

Alberta

2017–2018 **SECOND QUARTER**
Alberta Heritage
Savings Trust Fund



Heritage Fund

TABLE OF CONTENTS

- Investment Highlights 1
- Interim Financial Statements September 30, 2017 3
 - Statement of Financial Position 4
 - Statement of Change in Net Financial Assets 4
 - Statement of Operations and Accumulated Surplus 5
 - Statement of Remeasurement Gains and Losses 5
 - Statement of Cash Flows 6
 - Notes to the Financial Statements 7

2.4%
(net of fees)

RATE OF RETURN

\$17.1
billion

FAIR VALUE OF NET
ASSETS

\$0.9
billion

NET INCOME

INVESTMENT HIGHLIGHTS

INVESTMENT PERFORMANCE

- ◇ For the first six months of the fiscal year 2017-18, the Heritage Fund had a rate of return of 2.4%. Value added by Alberta Investment Management Corporation (AIMCo) during the first half of the fiscal year was 0.1%.
- ◇ Year-to-date results were driven by returns from equities of 3.2%. Fixed income struggled, returning negative 0.3%, largely due to rising interest rates over the first six months of the fiscal year. The inflation sensitive and alternative assets in the portfolio have returned 2.6% fiscal year-to-date.
- ◇ Over the long term, the fund continues to perform well. The five-year annualized rate of return as of September 30, 2017, was 10.9%, while the ten-year rate of return was 6.9% per annum. All returns are net of fees.
- ◇ Over the same five- and ten-year periods, AIMCo has added value to the portfolio in the amounts of 0.6% and 0.2% respectively.
- ◇ As of September 30, 2017, the Heritage Fund held \$17.1 billion in net assets on a fair value basis.

ALBERTA GROWTH MANDATE

- ◇ The Alberta Growth Mandate was announced as part of *Budget 2015*. The mandate was introduced to support and grow Alberta business. The mandate directed

AIMCo to invest up to 3% of the Heritage Fund in investments that directly invest in Alberta growth.

- ◇ AIMCo has made 25 investments in 18 different companies under the mandate for a total investment of \$345 million. Two of the investments, Savanna Energy and TransAlta Renewables, have been sold as of September 30, 2017.

ASSET ALLOCATION

- ◇ The asset weights in each category have not changed substantially quarter over quarter.
- ◇ As a share of the Fund's value the Fixed Income asset class represented 18.6%, Inflation Sensitive and Alternatives was 34.8%, Equities was 45.5% and Overlays were 1.1% of the portfolio.

INVESTMENT INCOME

- ◇ The Fund earned \$992 million during the first half of the fiscal year. Net income was \$926 million after expenses of \$66 million. Of the net income \$123 million will be retained in the fund for inflation proofing. The remaining \$803 million will be transferred to the General Revenue Fund.

Investment Returns as of September 30, 2017

	FYTD	1 Year	5 Year	10 Year	Since Inception
Alberta Heritage Savings Trust Fund	2.4%	8.2%	10.9%	6.9%	7.3%
Policy Benchmark	2.3%	7.0%	10.3%	6.7%	6.9%
Value Add	0.1%	1.2%	0.6%	0.2%	0.4%
CPI + 450	-	5.9%	5.9%	6.1%	-

Asset Allocation (at September 30, 2017)

	Value in millions	Percentage
Money Markets and Fixed Income	\$3,331	18.6%
Cash and Equivalents	\$102	0.6%
Fixed Income	\$3,229	18.0%
Inflation Sensitive and Alternatives	\$6,241	34.8%
Private Infrastructure	\$1,637	9.1%
Timberlands	\$485	2.7%
Real Estate	\$4,119	23.0%
Equity	\$8,144	45.5%
Canadian Public Equity	\$1,609	9.0%
Foreign Equity	\$5,299	29.6%
Private Equity	\$1,236	6.9%
Overlays	\$201	1.1%
Total	\$17,917	100.0%

