UNIVERSITIES ACADEMIC PENSION PLAN

2022 ANNUAL REPORT

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PLAN PROFILE

The Universities Academic Pension Plan (UAPP) was established in 1978 as a defined benefit pension plan for members of the academic and professional staff of Alberta universities and Banff Centre. The UAPP was set up under the Province of Alberta *Public-Sector Pension Plans Act* and the Provincial Treasurer was the trustee until December 31, 2000. The UAPP (Plan) became an independent pension plan registered under the Province of Alberta *Employment Pension Plans Act* and the *Income Tax Act* (Canada) as of January 1, 2001. The UAPP is now established under the Sponsorship and Trust Agreement signed by the Plan's sponsors: the academic staff associations and the boards of governors of the University of Alberta, University of Calgary, University of Lethbridge, Athabasca University, and Banff Centre (Sponsors).

- The Board of Trustees (Board), as established under the Sponsorship and Trust Agreement, is responsible for administering the Plan and investing the Fund.
- The UAPP is financed by employer and employee contributions, and by investment earnings. The Government of Alberta also contributes towards eliminating the unfunded liability for service before 1992.
- At December 31, 2022, the UAPP has 7,868 active members, 2,631 deferred members, and 6,720 pensioners.
- The UAPP Fund's market value at the end of 2022 was $6,014.1 million.

GOVERNANCE OF THE PLAN
BOARD OF TRUSTEES

GOVERNANCE OF THE PLAN

Board Mandate

The Board is responsible for administration of the UAPP, investment of UAPP funds, setting contribution rates required to fund the UAPP, and assisting Sponsors in developing appropriate changes to the UAPP. In carrying out its mandate, the Board is assisted by a small management team.

Board Composition

The Board of the UAPP oversees the Plan and is composed of five employer trustees and four employee trustees. The total votes carried by the employer trustees are the same as the votes carried by the employee trustees. The offices of Chair and Vice-Chair alternate every two years between employer and employee trustees.

Mission

It is the mission of the Board to deliver on its mandate in a manner that is consistent with:

- high quality services to the UAPP members and stakeholders,
- prudent investment of the fund,
- seeking stable contribution rates within the funding requirements of the *Employment Pension Plans Act*,
- best practices in pension plan governance and management, and
- all applicable rules, laws, and regulations.

Values

In carrying out its mission, the Board is guided by the following values:

- work in full partnership with Sponsors,
- be member/stakeholder focused,
- be open, accountable, and responsible for its actions,
- conduct UAPP business with trust, fairness, and integrity,
- adhere to the highest ethical standards,
- value and treat its employees as a vital resource, and
- strive to adopt best business practices.

COMMITTEES OF THE BOARD

Actuarial

Paul Rogers (Chair)
Rob Kindrachuk
James Smith
Nancy Walker

Audit

Todd Gilchrist (Chair)
Rob Kindrachuk (Vice-Chair)
James Smith
Megan Costiuk (external member)

Investment

Aditya Kaul (Chair)
Ron Kim (Vice-Chair)
Paul Rogers
Lawton Shaw
Ron Helmhold (external member)
David Lawson (external member)
Gary Smith (external member)

PLAN SERVICE PROVIDERS

Board of Trustees

UAPP Trustees' Office
#1002, Park Plaza
10611 98 Avenue
Edmonton, AB T5K 2P7
Fax: 780.415.8871
Website: www.uapp.ca

Administration Service Provider

UAPP Administration Centre (Buck)
Member Pension Inquiries:
201 City Centre Drive
Suite 1000
Mississauga, ON L5B 4E4
Phone: 1.866.709.2092
Email: uapp.pensions@buck.com

Pensioner Payroll Provider

CIBC Mellon
Pensioner Payroll Inquiries:
CIBC Mellon Pension Benefits Dept.
PO Box 5858, Station B
London, ON N6A 6H2
Phone: 1.800.565.0479
Website: www.cibcmellon.com

Actuary

Aon

Asset Consultant

Aon

Auditor

KPMG LLP

Investment Managers

Alberta Investment Management Corporation
Beutel, Goodman & Company Ltd.
Fiera Capital Corporation
State Street Global Advisors

UAPP Management Team

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MESSAGE FROM THE CHAIR

On behalf of the Board of Trustees for the Universities Academic Pension Plan, I am pleased to present UAPP's annual report for the year ended December 31, 2022. The purpose of this Report is to provide comprehensive details on the Plan's financial position, investments, pension administration, and operational activities of the past year.

Following the UAPP Fund's outstanding investment performance of 2021, the Plan was presented with several new challenges in 2022: high inflation, market value decreases, decreased contributions received by the Fund, and continued uncertainty and market volatility stemming from the pandemic and heightened geopolitical tensions around the world. Fortunately, after three years of strong investment returns prior to 2022, the Fund was in a solid position to be able to weather the storms of the year and enters 2023 with optimism. As central banks increase interest rates in an effort to fight inflation, pension plans like UAPP benefit from the potential for greater rates of return on fixed income investments as well as reduced pension obligations, both of which would enhance the Plan's funding position.

UAPP will be undertaking a significant project during 2023 in the search for investment managers for the Fund's public equity investments. As this asset class represents a sizable share of the Fund with a target allocation of 45 per cent of the total portfolio, the selected managers will be providing a crucial service to the Plan's beneficiaries.

With the aid of the Plan's investment consultant, the Board will be carrying out this search process with great care, ensuring appropriate due diligence is completed at each step in the process. Since the Spring of 2021, the public equities portfolio has been invested in passive funds and the Board looks forward to improved investment performance from a return to active management in that part of the Fund.

The 2022 investment return of -8.6 per cent was the poorest since the global financial crisis of 2008 and represents only the second time in the past 14 years that the Fund's annual rate of return fell below 0.0 per cent. Typically, fixed income investments provide a buffer to protect investors in times of poor equity markets. However, the experience of 2022 appears to be an exception to that rule as both asset classes struggled throughout the year. After several years of either an increase or a maintaining of the status quo, the rate of contributions remitted by employers and members was reduced effective July 1, 2022. This reduction occurred following prior improvements in the Plan's financial position and, while beneficial to both employers and the Plan's contributing members, the Fund received less in contributions during 2022 than any year since 2016. At the same time, the Fund paid out more in benefit payments during the year than ever before as a result of an increasing number of pensioners with longer life expectancies. This difference puts the Fund in a negative cash flow position, reinforcing the importance of robust investment returns. Fortunately, the Plan experienced an increase in the number of active members in 2022 after three years of declines. Continued growth in the number of active members would help ease the negative cash flow situation by ultimately leading to an increase in contributions.

MESSAGE FROM THE CHAIR

This Report also includes discussion on the operational and administrative activities associated with the UAPP. As always, the Board's mission is to deliver on its mandate in a manner consistent with providing high quality services to the UAPP members and stakeholders with key metrics outlined in the Administration Report. The Trustees' Office maintains the UAPP website which contains a plethora of Plan information. Pension information sessions for large groups of interested members continue to be available, as are one-on-one sessions for individual members. The administration team operates an online Retirement Planner tool and a toll-free call centre to assist members in finding more information to assist in the understanding of their pensions.

Following two years of significant turnover, the past year represented a return to consistency for the Board and its committees. The only change on the Board this year was in the return of a familiar face: Deborah Meyers returned as the employer representative from Athabasca University. I would like to express appreciation to Investment Committee members Ron Helmhold, David Lawson, and Gary Smith and Audit Committee member Megan Costiuk as external members of the Board's committees. All these external members provide considerable service to the UAPP and are owed a debt of gratitude for their work over this and prior years.

The Plan's relationship with service providers is critical to the attainment of the Board's mandate. As such, the Board wishes to thank the staff at Aon, Buck, and CIBC Mellon for their work on the administration side and the staff at Alberta Investment Management Corporation, Beutel Goodman & Company Ltd., Fiera Capital Corporation, and State Street Global Advisors for their work on the investment side of the Plan's operations.

The Board relies on a small team in the Trustees' Office to carry out its mandate. On behalf of the Board, it is my pleasure to acknowledge and thank our team led by Executive Director, Dave Schnore, for their hard work and achievements on behalf of the UAPP.

Nancy Walker
Chair, Board of Trustees

MANAGEMENT DISCUSSION AND ANALYSIS
Financial Position of the Plan

The Plan's Assets

During 2022, the Plan's assets decreased in market value for only the second time in fourteen years, declining by $641.0 million from $6,655.1 million at the start to $6,014.1 million by the year's conclusion. The -8.6 per cent investment return was the largest drop for the Fund since the global financial crisis of 2008. While most of the decline is due to unrealized losses in investments, a small part is due to the widening negative gap between contribution in-flows and benefit payment out-flows since benefit payments of $339.0 million outpaced contributions of $270.9 million. Fortunately, several years of positive rates of return prior to 2022 left the Fund in a position to withstand the market challenges of this past year. The Funded Ratio declined slightly from 92.6 per cent to 90.9 per cent. The current Funded Ratio is still among the Plan's highest in its history.

	December 31, 2022			December 31, 2021		
	Pre-1992	Post-1991	Total	Pre-1992	Post-1991	Total
Fair Value of Net Assets	464.3	5,549.8	**6,014.1**	597.6	6,057.5	**6,655.1**
Actuarial Adjustment	28.8	369.7	**398.5**	(43.2)	(378.1)	**(421.3)**
Actuarial Value of Net Assets	493.1	5,919.5	**6,412.6**	554.4	5,679.4	**6,233.8**
Accrued Pension Liability	1,359.2	5,697.5	**7,056.7**	1,389.1	5,344.7	**6,733.8**
Actuarial Surplus (Deficiency)	(866.1)	222.0	**(644.1)**	(834.7)	334.7	**(500.0)**
Funded Ratio	**36.3%**	**103.9%**	**90.9%**	**39.9%**	**106.3%**	**92.6%**

(all figures in $millions)

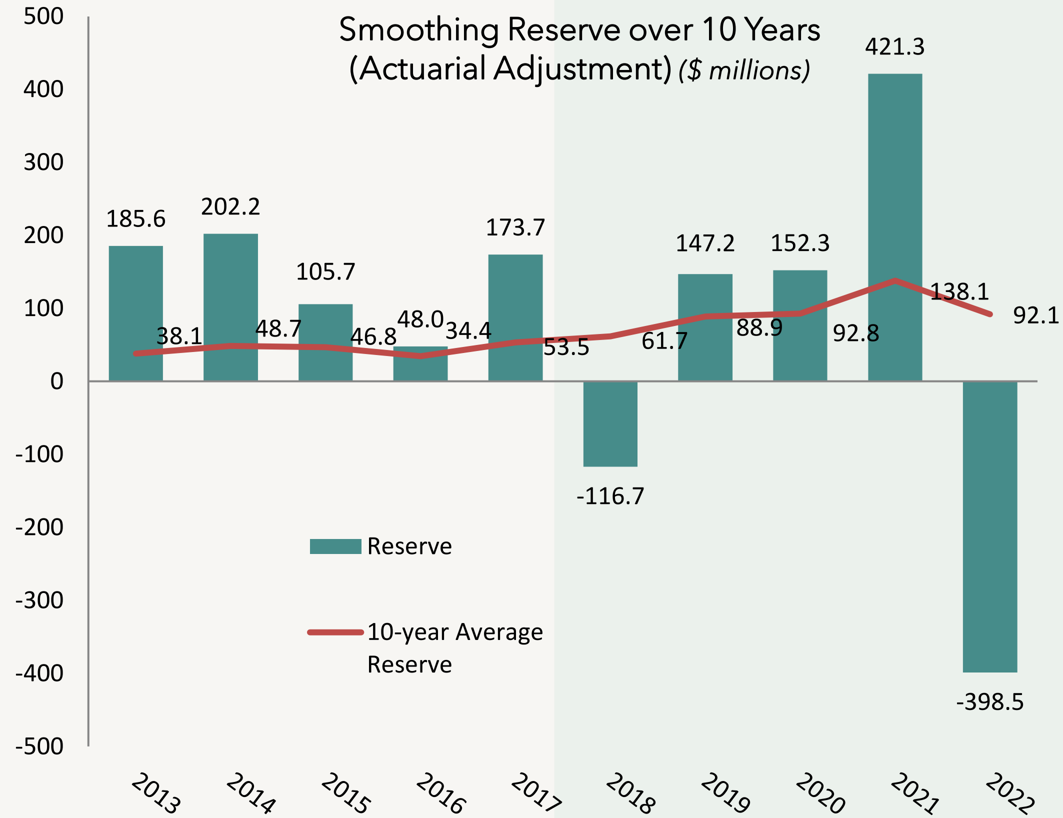
As a long-term investor with a primary focus on meeting pension obligations over the course of decades, UAPP places greater emphasis on the Fund's long-term performance more than the returns of any single year. Over the past twenty years, the Fund has attained an annualized rate of return of 7.4 per cent, somewhat higher than the 6.2 per cent annualized discount rate assumed over the same period.

In most years, investors have been able to rely on the benefits of diversification such that fixed income investments perform well in years of down equity markets and, in years where fixed income investments have struggled, those losses can be offset by strong equity performance. The past year presented an anomaly in that both these asset classes provided poor or negative returns. Even the outstanding performance the Fund received from alternative investments in 2021 was followed up with lower returns in 2022.

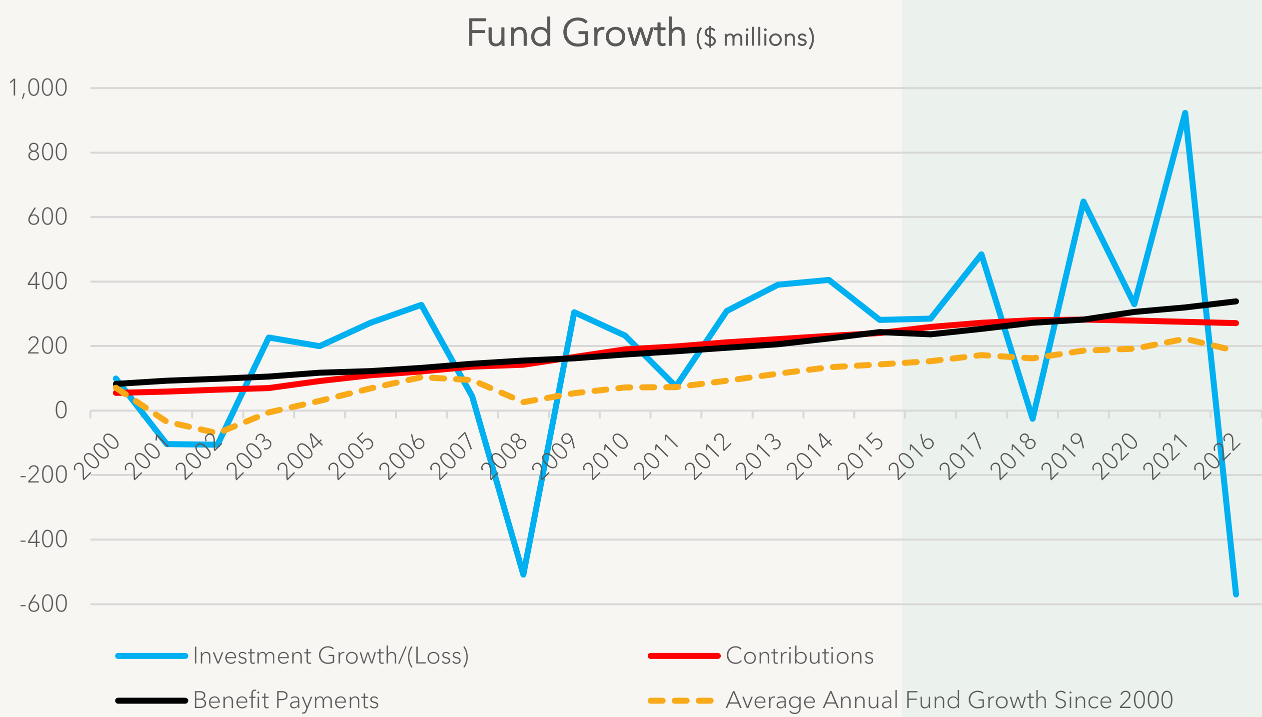
MANAGEMENT DISCUSSION AND ANALYSIS

Given their long-term focus, pension plans are able to smooth out the fluctuations in market returns in valuing assets used in actuarial valuations. The past two years have provided an example of the real merit in applying a smoothing method. The outstanding 2021 positive returns were largely given back through exceptionally large unrealized losses in 2022, leaving the Fund a little more than four per cent larger than it was at the end of 2020. By smoothing the assets, pension plans are not penalized (or unfairly rewarded) for unusually weak (or strong) performance that happens to occur in the year leading up to the completion of an actuarial valuation. By the same token, should the Fund experience continued poor (or outstanding) performance, that would certainly be reflected in the smoothing over time.

