Alberta Heritage Savings Trust Fund

2022–23 Second Quarter
September 30, 2022

NOVEMBER 2022

6.2%
5-Year
Rate of Return

$17.9 billion
Fair Value of Net Assets
at Quarter End

$(2.0) million
2022-23 Net Loss
from Operations

Long-Term Performance

- The Alberta Heritage Savings Trust Fund (the "Fund") target is to earn a return that is 4.5 per cent greater than inflation based on the Canadian Consumer Price Index (CPI), over a 5-year period. For the 5-year period ending this quarter the return target rate is 6.5 per cent, making CPI 2.0 per cent. Economic conditions due to higher inflation has lowered the investment performance of the Fund. These economic and investment impacts have reduced the average 5-year return of the Fund to 6.2 per cent, which is 0.3 per cent below the 6.5 per cent target. Over the last 10 years, the Fund earned a return of 8.5 per cent, 1.4 per cent higher than the 10-year 7.1 per cent CPI plus 4.5 per cent target.
- In addition to the real return target (e.g. CPI + 4.5 per cent), there is an active management target which evaluates the asset manager's value-added performance over time. The active management target is that actual returns will be at least 1.0 per cent higher over returns of a passively managed portfolio (i.e. tracks a market-weighted index). Over the same 5-year period, the Fund earned 0.7 per cent over the benchmark target of 5.5 per cent, which was 0.3 per cent lower than the active return target of 1.0 per cent. Over the 10-year period, the Fund earned 0.6 per cent over the benchmark target of 7.9 per cent, which was 0.4 per cent lower than the active return target of 1.0 per cent.

Fiscal Year to Date and Quarterly Investment Performance

- Inflation and recession expectations continue to have a large impact on the global economic outlook. The worsening economic outlook combined with increases in interest rates, have resulted in negative returns in equity and fixed income assets globally. Since March 31, 2022, the Fund value fell by 4.2 per cent with only a 0.1 per cent decline occurring between June and September month end. The net financial assets of the Fund have fallen from $18.7 billion at March 31, 2022 to $17.9 billion at September 30, 2022.
- Compared to the Fund's asset mix policy, investments are overweight inflation sensitive and alternative assets, which have been performing well against the backdrop of rising rates. While inflation sensitive and floating debt cash flows rise with inflation, equity and fixed income assets have been underperforming in the broader market. Equities and fixed income investment are underweight compared to asset mix policy, mirroring market performance. Inflation sensitive and alternative assets continue to be a welcomed positive performer earning 1.5 per cent in the last quarter and 5.8 per cent return since March 31, 2022. The Fund's equity performance in the second fiscal quarter of 2022-23 was negative 1.5 per cent bringing the total equity performance to negative 10.5 percent fiscal year to date. Floating rate debt exposure has also performed well and fixed income assets have a positive second quarter return of 0.3 per cent but the fiscal year to date results are down 4.2 per cent.

Investment Income

- Net investment income was $62 million in the second quarter of 2022-23, based on $76 million in gross investment income less costs of $14 million. For the first six months of 2022-23, the net investment income of the Fund is negative $2 million based on gross investment income of $46 million less investment costs of $48 million. This second quarter improvement has nearly reversed the net investment income loss of $64 million in the first quarter of 2022-23.

12-MONTH ROLLING RETURNS AS AT SEPTEMBER 30, 2022

	2022	2021	2020	2019	2018
Alberta Heritage Savings Trust Fund	-0.9%	16.5%	-0.9%	7.9%	9.3%
Policy Benchmark	-3.8%	10.1%	7.2%	6.6%	8.1%
Value (Lost) Added	2.9%	6.3%	-8.1%	1.4%	1.2%
CPI + 4.5 per cent	7.7%	6.6%	6.0%	6.2%	6.2%

ASSET ALLOCATION AND INVESTMENT PERFORMANCE AS AT SEPTEMBER 30, 2022

	Market Value	% of Portfolio	3 Month	6 Month	1 Year	5 Year	10 Year
Alberta Heritage Savings Trust Fund	19,118	100.0%	-0.1%	-4.2%	-0.9%	6.2%	8.5%
Policy Benchmark			0.3%	-5.2%	-3.8%	5.5%	7.9%
Value Added			-0.4%	1.0%	2.9%	0.7%	0.6%
CPI + 4.5 per cent, five year rolling						6.5%	
Money markets and Fixed Income	$3,764	19.7%	0.3%	-4.2%	-8.1%	2.0%	3.1%
Cash and Equivalents	$97	0.5%	0.6%	0.8%	1.0%	1.2%	1.2%
Fixed Income	$3,667	19.2%	0.2%	-4.4%	-8.4%	2.0%	3.1%
Inflation Sensitive and Alternatives	$6,514	34.1%	1.5%	5.8%	15.5%	6.6%	7.7%
Real Estate	$3,893	20.4%	0.1%	2.0%	11.8%	4.7%	6.8%
Private Infrastructure	$2,057	10.8%	0.6%	10.3%	19.3%	8.3%	8.5%
Renewable Resources	$564	3.0%	16.6%	18.6%	30.2%	15.0%	12.5%
Equity	$8,755	45.8%	-1.5%	-10.5%	-7.6%	7.3%	10.8%
Canadian Public Equity	$1,520	7.9%	-1.1%	-12.5%	-3.8%	5.6%	7.4%
Foreign Equity	$5,460	28.6%	-1.0%	-12.7%	-12.4%	5.7%	11.2%
Private Equity	$1,775	9.3%	-3.5%	-1.2%	6.7%	14.4%	10.9%
Overlays	$85	0.4%	3.8%	-3.2%	-17.0%	3.9%	9.4%