Asset Class Returns (for period ended September 30, 2017)

	3 Month	6 Month	5 Year	10 Year
Money Markets and Fixed Income	-1.3%	-0.3%	4.3%	5.5%
Cash and Equivalents	0.3%	0.5%	1.2%	1.4%
Fixed Income	-1.4%	-0.3%	4.3%	5.6%
Inflation Sensitive and Alternatives	1.5%	2.6%	8.8%	8.4%
Private Infrastructure	-0.1%	1.8%	8.7%	7.8%
Timberlands	4.2%	5.8%	10.0%	5.4%
Real Estate	1.8%	2.6%	8.9%	9.0%
Equity	2.3%	3.2%	14.5%	6.7%
Canadian Public Equity	4.0%	2.8%	9.4%	5.0%
Foreign Equity	2.0%	3.9%	16.9%	7.2%
Private Equity	1.1%	0.7%	7.6%	5.0%
Overlays	3.1%	3.7%	15.1%	1.3%
Total	1.3%	2.4%	10.9%	6.9%

SEPTEMBER 30, 2017
**INTERIM FINANCIAL
STATEMENTS(UNAUDITED)**

Alberta Heritage
Savings Trust Fund

Statement of Financial Position

As at September 30, 2017

(unaudited)
(in millions)

	September 30, 2017	March 31, 2017
Financial assets		
Investments (Note 3)	\$ 17,917	\$ 18,334
Liabilities		
Due to the General Revenue Fund	803	851
Net financial assets	<u>\$ 17,114</u>	<u>\$ 17,483</u>
Net financial assets (Note 5)		
Accumulated operating surplus	\$ 15,475	\$ 15,352
Accumulated remeasurement gains	1,639	2,131
	<u>\$ 17,114</u>	<u>\$ 17,483</u>

Statement of Change in Net Financial Assets

Six Months Ended September 30, 2017

(unaudited)
(in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2017	2016	2017	2016
Net surplus retained in the Fund	\$ 66	\$ 23	\$ 123	\$ 91
Net remeasurement (losses) gains	(153)	62	(492)	(297)
(Decrease) increase in net financial assets	(87)	85	(369)	(206)
Net financial assets, beginning of period	17,201	17,455	17,483	17,746
Net financial assets, end of period	<u>\$ 17,114</u>	<u>\$ 17,540</u>	<u>\$ 17,114</u>	<u>\$ 17,540</u>

The accompanying notes are part of these financial statements.

Statement of Operations and Accumulated Surplus

Six Months Ended September 30, 2017

(unaudited)
(in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2017	2016	2017	2016
Investment income (Note 7)	\$ 421	\$ 532	\$ 992	\$ 1,203
Investment expenses (Note 8)	(34)	(30)	(66)	(63)
Net income from operations	387	502	926	1,140
Transfers to the General Revenue Fund (Note 5b)	(321)	(479)	(803)	(1,049)
Net surplus retained in the Fund (Note 5b)	66	23	123	91
Accumulated operating surplus, beginning of period	15,409	15,238	15,352	15,170
Accumulated operating surplus, end of period	\$ 15,475	\$ 15,261	\$ 15,475	\$ 15,261

Statement of Remeasurement Gains and Losses

Six Months Ended September 30, 2017

(unaudited)
(in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2017	2016	2017	2016
Unrealized (loss) gain on investments	\$ (124)	\$ 119	\$ (335)	\$ (174)
Less: Amounts reclassified to the Statement of Operations - realized gains on investments	(29)	(57)	(157)	(123)
Net remeasurement (losses) gains	(153)	62	(492)	(297)
Accumulated remeasurement gains, beginning of period	1,792	2,217	2,131	2,576
Accumulated remeasurement gains, end of period	\$ 1,639	\$ 2,279	\$ 1,639	\$ 2,279

The accompanying notes are part of these financial statements.