As at December 31, 2022, the Fund has a negative smoothing reserve of $398.5 million, compared to a positive reserve of $421.3 million for 2021. After attaining an all-time high reserve in 2021, the Fund has attained an all-time high negative reserve in 2022. Never before has the Fund experienced such extreme fluctuations in these values from one year to the next. The actuarial value of assets increased by $178.8 million, to $6,412.6 million at the end of 2022 from $6,233.8 million at the start of the year. After a large increase in 2021, the 10-year average reserve returned to roughly the same level ($92.1 million) it was at as at the end of 2020 ($92.8 million).



MANAGEMENT DISCUSSION AND ANALYSIS



Investment returns, both positive and negative, have overwhelmingly dictated the ultimate direction of the Fund. For most years, benefit payments have been roughly offset by contributions. However, during the past three years, these amounts have diverged, leaving the plan to rely in a small way on the Fund's returns to cover the shortfall in contributions. Since 2000, the Fund has grown at an average annual rate of $185.3 million when all cash flows are considered.

MANAGEMENT DISCUSSION AND ANALYSIS

The Plan's Liabilities

As of December 31, 2022, the Plan's accrued liabilities have grown to $7,056.7 million, an increase of 4.8 per cent from the December 31, 2021 estimated liability of $6,733.8 million. Both amounts have been extrapolated from the last actuarial valuation as of December 31, 2020. Due to the funding nature of the Plan, financial reporting includes a split of assets and liabilities between the pre-1992 and post-1991 service periods. A total of $1,359.2 million of the $7,056.7 million overall Plan liability relates to the pre-1992 service period and $5,697.5 million relates to the post-1991 service period.

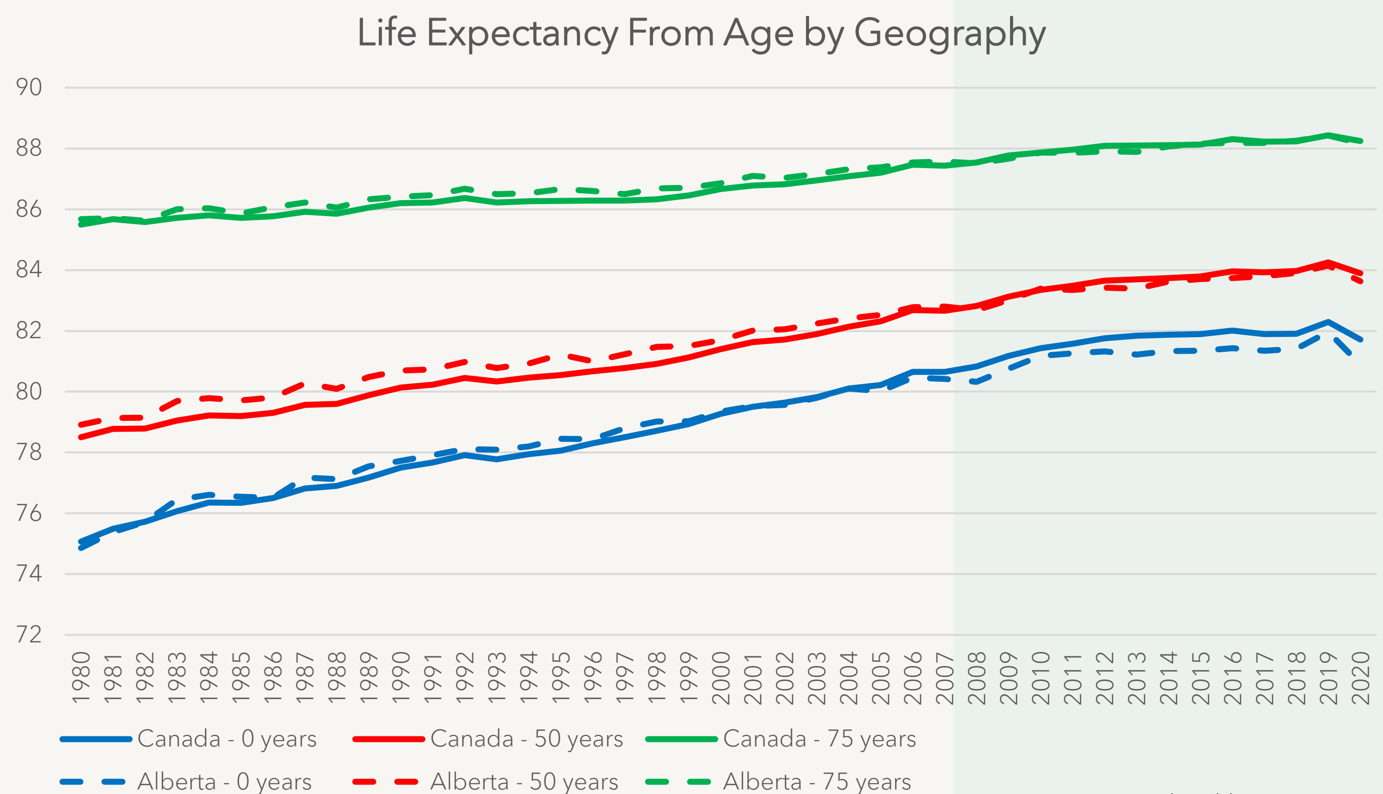
The Plan will be working with its actuary during 2023 to complete an updated actuarial valuation to ensure the Plan remains appropriately funded. As part of this process, the actuary will also complete a mortality experience study to evaluate the suitability of one of the valuation's most influential assumptions, namely the longevity of Plan members. As the Fund pays pensions for the lifetimes of Plan members and, in many cases, their surviving spouses, the actuary must make projections of mortality.

The last valuation revealed that the entire post-1991 unfunded liability would be eliminated effective June 30, 2022. With the decline in the value of the Fund during 2022, one of the storylines to watch in the actuarial valuation will be whether a new unfunded liability emerges. However, given the effectiveness of the smoothing method applied to Plan assets in the funded position calculation, the post-1991 period may continue to hold a small surplus of assets.

The long-term impact of the COVID-19 pandemic on mortality will take considerable time to be fully realized, but clearly life expectancy has been affected starting in 2020. According to data from Statistics Canada, the future life expectancy of both Canadians and Albertans declined in 2020 from at least three ages: newborns, age 50 (approximately the average age of an active UAPP Plan member), and age 75 (approximately the average age of a retired UAPP Plan member).

Just prior to the actuarial valuation, the Plan's actuary will perform a longevity study to evaluate how the mortality experience of UAPP plan members compares with the overall Canadian population. This data will be used to make adjustments to the standardized mortality tables to enhance the projected mortality experience that the Plan will assume going into the future. Of course, this valuation will occur too soon to fully factor in the pandemic. However, COVID-19 will obviously impact the Plan's membership going forward. Only time will reveal the degree of this impact.

MANAGEMENT DISCUSSION AND ANALYSIS

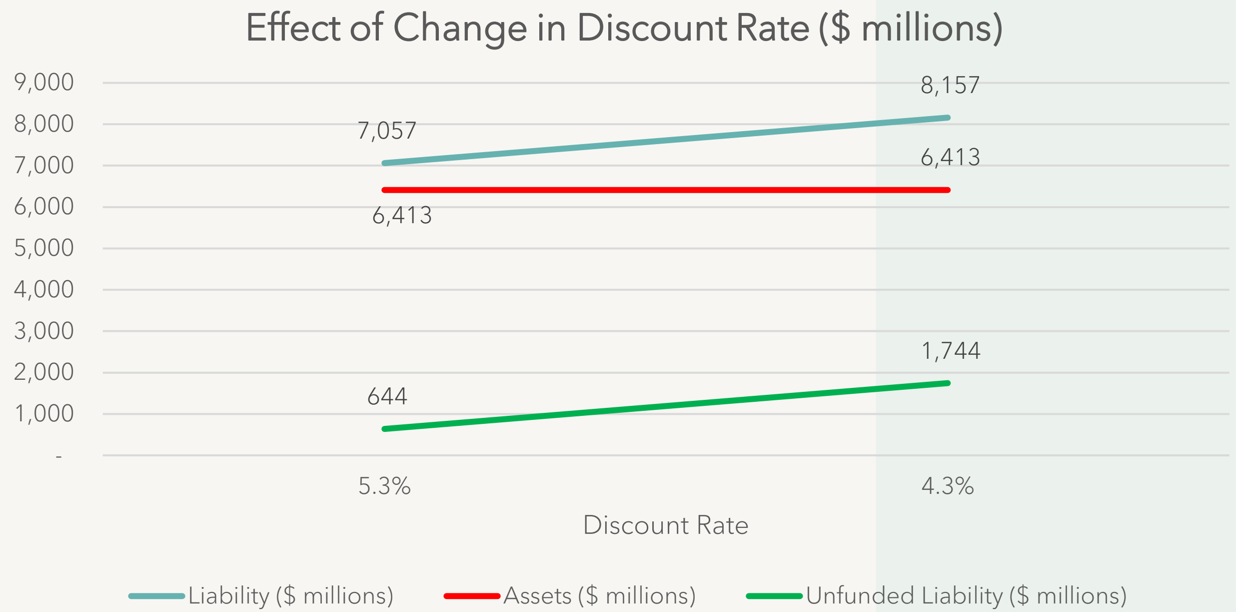


Source: Statistics Canada Table 13-10-0837-01

Another key valuation assumption that will be reviewed for this valuation is inflation. As a pension plan with cost-of-living adjustments (COLA) pegged to the Consumer Price Index, the rate of inflation directly affects the value of UAPP pensions. One tool that has been used by central banks to combat inflation has been to increase interest rates. An offshoot of current interest rate increases is the potential for long-term increases in the expected rates of return on fixed income investments. This trend benefits pension plans, like UAPP, that have a large target allocation to universe and long bonds. When those expected rates of return increase, valuation discount rates typically rise, which in turn causes a decrease in the present value of future pensions, known as actuarial liabilities, thus leading to improved financial positions of the plans.

MANAGEMENT DISCUSSION AND ANALYSIS

Included in the actuarial extrapolation report used to determine the pension obligation of the Plan is a calculation identifying just how sensitive the liabilities are to changes in assumptions like the inflation rate and the discount rate (see Note 6 of the Financial Statements for more details). The extrapolation report as at December 31, 2022 shows that a one per cent decrease in the discount rate has the impact of increasing the actuarial liability of the Plan by $1,100.2 million. From this, we can conclude that an increase in the discount rate, justified in future valuations by the potential for greater fixed income returns, would have a proportional decreasing effect on the actuarial liability, all else being equal.



The liability calculations for December 31, 2022 are derived from the Plan actuary's extrapolation report to that date from the December 31, 2020 actuarial valuation. The 2021 liabilities are determined from an extrapolation of the same actuarial valuation.

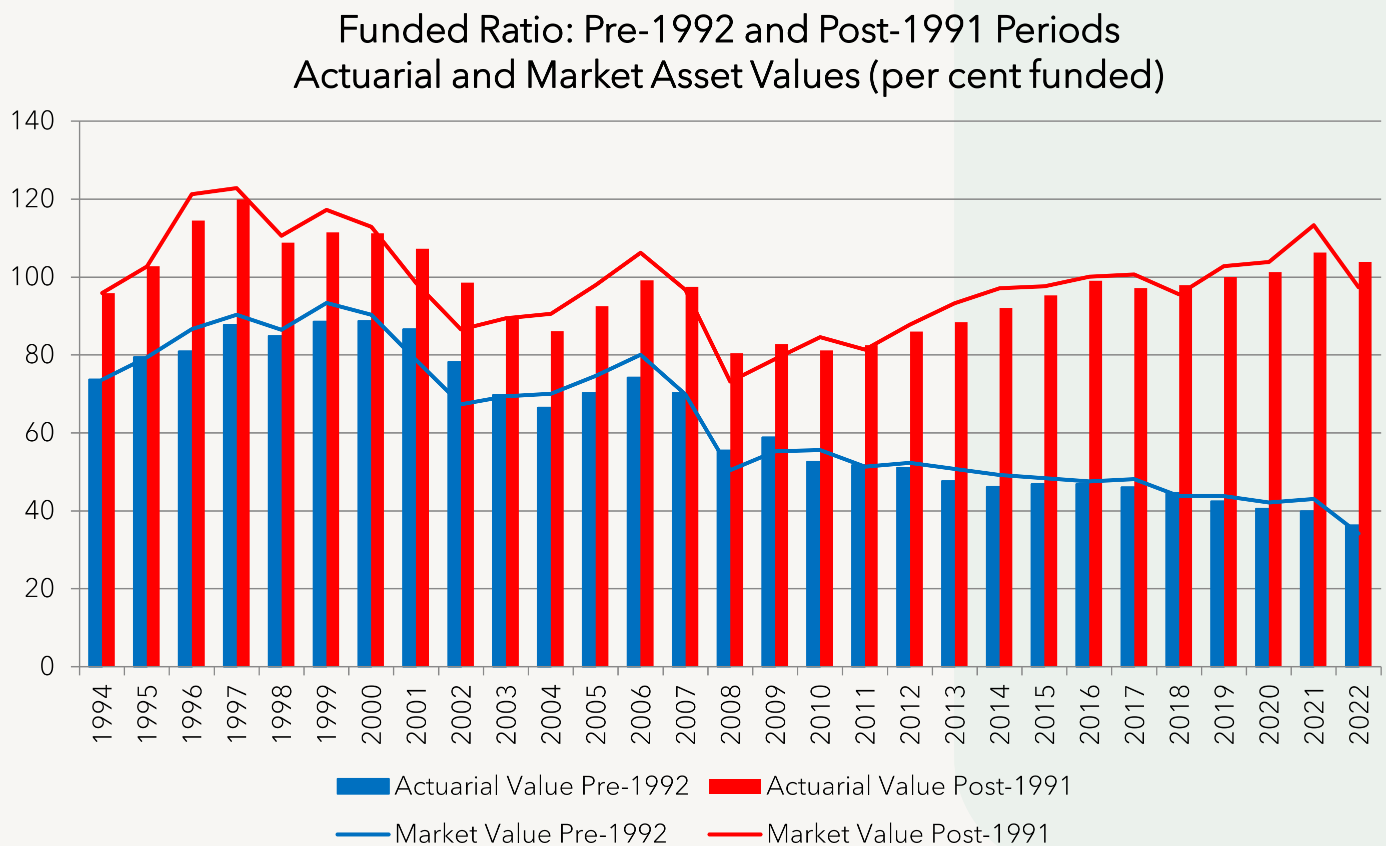
The Plan's Funded Ratio

An important metric that is monitored in the regular actuarial valuations is the financial position of the Plan, not only on a total Plan basis, but also split between the pre-1992 service period and the post-1991 service period. With the Government of Alberta partially funding the ongoing unfunded liability for the pre-1992 period, the valuation will identify the appropriate level of contributions to fund that deficit. Contributions toward this service period from employers and members will continue until pensions for the pre-1992 period are fully funded. Government contributions will continue until the earlier of that date or December 31, 2043.

