

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## AUDITOR'S REPORT

### To the Minister of Finance

I have audited the balance sheet of the Alberta Heritage Science and Engineering Research Endowment Fund as at March 31, 2005 and the statements of income and retained earnings and cash flows 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, 2005 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Edmonton, Alberta  
May 20, 2005

*[Original Signed]*  
Fred J. Dunn, FCA  
Auditor General

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## BALANCE SHEET

As at March 31, 2005 (*thousands*)

	2005	2004
<b>Assets</b>		
Portfolio investments (Note 3)	\$ 538,344	\$ 521,616
Administration expense receivable	15	14
	<u>\$ 538,359</u>	<u>\$ 521,630</u>
<b>Liabilities, Endowment and Retained Earnings</b>		
Accounts payable	\$ 940	\$ -
Endowment (Note 6)	500,000	500,000
Retained earnings (Note 6)	37,419	21,630
	<u>\$ 538,359</u>	<u>\$ 521,630</u>

## STATEMENT OF INCOME AND RETAINED EARNINGS

For the Year Ended March 31, 2005 (*thousands*)

	Budget	2005 Actual	2004 Actual
<b>Income</b>			
Net investment income (Note 7)	\$ 11,840	\$ 29,234	\$ 37,106
Transfer from the General Revenue Fund	-	-	21,430
	<u>11,840</u>	<u>29,234</u>	<u>58,536</u>
<b>Expenses</b>			
Transfers to the Alberta Heritage Foundation for Science and Engineering Research (Note 6)	17,217	13,445	10,416
<b>Net income (loss)</b>	<u>\$ (5,377)</u>	15,789	48,120
<b>Retained earnings (deficit) at beginning of year</b>		<u>21,630</u>	<u>(26,490)</u>
<b>Retained earnings at end of year</b>		<u>\$ 37,419</u>	<u>\$ 21,630</u>

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

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## STATEMENT OF CASH FLOWS

For the Year Ended March 31, 2005 (*thousands*)

	2005	2004
<b>Operating transactions</b>		
Net income	\$ 15,789	\$ 48,120
Non-cash items included in net income	4,413	1,363
	<u>20,202</u>	<u>49,483</u>
Decrease (increase) in receivables	(1)	305
Increase (decrease) in payables	940	(1)
Cash provided by operating transactions	<u>21,141</u>	<u>49,787</u>
<b>Investing transactions</b>		
Proceeds from disposals, repayments and redemptions of investments	136,169	40,506
Purchase of investments	(151,461)	(100,271)
Cash applied to investing transactions	<u>(15,292)</u>	<u>(59,765)</u>
<b>Increase (decrease) in cash</b>	5,849	(9,978)
<b>Cash at beginning of year</b>	4,412	14,390
<b>Cash at end of year</b>	<u>\$ 10,261</u>	<u>\$ 4,412</u>
<b>Consisting of Deposit in the Consolidated Cash Investment Trust Fund (Note 3)</b>	<u>\$ 10,261</u>	<u>\$ 4,412</u>

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

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTES TO THE FINANCIAL STATEMENTS**

Year Ended March 31, 2005

**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**

The recommendations of the Public Sector Accounting Board of the Canadian Institute of Chartered Accountants are the primary source for the disclosed basis of accounting. Recommendations of the Accounting Standards Board of the Canadian Institute of Chartered Accountants, other authoritative pronouncements, accounting literature, published financial statements relating to either the public sector or analogous situations in the private sector are used to supplement the recommendations of the Public Sector Accounting Board where it is considered appropriate.

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.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 2 (continued)****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. Certain derivative contracts, which are primarily interest rate swaps and cross-currency interest rate swaps, are designated as hedges of market risks for purposes of hedge accounting. Hedge accounting recognizes gains and losses from derivatives in the statement of income in the same period as the gains and losses of the security being hedged. As a result, income and expense from derivative contracts designated as hedges are recognized in income on an accrual basis with gains and losses recognized in income to the extent realized.