Statement of Cash Flows

Six Months Ended September 30, 2017
(unaudited)
(in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2017	2016	2017	2016
Operating transactions				
Net income from operations	\$ 387	\$ 502	\$ 926	\$ 1,140
Non-cash items included in net income	(29)	(57)	(157)	(123)
	358	445	769	1,017
Decrease (increase) in accounts receivable	7	(10)	-	(10)
(Decrease) increase in accounts payable	(88)	13	-	13
Cash provided by operating transactions	277	448	769	1,020
Investing transactions				
Proceeds from disposals, repayments and redemptions of investments	649	598	1,867	1,361
Purchase of investments	(994)	(1,000)	(1,786)	(2,128)
Cash (used in) provided by investing transactions	(345)	(402)	81	(767)
Transfers				
Transfers to the General Revenue Fund	(321)	(479)	(803)	(1,049)
Increase (decrease) in amounts due to the General Revenue Fund	321	479	(48)	820
Cash used in transfers	-	-	(851)	(229)
(Decrease) increase in cash	(68)	46	(1)	24
Cash at beginning of period	170	75	103	97
Cash at end of period	\$ 102	\$ 121	\$ 102	\$ 121
Consisting of Deposits in the Consolidated Cash Investment Trust Fund (CCITF) *	\$ 102	\$ 121	\$ 102	\$ 121

* The CCITF is a highly-liquid, short-term money market pooled fund consisting primarily (97%) 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, 2017
(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 16/2014, 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 the Province of Alberta 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. Alberta Investment Management Corporation (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.

The Fund's cut-off policy for valuation of investments, investment income and investment performance is based on valuations confirmed by AIMCo on the fourth business day following the period end. Differences in valuation estimates provided to Treasury Board and Finance after the period end cut-off date are reviewed by management. Differences considered immaterial by management are included in investments and remeasurement gains or losses in the following period.

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.

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 7). 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 8). 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 primarily represent the excess 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, timberland investments, 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.

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)).

g) CHANGES IN ACCOUNTING POLICY

Effective April 1, 2017, management implemented the following accounting standards required for government organizations with fiscal years beginning on or after April 1, 2017. The adoption of these standards was applied on a prospective basis and did not have an impact on the financial position or performance of the Fund.

- **PS 2200 Related Party Disclosures and PS 3420 Inter-Entity Transactions**

PS 2200 defines a related party and establishes disclosures required for related party transactions; PS 3420 establishes standards on how to account for and report transactions between public sector entities that comprise a government's reporting entity from both a provider and recipient perspective.

- **PS 3210 Assets, PS 3320 Contingent Assets, and PS 3380 Contractual Rights**

PS 3210 provides guidance for applying the definition of assets set out in FINANCIAL STATEMENT CONCEPTS, Section PS 1000, and establishes general disclosure standards for assets; PS 3320 defines and establishes disclosure standards on contingent assets; PS 3380 defines and establishes disclosure standards on contractual rights.

h) FUTURE CHANGES IN ACCOUNTING POLICY

The Public Sector Accounting Board issued the following accounting standard:

- **PS 3430 Restructuring Transactions (effective April 1, 2018)**

This standard provides guidance on how to account for and report restructuring transactions by both transferors and recipients of assets and/or liabilities, together with related program or operating responsibilities.

Management is currently assessing the impact of this standard on the financial statements.

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, 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. The pools have a market based unit value that is used to allocate income to participants of the pool and to value purchases and sales of the pool units. 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)			September 30, 2017	March 31, 2017
	Level 1	Level 2	Level 3		
Interest-bearing securities					
Deposits in CCITF	\$ -	\$ 102	\$ -	\$ 102	\$ 103
Bonds, mortgages and private debt	-	2,108	1,121	3,229	3,172
	-	2,210	1,121	3,331	3,275
Equities					
Canadian	1,210	101	298	1,609	1,653
Global developed	2,971	526	1,131	4,628	5,086
Emerging markets	505	41	125	671	694
Private	-	-	1,236	1,236	1,229
	4,686	668	2,790	8,144	8,662
Inflation sensitive					
Real estate	-	-	4,119	4,119	4,055
Infrastructure	-	-	1,637	1,637	1,666
Timberland	-	-	485	485	469
	-	-	6,241	6,241	6,190
Strategic, tactical and currency investments *					
	-	24	177	201	207
Total Fair Value of Investments	\$ 4,686	\$ 2,902	\$ 10,329	\$ 17,917	\$ 18,334