MANAGEMENT DISCUSSION AND ANALYSIS

The total Plan funded ratio is 90.9 per cent (2021: 92.6 per cent) on an actuarial value basis where the assets are smoothed to even out year-to-year market fluctuations. For the pre-1992 service period, the funded ratio is 36.3 per cent (2021: 39.9 per cent) and for the post-1991 service period, the funded ratio is 103.9 per cent (2021: 106.3 per cent). The smoothing of the assets reduces the impact of the drop in Fund market value to December 31, 2022 from the all-time high value at December 31, 2021.

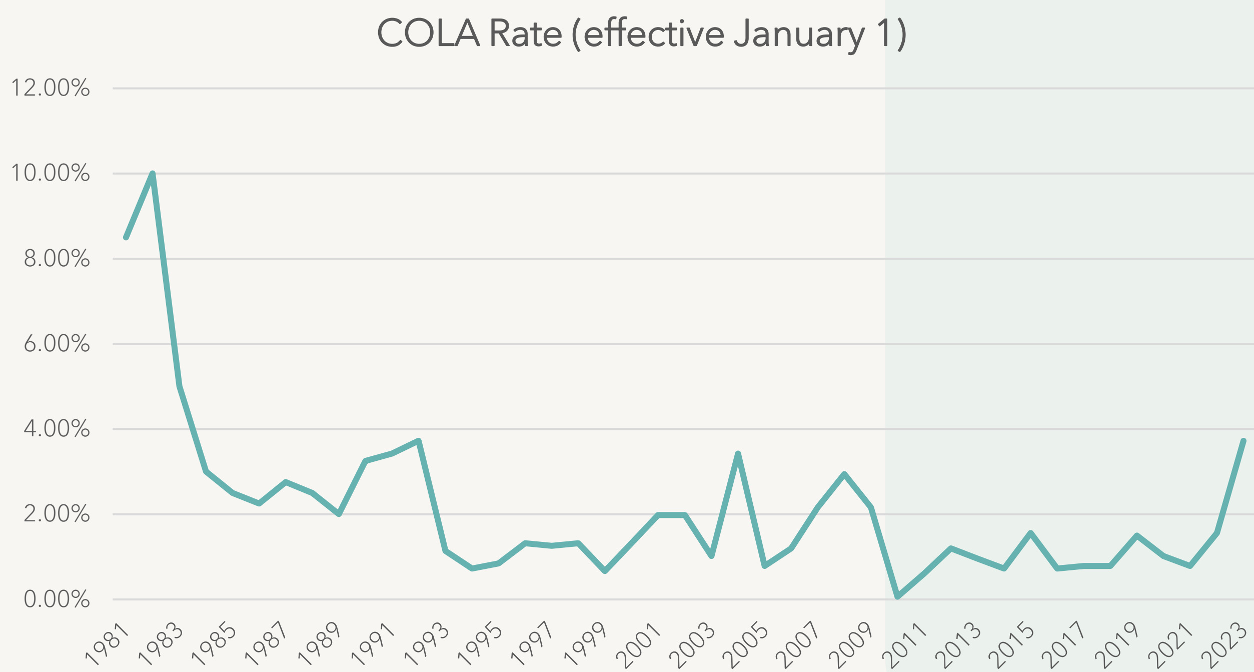
In valuing the assets on a market value basis only, the total Plan funded ratio is 85.2 per cent (2021: 98.8 per cent), the pre-1992 period funded ratio is 34.2 per cent (2021: 43.0 per cent), and the post-1991 period funded ratio is 97.4 per cent (2021: 113.3 per cent). These ratios have all fallen significantly over the same period due to the large decrease in the market value during 2022.



MANAGEMENT DISCUSSION AND ANALYSIS

The post-1991 portion of the Plan recently returned to full funding and remains fully funded on an actuarial value basis. On the other hand, the funded position for the pre-1992 portion of the Plan has been lagging that for the post-1991 period due to the long amortization period (50 years from the date the unfunded liability was first determined) and the fact both discount rates and mortality rates have decreased over the past few decades, increasing the value of the associated liability.

Pensions, and thus liabilities and funded ratios, for both periods are directly impacted by one of the more influential valuation assumptions for pension plans: inflation. For UAPP, monthly pension payments are increased on January 1 of each year by a COLA equal to 60 per cent of the average increase in Alberta's Consumer Price Index for the 12-month period ending October 31 of the previous year. With 2022 inflation the highest in decades, the impact of the annual COLA is significant starting with the rate applied January 1, 2023. On that date, both deferred pensions and pensions in pay received an increase of 3.72 per cent, representing the highest annual increase since the 5.00 per cent increase granted effective January 1, 1983.



MANAGEMENT DISCUSSION AND ANALYSIS

With the long-term funding focus of the Plan, the coming actuarial valuation will include an inflation assumption that will be based on expectations over the coming decades, keeping the current high inflation environment in perspective. Nevertheless, inflation data in early 2023 indicates that the steep rise in inflation may only be temporary as central banks continue to work to return it to within their policy targets.

Looking to the Future

During 2022, the Board and its Investment Committee engaged in several discussions about formalizing the importance of responsible investing in the Plan's governing documents. The Board seriously considers its fiduciary duty to act in good faith and in the best interest of the Plan's members and beneficiaries. Given the long-term nature of defined benefit pensions, the Fund benefits from enhanced investment returns and risk mitigation when responsible investing principles are adopted.

Effective January 1, 2023, UAPP adopted a new Statement of Investment Policies and Goals (SIP&G) which incorporated a significant number of responsible investing provisions. Because the Fund utilizes pooled funds managed by third party investment managers, the UAPP has limited ability to influence the selection of specific investments. However, the Board maintains the responsibility to select investment managers that factor responsible investing into their fund management approach.

The coming year will see the UAPP busy with investment manager searches intended to return the Fund's public equity portfolio to active management after two years of passive management following the termination of the asset class's previous manager. The target allocation for public equities is 45 per cent of the Fund, meaning the decisions being made in selecting new managers will require a great deal of careful and thorough consideration. Over the next year or so, the Plan anticipates having in place new managers for Canadian, global, and emerging market public equities.

Results of the last actuarial valuation led to a reduction in pension contributions that took effect during 2022. Improvements in the financial position of the Plan allowed for that rate change. Completing an updated actuarial valuation this coming year will enable the Board to ensure the Plan's assumptions and contribution rates are at the proper levels for the purposes of safeguarding the long-term stability of the Fund.

INVESTMENT REPORT

Investment Beliefs and Approach

The development of UAPP's strategic, long-term investment policy is based on several key beliefs.

1. There is a relationship between risk and return. Achieving higher returns generally requires exposure to higher risks. The relationships between risk and return are more predictable over the longer term. Equities will, in the long-term, provide greater returns than fixed income investments although with greater short-term volatility. The long-term strategic asset allocation decision is the most important factor in determining investment risk and return.

2. In establishing the asset mix policy of the Fund, the liabilities of the Plan should be taken into consideration. As an example, inflation has a direct impact on the UAPP's liabilities. Investments in inflation-sensitive assets like Real Return Bonds, Real Estate, and Infrastructure are a way of managing the inflation risk.

3. Diversification within and across asset classes can reduce risk over the long-term without compromising expected returns and is a prerequisite to prudent fund management. Exposure to foreign currencies as a result of moderate levels of foreign investments can provide diversification benefits. Currency hedging should only be undertaken on an opportunistic basis.

4. Responsible investing involves incorporating financially material environmental, social, and governance ("ESG") considerations into investment decisions. Organizations that identify and appropriately manage ESG risks and opportunities are more likely to represent good long-term investments. The types of ESG factors that may have material effects on investment returns include, but are not limited to the following:
    - Environmental factors: pollution, resource depletion, climate change, deforestation, and land use.
    - Social factors: labour standards, workplace health and safety, diversity, and consumer protection.
    - Governance factors: shareholder rights, conflicts of interest, board structure and diversity, corruption, executive compensation, and tax strategy.

5. Pooled funds offered by investment managers are utilized and there is limited ability to directly influence the selection of specific investments or the degree to which ESG factors are considered by the investment managers. However, only investment managers with robust responsible investing approaches that appropriately consider ESG factors in their investment decisions shall be selected.

6. Specific investments should not be excluded solely based on ESG factors. Investment managers are encouraged to actively engage with investee companies on the full range of ESG considerations.

INVESTMENT REPORT

7. Over the long-term, longer-term bonds will outperform cash and short-term bonds. Longer term bonds will outperform during periods of stable and declining rates but will underperform during periods of significantly rising interest rates. Relative to shorter term bonds, longer term bonds generally provide better matching with the Plan's liabilities thus reducing the volatility of the required contributions and funded status.

8. Active management will serve the Plan better than passive management in most asset classes. Markets are efficient to varying degrees, and short-term deviations from long-term fundamentals can occur. Therefore, there is an expectation for skilled managers to add value and/or reduce risk relative to passive exposure to the market. The opportunity for value added and/or reduced risk from active management should be weighed against the incremental cost relative to passive market exposure.

9. Over the long-term, but not necessarily in most years, investment in a value stock portfolio will tend to produce performance similar to or better than investment in a growth stock portfolio, and the performance of the value stock portfolio will be less volatile.

10. A specialist manager structure offers a number of benefits over a balanced manager structure including the potential to hire the best manager for each asset class, greater flexibility to replace underperforming funds, and the ability to make use of passive investment funds for appropriate asset classes.

11. With respect to foreign equities, global mandates are preferred over combinations of U.S. and international equity mandates because global mandates allow managers more flexibility and greater opportunities to add value.

12. Market timing is not seen as an effective strategy for generating consistent returns. Therefore, a rebalancing protocol around the strategic asset mix is seen as the most effective way of ensuring that portfolio risk does not drift materially above or below the intended risk level.

13. Investment managers should be monitored regularly for changes in ownership, investment process and philosophy, key investment personnel, approach to responsible investing, and for investment returns against relevant peer groups and indices. Managers may be terminated on the basis of qualitative issues even if investment returns are acceptable.

14. Investment returns should be evaluated over at least a 4-year period. Emphasis should be placed, not only on the level of returns, but also on the amount of risk taken to achieve those returns. Tracking error should be assessed in terms of the impact on volatility of the Plan's required contributions and funded status.

These beliefs require an investment approach that seeks to obtain higher long-term returns while containing the volatility in short-term results. This goal underlies the UAPP's investment policy and risk management measures.

INVESTMENT REPORT

Investment Policy

The UAPP's investment policies are based on the investment beliefs and expectations of the Board and are set out in the Statement of Investment Policies & Goals (SIP&G). The asset mix policy, or the Fund's long-term allocation to the different asset classes, is a key component of the SIP&G. It is through the asset allocation decision that the Board diversifies its investments across asset classes and attempts a balance between the objective of higher long-term returns and the need to reduce shorter term volatility in those returns.

The Board, through its Investment Committee, monitors on an ongoing basis the performance of the Fund, the funded status of the Plan, capital markets and economic developments and expectations. Based on this monitoring, the Board may make adjustments to the asset mix and take other appropriate measures to control risk or improve returns. The Board reviews the SIP&G at least once a year. A new SIP&G became effective January 1, 2023, a copy of which is available on the UAPP website www.uapp.ca under Publications.

The table compares the Board's current Long-term Policy Asset Mix benchmark and ranges to the actual asset mix of investments for 2022 and 2021.

Long-term Policy Asset Mix
(percentage of Fund)

	2022				2021			
Asset Class	Target	Min	Max	Actual	Target	Min	Max	Actual
Fixed Income								
Cash & short term	0.0	0.0	1.0	0.2	0.0	0.0	1.0	1.1
Universe bonds	11.5	9.5	13.5	11.4	11.5	8.0	14.0	9.3
Private mortgages	5.0	3.0	7.0	4.2	5.0	3.0	7.0	3.5
Long duration bonds	11.5	9.5	13.5	10.3	11.5	8.0	14.0	9.6
Real return bonds	7.0	5.0	9.0	5.9	7.0	5.0	9.0	6.2
	35.0	31.0	39.0	32.0	35.0	26.0	41.0	29.7
Equities								
Canadian public equities	5.0	3.0	7.0	4.4	12.0	10.0	20.0	12.9
Foreign public equities								
Global	33.0	28.0	38.0	30.5	26.0	22.0	31.0	27.6
Emerging markets	7.0	5.0	9.0	5.9	7.0	5.0	9.0	6.2
Private equity*	5.0	3.0	7.0	10.8				
	50.0	45.0	55.0	51.6	45.0	40.0	60.0	46.7
Alternative investments								
Real estate	8.0	6.0	10.0	8.7	8.0	5.0	11.0	7.2
Infrastructure	7.0	5.0	9.0	6.7	7.0	3.0	9.0	5.2
Timberland	0.0	0.0	1.0	0.8	0.0	0.0	1.0	0.6
Private equity*					5.0	0.0	7.0	10.4
	15.0	11.0	19.0	16.2	20.0	12.0	25.0	23.4
Strategic opportunities and currency	-	-	-	0.2	-	-	-	0.2
Total	100.0			100.0	100.0			100.0

* Per SIP&G which took effect January 1, 2022, private equity reallocated from Alternative investments to Equity investments.

INVESTMENT REPORT

As can be seen from the table, the Plan holds a highly diversified portfolio of investments in fixed income securities, Canadian and foreign public equities, private equities, alternative investments, and strategic opportunities, including participation in both passively and actively managed pooled investment funds. The Plan invests in units of pooled investment funds which are created and managed by investment managers. Pooled fund units have a market-based unit value that is used to allocate income to participants in the pool and to value purchases and sales of units. There are thousands of securities held in various pooled investment funds. Securities may be bought and sold on a daily basis. The Plan has a broad global diversification across publicly traded and private equities which increases opportunities to add value. In addition, the Fund's investments in real estate and infrastructure are expected to provide better cash yields that grow with inflation.

During 2022, the private equity portion of the portfolio breached its upper limit identified in the SIP&G due to its elevated market value following exceptional investment returns experienced in the asset class during 2021. No new investments in private equity will be made until the asset class is within its allowed range. The aggregate equity class remained within its allowed range throughout the year so no rebalancing was required.

The Plan's money market and fixed income portfolio is exposed to credit risk and interest rate risk through bond and mortgage holdings and derivative products. Based on the view that currencies are a zero-sum game in the long-run, currency exposure to foreign equity markets is largely unhedged. Up to 25% of the Plan's foreign currency exposure can be hedged. Therefore, unless currency exposure is hedged, the returns from foreign markets will be impacted by changes in the exchange rate of the Canadian dollar.

Investment Management

Throughout 2022, UAPP relied on four investment managers to manage its investment portfolio:

- Beutel, Goodman & Company Ltd. and Fiera Capital Corporation manage the Plan's Canadian long bond and universe bond portfolios totaling 21.7% of total investments at the end of the year. Beutel, Goodman & Company Ltd. is a privately-owned Canadian company founded in 1967, with approximately $46 billion in assets under management. Fiera Capital Corporation was established in 2003 and has almost $160 billion in assets under management.
- State Street Global Advisors manages the public equity portion of the portfolio (Canadian, global, and emerging markets), which comprises 40.8% of the Plan's investments. State Street Global Advisors was established in 1978 and has more than $5,570 billion in assets under management.
- Alberta Investment Management Corporation (AIMCo) manages 37.3% of UAPP's portfolio in a mix of private equity investments, alternative investments, private mortgages, and real return bonds. AIMCo is an Alberta provincial corporation established in 2008, reporting to the President of Treasury Board and Minister of Finance, administering investment portfolios of around $168 billion on behalf of other public sector pension plans and the Government of Alberta.
- The remaining 0.2% of the portfolio is currently held in a cash account held by Canadian Imperial Bank of Commerce (CIBC). UAPP has no target allocation to cash but there is an allowed range of 0.0-1.0% of total assets.

INVESTMENT REPORT

To mitigate implementation risk, clearly defined benchmarks, guidelines, standards, and controls have been established at both the total Fund and asset class levels. Investment managers have the flexibility to act within the prescribed limits in order to add value over the policy. Both compliance with the SIP&G and performance against the specified benchmarks are monitored formally on a quarterly basis. The Board has retained an independent asset consultant, Aon, to provide evaluation of investment managers on a regular basis.