Alberta Heritage Savings Trust Fund

Interim Financial Statements (unaudited)
September 30, 2022

Statement of Financial Position

As at September 30, 2022

(unaudited)

(in millions)

	September 30, 2022	March 31, 2022
Financial assets		
Investments (Note 3)	$ 19,118	$ 19,962
Receivable from sale of investments	4	-
	19,122	19,962
Liabilities		
Due to the General Revenue Fund	1,247	1,247
Payable from purchase of investments	4	-
	1,251	1,247
Net financial assets	$ 17,871	$ 18,715
Net financial assets (Note 5)		
Accumulated operating surplus	$ 17,092	$ 17,094
Accumulated remeasurement gains	779	1,621
	$ 17,871	$ 18,715

Statement of Change in Net Financial Assets

Six Months Ended September 30, 2022

(unaudited)

(in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2022	2021	2022	2021
Net surplus (deficit) retained in the Fund	$ 62	$ 160	$ (2)	$ 287
Net remeasurement (losses) gains	(81)	(67)	(842)	280
(Decrease) increase in net financial assets	**(19)**	**93**	**(844)**	**567**
Net financial assets, beginning of period	17,890	18,277	18,715	17,803
Net financial assets, end of period	$ 17,871	$ 18,370	$ 17,871	$ 18,370

The accompanying notes are part of these financial statements.

Statement of Operations and Accumulated Surplus

Six Months Ended September 30, 2022

(unaudited)

(in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2022	2021	2022	2021
Investment income (Note 6)	$ 76	$ 564	$ 46	$ 1,288
Investment expenses (Note 7)	(14)	(34)	(48)	(90)
Net income (loss) from operations	62	530	(2)	1,198
Transfers to the General Revenue Fund (Note 5b)	-	(370)	-	(911)
Net surplus (deficit) retained in the Fund (Note 5b)	**62**	**160**	**(2)**	**287**
Accumulated operating surplus, beginning of period	17,030	16,516	17,094	16,389
Accumulated operating surplus, end of period	$ 17,092	$ 16,676	$ 17,092	$ 16,676

Statement of Remeasurement Gains and Losses

Six Months Ended September 30, 2022

(unaudited)

(in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2022	2021	2022	2021
Unrealized (losses) gains on investments	$ (85)	$ 3	$ (842)	$ 378
Less: Amounts reclassified to the Statement of Operations - realized losses (gains) on investments	4	(70)	-	(98)
Net remeasurement (losses) gains	**(81)**	**(67)**	**(842)**	**280**
Accumulated remeasurement gains, beginning of period	860	1,761	1,621	1,414
Accumulated remeasurement gains, end of period	$ 779	$ 1,694	$ 779	$ 1,694

The accompanying notes are part of these financial statements.

Statement of Cash Flows

Six Months Ended September 30, 2022

(unaudited)

(in millions)

	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Six Months Ended September 30, 2022	Six Months Ended September 30, 2021
Operating transactions				
Net income (loss) from operations	$ 62	$ 530	$ (2)	$ 1,198
Non-cash items included in net income	4	(70)	-	(98)
	66	460	(2)	1,100
(Increase) decrease in accounts receivable	(4)	-	(4)	13
Increase (decrease) in accounts payable	4	-	4	(14)
Transfers to the General Revenue Fund	-	(370)	-	(911)
Increase in amounts due to the General Revenue Fund	-	89	-	392
Cash provided by (applied to) operating transactions	66	179	(2)	580
Investing transactions				
Proceeds from disposals, repayments and redemptions of investments	509	675	864	1,180
Purchase of investments	(580)	(844)	(859)	(1,749)
Cash (applied to) provided by investing transactions	(71)	(169)	5	(569)
(Decrease) increase in cash	(5)	10	3	11
Cash at beginning of period	103	102	95	101
Cash at end of period	$ 98	$ 112	$ 98	$ 112
Consisting of Deposits in the Consolidated Cash Investment Trust Fund (CCITF) *	$ 98	$ 112	$ 98	$ 112

* The CCITF is a highly-liquid, short term money market pooled fund consisting primarily (100%) of securities with maturities of less than one year.

The accompanying notes are part of these financial statements.