* 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. This level includes publicly traded listed equity investments totalling \$4,686 (March 31, 2017: \$5,144).
- **Level 2** - fair value is estimated using valuation techniques that make use of market-observable inputs other than quoted market prices. This level includes debt securities and derivative contracts not traded on a public exchange totalling \$2,902 (March 31, 2017: \$2,764). For these investments, fair value is either derived from a number of prices that are provided by independent pricing sources or from pricing models that use observable market data such as swap curves and credit spreads.
- **Level 3** - fair value is estimated using inputs based on non-observable market data. This level includes private mortgages, hedge funds, private equities and all inflation sensitive investments totalling \$10,329 (March 31, 2017: \$10,426).

Reconciliation of Level 3 Investments

	September 30, 2017	March 31, 2017
	<i>(six months)</i>	<i>(one year)</i>
Balance, beginning of period	\$ 10,426	\$ 10,927
Unrealized losses	(164)	(123)
Purchases of Level 3 pooled fund units	790	2,808
Sale of Level 3 pooled fund units	(723)	(3,186)
Balance, end of period	\$ 10,329	\$ 10,426

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 is 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 timberland 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 is estimated by managers or general partners of private equity funds and joint ventures. 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 and futures contracts are valued based on quoted market prices. 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 Ministry of Treasury Board and 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, Minister of Finance has approved the following target policy asset mix:

Asset Class	Target Asset Policy Mix	Actual Asset Mix			
		September 30, 2017		March 31, 2017	
Interest-bearing securities	15 - 45%	\$ 3,331	18.6%	\$ 3,275	17.9%
Equities	35 - 70%	8,144	45.5%	8,662	47.2%
Inflation sensitive	15 - 40%	6,241	34.8%	6,190	33.8%
Strategic, tactical and currency investments	(a)	201	1.1%	207	1.1%
		\$ 17,917	100.0%	\$ 18,334	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.

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. 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 are with counterparties with credit ratings considered to be investment grade.

The table below summarizes debt securities by counterparty credit rating at September 30, 2017:

Credit rating	September 30, 2017	March 31, 2017
Investment Grade (AAA to BBB-)	70.5%	71.5%
Speculative Grade (BB+ or lower)	0.4%	0.2%
Unrated	29.1%	28.3%
	<u>100.0%</u>	<u>100.0%</u>

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, 2017, the Fund's share of securities loaned under this program is \$741 (March 31, 2017: \$810) and collateral held totals \$788 (March 31, 2017: \$860). 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 a bank-issued letter of credit. 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 30% (March 31, 2017: 31%) of the Fund's investments, or \$5,291 (March 31, 2017: \$5,756), are denominated in currencies other than the Canadian dollar, with the largest foreign currency exposure being to the US dollar, 15% (March 31, 2017: 17%) and the Euro, 3% (March 31, 2017: 3%).

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 3.0% of total investments (March 31, 2017: 3.1%).

The following table summarizes the Fund's exposure to foreign currency investments held in the pools at September 30, 2017:

Currency ^(a)	September 30, 2017		March 31, 2017	
	Fair Value	Sensitivity	Fair Value	Sensitivity
U.S. dollar	\$ 2,674	\$ (267)	\$ 3,065	\$ (307)
Euro	608	(61)	641	(64)
Japanese yen	392	(39)	413	(41)
British pound sterling	311	(31)	303	(30)
Brazilian real	183	(18)	136	(14)
Other foreign currency	1,123	(113)	1,198	(120)
Total foreign currency investments	\$ 5,291	\$ (529)	\$ 5,756	\$ (576)

^(a) Information on specific currencies is disclosed when the current year 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 1.1% of total investments (March 31, 2017: 1.1%).