Proxy Voting

Proxy voting is an important tool in corporate governance. The Board delegates responsibility for proxy voting to investment managers. Pension funds are to be managed in the best interests of beneficiaries. This principle governs the voting of proxies. The UAPP Board considers proxy voting to be a key element of responsible investing and that thoughtful voting is a contributor to optimizing the long-term value of investments.

Risk Management

The Board recognizes that to meet the return objectives of the Plan, UAPP must take on risk inherent in the assets in which the Plan invests. As such, UAPP invests in a diverse set of asset types to help improve the likelihood of achieving its desired results for a given level of risk.

Investment risk management is a key focus for the Board and the investment managers, who seek to measure and monitor both historic and possible future risks, allocating risk as a scarce resource to the most promising investment opportunities. A quantitative investment risk system is designed to operate across all asset classes and a variety of risk types such as credit risk, price risk, interest rate risk, currency risk, and liquidity risk.

UAPP monitors the risk of the Plan's liabilities in relation to its invested assets.

Evaluating Investment Performance

A key assumption in calculating the Plan's pension obligation is the discount rate. The estimated value of the Plan's pension obligation is highly sensitive to this actuarial assumption. According to the 2022 audited financial statements, a decrease in the discount rate by 1% increases the pension obligation by approximately $1,100.2 million. The current discount rate of 5.30% includes a long-term real return rate of 3.05% and an assumed inflation rate of 2.25%. This rate represents the Plan's long-term investment return objective for funding purposes. The discount rate is unchanged from the rate used in the 2021 audited financial statements.

The Plan's investment performance can also be assessed in terms of whether investment managers are adding value above their respective benchmarks. In this case, the performance of the Plan is measured against a policy benchmark return calculated using the Plan's policy allocation to each asset class and the market index return for the specific class.

While investment performance can be compared to other funds, this comparison is meaningful only to the extent that the funds being compared have similar investment objectives, risks and constraints and policies. A fund that is 100% invested in fixed income, for example, does not provide a valid comparison to a fund that is 100% invested in equities.

INVESTMENT REPORT

2022 Investment Performance

At December 31, 2022, the fair value of the Plan's investments totaled $5,993.2 million, down from $6,633.6 million at the end of the previous year. Overall, UAPP finished the 2022 year with an investment loss of 8.6% compared to a gain of 16.1% in 2021.

UAPP experienced negative returns on its investments in the first three quarters of 2022, starting with (5.0%) in the 1st quarter, (7.2%) in the 2nd quarter, and (0.5%) in the 3rd quarter, before ending the year with a very strong 4th quarter positive return of 4.2%. UAPP investments underperformed the benchmark return of (7.5%), by 1.1%.

Significant market underperformance from virtually all asset classes contributed to a very difficult year for the Fund. Rising interest rates may bode well for the Fund's fixed income investments over the long-term, but not in the short-term. In most years, investors can rely on the benefits of diversification, but 2022 proved an exception as all asset classes underperformed compared to 2021.

The following chart summarizes the market returns in Canadian dollars from various indices around the world and the overall return of UAPP for 2022.

Investments 2022

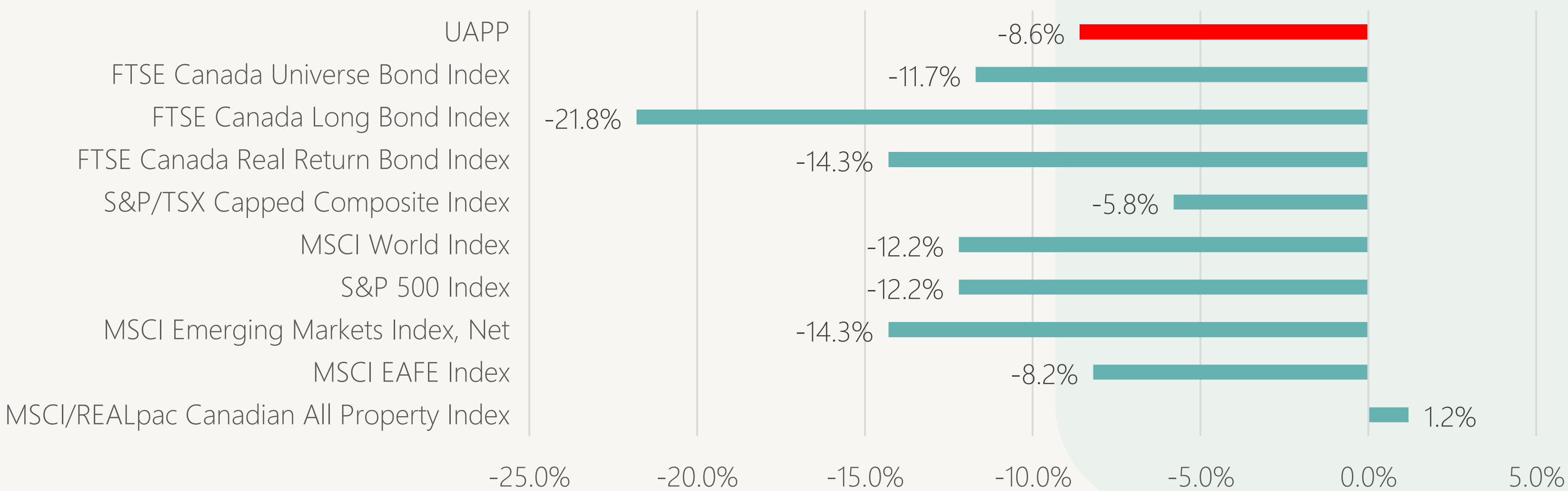
Ending Fair Value: $5,993.2 million
2021: $6,633.6 million

Rate of Return: (8.6%)
2021: 16.1%

Gain/(Loss): ($550.6 million)
2021: $945.7 million

Expenses: $19.7 million
2021: $22.3 million

2022 Returns of UAPP and Major Indices ($CAD)



INVESTMENT REPORT

The Standard & Poor's (S&P) 500 Index, which tracks the performance of the top 500 U.S.-based companies, lost 12.2% in Canadian dollars (18.1% in U.S. dollars) compared to a gain of 27.6% in Canadian dollars (28.7% in U.S. dollars) in 2021.

Approximately 36.6% of the Plan's investments (2021: 34.3%) are denominated in U.S. dollars. The weaker Canadian dollar in relation to the U.S. dollar had a positive impact on the value of U.S. dollar investments held by the Plan. At December 31, 2022, one U.S. dollar was worth $1.36 Canadian compared to $1.26 Canadian at the beginning of the year. As a result, U.S. dollar investments were worth more when translated into Canadian dollars at December 31, 2022 resulting in more favourable returns in Canadian dollars.

The Morgan Stanley Capital International (MSCI) EAFE Index covering Europe, Australasia and the Far East, lost 8.2% in Canadian dollars compared to a gain of 10.3% in 2021.

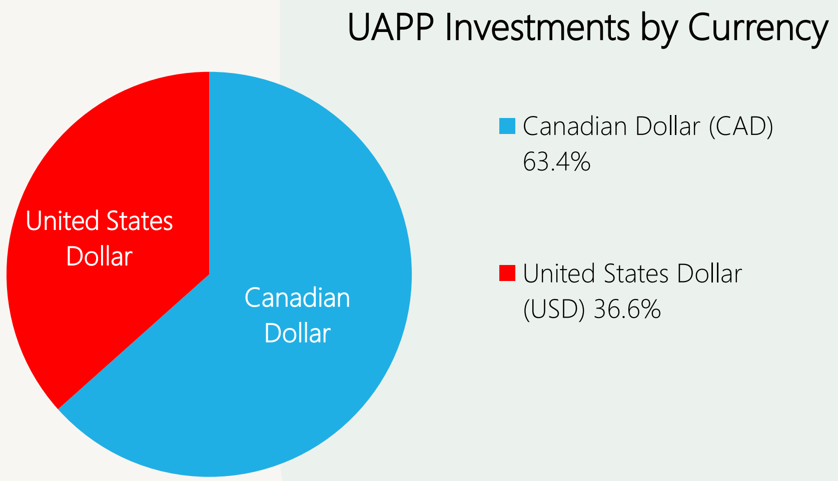
Outside of the global developed equity markets, the MSCI Emerging Markets Index lost 14.3% in 2022 in Canadian dollars compared to a loss of 3.4% in 2021.

The Canadian public equities, represented by the S&P Toronto Stock Exchange (TSX) Composite Index, lost 5.8% in 2022 compared to a gain of 25.1% in 2021.

The Canadian real estate market represented by the MSCI/REALpac Canadian All Property Index increased by 1.2% in 2022 compared to an increase of 6.9% in 2021.

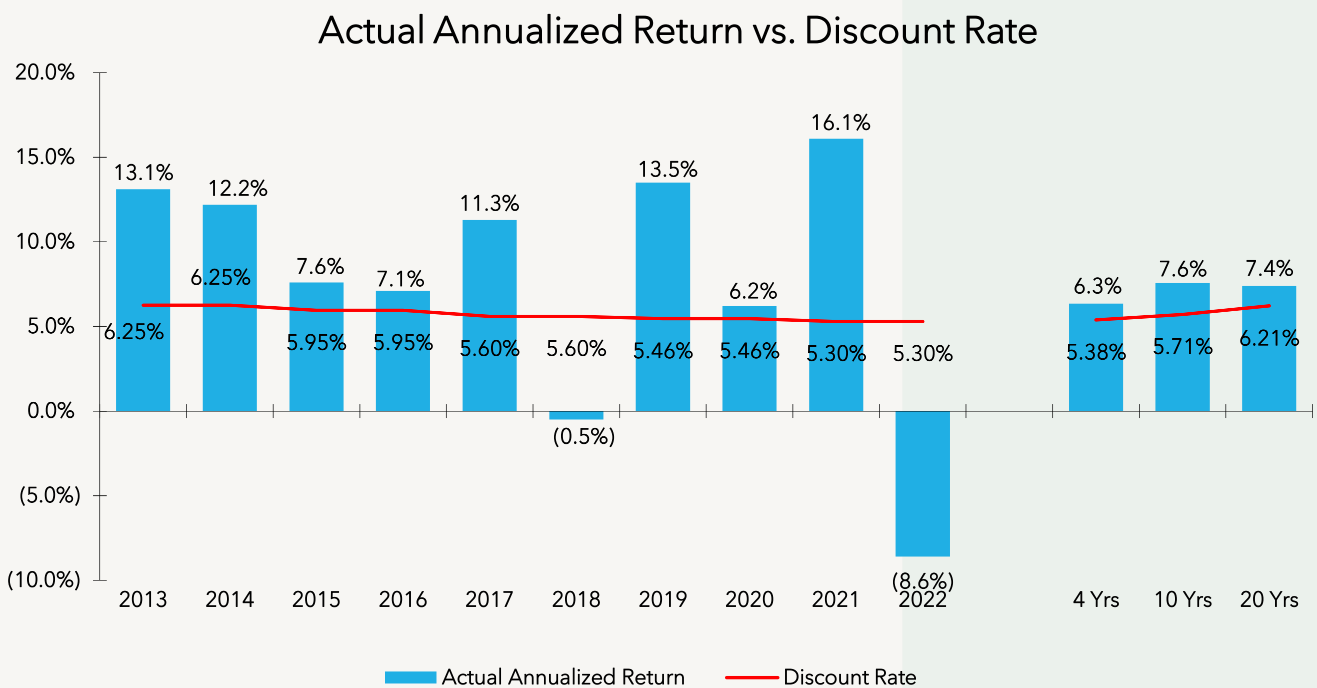
Fixed income portfolios faced another difficult year. The FTSE Canada Universe Bond Index posted a loss of 11.7% in 2022 after a loss of 2.5% in 2021. The FTSE Canada Long-Term Overall Bond Index posted a loss of 21.8% after a loss of 4.5% in 2021. The FTSE Canada Real Return Bond Index returned a loss of 14.3% compared to a gain of 1.8% in 2021.

The chart shows UAPP's exposure to foreign currencies and its investments in Canadian dollars.



INVESTMENT REPORT

The chart below compares the Plan's actual return over one year and annualized returns over four, ten, and twenty years against the Plan's actuarial discount rate for funding purposes.



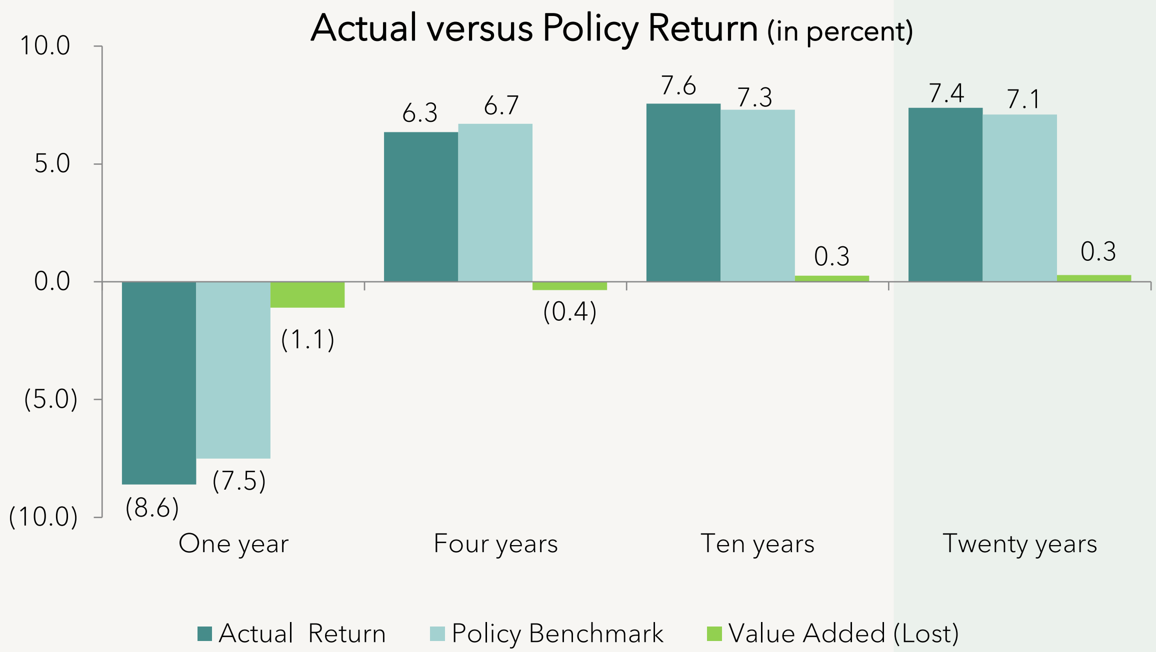
The Plan's annualized returns over four, ten, and twenty years are 6.3%, 7.6% and 7.4% respectively. Over each of these periods, the Plan's actual investment return is greater than the long-term return objective for funding purposes.

INVESTMENT REPORT

Actual versus Policy Return

According to the Plan's SIP&G, the Board has set a performance goal based on the expectation that investment management will add 0.5% per annum over a four-year period beyond the passively managed market-based policy benchmark. Note that in early 2021, the UAPP moved its public equities portfolio into a passive management strategy at State Street Global Advisors. It is expected that an active management strategy will be re-implemented during 2023.

Over the past four years, the value lost by investment management decisions was 0.4% per annum.



