

Number 7/March 1992

THE ALBERTA HERITAGE FUND IN 1991

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THE HERITAGE FUND ANNUAL REPORT

The Alberta Government reports annually to the public on the investments and accumulated spending from the Alberta Heritage Savings Trust Fund (Fund), established under legislation in 1976. While these reports are modelled as if the Fund were a separate trust, the Fund is in fact a portfolio of assets and deemed assets accumulated under the authority of the 1976 act which is always under the control of the current provincial government. Unlike a separate trust, the Fund cannot meaningfully lend money to the Province nor benefit from Provincial loan guarantees.

In earlier years the oneness of Fund and Provincial government did not affect the Fund's report, even though the reporting model was unrealistic. In those less stressful

times, the Province did not borrow, and loan guarantees were not invoked. Now the Fund's published report counts loans to Alberta among its assets, and omits investment losses which are covered by Province loan guarantees.

The purpose of the fund report is to tell the Alberta public the results that have flowed from Fund legislation. If this purpose is to be effectively discharged, the report requires supplemental financial analysis to purge the unrealities of its "separate trust" accounting model. That analysis is the main goal of this paper. A second objective is to include more current market information about the Fund's condition than is provided within the Fund's own report.

SUMMARY RESULTS OF FINANCIAL ANALYSIS

Financial analysis indicates that the reported asset values and equity of the Fund are overstated and that rate-of-return is better than reported. The Fund equity is reported in March 1991 as \$12.1 billion; when adjusted to a realistic market estimate, it becomes \$9.6 billion. However, the reported rate-of-return on investment is 11.7%; when rate-of-return is calculated on an adjusted basis, it improves to

14.2% and the adjusted rate-of-return after allowing for inflation on investment becomes 7.9%. Fund equity grew from \$9.1 billion to \$9.6 billion after adjustment, although the annual report shows virtually no change in total assets from 1990. (Additional background material relating to these adjustments may be found in *Information Bulletin*, Number 4, May 1991.)

BALANCE SHEET ADJUSTMENTS

Three major Fund balance sheet adjustments are necessary

- to remove Province of Alberta debt securities from the asset list
- to remove the effect of Province of Alberta loan guarantees, and
- to convert book values to market worth.

In the case of the first adjustment, when investments originally made under the Alberta Heritage Savings Trust Fund Act of 1976 are liquidated and "loaned" to the Province, money has been withdrawn from Fund investments and reallocated to general public spending. Interest from outside sources is no longer being earned. Therefore, there is no longer an asset value that can be liquidated if necessary to pay Provincial expenses.

In the second instance, payment on Alberta crown corporation debt is guaranteed by the Province, but the practical meaning of the guarantee vanishes when the Province acquires that debt. Therefore, investments in crown corporations must be valued without prospect of loan guarantees. In three crown corporations where loan guarantees are

potentially important – Alberta Mortgage and Housing Corporate (AMHC), Alberta Agricultural Development Corporation (AADC), and Alberta Opportunity Corporation (AOC) – the Province is the sole owner and the preponderant creditor. Corporation assets, net of small claims from external creditors constitute the realistic value of Provincial investment in these corporations. In fact, the balance sheets of AMHC, AADC, and AOC each disclose total net assets well below claimed investments in their respective debentures in the Fund annual report.

The third adjustment, converting book values to market worth, extends beyond the Fund/Province relationship. This conversion presumes the present condition of Fund investments to be described more accurately by estimates of current market value than by precise records of original cost. Minor adjustments to market on short-term assets are excluded from this discussion; these market values are shown supplementally in the Fund annual report.

TABLE 1: ALBERTA HERITAGE FUND VALUES*
 March 31, 1991 (millions of dollars, no inflation adjustment)