Notes to the Financial Statements

September 30, 2022

(unaudited)

NOTE 1 AUTHORITY AND MISSION

The Alberta Heritage Savings Trust Fund (the Fund) operates under the authority of the *Alberta Heritage Savings Trust Fund Act,* Chapter A-23, Revised Statutes of Alberta 2000 (the Act), as amended.

The preamble to the Act describes the mission of the Fund as follows:

"*To provide prudent stewardship of the savings from Alberta's non-renewable resources by providing the greatest financial returns on those savings for current and future generations of Albertans.*"

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND REPORTING PRACTICES

The financial statements are prepared in accordance with Canadian public sector accounting standards. The net financial asset model is presented in the financial statements. Net financial assets are measured as the difference between the Fund's financial assets and liabilities as described in the statement of financial position.

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

a) VALUATION OF INVESTMENTS

Investments are recorded at fair value. As disclosed in Note 3, the Fund's investments consist primarily of direct ownership in units of pooled investment funds ("the pools"). The pools are established by Ministerial Order 04/2016, being the Establishment and Maintenance of Pooled Funds, pursuant to the *Financial Administration Act* of Alberta, Chapter F-12, Section 45, and the *Alberta Investment Management Corporation Act* of Alberta, Chapter A-26.5, Section 15 and 20. Participants in pools include government and non-government funds and plans.

Contracts to buy and sell financial instruments in the pools are between Alberta Investment Management Corporation (AIMCo), a Crown corporation within the Ministry of Treasury Board and Finance, and the third party to the contracts. Participants in the pools are not party to the contracts and have no control over the management of the pool and the selection of securities in the pool. AIMCo controls the creation of the pools and the management and administration of the pools including security selection. Accordingly, the Fund does not report the financial instruments of the pools on its statement of financial position.

The Fund becomes exposed to the financial risks and rewards associated with the underlying financial instruments in a pool when it purchases units issued by the pools and divests its exposure to those financial risks and rewards when it sells its pool units. The Fund reports its share of the financial risks in Note 4.

The fair value of pool units held directly by the Fund is derived from the fair value of the underlying financial instruments held by the pools as determined by AIMCo (see Note 3b). Investments in pool units are recorded in the Fund's accounts. The underlying financial instruments are recorded in the accounts of the pools. The pools have a market-based unit value that is used to distribute income to the pool participants and to value purchases and sales of the pool units. The pools include various financial instruments such as bonds, equities, real estate, derivatives, investment receivables and payables and cash.

Investments in units of the pools are managed and evaluated on a fair value basis. As such, all investments are designated and recorded in the financial statements at fair value.

Investments in pool units are recorded in the Fund's accounts on a trade date basis.

All purchases and sales of the pool units are in Canadian dollars.

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.

Impairment in the value of investments is assessed on a periodic basis. If an impairment deemed other-than-temporary is identified, the cost of the investment is written down to its realizable value. Any impairment losses are included in income on the statement of operations and accumulated surplus. A write-down of a portfolio investment to reflect a loss in value is not reversed for a subsequent increase in value.

b) INVESTMENT INCOME

i) Income distributions from the pools are recorded in the Fund's accounts and included in investment income on the statement of operations and accumulated surplus (see Note 6). Income distributions are based on the Fund's pro-rata share of total units issued by the pools.

ii) Realized gains and losses on disposal of pool units are recorded in the Fund's accounts and included in income on the statement of operations and accumulated surplus. Realized gains and losses on disposal of pool units are determined on an average cost basis.

iii) Investment income is recorded on an accrual basis. Investment income is accrued when there is reasonable assurance as to its measurement and collectability.

c) INVESTMENT EXPENSES

i) Investment expenses include all amounts incurred by the Fund to earn investment income (see Note 7). Investment expenses are recorded on an accrual basis. Transaction costs are expensed as they are incurred.

ii) Other expenses related to the direct administration of the Fund are charged to the Fund on an accrual basis.

d) REMEASUREMENT GAINS AND LOSSES

Accumulated remeasurement gains and losses primarily represent the excess or shortfall of the fair value of the pool units at period end over the cost of the pool units. Changes in accumulated remeasurement gains and losses are recognized in the statement of remeasurement gains and losses. Changes in accumulated remeasurement gains and losses during the period include unrealized increases and decreases in fair value of the pool units and realized gains and losses on sale of the pool units. When the pool units are sold (derecognized), any accumulated unrealized gain or loss associated with the investment becomes realized and is included in net income on the statement of operations and accumulated surplus.

e) MEASUREMENT UNCERTAINTY

Measurement uncertainty exists in the fair values reported for certain investments such as private equities, infrastructure, private debt and loans, private real estate, hedge funds, renewable resources, and other investments where no readily available market prices exist. The fair values of these investments are based on estimates. Estimated fair values may not reflect amounts that could be recognized upon immediate sale, or amounts that ultimately may be recognized. Accordingly, the estimated fair values may differ significantly from the value that would have been used had readily available market prices existed for these investments (see Note 3).

f) TRANSFERS TO THE GENERAL REVENUE FUND (GRF)

Transfers to the GRF are recorded on an accrual basis. In accordance with Section 8 of the Act, all of the net income of the Fund is transferred to the GRF except for any amount retained in the Fund to maintain its value against inflation (see Note 5 (b)).