INVESTMENT REPORT

PERFORMANCE BY ASSET CLASS

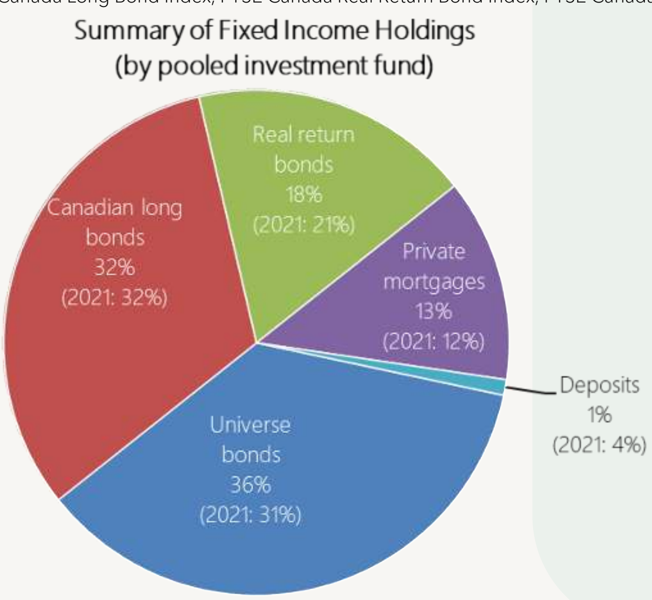
Fixed Income

At December 31, 2022, fixed income holdings comprise 32.1% of the Plan's total investments or $1,923 million compared to 29.7% or $1,971 million at December 31, 2021. The Canadian long bond portfolio and universe bond portfolio are managed by Beutel, Goodman & Company Ltd. and Fiera Capital Corporation. AIMCo manages private mortgages and real return bonds.

In 2022, the Plan's total fixed income securities lost 14.5%, outperforming against the combined benchmark loss of 14.6% by 0.1%. Over the past four years, the Plan's total fixed income securities gained 0.6%, outperforming against the combined benchmark gain of 0.3% by 0.3%.

Total Fixed Income	Actual Return %	Benchmark Index Combined Benchmark* %	Net Value Added %
One year	(14.5)	(14.6)	0.1
Four year	0.6	0.3	0.3

* The combined benchmark includes the FTSE Canada Long Bond Index, FTSE Canada Real Return Bond Index, FTSE Canada Universe Bond Index, and FTSE Canada 91-Day T-Bill Index.



INVESTMENT REPORT

Universe Bonds

In 2022, the Plan's universe bond portfolio lost 11.8%, underperforming against the benchmark loss of 11.7% by 0.1%. Over the past four years, the Plan's universe bond portfolio gained 0.5% on an annualized basis, outperforming against the benchmark return of 0.0% by 0.5%.

Universe Bonds	Actual Return %	Benchmark Index *FTSE Universe Bond Index* %	Net Value Added (Lost) %
One year	(11.8)	(11.7)	(0.1)
Four year	0.5	0.0	0.5

Private Mortgages

In 2022, the Plan's private mortgage portfolio lost 5.0%, outperforming against the benchmark loss of 5.8% by 0.8%. Over the past four years, the Plan's private mortgage portfolio gained 2.7% on an annualized basis, outperforming against the benchmark gain of 2.6% by 0.1%.

Mortgages	Actual Return %	Benchmark Index *FTSE 60%S-T/40%M-T Bond Index plus 0.75%* %	Net Value Added %
One year	(5.0)	(5.8)	0.8
Four year	2.7	2.6	0.1

Long Bonds

In 2022, the Plan's long bond portfolio lost 21.8%, matching the benchmark loss of 21.8%. Over the past four years, the Plan's long bond portfolio lost 1.2% on an annualized basis, outperforming against the benchmark loss of 1.5% by 0.3%.

Long Bonds	Actual Return %	Benchmark Index *FTSE Long Bond Index* %	Net Value Added %
One year	(21.8)	(21.8)	0.0
Four year	(1.2)	(1.5)	0.3

INVESTMENT REPORT

Real Return Bonds

In 2022, the Plan's real return bond portfolio lost 14.2%, outperforming against the benchmark loss of 14.3% by 0.1%. Over the past four years, the Plan's real return bond portfolio gained 1.8% on an annualized basis, outperforming against the benchmark gain of 1.6% by 0.2%.

Real Return Bonds	Actual Return %	Benchmark Index *FTSE Real Return Bond Index* %	Net Value Added %
One year	(14.2)	(14.3)	0.1
Four year	1.8	1.6	0.2

Equities

At December 31, 2022, equity holdings comprise 51.6% of the Plan's total investments or $3,090 million compared to 46.7% or $3,093 million at December 31, 2021 (not including 10.4% or $695 million of private equities categorized as alternative investments at the time). The Canadian, global, and emerging market public equity portfolios are managed by State Street Global Advisors. AIMCo manages the private equity portfolio.

Canadian Public Equities

At December 31, 2022, Canadian public equities represented 4.4% of the Plan's total investments or $265 million, down from 12.9% or $853 million at the end of the previous year. The target asset mix described in the SIP&G that took effect January 1, 2022 included a reduction in the Plan's allocation to its Canadian public equity allocation from 12.0% to 5.0%, leading to the significant decrease in the market value of this asset class. The Plan's Canadian equity portfolio is invested in State Street Global Advisors' WindWise S&P/TSX Composite pooled index fund. The purpose of the index fund is to mimic the S&P/TSX Composite index, a move to passive investments viewed as temporary while UAPP conducts an investment manager search. As such, the index fund is not expected to provide any value-add return.

In 2022, the Canadian public equity portfolio lost 5.9%, reflecting a tracking error to the S&P/TSX Composite benchmark of 0.1%. Over the past four years, the Plan's Canadian public equity portfolio gained 8.9% on an annualized basis, underperforming against the benchmark gain of 11.2% by 2.3%. This period included some years when the portfolio was actively managed.

Canadian Public Equities	Actual Return %	Benchmark Index S&P/TSX Composite %	Net Value (Lost) %
One year	(5.9)	(5.8)	(0.1)
Four year	8.9	11.2	(2.3)

INVESTMENT REPORT

Canadian Public Equities Sector Exposure Relative to Benchmark December 31, 2022	WindWise S&P/TSX Composite Pool	Over (Under) Benchmark
Sector	%	%
Communication services	4.9	0.0
Consumer discretionary	3.7	0.0
Consumer staples	4.2	0.0
Energy	18.0	0.0
Financials	30.8	0.0
Health care	0.4	0.0
Industrials	13.3	0.0
Information technology	5.7	0.0
Materials	12.0	0.0
Real estate	2.6	0.0
Utilities	4.4	0.0
	100.0	

Foreign Public Equities

At December 31, 2022, foreign public equities accounted for 36.4% of the Plan's total investments or $2,176 million, compared to 33.8% or $2,240 million the previous year. The reduction in the Plan's allocation to its Canadian public equity allocation noted above was offset by an increase in its global public equity allocation from 28.0% to 33.0%. UAPP's foreign public equity portfolio consists of units in State Street Global Advisors' MSCI World pooled index fund (84.0%) and MSCI Emerging Markets pooled index fund (16.0%). The purpose of the index funds is to mimic the MSCI World and MSCI Emerging Markets indices, a move to passive investments viewed as temporary while UAPP conducts investment manager searches. As such, the index funds are not expected to provide any value-add return.

In 2022, the foreign public equity portfolio lost 12.3%, reflecting a tracking error to the combined benchmark of 0.2%. Over the past four years, the Plan's foreign public equity portfolio gained 6.8% on an annualized basis, underperforming against the benchmark gain of 8.6% by 1.8%. This period included some years when the portfolio was actively managed.

Total Foreign Public Equities	Actual Return %	Benchmark Index Combined Benchmark* %	Net Value Added (Lost) %
One year	(12.3)	(12.5)	0.2
Four year	6.8	8.6	(1.8)

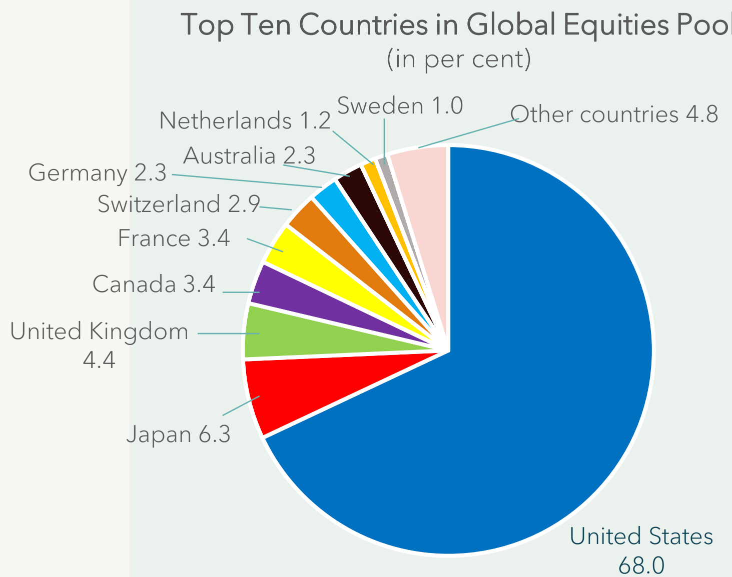
* Combined benchmark incudes the MSCI World and MSCI Emerging Markets indices.

INVESTMENT REPORT

Global Public Equities

The Plan's global public equity portfolio is invested in units of State Street Global Advisors' MSCI World Index pooled fund. Approximately 84.0% of UAPP's overall foreign public equity portfolio is invested in this fund.

Global Public Equities Sector Exposure Relative to Benchmark December 31, 2022	MSCI World Index Pooled Fund	Over (Under) Benchmark
Sector	%	%
Communication services	6.4	0.0
Consumer discretionary	10.0	0.0
Consumer staples	7.9	0.0
Energy	5.6	0.0
Financials	14.3	0.0
Health care	14.5	0.0
Industrials	10.7	0.0
Information technology	20.2	0.0
Materials	4.5	0.0
Real estate	2.7	0.0
Utilities	3.2	0.0
	100.0	



In 2022, the Plan's global public equity portfolio lost 11.9%, reflecting a tracking error to the MSCI World Index benchmark of 0.3%. Over the past four years, the Plan's global public equity portfolio gained 8.3% on an annualized basis, underperforming against the benchmark gain of 10.0% by 1.7%. This period included some years when the portfolio was actively managed.

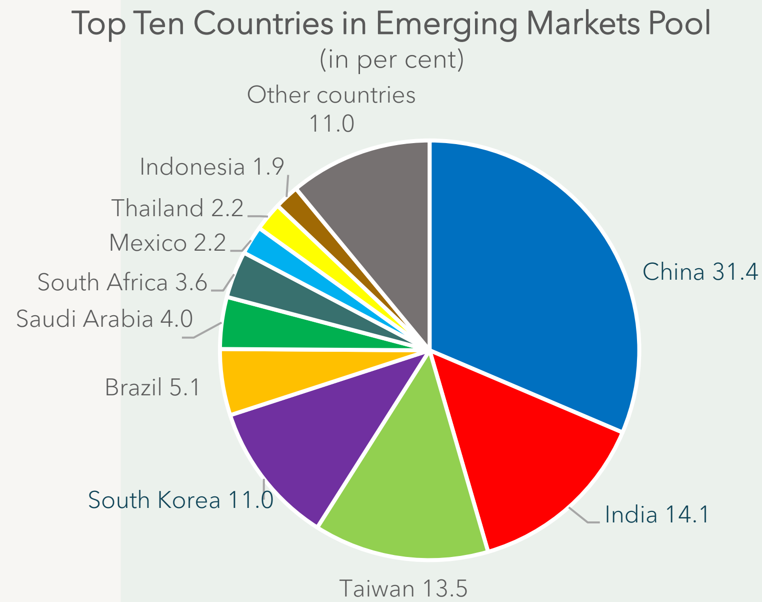
Global Public Equities	Actual Return %	Benchmark Index MSCI World Index %	Net Value Added (Lost) %
One year	(11.9)	(12.2)	0.3
Four year	8.3	10.0	(1.7)

INVESTMENT REPORT

Emerging Markets Public Equities

The Plan's emerging markets public equity portfolio is invested in units of State Street Global Advisors' MSCI Emerging Markets Index pooled fund. Approximately 16.0% of UAPP's overall foreign public equity portfolio is invested in this fund.

Emerging Market Public Equities Sector Exposure Relative to Benchmark December 31, 2022	MSCI Emerging Markets Index Pooled Fund	Over (Under) Benchmark
Sector	%	%
Communication services	10.1	0.2
Consumer discretionary	14.2	0.1
Consumer staples	6.2	(0.2)
Energy	4.9	0.0
Financials	22.3	0.2
Health care	3.9	(0.1)
Industrials	5.8	(0.2)
Information technology	18.8	0.2
Materials	8.8	(0.1)
Real estate	2.0	0.0
Utilities	3.0	0.0
	100.0	



In 2022, the Plan's emerging markets public equities portfolio lost 14.3%, matching the MSCI Emerging Markets Index benchmark return of 14.3%. Over the past four years, the Plan's emerging markets public equity portfolio lost 0.3% on an annualized basis, underperforming against the benchmark gain of 2.0% by 2.3%. This period included some years when the portfolio was actively managed.

Emerging Markets Public Equities	Actual Return %	Benchmark Index MSCI Emerging Markets Index %	Net Value Added (Lost) %
One year	(14.3)	(14.3)	0.0
Four year	(0.3)	2.0	(2.3)

INVESTMENT REPORT

Private Equities

The private equity portfolio includes investments in institutionally sponsored international private equity pools managed by experienced external investment advisors with proven track records and co-investments with private equity managers. At December 31, 2022, the Plan's investment in one of AIMCo's private equities pools comprised 10.8% of the Plan's total investment portfolio, or $648 million, from 10.4%, or $695 million at the previous year end.

In 2022, investments in private equities lost 5.4%, underperforming against the Consumer Price Index plus 6.5% benchmark gain of 13.3% by 18.7%. Over the past four years, the Plan's private equity portfolio gained 25.7% on an annualized basis, outperforming against the benchmark gain of 10.1% by 15.6%.

Private Equities	Actual Return %	Benchmark Index Consumer Price Index (CPI) plus 6.5% %	Net Value Added (Lost) %
One year	(5.4)	13.3	(18.7)
Four year	25.7	10.1	15.6

Alternative Investments

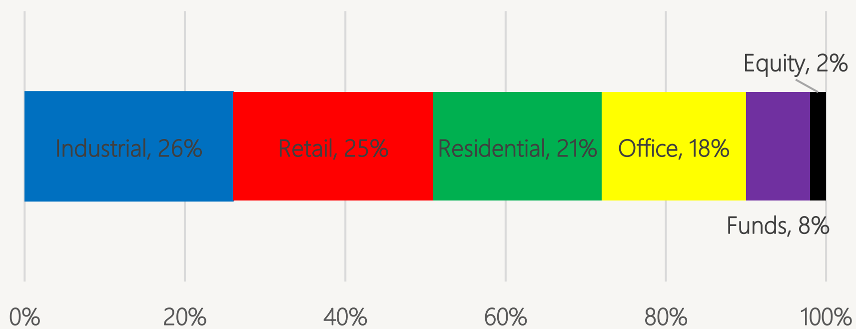
Alternative investments totaling $966 million or 16.1% (2021: $1,555 million or 23.4%, including $695 million or 10.4% from private equities, then categorized as an alternative investment) of the Plan's total portfolio includes real estate, infrastructure, and timberland investments, all managed by AIMCo.

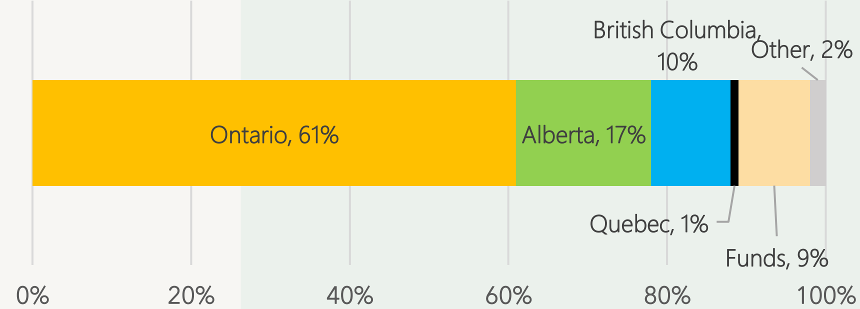
In 2022, the Plan's alternative investments gained 12.6%, outperforming against the combined benchmark gain of 9.1% by 3.5%. Over the past four years, the Plan's alternative investments gained 17.3%, outperforming against the combined benchmark gain of 7.3% by 10.0%. This period included three years when private equities were categorized as alternative investments.