Where a hedge relationship is designated, the hedge is documented at inception. The documentation identifies the specific asset being hedged, the risk that is being hedged, type of derivative used and the matching of critical terms of both the hedged security and the hedging derivative for purposes of measuring effectiveness. The derivative must be highly effective in accomplishing the objective of offsetting either changes in the fair value or cash flows attributable to the risk being hedged both at inception and over the life of the hedge.

Derivative contracts not designated as hedges for purposes of hedge accounting, which are primarily bond index swaps, equity index swaps and equity index futures contracts, forward foreign exchange contracts and credit default swap contracts, are recorded at fair value.

**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.

**d) Investment Valuation**

Portfolio investments are recorded in the financial statements at cost. The fair value of investments is provided for information purposes and is disclosed in Note 3 and Schedules A to E.

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.

Measurement uncertainty exists in the fair values reported for certain investments such as private equities, private real estate, absolute return strategies and other private placements. The fair value of these investments are based on estimates where quoted market prices are not readily available. Estimated fair values may not reflect amounts that could be realized upon immediate sale, nor amounts that ultimately may be realized. Accordingly, the estimated fair values may differ significantly from the values that would have been used had a ready market existed for these investments.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 2 (continued)**

Fair values of investments held either 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) The fair value of private equities is estimated by managers or general partners of private equity funds, pools and limited partnerships. Valuation methods may encompass a broad range of approaches. The cost approach is used to value companies without either profits or cash flows. Established private companies are valued using the fair market value approach reflecting conventional valuation methods including discounted cash flows and multiple analyses.
- (iv) The fair value of 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. Appraisers use a combination of methods to determine fair value including replacement cost, direct comparison, direct capitalization of earnings and discounted cash flows.
- (v) The fair value of absolute return strategy investments is estimated by external managers.
- (vi) The fair values of deposits, receivables, accrued interest and payables are estimated to approximate their book values.
- (vii) 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, cross-currency interest rate swaps, credit default swaps, forward foreign exchange contracts and equity index futures contracts. As disclosed in Note 5, the value of derivative contracts is included in the fair value of pooled investment funds. The estimated fair value of 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 and exchange rates.
- (iii) Credit default swaps are valued based on discounted cash flows using current market yields and calculated default probabilities.
- (iv) Forward foreign exchange contracts and equity index futures contracts are valued based on quoted market prices.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 3 PORTFOLIO INVESTMENTS (Schedules A to E)**

(thousands)