| | 1991 Market estimate | 1991 Fund report | 1991 Difference Mkt - Fund |
|---|----------------------------|------------------------|----------------------------------|
| Marketable Securities and Liquid Assets | | | |
| Liquid and short-term assets | | | |
| Government of Canada obligations | 1,279 | 1,279 | |
| Other liquid assets and deposits | 1,452 | 1,452 | |
| Province of Alberta obligations** | | -1,165 | -1,165 |
| Subtotal | 2,731 | 3,696 | -1,165 |
| Accrued interest and receivables** | | | |
| | 532 | 592 | -60 |
| High quality bonds | | | |
| Alberta Municipal Financing Corporation | 820 | 710 | 110 |
| Other provinces (Canada Division) | 1,360 | 1,189 | 171 |
| Subtotal | 2,180 | 1,899 | 281 |
| Equity Investments | | | |
| Commercial Division portfolio (primarily common)** | 516 | 335 | 181 |
| TELUS Corporation common | 816 | 668 | 148 |
| NOVA common and convertible debentures | 374 | 175 | 199 |
| Alberta Energy Company common | 156 | 167 | -11 |
| Subtotal | 1,862 | 1,344 | 518 |
| Total Marketable Securities and Liquid Asset | 7,305 | 7,731 | -426 |
| Mortgages, Venture Loans and Participations | | | |
| AHMC housing mortgages and related items | 700 | 2,139 | -1,439 |
| AMHC housing mortgages and related items | 610 | 1,003 | -393 |
| AADC agricultural mortgages and related items | | | |
| Venture loans | | | |
| AOC small business loans and related items | 90 | 150 | -60 |
| Venture loans to Ridley Grain, Millar Western Pulp, Vencap | 260 | 450 | -190 |
| Participations and other items, at cost | | | |
| Syncrude Project participation | 514 | 514 | |
| Other (Lloydminster upgrader, etc.) | 146 | 146 | |
| Total mortgages, venture loans and participations | 2,320 | 4,402 | -2,082 |
| Total assets, excluding housing | 9,625 | 12,132 | -2,508 |
| Liabilities | 18 | 18 | |
| Fund Equity | 9,606 | 12,114 | -2,508 |
| Housing and Deemed Assets | | | |
| Housing and related items purchased through AMHC | 800 | | 800 |
| Deemed Assets | 3,197 | 3,197 | |
| Total housing and deemed assets | 3,997 | 3,197 | 800 |

*For details on market estimates of securities, mortgages and venture loans, see appendix.

**Alberta bills in Commercial Division (5) and estimated accruals (60) are counted as Province obligations).

ADJUSTED ASSETS: CONVENTIONAL INVESTMENTS

Of the Fund assets that were adjusted in value, the following items are conventional investments, with market values that were either published in "financial pages" or which could be confidently approximated by the writer.

a. **Liquid and short-term assets**

These amount to \$2.73 billion after adjustment and are major cash reserves for the Province. Because, obligations of the Province should not have been included with these assets, an adjustment of -\$1.16 billion was required.

b. **Accrued interest and receivables**

These \$.53 billion are potentially liquid assets, primarily accrued interest, after a downward correction for accruals from the Province of -.06 billion.

c. **High-quality bonds**

These amount to \$2.18 billion, after upward adjustment of \$.28 billion. High contractual interest rates on these bonds make their market value exceed their original cost.

d. **Equity investments**

This figure, \$1.87 billion market value, is up \$.52 billion from reported original cost because of market appreciation.

ADJUSTED ASSETS: ALBERTA DIVISION INVESTMENTS

The Alberta Division Investments section of the Fund report contain a number of asset values that diverge from market reality. This is because reported values are based on meaningless Provincial loan guarantees. Market value estimates on these assets, essential in determining the actual condition of Fund investments, are developed from footnotes and supporting information in the Fund statement, crown corporation annual reports, and published market interest rates. (Calculations and information sources are shown in the Appendix.) In addition, another problem in estimating these assets exists this year in that AMHC is undergoing major structural changes and is not expected to public its March 31, 1991, annual report until mid-1992.

Investment in AMHC

Investment in AMHC is valued at \$2.14 billion in the Fund report. Without Provincial guarantee, this investment is reduced to the net assets owned by AMHC. The AMHC net assets are of two categories, housing and

mortgages. Housing assets owned by AMHC do not generate enough rent income to meet operating expenses, even before any provision for depreciation and interest. Since housing is essentially a social welfare program valued by AMHC at \$.8 billion net, it is reclassified out of assets and into a special category: Housing and related items. AMHC mortgage assets, eroded by past bad-debt write-offs, are estimated to be worth \$.7 billion after allowing for a major sale of mortgages during the fiscal year. Therefore, the combined adjustment of AMHC asset value is -\$1.44 billion.

Investment in Alberta Agricultural Development Corporation (AADC)

Investment in AADC is stated at \$1 billion by the Fund, an amount somewhat in excess of the total assets on AADC's own balance sheet. Furthermore, much of AADC's lending has been intentionally done at submarket interest rates. The net value of the investment in AADC is estimated at \$.61 billion, an adjustment of -\$\$.39 billion.

Venture loans

Venture loans have been made through Alberta Opportunity Corporation (AOC) directly to three large borrowers – Ridley Grain, Millar Western Pulp, and Vencap. While these loans are stated at a total of \$.6 billion, a market estimate is about 60% of that amount. The resulting -.25 billion adjustment reflects the low income and high risk exposure of these loans.

Participations

Participations in major energy development projects are valued at \$.66 billion. As of March 31, 1991, there was little information for estimating market values, so reevaluation was not attempted. (See Appendix for Syncrude earnings history.)