INVESTMENT REPORT

Real Estate

At December 31, 2022, real estate investments comprise 8.6% of the Plan's total investments or $518 million compared to 7.2% or $478 million the previous year. Real estate investments provide diversification and high cash flow and are expected to provide protection from inflation. The UAPP invests in AIMCo's Private Real Estate Pool which includes a mix of industrial, retail, residential, and office properties located in Ontario, Alberta, British Columbia, and Quebec.





In 2022, the Plan's real estate portfolio gained 7.3%, outperforming against the MSCI/REALpac Canadian All Property Index benchmark gain of 1.2% by 6.1%. Over the past four years, the Plan's real estate portfolio gained 2.7% on an annualized basis, outperforming against the benchmark gain of 2.2% by 0.5%.

Real Estate	Actual Return %	Benchmark Index MSCI/REALpac All Property Index %	Net Value Added %
One year	7.3	1.2	6.1
Four year	2.7	2.2	0.5

INVESTMENT REPORT

Private Income (Infrastructure)

At December 31, 2022, infrastructure investments comprise 6.7% of total Plan investments or $400 million, up from 5.2% or $344 million at the end of the previous year. Investments include projects in pipelines and midstream, integrated utilities, transportation, renewable energy, telecommunications, water, industrial sector, waste management, power generation, and logistics and data centers.

In 2022, investments in infrastructure gained 16.5%, outperforming against the Consumer Price Index plus 6% benchmark gain of 12.8% by 3.7%. Over the past four years, the Plan's infrastructure portfolio gained 14.3% on an annualized basis, outperforming against the benchmark gain of 9.6% by 4.7%.

Infrastructure	Actual Return %	Benchmark Index Consumer Price Index (CPI) plus 6% %	Net Value Added %
One year	16.5	12.8	3.7
Four year	14.3	9.6	4.7

Timberland

At December 31, 2022, the UAPP's investment in AIMCo's Timberland Pool comprised 0.8% of total Plan investments or $49 million, compared to 0.6% or $38 million at the end of the previous year. The Timberland investment includes forestry land in Australia, New Zealand and Latin America.

In 2022, the timberland investments gained 37.3%, outperforming against the Consumer Price Index plus 4% benchmark gain of 10.8% by 26.5%. Over the past four years, the Plan's timberland portfolio gained 16.0% on an annualized basis, outperforming against the benchmark gain of 7.6% by 8.4%.

Timberland	Actual Return %	Benchmark Index Consumer Price Index (CPI) plus 4% %	Net Value Added %
One year	37.3	10.8	26.5
Four year	16.0	7.6	8.4

Strategic Opportunities Pool and Currency Hedges

At December 31, 2022, the UAPP's investment in AIMCo's Strategic Opportunities Pool comprised 0.2% of total Plan investments or $15 million, unchanged from 0.2% or $15 million at the end of the previous year. AIMCo's Strategic Opportunities Pool consists of investments in infrastructure and hydropower in emerging market countries in Brazil and Colombia. In 2022, the Strategic Opportunities Pool had a loss of 21.5%. Over the past four years, the Strategic Opportunities Pool lost 1.7% on an annualized basis.

INVESTMENT REPORT

Table of Investment Returns	December 31, 2022			Annual Returns			
	Investments (in millions)	Asset Mix (%)	2022 %	2021 %	2020 %	2019 %	Annualized 4 yr %
Total Fund	$ 5,993.2	100.0%	(8.6)	16.1	6.2	13.5	6.3
Policy Return			*(7.5)*	*11.1*	*10.1*	*14.4*	*6.7*
Value Added (Lost) from Active Management			*(1.1)*	*5.0*	*(3.9)*	*(0.9)*	*(0.4)*
Consumer Price Index			*6.8*	*4.7*	*0.8*	*2.2*	*1.8*
Total Fixed Income	$ 1,922.9	32.1%	(14.5)	(1.6)	11.8	8.9	0.6
Combined Benchmarks			*(14.6)*	*(2.0)*	*10.7*	*9.1*	*0.3*
Short-term Fixed Income	13.7	0.2%	1.9	0.7	0.9	1.9	1.3
FTSE Canada 91-Day T-Bill Index			*1.8*	*0.2*	*0.9*	*1.7*	*1.1*
Universe Bonds	685.8	11.5%	(11.8)	(2.2)	10.6	6.9	0.5
FTSE Canada Universe Bond Index			*(11.7)*	*(2.5)*	*8.7*	*6.9*	*0.0*
Private Mortgages	250.1	4.2%	(5.0)	1.1	9.4	6.0	2.7
FTSE Canada 60% Short-Term/40% Mid-Term plus 0.75%			*(5.8)*	*(0.9)*	*9.8*	*7.9*	*2.6*
Long Duration Bonds	617.7	10.3%	(21.8)	(4.2)	12.9	12.5	(1.2)
FTSE Canada Long-Term Overall Bond Index			*(21.8)*	*(4.5)*	*11.9*	*12.7*	*(1.5)*
Real Return Bonds	355.6	5.9%	(14.2)	1.6	13.7	8.3	1.8
FTSE Canada Real Return Bond Index			*(14.3)*	*1.8*	*13.0*	*8.0*	*1.6*
Total Equities	$ 3,089.5	51.6%	(10.3)	22.1	3.2	18.2	7.5
Combined Benchmark			*(9.3)*	*18.8*	*12.1*	*20.4*	*9.8*
Total Canadian Public Equities	265.2	4.4%	(5.9)	28.0	(3.4)	20.8	8.9
S&P/TSX Composite Capped Index			*(5.8)*	*25.1*	*5.6*	*22.9*	*11.2*
Foreign Public Equities			(12.3)	19.8	5.5	17.5	6.8
MSCI World Index and MSCI Emerging Markets Index			*(12.5)*	*16.4*	*14.4*	*19.6*	*8.6*
Global Equities	1,825.0	30.5%	(11.9)	24.8	5.0	19.2	8.3
MSCI World Index			*(12.2)*	*20.8*	*13.9*	*21.2*	*10.0*
Emerging Markets	350.9	5.9%	(14.3)	(2.6)	7.1	10.6	(0.3)
MSCI Emerging Markets Index			*(14.3)*	*(3.4)*	*16.2*	*12.4*	*2.0*
Private Equities*	648.4	10.8%	(5.4)	74.0	37.6	10.1	25.7
CPI plus 6.5%			*13.3*	*11.2*	*7.3*	*8.7*	*10.1*
Alternative Investments	$ 966.2	16.1%	12.6	43.7	7.4	8.8	17.3
Combined Benchmark			*6.5*	*9.7*	*2.7*	*7.8*	*6.6*
Real Estate	518.0	8.6%	7.3	14.1	(14.0)	5.5	2.7
MSCI/REALpac Canadian All Property Index			*1.2*	*6.9*	*(5.2)*	*6.2*	*2.2*
Infrastructure	399.6	6.7%	16.5	26.3	4.7	10.6	14.3
CPI plus 6%			*12.8*	*10.7*	*6.8*	*8.2*	*9.6*
Timberland	48.6	0.8%	37.3	20.8	(8.3)	19.1	16.0
CPI plus 4%			*10.8*	*8.7*	*4.8*	*6.2*	*7.6*
Strategic Investments and Currency Hedges	$ 14.6	0.2%	(21.5)	(2.7)	(2.0)	24.7	(1.7)

** Prior to 2022, private equities were categorized with Alternative Investments.*

ADMINISTRATION REPORT

The Board of Trustees for the Universities Academic Pension Plan is responsible for the ongoing operation and administration of the pension plan, including the collection of relevant member data and contributions, the calculation and payment of pension benefits, and the communication of pension information to plan members and employers. The 2022 results in these areas are as follows:

Membership

There are three types of member currently in the UAPP:

- Active members are those currently employed by a participating employer in a UAPP-eligible position.
- Deferred members are those who have terminated employment and have accrued benefits remaining in the plan but have not yet withdrawn their entitlement nor commenced receiving a monthly pension.
- Pensioners are those who have commenced receiving a monthly pension, including surviving spouses.

Participation	2022	2021
Active members	7,868	7,814
Deferred members	2,631	2,551
Pensioners	6,720	6,424
TOTAL	**17,219**	**16,789**

Active membership in the UAPP increased 0.7% during 2022 to 7,868 at December 31, 2022 from 7,814 members at December 31, 2021. During 2022, the plan experienced its first year-over-year increase in active members since 2018. The number of active members in the UAPP is 1.8% larger today than ten years ago.

Membership Participation Annual Growth Rates

Member Type	Active Members	Deferred Members	Pensioners
2013	-1.0%	9.1%	5.9%
2014	-0.2%	2.9%	7.0%
2015	2.0%	7.5%	4.5%
2016	2.7%	6.9%	3.6%
2017	2.0%	6.9%	4.7%
2018	0.2%	7.5%	4.1%
2019	-0.3%	3.5%	4.4%
2020	-3.9%	4.8%	5.2%
2021	-0.3%	3.5%	4.3%
2022	0.7%	3.1%	4.6%

The number of retired members and surviving spouses of pensioners receiving a pension from the UAPP increased to 6,720 at the end of 2022, from 6,424 at December 31, 2021, representing an increase of 4.6% during the year. The retired membership total has grown by 60.6% since 2012. The most popular pension choice among new retirees with a spouse continues to be a Joint Life pension.

New Pensioner Retirement Type

Retirement Type	2022	2021
Retirements at Age 65 or Later	150	167
Retirements Before Age 65	220	204
Pensions to Surviving Spouses	13	8
TOTAL	**383**	**379**

New Pensioner Retirement Choices

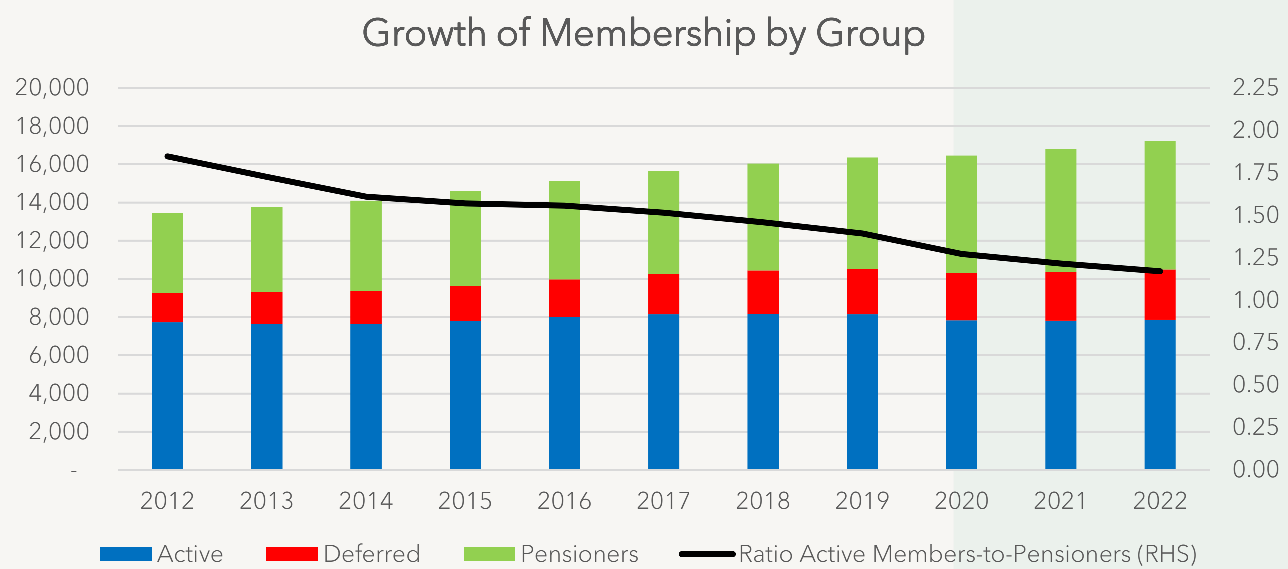
Percentage Electing Option	2022	2021
Single life – with or without guarantee	25%	20%
Joint life – 2/3 spouse, no guarantee	11%	14%
Joint life – 2/3 spouse, 10-year guarantee	23%	16%
Joint life – 100% spouse, no guarantee	13%	17%
Joint life – 100% spouse, 10-year guarantee	28%	33%
TOTAL	**100%**	**100%**

ADMINISTRATION REPORT

Monthly Payment Distribution As At December 31, 2022

Dollar Value ($) Per Month	Member Pensions	Spouse Pensions	Total
1 to 999	1,247	39	1,286
1,000 to 1,999	937	36	973
2,000 to 2,999	818	34	852
3,000 to 3,999	776	28	804
4,000 to 4,999	759	20	779
5,000 to 5,999	675	5	680
6,000 to 6,999	530	9	539
7,000 and over	800	7	807
TOTAL	6,542	178	6,720

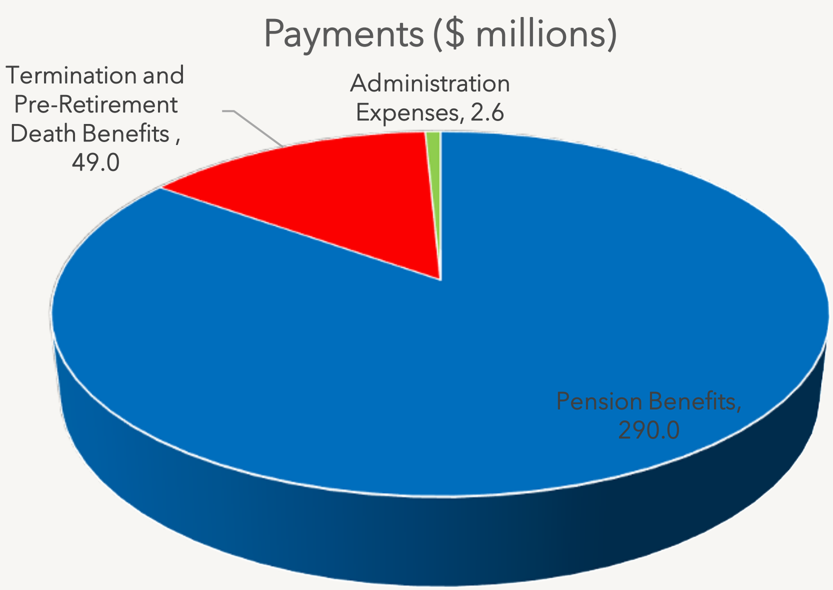
The number of deferred members who continue to have funds in the Plan increased from 2,551 at December 31, 2021 to 2,631 at December 31, 2022. Over the past decade, this group has been the fastest growing member type as it has increased by 71.7%.

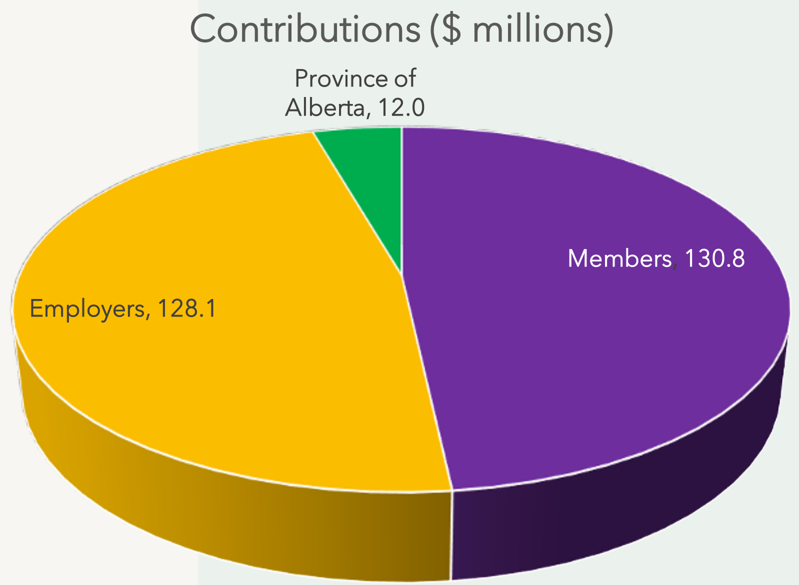


ADMINISTRATION REPORT

CASH FLOW

Contributions received from employers, members, and the Province of Alberta decreased by 1.7% from 2021 ($275.5 million) to 2022 ($270.9 million) due to a decline in the contribution rates effective July 1, 2022.