NOTE 3 INVESTMENTS (in millions)

The carrying amounts of the Fund's investments are recorded on a fair value basis. The Fund's investments are managed at the asset class level for purposes of evaluating the Fund's risk exposure and investment performance against approved benchmarks based on fair value. AIMCo invests the Fund's assets in accordance with the Statement of Investment Policies and Goals (SIP&G) approved by the President of Treasury Board and Minister of Finance. The fair value of the pool units is based on the Fund's share of the net asset value of the pooled fund. AIMCo is delegated authority to independently purchase and sell securities in the pools and Fund, and units of the pools, within the ranges approved for each asset class (see Note 4).

Asset class	Fair Value Hierarchy [(a)] Level 2	Level 3	September 30, 2022	March 31, 2022
Interest-bearing securities				
Deposits in CCITF	$ 98	$ -	$ 98	$ 95
Bonds, mortgages and private debt	2,111	1,555	3,666	3,591
	2,209	1,555	3,764	3,686
Equities				
Canadian	1,519	-	1,519	1,784
Global developed	4,636	204	4,840	5,695
Emerging markets	621	-	621	709
Private	-	1,775	1,775	1,866
	6,776	1,979	8,755	10,054
Inflation sensitive				
Real estate	-	3,893	3,893	3,823
Infrastructure	-	2,058	2,058	1,832
Renewable resources	-	563	563	490
	-	6,514	6,514	6,145
Strategic, tactical and currency investments *	25	60	85	77
Total Fair Value of Investments	$ 9,010	$ 10,108	$ 19,118	$ 19,962

* This asset class is not listed separately in the SIP&G as it relates to strategic investments and currency overlays made on an opportunistic and discretionary basis (see Note 4).

a) **Fair Value Hierarchy**: The quality and reliability of information used to estimate the fair value of investments is classified according to the following fair value hierarchy with level 1 being the highest quality and reliability.

- ***Level 1*** - fair value is based on quoted prices in an active market. Although the pools may ultimately hold publicly traded listed equity investments, the pool units themselves are not listed in an active market and therefore cannot be classified as Level 1 for fair value hierarchy purposes. Pool units classified by the Fund as Level 2 may contain investments that might otherwise be classified as Level 1.
- ***Level 2*** - fair value is estimated using valuation techniques that make use of market-observable inputs other than quoted market prices. This level includes pool units that hold public equities, debt securities and derivative contracts totalling $9,010 (March 31, 2022: $10,311).
- ***Level 3*** - fair value is estimated using inputs based on non-observable market data. This level includes pool units that hold private mortgages, hedge funds, private equities and all inflation sensitive investments totalling $10,108 (March 31, 2022: $9,651).

NOTE 3 INVESTMENTS (in millions) CONTINUED

Reconciliation of Level 3 Investments

	September 30, 2022 (six months)	March 31, 2022 (one year)
Balance, beginning of period	$ 9,651	$ 8,897
Unrealized gains	56	664
Purchases of Level 3 pooled fund units	660	1,522
Sale of Level 3 pooled fund units	(259)	(1,432)
Balance, end of period	$ 10,108	$ 9,651

b) Valuation of Financial Instruments recorded by AIMCo in the Pools

The methods used by AIMCo to determine the fair value of investments recorded in the pools are explained in the following paragraphs**:**

- ***Interest-bearing securities***: Public interest-bearing securities 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. Private mortgages are valued based on the net present value of future cash flows discounted using appropriate interest rate premiums over similar Government of Canada benchmark bonds trading in the market. Private debt and loans is valued similar to private mortgages.

- ***Equities:*** Public 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. The fair value of hedge fund investments is estimated by external managers. The fair value of private equities is estimated by managers or general partners of private equity funds, pools and limited partnerships. Valuation methods for private equities 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 earnings multiple analysis.

- ***Inflation sensitive investments:*** The estimated fair value of private real estate investments is reported at the 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. The fair value of renewable resources investments is appraised annually by independent third party evaluators. Infrastructure investments are valued similar to private equity investments.

- ***Strategic, tactical and currency investments:*** The estimated fair value of infrastructure investments held in emerging market countries are valued similar to private equities. For tactical asset allocations, investments in derivative contracts provides overweight or underweight exposure to global equity and bond markets, including emerging markets. Currency investments consist of directly held currency forward and spot contracts.

- ***Foreign currency:*** Foreign currency transactions in pools are translated into Canadian dollars using average rates of exchange. At period end, the fair value of investments in other assets and liabilities denominated in a foreign currency are translated at the period-end exchange rates.