	2005			2004		
	Cost	Fair Value	%	Cost	Fair Value	%
<b>Fixed-Income Securities (Schedule A)</b>						
Deposit in the Consolidated Cash						
Investment Trust Fund (a)	\$ 10,261	\$ 10,261	1.9	\$ 4,412	\$ 4,412	0.8
Canadian Dollar Public Bond Pool (b)	140,906	145,692	26.5	150,432	157,029	29.8
Private Mortgage Pool (c)	24,005	25,016	4.6	25,285	26,384	5.0
Overlay Pool (d)	1,090	1,092	0.2	-	-	-
	176,262	182,061	33.2	180,129	187,825	35.6
<b>Canadian Equities (Schedule B)</b>						
Domestic Passive Equity Pooled Fund (e)	36,838	34,494	6.3	54,518	50,606	9.6
Canadian Pooled Equity Fund (f)	24,136	22,306	4.1	35,481	31,003	5.9
External Managers:						
Canadian Equity Enhanced Index Pool (g)	10,628	11,631	2.1	-	-	-
Canadian Large Cap Pool (h)	7,521	7,055	1.3	33,853	32,000	6.1
Canadian Small Cap Pool	-	-	-	1,389	1,687	0.3
Growing Equity Income Pool (i)	5,673	6,744	1.2	7,856	8,237	1.5
Canadian Multi-Cap Pool (j)	4,921	4,925	0.9	-	-	-
	89,717	87,155	15.9	133,097	123,533	23.4
Overlay Pool Canadian futures contracts (d)	(5,569)	(5,569)	(1.0)	-	-	-
	84,148	81,586	14.9	133,097	123,533	23.4
<b>United States Equities (Schedule C)</b>						
S&P 500 Index Fund (k)	65,728	67,771	12.3	41,035	43,624	8.3
External Managers:						
US Large Cap Equity Pool	5	5	-	27,378	25,223	4.8
US Small/Mid Cap Equity Pool (l)	12,084	12,116	2.2	8,849	9,682	1.8
Portable Alpha United States Equity Pool (m)	15,794	15,407	2.8	-	-	-
Growing Equity Income Pool (i)	1,082	1,074	0.2	-	-	-
	94,693	96,373	17.5	77,262	78,529	14.9
Overlay Pool US futures contracts (d)	5,598	5,598	1.0	-	-	-
	100,291	101,971	18.5	77,262	78,529	14.9
<b>Non-North American Equities (Schedule D)</b>						
External Managers:						
EAFE Core Equity Pool (n)	55,793	53,725	9.8	42,680	41,792	7.9
EAFE Plus Equity Pool (n)	28,052	27,837	5.1	18,356	19,445	3.7
EAFE Passive Equity Pool (o)	17,715	20,548	3.7	18,412	23,048	4.4
Emerging Market Equity Pool (p)	5,657	6,233	1.1	-	-	-
	107,217	108,343	19.7	79,448	84,285	16.0
<b>Real Estate (Schedule E)</b>						
Private Real Estate Pool (q)	37,158	42,691	7.8	28,167	29,976	5.7
Foreign Private Real Estate Pool (r)	1,853	1,758	0.3	-	-	-
	39,011	44,449	8.1	28,167	29,976	5.7
<b>Absolute Return Strategies</b>						
External Managers:						
Absolute Return Strategy Pool (s)	26,015	25,817	4.7	21,625	21,432	4.1
<b>Private Equity and Income (t)</b>						
Private Equity Pools	2,869	2,708	0.5	1,360	1,177	0.2
Private Income Pools	2,531	2,493	0.4	528	527	0.1
	5,400	5,201	0.9	1,888	1,704	0.3
<b>Total Investments (u)</b>	<b>\$538,344</b>	<b>\$549,428</b>	<b>100.0</b>	<b>\$521,616</b>	<b>\$527,284</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 Finance. 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, 2005, the Fund's percentage ownership, at market, in pooled investment funds is as follows:

	% Ownership	
	2005	2004
<b>Internally Managed Investment Pools</b>		
Canadian Dollar Public Bond Pool	1.6	1.9
Canadian Multi-Cap Pool	2.1	-
Canadian Pooled Equity Fund	2.1	3.0
Domestic Passive Equity Pooled Fund	1.5	2.2
Foreign Private Equity Pool (02)	1.7	1.8
Foreign Private Real Estate Pool	3.7	-
Growing Equity Income Pool	2.6	3.2
Overlay Pool	1.6	-
Private Equity Pool (02)	1.8	1.8
Private Equity Pool (04)	4.0	-
Private Income Pool	1.1	1.5
Private Mortgage Pool	2.1	2.2
Private Real Estate Pool	1.5	1.4
Standard & Poor's 500 Index Fund	3.7	3.5
Portable Alpha United States Equity Pool	4.3	-
<b>Externally Managed Investment Pools</b>		
Absolute Return Strategy Pool	3.7	3.7
Canadian Equity Enhanced Index Pool	2.2	-
Canadian Large Cap Equity Pool	0.3	1.0
Canadian Small Cap Equity Pool	-	0.3
EAFE Core Equity Pool	1.7	1.4
EAFE Passive Equity Pool	4.5	3.4
EAFE Plus Equity Pool	1.8	1.3
Emerging Markets Equity Pool	1.5	-
US Large Cap Equity Pool	-	1.3
US Small/Mid Cap Equity Pool	1.3	1.4

- (a) The Consolidated Cash Investment Trust Fund is managed with the objective of providing competitive interest income to depositors while maintaining appropriate 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, 2005, securities held by the Fund have an average effective market yield of 2.79% per annum (2004: 2.11% per annum).