Total pension payments rose by 5.7% during 2022 to $290.0 million from $274.4 million in 2021. Pensioners received a cost-of-living increase of 1.56% effective January 1, 2022.

Lump sum payments for terminations and pre-retirement death benefits to or on behalf of former UAPP members were $49.0 million for 2022 (2021: $45.1 million).

Management strives to ensure that all the Plan's service providers deliver efficient and cost-effective services to the UAPP. The general plan administrative expenses were $2.6 million during 2022 ($152 per member) compared to $2.5 million ($149 per member) in 2021.

ADMINISTRATION REPORT

TEN-YEAR FINANCIAL AND MEMBERSHIP REVIEW

Financial Position ($ millions)	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Fair Value of Net Assets	$6,014.1	$6,655.1	$5,778.3	$5,477.3	$4,830.9	$4,851.1	$4,349.3	$4,043.7	$3,767.6	$3,357.2
Actuarial Adjustment	$398.5	($421.3)	($152.3)	($147.2)	$116.7	($173.7)	($48.0)	($105.7)	($202.2)	($185.6)
Actuarial Value of Assets	**$6,412.6**	**$6,233.8**	**$5,626.0**	**$5,330.1**	**$4,947.6**	**$4,677.4**	**$4,301.3**	**$3,938.0**	**$3,565.4**	**$3,171.6**
Accrued Pension Liability	$7,056.7	$6,733.8	$6,402.7	$6,178.6	$5,868.3	$5,626.8	$5,174.1	$4,961.0	$4,708.0	$4,339.4
Actuarial Surplus (Deficit)	**($644.1)**	**($500.0)**	**($776.7)**	**($848.5)**	**($920.7)**	**($949.4)**	**($872.8)**	**($1,023.0)**	**($1,142.6)**	**($1,167.8)**
Funded Ratio	90.9%	92.6%	87.9%	86.3%	84.3%	83.1%	83.1%	79.4%	75.7%	73.1%
Pre-1992 Period Only										
Fair Value of Net Assets	$464.3	$597.6	$596.5	$647.8	$655.8	$744.8	$750.4	$787.6	$824.9	$826.0
Actuarial Adjustment	$28.8	($43.2)	($22.3)	($20.6)	$11.8	($31.9)	($11.1)	($25.5)	($51.0)	($52.5)
Actuarial Value of Assets	**$493.1**	**$554.4**	**$574.2**	**$627.2**	**$667.6**	**$712.9**	**$739.3**	**$762.1**	**$773.9**	**$773.5**
Accrued Pension Liability	$1,359.2	$1,389.1	$1,415.3	$1,478.8	$1,498.7	$1,547.5	$1,577.7	$1,627.0	$1,677.6	$1,626.1
Actuarial Surplus (Deficit)	**($866.1)**	**($834.7)**	**($841.1)**	**($851.6)**	**($831.1)**	**($834.6)**	**($838.4)**	**($864.9)**	**($903.7)**	**($852.6)**
Funded Ratio	36.3%	39.9%	40.6%	42.4%	44.5%	46.1%	46.9%	46.8%	46.1%	47.6%
Post-1991 Period Only										
Fair Value of Net Assets	$5,549.8	$6,057.5	$5,181.8	$4,829.5	$4,175.1	$4,106.3	$3,598.9	$3,256.1	$2,942.7	$2,531.2
Actuarial Adjustment	$369.7	($378.1)	($130.0)	($126.6)	$104.9	($141.8)	($36.9)	($80.2)	($151.2)	($133.1)
Actuarial Value of Assets	**$5,919.5**	**$5,679.4**	**$5,051.8**	**$4,702.9**	**$4,280.0**	**$3,964.5**	**$3,562.0**	**$3,175.9**	**$2,791.5**	**$2,398.1**
Accrued Pension Liability	$5,697.5	$5,344.7	$4,987.4	$4,699.8	$4,369.6	$4,079.3	$3,596.4	$3,334.0	$3,030.4	$2,713.3
Actuarial Surplus (Deficit)	**$222.0**	**$334.7**	**$64.4**	**$3.1**	**($89.6)**	**($114.8)**	**($34.4)**	**($158.1)**	**($238.9)**	**($315.2)**
Funded Ratio	103.9%	106.3%	101.3%	100.1%	97.9%	97.2%	99.0%	95.3%	92.1%	88.4%
Contributions	$270.9	$275.5	$279.1	$282.3	$280.2	$272.5	$259.4	$240.9	$231.1	$221.9
Benefit Payments	$339.0	$319.6	$305.8	$282.3	$272.3	$253.1	$236.3	$243.6	$223.6	$205.4
Administrative Expenses	$2.6	$2.5	$2.3	$2.2	$2.2	$2.1	$2.2	$2.1	$2.1	$1.7
Investment Expenses	$19.7	$22.3	$28.1	$29.9	$23.5	$21.0	$10.7	$13.8	$12.8	$11.8
Total Return on Investments	(8.6%)	16.1%	6.2%	13.5%	(0.5%)	11.3%	7.1%	7.6%	12.2%	13.1%
Discount Rate	5.30%	5.30%	5.46%	5.46%	5.60%	5.60%	5.95%	5.95%	6.25%	6.25%
January 1 Cost-of-Living Adjustment	1.56%	0.78%	1.02%	1.50%	0.78%	0.78%	0.72%	1.56%	0.72%	0.96%
Plan Members										
Active	7,868	7,814	7,837	8,151	8,172	8,153	7,997	7,790	7,640	7,652
Deferred	2,631	2,551	2,465	2,352	2,273	2,114	1,977	1,849	1,720	1,672
Pensioners	6,720	6,424	6,158	5,851	5,602	5,380	5,138	4,960	4,745	4,434
Total	**17,219**	**16,789**	**16,460**	**16,354**	**16,047**	**15,647**	**15,112**	**14,599**	**14,105**	**13,758**
Average Age (Active)	49.3	49.4	49.4	49.1	48.9	48.8	48.8	48.7	48.8	48.8
Average Service (Active)	10.7	10.4	10.0	9.8	9.7	9.6	9.6	9.6	9.5	9.5
Average Capped Salary	$121,624	$120,128	$118,728	$117,186	$116,839	$115,241	$114,079	$111,971	$110,150	$107,733
Average Age (Pensioners)	74.6	74.5	74.3	74.2	74.0	73.8	73.5	72.2	72.9	73.0
Average Annual Pension	$45,143	$44,430	$44,823	$44,763	$44,426	$44,465	$44,782	$44,469	$43,966	$43,557

ADMINISTRATION REPORT

Service to Members

Management seeks to ensure UAPP members receive high-quality pension services in a timely manner. Service standards have been established with providers and the delivery of services against those standards is closely monitored in an effort to assess and promote quality service.

Service standards of direct interest to members are as follows:

Responsibilities	Service Level Standards	2022 Results
Time to answer calls	80% of calls answered within 20 seconds with a call abandonment rate below 5%	99.4% of calls answered within 20 seconds with a call abandonment rate of 0.5%
Escalated calls and voice mails	Answered within 1 business day	99.6% of calls answered within 1 business day
Emails	Answered within 2 business days	96.8% of emails answered within 2 business days
Written enquiries	Answered within 5 business days	100.0% of written enquiries answered within 5 business days
Statement of options on termination	5 business days from receipt of all required information	93.7% of options on termination issued within 5 business days from receipt of all required information
Statement of options on retirement	5 business days from receipt of all required information	93.2% of options on retirement issued within 5 business days from receipt of all required information
Statement of options on death	5 business days from receipt of all required information	98.7% of options on death issued within 5 business days from receipt of all required information
FPO* estimate requests	5 business days from receipt of all required information	78.3% of FPO estimates issued within 5 business days from receipt of all required information
FPO* final calculations	10 business days from receipt of all required information	83.8% of FPO final calculations issued within 10 business days from receipt of all required information
FPO* payment authorization	3 business days from receipt of all required information	89.5% of all FPO payment authorizations issued within 3 business days from receipt of all required information

*Family Property Order

ADMINISTRATION REPORT

Plan Communications

The 2022 Member Handbook was prepared and posted to our website in February 2022, and the quarterly Communiqué was posted throughout the year to update members and employers on subjects related to UAPP and pensions. The Handbook includes examples of pension calculations updated annually for changes in the maximum pensionable salary and YMPE. Annual member statements, highlighting individual pension entitlements as at December 31, 2021, were posted to the Retirement Planner for active members in May and mailed to retired members in June. The Trustees' Office presented several virtual pension seminars for groups of current active members as well as one-on-one information sessions promoting member understanding of the pension plan. A video version of a seminar is also posted on the website.

The UAPP website received approximately 65,700 hits during the year, representing a decrease of 2.5% from 2021. Besides the homepage, the rest of the top ten sections of the website include Contact Us, Frequently Asked Questions, Forms, News, Links, Member Handbook, Information Sheets, Annual Report, and Communiqués.

Plan members accessed the Retirement Planner 10,300 times during 2022, representing a 16.2% decrease from 2021. The UAPP Administration Centre helpline received over 3,100 calls during the year, a decline of 10.2% from 2021, attributed in part to the self-service nature of the Retirement Planner.

Other Developments in 2022

- Pensioner status confirmation project conducted throughout the year, reaching out to almost 1,000 members in the process.
- Virtual member information sessions were offered during the year, allowing hundreds of members to attend.
- Triennial pension administration audits completed by most of the Plan's employers.
- The Pension Benefits Administration User Group continued to meet regularly to discuss common issues. The virtual nature of the meetings allowed more attendees than past years.
- Updated format of quarterly Communiqué.
- Implemented strategy for dealing with unlocatable members.

The Year Ahead

Key plans for 2023 include:

- Design and implement annual statement for members with deferred pensions.
- Evaluate improvements made to format of quarterly Communiqué.
- Continue to offer member information seminars, either virtually or in person, and one-on-one member sessions.
- Work with employers to review potential improvements to processes.
- Undertake an actuarial valuation as of December 31, 2022 and mortality experience study.
- Complete triennial assessment of plan activities.

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The financial statements and information in the 2022 Annual Report are the responsibility of management and have been approved by the Board of Trustees.

The financial statements have been prepared in conformity with Canadian accounting standards for pension plans and, of necessity, include some amounts that are based on estimates and judgments. Financial information presented in the 2022 Annual Report that relates to the operations and financial position of the Universities Academic Pension Plan is consistent with that in the financial statements.

Alberta Investment Management Corporation (AIMCo), Beutel, Goodman & Company Ltd., Fiera Capital Corporation, and State Street Global Advisors, acting as investment managers, and Buck and CIBC Mellon, acting as pension administrators, maintain systems of internal control, including written policies, standards, and procedures and formal authorization structures. These systems are designed to provide management with reasonable assurance that transactions are properly authorized, reliable financial records are maintained, and assets are adequately accounted for and safeguarded.

The Audit Committee assists the Board of Trustees in discharging its responsibility to approve the annual financial statements. The Committee meets regularly with both management and external auditors to review the scope and timing of the audit as well as to review any internal control or financial issues and their resolution. The Committee reviews the annual financial statements and recommends them to the Board of Trustees for approval.

KPMG LLP (KPMG), the Plan's external auditor, provides an independent audit of the financial statements. Their examination is conducted in accordance with Canadian generally accepted auditing standards and includes tests and other procedures that allow them to report on the fairness of the financial statements in accordance with Canadian accounting standards for pension plans. KPMG has full and unrestricted access to discuss the audit and related findings regarding the integrity of financial reporting and the adequacy of internal controls.

Dave Schnore
Executive Director

Chris Schafer
Director, Finance & Administration

FINANCIAL STATEMENTS

UNIVERSITIES ACADEMIC PENSION PLAN

Financial Statements
And Independent Auditor’s Report thereon

Year Ended December 31, 2022

FINANCIAL STATEMENTS

INDEPENDENT AUDITOR'S REPORT

To the Board of Trustees of Universities Academic Pension Plan

Opinion

We have audited the financial statements of Universities Academic Pension Plan (the Entity), which comprise:

- the statement of financial position as at December 31, 2022
- the statement of changes in net assets available for benefits for the year then ended
- the statement of changes in pension obligation for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Entity as at December 31, 2022, and its changes in net assets available for benefits and its changes in pension obligation for the year then ended in accordance with Canadian accounting standards for pension plans.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "*Auditor's Responsibilities for the Audit of the Financial Statements*" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

FINANCIAL STATEMENTS

Other Information

Management is responsible for the other information. Other information comprises the information, other than the financial statements and the auditor's report thereon, included in the Entity's Annual Report.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information, other than the financial statements and the auditor's report thereon, included in the Entity's Annual Report as at the date of the auditor's report.

If, based on the work we have performed on the other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditor's report.

We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

FINANCIAL STATEMENTS

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

FINANCIAL STATEMENTS

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Entity to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group Entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

[Original signed by KPMG LLP]

Chartered Professional Accountants

Edmonton, Canada

March 30, 2023

Statement of Financial Position

As at December 31, 2022

	($ thousands) 2022	2021
Net assets available for benefits		
Assets		
Cash (Note 3)	$ 12,124	$ -
Investments (Note 4)	5,981,117	6,633,641
Contributions receivable		
Employers	10,071	10,687
Employees	10,423	10,602
Province of Alberta	1,092	972
Accounts receivable	726	476
Total Assets	6,015,553	6,656,378
Liabilities		
Accounts payable and accrued liabilities	1,440	1,279
Total Liabilities	1,440	1,279
Net assets available for benefits	$ 6,014,113	$ 6,655,099
Pension obligation and deficit		
Pension obligation (Note 6)	$ 7,056,700	$ 6,733,800
Deficit (Note 7)	(1,042,587)	(78,701)
Pension obligation and deficit	$ 6,014,113	$ 6,655,099

The accompanying notes are part of these financial statements.

Statement of Changes In Net Assets Available For Benefits

For the year ended December 31, 2022

	($ thousands) 2022	2021
Increase		
Contributions (Note 8)	$ 270,909	$ 275,454
Investment income (Note 9)	247,335	414,161
Change in fair value (Note 9)		
Net realized gain on sale of investments	64,785	162,934
Change in net unrealized gains	-	368,585
	583,029	1,221,134
Decrease		
Benefit payments (Note 11)	338,999	319,543
Change in fair value (Note 9)		
Change in net unrealized losses	862,706	-
Investment expenses (Note 12)	19,730	22,267
Administrative expenses (Note 13)	2,580	2,479
	1,224,015	344,289
(Decrease) increase in net assets available for benefits	(640,986)	876,845
Net assets available for benefits at beginning of year	6,655,099	5,778,254
Net assets available for benefits at end of year	$ 6,014,113	$ 6,655,099

The accompanying notes are part of these financial statements.

Statement of Changes In Pension Obligation

For the year ended December 31, 2022

	($ thousands)					
	2022			**2021**		
	Pre-1992	**Post-1991**	**Total**	**Pre-1992**	**Post-1991**	**Total**
Increase in pension obligation						
Interest accrued on pension obligation	$ 73,600	$ 294,500	$ 368,100	$ 77,300	$ 283,500	$ 360,800
Benefits earned	-	211,800	211,800	-	204,000	204,000
Actuarial assumption changes (Note 6(a))	-	-	-	16,200	48,300	64,500
Net experience losses	-	-	-	12,100	-	12,100
Cost-of-living experience losses	30,700	61,200	91,900	2,800	16,100	18,900
	104,300	567,500	671,800	108,400	551,900	660,300
Decrease in pension obligation						
Benefits paid, including interest	134,200	213,800	348,000	134,600	193,700	328,300
Net experience gains	-	900	900	-	900	900
	134,200	214,700	348,900	134,600	194,600	329,200
Net (decrease) increase in pension obligation	(29,900)	352,800	322,900	(26,200)	357,300	331,100
Pension obligation at beginning of year	1,389,100	5,344,700	6,733,800	1,415,300	4,987,400	6,402,700
Pension obligation at end of year	$ 1,359,200	$ 5,697,500	$ 7,056,700	$ 1,389,100	$ 5,344,700	$ 6,733,800

The accompanying notes are part of these financial statements.