- ***Derivative contracts:*** The carrying value of derivative contracts in a favourable and unfavourable position is recorded at fair value and is included in the fair value of the pools (see Note 4f). The estimated fair value of equity and bond index swaps is based on changes in the appropriate market-based index net of accrued floating rate interest. Interest rate swaps and cross-currency interest rate swaps are valued based on discounted cash flows using current market yields and exchange rates. Credit default swaps are valued based on discounted cash flows using current market yields and calculated default probabilities. Forward foreign exchange contracts are valued based on differences between contractual foreign exchange rates and foreign exchange forward rates. Options to enter into interest rate swap contracts are valued based on discounted cash flows using current market yields and volatility parameters which measure changes in the underlying swap. Warrants and rights 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.

NOTE 4 INVESTMENT RISK MANAGEMENT (in millions)

The Fund is exposed to financial risks associated with the underlying securities held in the pools created and managed by AIMCo. These financial risks include credit risk, market risk and liquidity 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. Market risk is comprised of currency risk, interest rate risk and price risk. Liquidity risk is the risk the Fund will not be able to meet its obligations as they fall due.

The investment policies and procedures of the Fund are clearly outlined in the SIP&G approved by the President of Treasury Board and Minister of Finance. The purpose of the SIP&G is to ensure the Fund is invested and managed in a prudent manner in accordance with current, accepted governance practices incorporating an appropriate level of risk. The Ministry of Treasury Board and Finance manages the Fund's return-risk trade-off through asset class diversification, target ranges on each asset class, diversification within each asset class, quality constraints on fixed income instruments and restrictions on amounts exposed to countries designated as emerging markets. Forward foreign exchange contracts may be used to manage currency exposure in connection with securities purchased in a foreign currency (see Note 4b).

In order to earn the best possible return at an acceptable level of risk, the President of Treasury Board and Minister of Finance has approved the following target policy asset mix:

		Actual Asset Mix			
Asset Class	**Target Policy Asset Mix**	**September 30, 2022**		**March 31, 2022**	
Interest-bearing securities	15 - 45%	$ 3,764	19.7%	$ 3,686	18.4%
Equities	35 - 70%	8,755	45.8%	10,054	50.4%
Inflation sensitive	15 - 40%	6,514	34.1%	6,145	30.8%
Strategic, tactical and currency investments	(a)	85	0.4%	77	0.4%
		$ 19,118	100.0%	$ 19,962	100.0%

(a) In accordance with the SIP&G, AIMCo may invest up to 2% of the fair value of the Fund's investments in strategic opportunities that are outside of the asset classes listed above. AIMCo may, at its discretion, use currency overlays to an economic exposure limit of 5% of the market value of the Fund.

NOTE 4 INVESTMENT RISK MANAGEMENT (in millions) CONTINUED

a) Credit Risk

i) Debt securities

The Fund is indirectly exposed to credit risk associated with the underlying debt securities held in the pools managed by AIMCo. Counterparty credit risk is the risk of loss arising from the failure of a counterparty to fully honour its financial obligations. The credit quality of financial assets is generally assessed by reference to external credit ratings. The credit rating of a debt security may be impacted by the overall credit rating of the counterparty, the seniority of the debt issue, bond covenants, maturity distribution and other factors. Credit risk can also lead to losses when issuers and debtors are downgraded by credit rating agencies usually leading to a fall in the fair value of the counterparty's obligations. Credit risk exposure for financial instruments is measured by the positive fair value of the contractual obligations with counterparties. The fair value of all investments reported in Note 3 is directly or indirectly impacted by credit risk to some degree. The majority of investments in debt securities have credit ratings considered to be investment grade. Unrated debt securities consist primarily of mortgages and private debt placements.

The table below summarizes the Fund's investment in debt securities by credit rating at September 30, 2022:

Credit rating	September 30, 2022	March 31, 2022
Investment Grade (AAA to BBB-)	62.8%	65.6%
Speculative Grade (BB+ or lower)	2.0%	2.3%
Unrated	35.2%	32.1%
	100.0%	100.0%

ii) Counterparty default risk - derivative contracts

The Fund is exposed to counterparty credit risk associated with the derivative contracts held in the pools. The maximum credit risk in respect of derivative financial instruments is the fair value of all contracts with counterparties in a favourable position (see Note 4f). AIMCo is responsible for selecting and monitoring derivative counterparties on behalf of the Fund. AIMCo monitors counterparty risk exposures and actively seeks to mitigate counterparty risk by requiring that counterparties collateralize mark-to-market gains for the Fund. Provisions are in place to allow for termination of the contract should there be a material downgrade in a counterparty's credit rating. The exposure to credit risk on derivatives is reduced by entering into master netting agreements and collateral agreements with counterparties. To the extent that any unfavourable contracts with the counterparty are not settled, they reduce the Fund's net exposure in respect of favourable contracts with the same counterparty.