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 5.7% of total investments (March 31, 2017: 5.9%). 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, timberland, 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.

By counterparty	Number of counterparties	Fund's Indirect Share	
		September 30, 2017	March 31, 2017
Contracts in favourable position (current credit exposure)	55	\$ 216	\$ 89
Contracts in unfavourable position	10	(62)	(79)
Net fair value of derivative contracts	65	\$ 154	\$ 10

- 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 favourable position totaling \$216 (March 31, 2017: \$89) 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.

Types of derivatives used in pools	Fund's Indirect Share	
	September 30, 2017	March 31, 2017
Structured equity replication derivatives	\$ 46	\$ 25
Foreign currency derivatives	89	(23)
Interest rate derivatives	14	2
Credit risk derivatives	5	6
Net fair value of derivative contracts	\$ 154	\$ 10

- i) Structured equity replication derivatives: Equity index swaps are structured to receive income from counterparties based on the performance of a specified market-based equity index, security or basket of equity securities applied to a notional amount in exchange for floating rate interest paid to the counterparty. Floating rate notes are held in equity pools to provide floating rate interest to support the pay leg of the equity index swap. Rights, warrants, futures and options are also included as structured equity replication derivatives.
- ii) Foreign currency derivatives: 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: 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: 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) Deposits: At September 30, 2017, deposits in futures contracts margin accounts totalled \$21 (March 31, 2017: \$16) and deposits as collateral for derivative contracts totalled \$4 (March 31, 2017: \$4).

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, 2017	March 31, 2017
Accumulated net income	\$ 41,704	\$ 40,778
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
Transfers (from) the Fund		
Section 8 transfers ^(b)		
Income	(41,909)	(40,983)
Amount Retained in the Fund	3,454	3,331
	(38,455)	(37,652)
Capital Expenditures (1976-1995) ^(c)	(3,486)	(3,486)
Other Statutory Transfers ^(d)	(255)	(255)
	(42,196)	(41,393)
Accumulated surplus from operations	15,475	15,352
Accumulated remeasurement gains	1,639	2,131
Carrying value of net financial assets	\$ 17,114	\$ 17,483

- (a) Section 9.1 of the Act and Section 4(5) of the *Access to the Future Act* provides that up to \$3,000 may be transferred from the GRF to the Fund (see Note 6 (ii)).
- (b) During the period, the Fund earned net income of \$926, of which \$123 was retained in the Fund and \$803 is payable to the GRF. 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, shall be transferred to the GRF in a manner determined by the President of Treasury Board, 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 estimated percentage increase in the Alberta Consumer Price Index (Alberta CPI) for the year. 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.
- (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 and \$3 for the Agriculture and Food Innovation Account were made during 2014-15 in accordance with the *Savings Management Act* (Sections 7 and 4(1) respectively). This Act was repealed December 17, 2014. The transfers from the Fund remain with the Alberta Heritage Scholarship Fund to be used for trades scholarships, and with Agriculture and Rural Development, to support basic and applied agricultural research, education and commercialization. Transfers out of the Fund to the Access to the Future Fund total \$52.

NOTE 6 INVESTING IN ADVANCED EDUCATION (in millions)

The following notional account has been established within the Fund. The notional balance provided below is used as a base to which a rate is applied to determine future cash transfers to support advanced education and educational initiatives for the long-term benefit of Albertans:

	September 30, 2017 <i>(six months)</i>	March 31, 2017 <i>(one year)</i>
Balance, beginning of period	\$ 1,460	\$ 1,319
Rate of return adjustment	35	141
Balance, end of period	\$ 1,495	\$ 1,460