All of the above balance sheet adjustments leave Fund equity at about \$9.6 billion. A separate analysis that projected the most and the least optimistic values on items that were difficult to estimate – AMHC, AADC, the venture loans, and Syncrude – suggests that realistic Fund equity value in March 1991 is not likely to fall outside a range of \$8.5 to \$10 billion.

Changes in Fund Assets and Deemed Assets Since 1990

There have been a number of changes in the adjusted values of Fund assets between 1990 and 1991. Three of the most significant changes are:

1. The high-quality bond position has diminished and equity investments have risen because of the change-over from Alberta Government Telephones (AGT) debt to TELUS shares.
2. Much of the AMHC mortgage position has been liquidated.
3. The liquidity of the assets held is increasing – short-term assets and accruals have expanded by nearly \$1 billion, largely as a result of a combination of the AMHC and TELUS/AGT transactions.

Asset changes of lesser significance in this period include:

- a. the appreciation in the AADC mortgage position because of better Corporation performance and the effect of declining interest rates on the value of its mortgages, and
- b. the expenditure of over \$.1 billion on new energy development projects, primarily through participation in the Lloydminster heavy oil upgrading plant.

In the case of deemed assets, the only significant change is that about \$.13 billion was spent on rural irrigation and telephone line projects.

Fund Investment Performance

The Fund report divides Fund income by equity, and reports an 11.7% rate-of-return for the year ended March 31, 1991. However, there are a number of problems with the calculation of this figure, as indicated below:

- a. Interest paid by the Province to its own Fund is included in the numerator.
- b. All interest received from Alberta crown corporations is included in the numerator, although part of this interest could be paid only because compensatory Provincial grants to those crown corporations.
- c. Appreciation in the market value of assets retained in the portfolio is excluded from the numerator.
- d. The denominator is based on cost rather than on market value and includes Provincial obligations.

A more realistic appraisal of the investment performance would be made with the following calculation:

- a. $\text{Income for year} = [\text{net cash received from sources other than the Province during the year}] + [\text{end-of-year market value of Fund equity}] - [\text{beginning-of-year market value of fund equity}]$.
- b. $\text{Rate of return} = \frac{\text{Income for the year}}{[\text{beginning-of-year market value of Fund equity}]}$.

TABLE 2. ALBERTA HERITAGE FUND CHANGE
 March 31, 1990 to March 31, 1991 (millions of dollars; no inflation adjustment)

| | 1991 Market estimate | 1991 % of assets | 1990 Market estimate | 1990 % of total | Change: 1991 Mkt- 1990 Mkt |
|--|----------------------------|------------------------|----------------------------|-----------------------|----------------------------------|
| Marketable Securities and Liquid Assets | | | | | |
| Liquid and short-term assets | | | | | |
| Government of Canada obligations | 1,279 | | 780 | | 499 |
| Other liquid assets and deposits | 1,452 | | 1,123 | | 329 |
| Subtotal | 2,731 | 28.4% | 1,903 | | 828 |
| Accrued interest and receivables | 532 | 5.5% | 290 | 3.2% | 242 |
| High quality bonds | | | | | |
| Alberta Government Telephones Commission | | | 1,010 | | -1,010 |
| Alberta Municipal Financing Corporation | 820 | | 780 | | 40 |
| Other provinces (Canada Division) | 1,360 | | 1,380 | | -20 |
| Subtotal | 2,180 | 22.7% | 3,170 | 34.5% | -990 |
| Equity investments | | | | | |
| Commercial Division portfolio (mostly common) | 516 | | 519 | | -4 |
| TELUS corporation common | 816 | | | | 816 |
| NOVA common and convertible debentures | 374 | | 392 | | -18 |
| Alberta Energy Company common | 156 | | 128 | | 28 |
| Subtotal | 1,862 | 19.3% | 1,039 | 11.3% | 822 |
| Total Marketable Securities and Liquid Assets | 7,305 | | 6,403 | | 902 |
| Mortgages, Venture Loans, and Participations | | | | | |
| AHMC housing mortgages and related items | 700 | | 1,390 | | -690 |
| AADC agricultural mortgages and related items | 610 | | 540 | | 70 |
| Venture loans | | | | | |
| AOC small business loans and related items | 90 | | 70 | | 20 |
| Venture loans to Ridley, Millar, Western, Vencap | 260 | | 230 | | 30 |
| Participations and other items, at cost | | | | | |
| Syncrude Project participation | 514 | | 519 | | -5 |
| Other (Lloydminster upgrader, etc.) | 146 | | 35 | | 111 |
| Total Mortgages, Venture Loans and Participations | 2,320 | 24.1% | 2,784 | 28.9% | -464 |
| Total assets, excluding housing | 9,625 | 100.0% | 9,187 | 100.0% | 438 |
| Liabilities | 18 | | 22 | | -4 |
| Fund Equity | 9,606 | | 9,165 | | 442 |
| Housing and Deemed Assets | | | | | |
| Housing & related items purchased through AMHC | 800 | | 800 | | |
| Deemed assets | | | | | |
| Research and education* | 1,019 | | 1,010 | | 9 |
| Irrigation | 785 | | 721 | | 64 |
| Hospitals | 525 | | 525 | | |
| Parks and tourism | 417 | | 411 | | 6 |
| Rural telephone improvement (individual lines) | 218 | | 151 | | 66 |
| Other deemed assets | 234 | | 229 | | 5 |
| Total Deemed Assets | 3,197 | | 3,047 | | 150 |
| Total housing and deemed assets | 3,997 | | 3,847 | | 150 |