iii) Security lending risk

To generate additional income, the pools participate in a securities-lending program. Under this program, the custodian may lend investments held in the pools to eligible third parties for short periods. At September 30, 2022, the Fund's share of securities loaned under this program is $317 (March 31, 2022: $300) and collateral held totals $339 (March 31, 2022: $321). Securities borrowers are required to provide the collateral to assure the performance of redelivery obligations. Collateral may take the form of cash, other investments or bankers' acceptances and bankers' deposit notes. All collateralization, by the borrower, must be in excess of 100% of investments loaned.

b) Foreign currency risk

The Fund is exposed to foreign currency risk associated with the underlying securities held in the pools that are denominated in currencies other than the Canadian dollar. Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The fair value of investments denominated in foreign currencies is translated into Canadian dollars using the reporting date exchange rate. As a result, fluctuations in the relative value of the Canadian dollar against these foreign currencies can result in a positive or negative effect on the fair value of investments. Approximately 35% (March 31, 2022: 38%) of the Fund's investments, or $6,774 (March 31, 2022: $7,531), are denominated in currencies other than the Canadian dollar, with the largest foreign currency exposure being to the US dollar, 21% (March 31, 2022: 23%) and the Euro, 5% (March 31, 2022: 5%).

If the value of the Canadian dollar increased by 10% against all other currencies, and all other variables are held constant, the potential loss in fair value to the Fund would be approximately 3.5% of total investments (March 31, 2022: 3.8%).

The following table summarizes the Fund's exposure to foreign currency investments held in the pools at September 30, 2022:

	September 30, 2022		March 31, 2022	
Currency [a]	**Fair Value**	**Sensitivity**	**Fair Value**	**Sensitivity**
U.S. dollar	$ 4,031	$ (403)	$ 4,600	$ (460)
Euro	880	$ (88)	915	(92)
British pound sterling	666	$ (67)	689	(69)
Japanese yen	313	$ (31)	364	(36)
Other foreign currency	884	$ (88)	963	(96)
Total foreign currency investments	$ 6,774	$ (677)	$ 7,531	$ (753)

[a] Information on specific currencies is disclosed when the current period fair value is greater than 1% of the Fund's net assets.

c) Interest rate risk

The Fund is exposed to interest rate risk associated with the underlying interest-bearing securities held in the pools managed by AIMCo. Interest rate risk relates to the possibility that the fair value of investments will change due to future fluctuations in market interest rates. In general, investment returns from bonds and mortgages are sensitive to changes in the level of interest rates, with longer term interest bearing securities being more sensitive to interest rate changes than shorter-term bonds. If interest rates increased by 1%, and all other variables are held constant, the potential loss in fair value to the Fund would be approximately 0.9% of total investments (March 31, 2022: 1.0%).

NOTE 4 INVESTMENT RISK MANAGEMENT (in millions) CONTINUED

d) Price risk

Price risk relates to the possibility that pool units will change in fair value due to future fluctuations in market prices of equities held in the pools caused by factors specific to an individual equity investment or other factors affecting all equities traded in the market. The Fund is exposed to price risk associated with the underlying equity investments held in the pools managed by AIMCo. If equity market indices (S&P/TSX, S&P500, S&P1500 and MSCI ACWI and their sectors) declined by 10%, and all other variables are held constant, the potential loss in fair value to the Fund would be approximately 5.5% of total investments (March 31, 2022: 5.1%). Changes in fair value of investments are recognized in the statement of remeasurement gains and losses.

e) Liquidity risk

Liquidity risk is the risk that the Fund will encounter difficulty in meeting obligations associated with its financial liabilities. Liquidity requirements of the Fund are met through income generated from investments, and by investing in units of pools that hold publicly traded liquid assets traded in an active market that are easily sold and converted to cash. Units in pools that hold private investments like real estate, renewable resources, infrastructure and private equities are less easily converted to cash since the underlying securities are illiquid because they take more time to sell. The Fund's main liabilities include transfers payable to the General Revenue Fund and payables related to purchase of pool units.

f) Use of Derivative Financial Instruments in Pooled Investment Funds

The Fund has indirect exposure to derivative financial instruments through its investment in units of the pools. AIMCo uses derivative financial instruments to cost-effectively gain access to equity markets in the pools, manage asset exposure within the pools, enhance pool returns and manage interest rate risk, foreign currency risk and credit risk in the pools.

		Fund's Indirect Share	
By counterparty	Number of counterparties	**September 30, 2022**	**March 31, 2022**
Contracts in net favourable position (current credit exposure)	166	$ 190	$ 291
Contracts in net unfavourable position	21	(655)	(111)
Net fair value of derivative contracts	187	$ (465)	$ 180

i) Current credit exposure: The current credit exposure is limited to the amount of loss that would occur if all counterparties to contracts in a net favourable position totaling $190 (March 31, 2022: $291) were to default at once.

ii) Cash settlements: Receivables or payables with counterparties are usually settled in cash every three months.

iii) Contract notional amounts: The fair value of receivables (receive leg) and payables (pay leg) and the exchange of cash flows with counterparties in pooled funds are based on a rate or price applied to a notional amount specified in the derivative contract. The notional amount itself is not invested, received or exchanged with the counterparty and is not indicative of the credit risk associated with the contract. Notional amounts are not assets or liabilities and do not change the asset mix reported in Note 3. Accordingly, there is no accounting policy for their recognition in the statement of financial position.