- i) The Account was established for the purpose of funding the Access to the Future Fund in the Ministry of Advanced Education. The Access to the Future Fund supports innovation and excellence that enhances and expands opportunities for Albertans to participate in accessible, affordable and high-quality advanced education opportunities.
- ii) A maximum of \$3,000 can be allocated to the account from within the Fund of which \$750 has been allocated in 2005-06 and \$250 in 2006-07. The balance in the account is adjusted for (a) the rate of return reported by the Fund for the period and (b) transfers to the Access to the Future Fund.
- iii) Maximum transfers to the Access to the Future Fund are calculated as 4.5% of the average of the closing balances of the Account for the preceding 3 fiscal years. Effective in fiscal year 2015-16, transfers to the Access to the Future Fund are made from the General Revenue Fund (Sec 4(7) of the *Access to the Future Act*). No transfers were made to the Access to the Future Fund during the period nor any for 2015-17.

NOTE 7 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,	
	2017	2016	2017	2016
Interest-bearing securities	\$ 52	\$ 75	\$ 78	\$ 157
Equities				
Canadian	79	43	99	101
Global	76	146	381	409
Private	64	85	98	184
	219	274	578	694
Inflation sensitive				
Real estate	67	123	165	228
Infrastructure	50	61	127	107
Timberland	27	8	22	31
	144	192	314	366
Strategic, tactical and currency investments	6	(9)	22	(14)
	\$ 421	\$ 532	\$ 992	\$ 1,203

The investment income includes realized gains and losses from disposal of pool units totalling \$157 (September 30, 2016: \$122) and from directly held foreign exchange contracts totalling (\$1) (September 30, 2016: \$1). Income distributions from the pools total \$836 (September 30, 2016: \$1,080).

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.

NOTE 8 INVESTMENT EXPENSES (in millions)

	Three Months Ended September 30,		Six Months Ended September 30,	
	2017	2016	2017	2016
Amount charged by AIMCo for:				
Investment costs ^(a)	\$ 28	\$ 25	\$ 54	\$ 51
Performance based fees ^(a)	6	5	12	12
Total investment expenses	\$ 34	\$ 30	\$ 66	\$ 63
Increase (decrease) in expenses (Decrease) increase in average	13.3%	3.4%	4.8%	(10.0%)
investments under management	(2.6%)	1.9%	(0.9%)	0.8%
Increase (decrease) in value of investments attributed to AIMCo	0.3%	0.0%	0.1%	(0.6%)
Investment expense as a percent of:				
Dollar earned	8.1%	5.6%	6.7%	5.2%
Dollar invested	0.2%	0.2%	0.4%	0.3%

(a) 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. Amounts recovered by AIMCo for performance based fees relate to external managers hired by AIMCo.

Includes \$57 thousand (September 30, 2016: \$57 thousand) charged to the Fund by Alberta Treasury Board and Finance for investment accounting and reporting services.

NOTE 9 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	
	2017	2016	2017	2016	5 years ^(d)	10 years
Time-weighted rates of return, at fair value ^(a)						
Net return on investments ^(b)	1.3%	3.1%	2.4%	4.7%	10.9%	6.9%
<i>Policy benchmark return ^(b)</i>	1.0%	3.1%	2.3%	5.3%	10.3%	6.7%
Value added (lost) by AIMCo ^(c)	0.3%	0.0%	0.1%	(0.6%)	0.6%	0.2%

(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. Any change in estimated returns, resulting from new information received after the cut-off date for preparation of the Fund's financial statements, will be reflected in the next reporting period.
- (c) In the SIP&G, the Ministry of Treasury Board and Finance expects that the investments held by the Fund will return approximately 100 basis points, or 1% per annum, above the policy benchmark.
- (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 and value added by investment manager of 1.0%. The five-year annualized CPI is 1.4%, bringing the five-year annualized Portfolio Return Expectation to 6.9%.

NOTE 10 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, 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 which is made public on or before June 30 following each fiscal year ending on the preceding March 31.

Alberta