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 3 (continued)**

- (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 excess return is achieved through management of portfolio duration and sector rotation. The portfolio is comprised of high quality Canadian fixed-income instruments and debt related derivatives. As at March 31, 2005, securities held by the Pool have an average effective market yield of 4.48% per annum (2004: 4.20% per annum) and the following term structure based on principal amount: under 1 year: 3% (2004: 2%); 1 to 5 years: 38% (2004: 40%); 5 to 10 years: 31% (2004: 30%); 10 to 20 years: 12% (2004: 10%); and over 20 years: 16% (2004: 18%).
- (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, 2005, securities held by the Pool have an average effective market yield of 5.29% per annum (2004: 5.50% per annum) and the following term structure based on principal amount: under 1 year: 2% (2004: 7%); 1 to 5 years: 22% (2004: 23%); 5 to 10 years: 43% (2004: 26%); 10 to 20 years: 12% (2004: 20%); and over 20 years: 21% (2004: 24%).
- (d) The Overlay Pool provides participants with a quick, effective and efficient means to achieve tactical asset allocation opportunities without incurring undue transaction costs in the underlying investments. Long or short exposures to respective asset classes are obtained through synthetic instruments on a largely unfunded basis using equity index futures contracts. Approximately 5% to 10% of the Pool's notional exposure in Canadian and US futures contracts is supported by cash and short-term securities. The Overlay Pool is comprised of the "long" position through US futures contracts, the "short" position through Canadian futures contracts, and the "cash securities" position through money market securities. Taken together these three positions reduce exposure to Canadian equities and increase exposure to U.S. equities.
- (e) The Domestic Passive Equity Pooled Fund is managed on a passive approach with the objective of providing investment returns comparable to the Toronto Stock Exchange S&P/TSX Composite Index. The portfolio is comprised of publicly traded Canadian equities and structured investments replicating the S&P/TSX 60 Index. 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 domestic bonds. Through the use of interest rate swaps, FRNP provides investment opportunities in high quality floating-rate instruments with remaining term-to-maturity of five years or less.
- (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 Composite Index while maintaining maximum preservation of participants' capital. The portfolio is comprised of publicly traded equities in Canadian corporations. Risk is reduced by prudent security selection, while remaining sector neutral.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 3 (continued)**

- (g) The externally managed Canadian Equity Enhanced Index Pool allows participants the opportunity to gain investment exposure to the Canadian large cap equity market. The performance objective is to provide returns higher than the total return of the S&P/TSX Composite Index over a four-year moving average period. The portfolio is comprised of publicly traded equities in Canadian corporations. The enhanced index generates a consistent level of return above the Index with relatively low risk.
- (h) 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 S&P/TSX Composite Index over a four-year period. Return volatility is reduced through multiple manager investment style and market capitalization focus.
- (i) The Growing Equity Income Pool is managed with the objective of providing a steady and growing stream of dividend income to client portfolios by investing in mature companies with strong financial characteristics and growing distributions. Risk is reduced by holding established, well-capitalized companies. The performance of the pool is measured against the total return of the S&P/TSX Composite Index.
- (j) The Canadian Multi-Cap Pool allows participants to gain investment exposure to the Canadian equity market through internally managed structured investments replicating the S&P/TSX 60 Index and external actively managed Canadian small and mid cap investments. The performance of the pool is measured against the total return of the S&P/TSX Composite Index over a four-year moving average 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 3(e)).
- (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 Portable Alpha United States Equity Pool consists of futures and swap contracts which provide exposure to the U.S. equity market by replicating the S&P 500 Index and investments in value added absolute return strategies. 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.
- (n) 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.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 3 (continued)**

- (o) 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.
- (p) The External Managers Emerging Markets Equity Pool consists of publicly traded equities in emerging markets around the world. The portfolio is actively managed by external managers with expertise in emerging markets. The performance objective is to provide returns higher than the total return of the Morgan Stanley Capital Index Emerging Markets Free (MSCI EMF) Index over a four-year period.
- (q) The Private Real Estate Pool is managed with the objective of providing investment returns higher than the Consumer Price Index plus 5%. 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 are 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 return.
- (r) The Foreign Private Real Estate Pool is managed with the objective of providing investment returns higher than the Consumer Price Index plus 5.0%. The Pool provides diverse exposure to non-domestic real estate by investing in foreign real estate backed securities and assets.
- (s) The Absolute Return Strategy Pool is managed with the objective of providing investment returns higher than the Consumer Price Index (CPI) plus 6.0%. The Pool uses external managers who employ various investment strategies. These strategies are expected to produce absolute positive investment returns with lower volatility.
- (t) 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 PEP02, PEP04, the Foreign Private Equity Pool 2002 and the Private Income Pool. 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. The Private Income Pool allows unit holders to participate as equity investors in infrastructure related projects that are structured to yield high current income with the objective of providing investment returns higher than the CPI plus 6.0%.
- (u) 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 2004-2005 fiscal year:

Fixed-income securities	30% to 20%
Equities	70% to 80%

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 uses derivative contracts held indirectly through pooled investment funds 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. A credit default swap allows counter-parties to buy and sell protection on credit risk inherent in a bond. A premium is paid, based on a notional amount, from one counter party to a second counter party in exchange for a contingent payment should a defined credit event occur with respect to the underlying security. There are underlying securities supporting all swaps. Leveraging is not allowed.
- (ii) Forward 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, 2005.

(thousands)

	Maturity			2005		2004	
	Under 1 Year	1 to 3 Years	Over 3 Years	Notional Amount (a)	Fair Value (b)	Notional Amount (a)	Fair Value (b)
Equity index swap contracts	63%	37%	-	\$ 65,884	\$ 89	\$ 48,600	\$ (352)
Forward foreign exchange contracts	100%	-	-	41,166	567	24,687	202
Interest rate swap contracts	38%	49%	13%	20,154	(499)	29,818	(1,330)
Cross-currency interest rate swaps	8%	29%	63%	26,140	37	18,642	(2,240)
Credit default swap contracts	30%	10%	60%	5,502	64	2,176	(17)
Bond index swap contracts	100%	-	-	2,832	20	2,222	54
Equity index futures contracts	100%	-	-	13,701	287	378	41
				<u>\$ 175,379</u>	<u>\$ 565</u>	<u>\$ 126,523</u>	<u>\$ (3,642)</u>

(a) The notional amounts, upon which payments are based, are not indicative of the credit risk associated with derivative contracts. Current credit exposure is represented by the current replacement cost of all outstanding contracts in a favourable position (positive fair value). The Fund attempts to limit its credit exposure by dealing with counter-parties believed to have good credit standing.

(b) The method of determining the fair value of derivative contracts is described in Note 2 (e).

**NOTE 6 ENDOWMENT AND RETAINED EARNINGS**

The endowment was received from the General Revenue Fund during the fiscal year ended March 31, 2001. The Minister of Finance must, at the request of the Foundation, pay from the Endowment Fund to the Foundation money that, in the opinion of the trustees, is required by the Foundation for the furtherance of its objectives. Section 8 of the *Alberta Heritage Foundation for Science and Engineering Research Act* ("the Act") limits annual payments from the Fund to the Foundation for 2004-2005 and subsequent fiscal years. Payments to the Foundation may not exceed in a fiscal year 4.5% of the average of the market values determined on March 31 of the preceding three fiscal years and any unused portion of the amount permitted to be paid in that fiscal year may be paid in any subsequent fiscal year.

(thousands)

	2005
Accumulated unused spending limit, at March 31, 2004	\$ -
4.5% of average market value on March 31, 2002-04	21,347
Spending limit for the year ended March 31, 2005	21,347
Transfers to Foundation during the year	(13,445)
Accumulated unused spending limit at March 31, 2005	7,902
4.5% of average market value on March 31, 2003-05	22,444
Spending limit for the year ended March 31, 2006	<u>\$ 30,346</u>

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 7 NET INVESTMENT INCOME (LOSS)***(thousands)*

	<b>2005</b>	<b>2004</b>
Deposits and fixed-income securities	\$ 11,445	\$ 13,164
Canadian equities	5,607	14,583
United States equities	(2,481)	1,189
Non-North American equities	10,863	4,847
Real estate	2,428	1,708
Absolute return strategies	1,357	1,535
Private Equities and income	132	185
<b>Investment income</b>	<b>\$ 29,351</b>	<b>\$ 37,211</b>
Direct administration expense (Note 8)	(117)	(105)
<b>Net investment income</b>	<b>\$ 29,234</b>	<b>\$ 37,106</b>

Investment income 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 earned from externally and internally managed investment pools is net of administrative expenses incurred by the pools (see Note 8).