	Fund's Indirect Share	
Types of derivatives used in pools	**September 30, 2022**	**March 31, 2022**
Equity-based derivatives	$ (325)	$ 93
Foreign currency derivatives	(187)	59
Interest rate derivatives	47	23
Credit risk derivatives	-	5
Net fair value of derivative contracts	$ (465)	$ 180

i) Equity-based derivatives include equity swaps. Equity swaps are contracts where one counterparty agrees to pay or receive from the other, cash flows based on changes in the value of an equity index, a basket of stocks, or a single stock in exchange for a return based on a fixed or floating interest rate or the return on another instrument. Rights, warrants, futures and options are also included as equity-based derivatives.

ii) Foreign currency derivatives include contractual agreements to exchange specified currencies at an agreed upon exchange rate and on an agreed settlement date in the future.

iii) Interest rate derivatives exchange interest rate cash flows (fixed to floating or floating to fixed) based on a notional amount. Interest rate derivatives primarily include interest rate swaps and cross currency interest rate swaps, futures contracts and options.

iv) Credit risk derivatives include credit default swaps allowing the pools to buy and sell protection on credit risk inherent in a bond. A premium is paid or received, based on a notional amount in exchange for a contingent payment should a defined credit event occur with respect to the underlying security.

v) At September 30, 2022, deposits in futures contracts margin accounts totaled $58 (March 31, 2022: $84). Cash and non-cash collateral for derivative contracts pledged and received, respectively, totaled $458 (March 31, 2022: $129) and $nil (March 31, 2022: $nil).

NOTE 5 NET FINANCIAL ASSETS (in millions)

Net financial assets represent the difference between the carrying value of financial assets held by the Fund and its liabilities. The following table shows accumulated net income and transfers to (from) the Fund since the Fund was created on May 19, 1976:

	Cumulative since 1976	
	September 30, 2022	**March 31, 2022**
Accumulated net income	$ 48,124	$ 48,126
Transfers to the Fund		
Resource Revenue (1976-1987)	12,049	12,049
Access to the Future [(a)]	1,000	1,000
Voted Payments	2,918	2,918
	15,967	15,967
Amounts retained in (transferred from) the Fund		
Section 8 transfers [(b)]		
Income	(48,331)	(48,331)
Amount Retained in the Fund	5,073	5,073
	(43,258)	(43,258)
Capital Expenditures (1976-1995) [(c)]	(3,486)	(3,486)
Other Statutory Transfers [(d)]	(255)	(255)
	(46,999)	(46,999)
Accumulated surplus from operations	17,092	17,094
Accumulated remeasurement gains	779	1,621
Carrying value of net financial assets	$ 17,871	$ 18,715

(a) The Access to the Future Fund was disestablished in December 2019 and eliminated the related notional account within the Fund. The initial $1,000 funded in 2005-06 and 2006-07 will remain in the Fund, no longer allocated for Advanced Education.

(b) During the period, the Fund sustained net losses of $2 million. Section 8 of the Act states that the net income of the Heritage Fund, less any amount retained in the Fund, in accordance with section 11 of the Act, must be transferred to the GRF in a manner determined by the President of Treasury Board and Minister of Finance. The amount to be retained in the Fund for inflation proofing is determined by multiplying the accumulated operating surplus of the Fund from the prior fiscal year end by the percentage increase in the Alberta Consumer Price Index (Alberta CPI) for the year, calculated as the percentage increase in the average monthly Alberta CPI for the two previous fiscal years. In accordance with section 11(2), if the Alberta CPI is a negative number, that negative number shall be treated as if it were zero. The estimated Alberta CPI increase for the year was 6.2% (March 31, 2022: 4.3%).

(c) Capital expenditures include transfers of $300 to the Alberta Heritage Foundation for Medical Research in 1980 and $100 to the Alberta Heritage Scholarship Fund in 1981.

(d) Transfers of $200 to the Alberta Heritage Scholarship Fund, $3 to the Agriculture and Food Innovation Account, and $52 to the Access to the Future Fund were made from the Fund in 2015.

NOTE 6 INVESTMENT INCOME (in millions)

The following is a summary of the Fund's investment income (loss) by asset class:

	Three Months Ended September 30,		Six Months Ended September 30,	
	2022	**2021**	**2022**	**2021**
Interest-bearing securities	$ 12	$ 12	$ 18	$ 61
Equities				
Canadian	(3)	34	(7)	158
Global	(48)	347	(203)	680
Private	29	75	114	191
	(22)	456	(96)	1,029
Inflation sensitive				
Real estate	31	39	54	78
Infrastructure	35	22	52	74
Renewable resources	18	32	23	34
	84	93	129	186
Strategic, tactical and currency investments	2	3	(5)	12
	$ 76	$ 564	$ 46	$ 1,288

The investment income includes realized gains and losses from disposal of pool units totalling $1 (September 30, 2021: $98) and from directly held foreign exchange contracts totalling ($1) (September 30, 2021: $nil). Income and loss distributions from the pools total $46 (September 30, 2021: $1,190).