*Oil sands and medical research, scholarship fund, library, learning resources, occupational health and renewable energy research, electronic test and microchip facilities, Farming for the Future, Food Processing Centre.

APPENDIX

ALBERTA HERITAGE FUND REVALUATION WORKSHEET FOR ALBERTA INVESTMENTS March 31, 1991 (millions of dollars)

| | Securities | | Venture Loans & Mortgages | | | AMHC | |
|-----------------------------------|------------|----------------|---------------------------|------------|------------|------------|------------|
| | AMFC | Other Prov. | ACC | MRV | AADC | Mort. | Housing |
| Bal. loan or mortgages, F | 710 | 1202 | 132 | 450 | 935 | 1547 | |
| Interest earned, E | 96 | 157 | 17 | 33 | 74 | 93 | |
| Current bad debt expense | | | 13 | | 23 | 18 | |
| Discount rate, r | 10.75% | 10.75% | 13.50% | 13.75% | 13.50% | 11.50% | |
| Approximate mean maturity, n | 9 | 9 | 8 | 19 | 8 | 2.5 | |
| Writeoff rate, w | | | 10% | | 2% | 1% | |
| Present value, mort. int. | | | 57 | | 1318 | 189 | |
| Present value, mort. prin. | | | 21 | | 279 | 1144 | |
| Present value, V | 819 | 1357 | 78 | 256 | 597 | 1333 | |
| Cash, receivables | | | 9 | | 17 | | |
| Real estate | | | 2 | | 16 | 143 | |
| Accruals and external liabilities | | | -4 | | -25 | | |
| Deduction for sale of mortgages | | | | | | -750 | |
| AMHC housing | | | | | | | 786 |
| Net Revised Value, Rounded | 820 | 1360 | 90 | 260 | 610 | 700 | 800 |

Notes, 1990 Revaluation

1. Interest information: AMFC as described in AMFC annual report. Ridley, 11%. Millar, 10%, maturing 2004; actual repayment is performance contingent. Vencap's last 4 years interest payments are (millions)

| | | | |
|---------|-----------|------------|-----------|
| 1991: 7 | 1990: 5.6 | 1989: 10.9 | 1988: 7.2 |
|---------|-----------|------------|-----------|
2. Share values

| | | | | | |
|----------------|---------------------------------|---------|-------|-------|-----|
| TELUS | 59.4 million shares @ | TSE pr. | 13.75 | Value | 816 |
| Alberta Energy | 23.7 million shares @ | TSE pr. | 15.75 | Value | 374 |
| NOVA | 16.8 million potential shares @ | TSE pr. | 9.25 | Value | 156 |

Nova debentures are valued as if converted to common shares. If left un-converted, they bear interest at 6.25%.
3. Reported Syncrude profits are (millions) 1991: 82.1 1990: 22.5 1989: -3.1 1988: 33.6
4. V for mortgages approximates proceeds from an orderly sale, using a growth (decay) formula:
F, E, n = principal, interest and estimated time to maturity from crown corporation annual repts.
w = writeoff rate = 1991 writeoff on crown corporation statement/F.

$$V = [E(1-w)/(r+w)][1-(1-w)n(1+r)^{-n}] + F(1-2)n(1+r)^{-n}$$
This method assumes liquidation of loans, a "going concern" V is much lower.
5. Rates, r, from Bank of Canada Review: for securities, current rate on high quality corporate and provincial bonds; for venture loans, bond rate +3%; for AMHC mortgages, current bank mortgage rate; for AADC and AOC, mortgage rate +2%.
6. Details of AMHC balances, as derived from AMHC 1990 annual report, are:

| | | | |
|---|-------------|------|--|
| A. Assets allocated to mortgage activity | | | |
| Mortgages, loans and agreements receivable | 1547 | | |
| Real estate | <u>143</u> | 1691 | |
| B. Assets and liabilities allocated to housing activity | | | |
| Housing | 1065 | | |
| Land, fixed assets, cash, securities and receivables | 166 | | |
| Liabilities except advance from Province | -192 | | |
| Advance from Province of Albertas | <u>-254</u> | 786 | |