The investment income for the year ended March 31, 2005 includes writedowns of \$985 (2004: \$100).

**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 Finance. 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>2005</b>	<b>2004</b>
Direct fund expenses (Note 7)	\$ 117	\$ 105
Externally managed investment pools	719	467
Internally managed investment pools	146	131
	<b>\$ 982</b>	<b>\$ 703</b>
Expenses as a percentage of net assets at fair value	<b>0.179%</b>	<b>0.133%</b>

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**NOTE 9 INVESTMENT PERFORMANCE**

The following is a summary of the investment performance results attained by the Fund determined on a fair value basis:

	<b>One Year Return</b>	<b>Four Year Compound Annualized Return</b>
<b>Time-weighted rates of return</b>		
Overall actual return	6.7%	4.8%
Benchmark return*	5.4%	4.3%

\* The overall benchmark return for year ended March 31, 2005 is a product of the weighted average policy sector weights and the sector benchmark returns.

**NOTE 10 APPROVAL OF FINANCIAL STATEMENTS**

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



## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## SCHEDULES TO THE FINANCIAL STATEMENTS

## SCHEDULE OF INVESTMENTS IN FIXED INCOME SECURITIES

Schedule A

March 31, 2005 (*thousands*)

	Fund's share 2005		Fund's share 2004	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 11,724	\$ 11,724	\$ 4,660	\$ 4,660
<b>Fixed income securities (a)</b>				
Corporate, public and private	86,418	88,398	101,474	104,746
Government of Canada, direct and guaranteed	42,676	43,615	36,435	37,416
Provincial, direct and guaranteed:				
Alberta	81	89	104	116
Other provinces	32,464	35,213	35,718	39,011
Municipal	1,724	1,847	1,995	2,133
	163,363	169,162	175,726	183,422
Receivable from sale of investments and accrued investment income	2,022	2,022	1,967	1,967
Accounts payable and accrued liabilities	(847)	(847)	(2,224)	(2,224)
	1,175	1,175	(257)	(257)
	\$ 176,262	\$ 182,061	\$ 180,129	\$ 187,825

- a) Fixed income securities held as at March 31, 2005 have an average effective market yield of 4.59% per annum (2004: 4.39% per annum) and the following term structure based on principal amount:

	2005 %	2004 %
under 1 year	3	3
1 to 5 years	35	37
5 to 10 years	33	30
10 to 20 years	12	11
over 20 years	17	19
	100	100

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## SCHEDULE OF INVESTMENTS IN CANADIAN EQUITIES

Schedule B

March 31, 2005 (*thousands*)

	Fund's share 2005		Fund's share 2004	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 661	\$ 661	\$ 878	\$ 878
<b>Public equities (a)(b)</b>				
Consumer discretionary	6,317	5,182	11,002	8,708
Consumer staples	3,629	3,557	5,413	4,906
Energy	14,821	16,579	17,460	18,060
Financials	26,710	26,177	40,963	40,320
Health Care	1,592	1,087	3,330	2,525
Industrials	4,503	4,403	10,725	9,326
Information technology	5,179	4,308	9,630	9,136
Materials	12,291	11,539	22,353	20,224
Telecommunication services	5,317	5,039	7,310	5,863
Utilities	1,240	1,148	4,878	4,436
	81,599	79,019	133,064	123,504
Small Cap Pooled Fund	1,480	1,498	24	20
Receivable from sale of investments and accrued investment income	1,358	1,358	483	483
Accounts payable and accrued liabilities	(950)	(950)	(1,352)	(1,352)
	408	408	(869)	(869)
	\$ 84,148	\$ 81,586	\$ 133,097	\$ 123,533