Income earned in pooled investment funds is distributed to the Fund daily based on the Fund's pro rata share of units issued by the pool. Income earned by the pools is determined on an accrual basis and includes interest, dividends, security lending income, realized gains and losses on sale of securities determined on an average cost basis, income and expense on derivative contracts and writedowns of securities held in pools which are indicative of a loss in value that is other than temporary. Because the investments are accounted for on a fair value basis, the recording of other-than-temporary losses through the statement of operations does not affect the performance of the fund.

NOTE 7 INVESTMENT EXPENSES (in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2022	**2021**	**2022**	**2021**
Amount charged by AIMCo for: [(a)]				
Investment costs	$ 23	$ 22	$ 45	$ 43
Performance based fees	(9)	12	3	47
Total investment expenses	$ 14	$ 34	$ 48	$ 90
(Decrease) increase in expenses	(58.8%)	17.2%	(46.7%)	47.5%
(Decrease) increase in average investments under management	(1.5%)	9.5%	2.7%	10.1%
(Decrease) increase in value of investments attributed to AIMCo	(0.4%)	1.0%	1.0%	3.1%
Investment expense as a percent of dollar invested	0.1%	0.2%	0.2%	0.5%

(a) Investment expenses are charged by AIMCo on a cost recovery basis. Please refer to AIMCo's financial statements for a detailed breakdown of the types of expenses incurred by AIMCo. Amounts recovered by AIMCo for investment costs include those costs that are primarily non-performance related including external management fees, external administration costs, employee salaries and incentive benefits and overhead costs. A majority of amounts recovered by AIMCo for performance based fees relate to external managers hired by AIMCo.

Includes $57 thousand (September 30, 2021: $57 thousand) charged to the Fund by Alberta Treasury Board and Finance for investment accounting and reporting services.

NOTE 8 INVESTMENT PERFORMANCE (net of investment expenses)

Estimated investment returns are provided as supplementary information. The determination of the estimated return is based on fair values using quoted market prices and estimates of fair value where no quoted market prices are available. The estimated return includes gains and losses that have not been realized. Estimated benchmark returns are based on published market-based indices and estimates where no published index is available.

	Three Months Ended September 30,		Six Months Ended September 30,		Average Annualized Return	
Time-weighted rates of return, at fair value [(a)]	**2022**	**2021**	**2022**	**2021**	**5 years** [(d)]	**10 years**
Net return on investments [(b)]	(0.1%)	2.4%	(4.2%)	8.0%	6.2%	8.5%
Policy benchmark return [(b)]	0.3%	1.4%	(5.2%)	4.9%	5.5%	7.9%
Value (lost) added by AIMCo [(c)]	(0.4%)	1.0%	1.0%	3.1%	0.7%	0.6%

(a) The time-weighted rate of return involves the calculation of the return realized by the Fund over a specified period and is a measure of the total proceeds received from an investment dollar initially invested. Total proceeds include cash distributions (interest and dividend payments) and capital gains and losses (realized and unrealized).

(b) Investment returns are provided by AIMCo. The net investment return and policy benchmark return is based on a weighted average of returns for each asset class. Investment returns for assets classified as real estate, private equities, infrastructure, hedge funds and private debt are based on estimates of fair value. For these investments, measurement uncertainty exists because trading activity is infrequent and fair values are derived using valuation techniques which incorporate assumptions that are based on non-observable market data. Reasonably possible alternative assumptions could yield an increase or decrease in the fair value amounts and investment returns reported for these types of investments.

(c) In the SIP&G, the Ministry of Treasury Board and Finance expects that the investments held by the Fund will return 1% above the policy benchmark over a rolling five-year period.

(d) In accordance with the SIP&G, over a five-year period, it is expected that the policy portfolio will earn an average return of 4.5% adjusted for inflation, based on the Canadian Consumer Price Index. At the reporting date, the CPI + 450 annualized, five-year rolling average, was 6.5%.

NOTE 9 FINANCIAL STATEMENTS

Quarterly and annual financial statements are prepared by the Department of Treasury Board and Finance and are approved by the Department's Senior Financial Officer and Deputy Minister. The statements report the activities and financial performance of the Fund for the period and are provided to the Standing Committee on the Alberta Heritage Savings Trust Fund in accordance with section 15 and 16 of the Act. Unaudited interim financial statements for the first three quarters of each fiscal year are made available to the public by the President of Treasury Board and Minister of Finance within two months following each quarter-end. Annual audited financial statements of the Fund are included in the annual report of the Ministry of Treasury Board and Finance.