- a) The Fund's effective net investment in Canadian public equities includes the notional amount of Canadian equity index swap contracts and equity index futures contracts totalling \$32,887 (2004: \$35,551)
- b) The sector classification conforms to the Global Industry Classification Standard followed by the Toronto Stock Exchange S&P/TSX Composite Index.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## SCHEDULE OF INVESTMENTS IN UNITED STATES EQUITIES

Schedule C

March 31, 2005 (*thousands*)

	Fund's share 2005		Fund's share 2004	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 1,488	\$ 1,488	\$ 1,170	\$ 1,170
<b>Public equities (a) (b)</b>				
Consumer discretionary	11,558	11,983	12,108	12,225
Consumer staples	9,498	9,483	7,522	7,424
Energy	7,994	8,800	4,581	4,531
Financials	20,429	20,311	15,193	16,067
Health care	13,250	13,105	10,255	9,604
Industrials	12,293	12,696	8,635	8,809
Information technology	15,283	15,297	11,970	12,625
Materials	3,796	3,987	2,483	2,798
Telecommunication services	2,831	2,780	2,377	2,262
Utilities	3,433	3,603	1,865	1,911
	100,365	102,045	76,989	78,256
Receivable from sale of investments and accrued investment income	813	813	291	291
Accounts payable and accrued liabilities	(2,375)	(2,375)	(1,188)	(1,188)
	(1,562)	(1,562)	(897)	(897)
	\$ 100,291	\$ 101,971	\$ 77,262	\$ 78,529

(a) The Fund's effective net investment in US public equities includes the notional amount of US equity index swap contracts and equity index futures contracts totalling \$46,698 (2004: \$13,427).

(b) The sector classification conforms to the Global Industry Classification Standard followed by the Standard & Poor's (S&P) 500 Index.

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

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

Schedule D

March 31, 2005 (*thousands*)

	Fund's share 2005		Fund's share 2004	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 2,062	\$ 2,062	\$ 1,624	\$ 1,624
<b>Public equities (a)</b>				
Consumer discretionary	14,285	13,947	11,902	12,876
Consumer staples	6,195	6,090	6,103	6,194
Energy	8,668	9,139	6,344	6,339
Financials	26,347	27,513	18,111	19,909
Health care	6,857	6,320	6,834	6,453
Industrials	12,112	12,599	8,798	9,497
Information technology	5,577	5,286	4,387	5,159
Materials	8,612	9,173	5,739	6,343
Telecommunication services	9,368	8,886	6,456	6,541
Utilities	4,505	4,553	3,058	3,258
	102,526	103,506	77,732	82,569
Emerging markets pooled funds	2,445	2,591	-	-
Receivable from sale of investments and accrued investment income	1,317	1,317	851	851
Accounts payable and accrued liabilities	(1,133)	(1,133)	(759)	(759)
	184	184	92	92
	\$ 107,217	\$ 108,343	\$ 79,448	\$ 84,285

- a) The sector classification conforms to the Global Industry Classification Standard followed by Standard & Poor's. Public equities by geographic location are as follows:

	Fund's share 2005		Fund's share 2004	
	Cost	Fair Value	Cost	Fair Value
United Kingdom	\$ 23,003	\$ 22,372	\$ 19,004	\$ 19,061
Japan	19,118	17,891	14,269	15,879
France	9,881	10,234	7,367	7,730
Germany	7,249	7,350	5,282	5,580
Switzerland	6,483	6,534	6,371	6,472
Netherlands	5,606	5,580	4,487	4,508
Australia	4,101	4,660	3,346	4,048
Italy	3,622	3,984	3,478	3,637
Spain	2,856	3,006	2,015	2,224
Sweden	2,644	2,762	1,383	1,567
Other	17,963	19,133	10,730	11,863
	\$ 102,526	\$ 103,506	\$ 77,732	\$ 82,569

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

## SCHEDULE OF INVESTMENTS IN REAL ESTATE

Schedule E

March 31, 2005 (*thousands*)

	Fund's share 2005		Fund's share 2004	
	Cost	Fair Value	Cost	Fair Value
<b>Deposits and short-term securities</b>	\$ 17	\$ 17	\$ 37	\$ 37
<b>Real estate (a)</b>				
Office	17,457	19,415	11,955	13,335
Retail	13,890	17,287	12,237	12,696
Industrial	3,051	3,372	1,857	1,998
Residential	2,070	1,927	1,742	1,571
	<u>36,468</u>	<u>42,001</u>	<u>27,791</u>	<u>29,600</u>
Foreign Private Equity Pool	1,853	1,758	-	-
Participation units	616	616	264	264
<b>Accrued income and accounts receivable</b>	57	57	75	75
	<u>\$ 39,011</u>	<u>\$ 44,449</u>	<u>\$ 28,167</u>	<u>\$ 29,976</u>

a) The following is a summary of real estate investments by geographic location:

	Fund's share 2005		Fund's share 2004	
	Cost	Fair Value	Cost	Fair Value
Ontario	\$ 23,342	\$ 27,951	\$ 20,538	\$ 21,897
Alberta	7,403	8,720	6,659	7,090
Quebec	4,852	4,418	-	-
British Columbia	871	912	594	613
	<u>\$ 36,468</u>	<u>\$ 42,001</u>	<u>\$ 27,791</u>	<u>\$ 29,600</u>

## ALBERTA HERITAGE SCIENCE AND ENGINEERING RESEARCH ENDOWMENT FUND

**SCHEDULE OF INVESTMENT RETURNS****Schedule F**

Year Ended March 31, 2005

The Fund uses a 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 received 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:

Time-weighted Rates of Return	2005	One Year Return			Four Year Compound Annualized Return
		2004	2003	2002	
<b>Short-term fixed income</b>	<b>2.7</b>	<b>3.0</b>	<b>2.9</b>	<b>4.0</b>	<b>3.2</b>
<i>Scotia Capital 91-day T-Bill Index</i>	2.2	3.0	2.7	3.7	2.9
<b>Long-term fixed income</b>	<b>5.6</b>	<b>11.6</b>	<b>9.6</b>	<b>5.9</b>	<b>8.1</b>
<i>Scotia Capital Universe Bond Index</i>	5.0	10.8	9.2	5.1	7.5
<b>Canadian equities</b>	<b>15.5</b>	<b>36.6</b>	<b>(17.1)</b>	<b>4.2</b>	<b>8.0</b>
<i>S&amp;P/TSX Composite Index</i>	13.9	37.7	(17.6)	4.9	7.9
<b>United States equities</b>	<b>(1.7)</b>	<b>22.1</b>	<b>(30.4)</b>	<b>1.4</b>	<b>(4.1)</b>
<i>S&amp;P 1500 Index</i>	(1.0)	20.5	(30.7)	1.6	(4.3)
<b>Non-North American equities</b>	<b>7.4</b>	<b>40.9</b>	<b>(29.1)</b>	<b>(5.6)</b>	<b>0.3</b>
<i>MSCI EAFE Index</i>	6.2	40.5	(29.3)	(7.3)	(0.6)
<b>Real estate</b>	<b>16.9</b>	<b>7.5</b>	<b>9.8</b>	<b>7.3</b>	<b>10.3</b>
<i>Consumer Price Index (CPI) plus 5%</i>	7.1	5.7	8.9	9.9	7.9
<b>Absolute return strategies</b>	<b>5.5</b>	<b>10.7</b>	<b>1.6</b>	<b>n/a</b>	<b>n/a</b>
<i>Consumer Price Index (CPI) plus 6%</i>	8.1	6.7	4.7	n/a	n/a
<b>Private equities</b>	<b>0.6</b>	<b>1.2</b>	<b>(4.3)</b>	<b>n/a</b>	<b>n/a</b>
<i>Consumer Price Index (CPI) plus 8%</i>	10.1	8.7	5.7	n/a	n/a
<b>Private income</b>	<b>5.4</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<i>Consumer Price Index (CPI) plus 6%</i>	8.1	n/a	n/a	n/a	n/a
<b>Overall</b>	<b>6.7</b>	<b>22.5</b>	<b>(10.2)</b>	<b>3.0</b>	<b>4.8</b>
<b>Policy Benchmark</b>	<b>5.4</b>	<b>21.7</b>	<b>(10.6)</b>	<b>3.1</b>	<b>4.3</b>