Notes to the Financial Statements

For the year ended December 31, 2022
(*all $ figures in thousands except Note 14*)

NOTE 1 SUMMARY DESCRIPTION OF THE PLAN

Effective January 1, 2001, the Universities Academic Pension Plan (the "Plan") became a non-statutory pension plan subject to and registered under the *Employment Pension Plans Act* of Alberta. The Plan is also registered under the *Income Tax Act*. The Plan's registration number is 0339572. The Plan operates under a Sponsorship and Trust Agreement signed by the Plan Sponsors. A complete description of the Plan can be found in the Sponsorship and Trust Agreement. The Board of Trustees appointed by Plan Sponsors is responsible for administration of the Plan. The summary description of the Plan described below applies to members who contribute to the Plan on or after January 1, 2001.

a) GENERAL

The Plan is a contributory defined benefit pension plan for academic staff members and other eligible employees of the Universities of Alberta, Calgary, and Lethbridge, Athabasca University, and Banff Centre.

In addition, employees of the Board of Trustees and the professional staff of the University of Calgary Faculty Association, the Association of Academic Staff University of Alberta, and the Athabasca University Faculty Association participate in the Plan.

b) FUNDING POLICY

Contributions and investment earnings are expected to fund all benefits payable under the Plan. Employees and employers are responsible for fully funding service after 1991.

The unfunded liability for service prior to January 1, 1992 is financed by additional contributions from the Province of Alberta, employers and employees. These contribution rates are set on the basis that the additional contributions will eliminate the pre-1992 service unfunded liability on or before December 31, 2043. The Province pays 1.250% of salary and the balance of the required contributions are equally split between employees and employers.

Under the Province of Alberta *Employment Pension Plans Regulation* 154/2014, the Plan is exempt from funding solvency deficiencies in respect of all service.

The Board of Trustees, in consultation with the Plan's actuary, reviews the contribution rates at least once every three years.

The contribution rates in effect from July 1, 2022 for employees of the Universities of Alberta, Calgary, and Lethbridge, employees of the Board of Trustees, and the professional staff of the University of Calgary Faculty Association and the Association of Academic Staff University of Alberta are 11.380% (12.370% prior to July 1, 2022) of pensionable salary up to the Year's Maximum Pensionable Earnings (YMPE), 15.490% (16.320% prior to July 1, 2022) on pensionable salary above the YMPE and up to the pensionable salary cap, and 1.785% (1.520% prior to July 1, 2022) on earnings above the pensionable salary cap. Employers contribute at the same rate as employees.

FINANCIAL STATEMENTS

Note 1 b) FUNDING POLICY (continued)

The contribution rates in effect from July 1, 2022 for employees of Athabasca University, Banff Centre, and the professional staff of the Athabasca University Faculty Association are 10.880% (11.870% prior to July 1, 2022) of pensionable salary up to the YMPE and 14.990% (15.820% prior to July 1, 2022) on pensionable salary above the YMPE and up to the pensionable salary cap. Employers contribute at a rate 1.000% higher than employees. In addition, employees and employers provide equal matching contributions of 1.785% (1.520% prior to July 1, 2022) on earnings above the pensionable salary cap.

c) RETIREMENT BENEFITS

The Plan provides for a pension based upon the average pensionable salary of the highest five consecutive years. For service before 1994, the pension is 2% for each year of pensionable service. From January 1, 1994, the Plan's benefits and contributions were integrated with the Canada Pension Plan. As a result, pensions for service after 1993 are reduced at age 65. The reduction is 0.6% of the average YMPE for the same five years as used in calculating the average pensionable salary of the highest five consecutive years. The maximum service allowable under the Plan is 35 years.

Members are entitled to an unreduced pension for service before 1994 if they have attained age 55.

Members are entitled to an unreduced pension for service after 1993 if they have either attained age 60 or have attained age 55 and the sum of their age and years of membership equals at least 80. Members are entitled to a reduced pension for service after 1993 if they have attained age 55.

Members who become disabled and are not in receipt of benefits from an approved disability plan are eligible to apply for a disability pension.

d) DEATH BENEFITS

Death benefits are payable on the death of a member. A surviving spouse may choose to receive a pension based on total service or a lump sum payment. For a beneficiary other than a spouse, a lump sum payment must be paid.

e) TERMINATION BENEFITS

Members who terminate and are not immediately entitled to a pension may elect to receive a deferred pension or a lump sum refund.

Refunds on service performed before 1994 equal employee and employer contributions plus interest, or the commuted value of the member's earned pension, whichever is greater.

Refunds on service performed after 1993 equal 1.75 times employee contributions plus interest, or the commuted value of the member's earned pension, whichever is greater.

Refunds are subject to the Plan's lock-in provisions and excess contribution rules.

FINANCIAL STATEMENTS

Note 1 (continued)

f) DISABILITY BENEFITS

Members who become disabled and are in receipt of benefits from an approved disability plan continue to earn pensionable service credits under the Plan.

g) OPTIONAL SERVICE

Leaves of absence which are purchased before April 30th following a return to work are costed based on the contributions which would have been paid during the leave period plus interest. All other optional service purchases are costed on an actuarial reserve basis and are cost neutral to the Plan. Funds related to the transfer of service to other plans are based on the regular termination benefits.

h) COST-OF-LIVING ADJUSTMENTS

Pensions payable are increased each year on January 1st by an amount equal to 60% of the increase in the Alberta Consumer Price Index. The increase is based on the increase during the twelve-month period ending on October 31st in the previous year.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND REPORTING PRACTICES

a) BASIS OF PRESENTATION

These financial statements are prepared on the going concern basis in accordance with Canadian accounting standards for pension plans. The Plan has elected to apply International Financial Reporting Standards (IFRS) for accounting policies that do not relate to its investment portfolio or pension obligation. The statements provide information about the net assets available in the Plan to meet future benefit payments and are prepared to assist Plan members and others in reviewing the activities of the Plan for the year.

b) VALUATION OF INVESTMENTS

Investments are recorded at fair value. As disclosed in Note 4, the Plan's investments consist primarily of direct ownership in units of pooled investment funds ("the pools").

Contracts to buy and sell financial instruments in the pools are between the investment managers and the third parties 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. The investment managers control the creation of the pools and the management and administration of the pools including security selection. Accordingly, the Plan does not report the financial instruments of the pools on its statement of financial position.

The Plan 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 loses its exposure to those financial risks and rewards when it sells its units. The Plan reports its financial risks in Note 5.

Note 2 b) VALUATION OF INVESTMENTS (continued)

The fair value of units held by the Plan is derived from the fair value of the underlying financial instruments held by the pools using the fair value hierarchy (see Note 4(a)) as determined by the investment managers (see Note 4(b)). Investments in units are recorded in the Plan's accounts. 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 Plan's cut-off policy for valuation of investments, investment income and investment performance is based on valuations confirmed by the investment managers following the year end. Differences in valuation estimates after the year end cut-off date are reviewed by management.

Investments in units are recorded in the Plan'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.

c) INVESTMENT INCOME AND CHANGE IN FAIR VALUE

(a) Investment income and change in fair value are recorded on an accrual basis.

(b) Investment income and change in fair value are reported in the statement of changes in net assets available for benefits and in Note 9 and include interest income, dividend income, and the following items recorded in the Plan's accounts:

i. Income distributions from the pools, based on the Plan's pro-rata share of total units issued by the pools; and

ii. Changes in fair value including realized gains and losses on disposal of investments and unrealized gains and losses on investments determined on an average cost basis.

d) INVESTMENT EXPENSES

Investment expenses include all amounts incurred by the Plan to earn investment income (see Note 12). Investment expenses are recorded on an accrual basis. Transaction costs are expensed as they are incurred.

e) CONTRIBUTIONS, BENEFIT PAYMENTS AND ADMINISTRATIVE EXPENSES

Contributions, benefit payments, administrative expenses and related accounts receivable and payable are recorded on an accrual basis.

f) VALUATION OF PENSION OBLIGATION

The value of the pension obligation and changes therein during the year are based on an actuarial valuation prepared by an independent firm of actuaries. A valuation must be performed at least every three years and results from the most recent valuation are extrapolated, on an annual basis, to year-end. The valuation uses the projected benefit method pro-rated on service and management's best estimate, as at the valuation and extrapolation dates, of various economic and non-economic assumptions.

FINANCIAL STATEMENTS

Note 2 (continued)

g) USE OF ESTIMATES AND JUDGMENTS

In preparing these financial statements, estimates, judgments, and assumptions are used in circumstances where the actual values are unknown. Uncertainty in the determination of the amount at which an item is recognized in the financial statements is known as measurement uncertainty. Such uncertainty exists when there is a variance between the recognized amount and another reasonably possible amount, as there is whenever estimates are used.

Measurement uncertainty exists in the valuation of the Plan's pension obligation and Level 3 investments. Uncertainty arises because:

i) the Plan's actual experience may differ, perhaps significantly, from assumptions used in the valuation and extrapolation of the Plan's pension obligation; and

ii) the estimated fair values of the Plan's Level 3 investments may differ significantly from the values that would have been used had a ready market existed for these investments (See Note 4).

While best estimates have been used in the valuation of the Plan's pension obligation and Level 3 investments, management considers that it is possible, based on existing knowledge, that changes in future conditions in the short term could require a material change in the recognized amounts.

Differences between actual results and expectations in the Plan's pension obligation are disclosed as assumption or other changes and net experience gains or losses in the statements of changes in pension obligation in the year when actual results are known.

Differences between the estimated fair values and the amount ultimately realized for investments are included in change in fair value on the statement of changes in net assets available for benefits in the year when the ultimate realizable values are known.

h) INCOME TAXES

The Plan is a registered pension plan, as defined by the *Income Tax Act* (Canada) and, accordingly, is not subject to income taxes.

NOTE 3 CASH

Cash primarily consists of deposits in the pension plan's administration bank account which is a standalone interest-bearing account. The funds in this account are used for operational and pension benefit disbursement. This bank account is managed by UAPP.

At December 31, 2021, the administration bank account was part of the Consolidated Cash Investment Trust Fund (CCITF) and was included as part of Investments in the Statement of Financial Position. In September 2022, the CCITF was wound down. The new cash management structure split the CCITF into the new administration bank account and a money market pool account managed by Alberta Investment Management Corporation on behalf of UAPP. The money market pool account balance is still included as part of Investments (Note 4).

FINANCIAL STATEMENTS

NOTE 4 INVESTMENTS

The Plan's investments are managed at the asset class level for purposes of evaluating the Plan's risk exposure and investment performance against approved benchmarks based on fair value. The Plan's assets are managed in accordance with the Statement of Investment Policies and Goals (SIP&G) approved by the Plan's Board of Trustees. The fair value of the pool units is based on the Plan'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. The investment managers are delegated authorities to independently purchase and sell securities in the pools and Plan, and units of the pools, within the ranges approved for each asset class (see Note 5).

($ thousands)

	Fair Value Hierarchy [a]		2022	2021		
Asset class	Level 2	Level 3	**Fair Value**	Level 2	Level 3	**Fair Value**
Fixed Income						
Cash and short-term securities	$ 1,388	$ -	$ 1,388	$ 74,617	$ -	$ 74,617
Bonds and mortgages	1,303,710	250,060	1,553,770	1,252,459	229,830	1,482,289
Real return bonds	355,581	-	355,581	414,375	-	414,375
	1,660,679	250,060	1,910,739	1,741,451	229,830	1,971,281
Equities						
Canadian	265,236	-	265,236	852,727	-	852,727
Global	1,825,005	-	1,825,005	1,830,234	-	1,830,234
Emerging markets	350,935	-	350,935	409,627	-	409,627
Private equity	-	648,393	648,393	-	695,272	695,272
	2,441,176	648,393	3,089,569	3,092,588	695,272	3,787,860
Alternatives						
Real estate	-	517,977	517,977	-	477,700	477,700
Infrastructure	-	399,606	399,606	-	344,097	344,097
Timberland	-	48,659	48,659	-	38,163	38,163
	-	966,242	966,242	-	859,960	859,960
Strategic and currency investments*	-	14,567	14,567	-	14,540	14,540
Total investments	$ 4,101,855	$ 1,879,262	$ 5,981,117	$ 4,834,039	$ 1,799,602	$ 6,633,641

* 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.

FINANCIAL STATEMENTS

Note 4 (continued)

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 Plan 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.
- *Level 3:* fair value is estimated using inputs based on non-observable market data. This level includes pool units that hold private mortgages and all alternative investments.

Reconciliation of Level 3 Fair Value Measurements:

	($ thousands) 2022	2021
Balance, beginning of year	$ 1,799,602	$ 1,364,956
Investment income	110,507	115,643
Change in fair value (Note 9)		
Net realized gain on sale of investments	19,373	30,840
Change in net unrealized (losses) gains	(83,102)	279,404
Purchases of Level 3 pooled fund units	241,007	208,628
Sale of Level 3 pooled fund units	(208,125)	(199,869)
Balance, end of year	$ 1,879,262	$ 1,799,602

b) Valuation of Financial Instruments in the Pools

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

- *Fixed income:* Public interest-bearing securities are valued at the year-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. Cash flows are discounted using appropriate interest rate premiums over similar Government of Canada benchmark bonds trading in the market. Real return bonds are valued similar to public interest-bearing securities.
- *Equities:* Public equities are valued each business day at fair value, defined as the price the fund would receive to sell an asset or pay to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of private equities is estimated by managers or general partners of private equity funds, pools and limited partnerships. Valuation methods may encompass a broad range of approaches. The cost approach is used to value companies without either profits or cash flows. Established private companies are valued using the fair market value approach reflecting conventional valuation methods including discounted cash flows and earnings multiple analysis.

Note 4 b) Valuation of Financial Instruments in the Pools (continued)

- *Alternatives:* 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 the discounted cash flows. Infrastructure investments are valued similar to private equity investments. The fair value of timberland investments is appraised annually by independent third-party evaluators.
- *Strategic and currency investments:* The estimated fair value of infrastructure investments held in emerging market countries are valued similar to private equities. 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 year end, the fair value of investments in other assets and liabilities denominated in a foreign currency are translated at the year-end exchange rates.
- *Derivative contracts:* The carrying values of derivative contracts in favourable and unfavourable positions are recorded at fair value and are included in the fair value of pooled investment funds (see Note 5(f)). The estimated fair values of equity and bond index swaps are 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 discounted cash flows using current market yields and current forward exchange rates. 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 year-end closing sale price or the average of the latest bid and ask prices quoted by an independent securities valuation company.

The Plan adopted a new SIP&G that will be effective January 1, 2023.

NOTE 5 INVESTMENT RISK MANAGEMENT

The Plan is exposed to financial risks associated with the underlying securities held in the pooled investment funds. 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 foreign currency risk, interest rate risk and price risk. Liquidity risk is the risk the Plan will not be able to meet its obligations as they fall due.

The investment policies and procedures of the Plan are clearly outlined in the SIP&G approved by the Board of Trustees. The purpose of the SIP&G is to ensure the Plan assets are invested and managed in a prudent manner in accordance with current, accepted governance practices incorporating an appropriate level of risk. The Board of Trustees manages the Plan'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 5(b)).

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Note 5 (continued)

The Plan's pension obligation is impacted by the long-term real rate of return expected to be earned on investments. In order to earn the best possible return at an acceptable level of risk, the Board of Trustees has established the following asset mix policy ranges:

Asset Class	Target Asset Policy Mix	Long Term Policy	Actual Asset Mix 2022 ($ thousands)	2022 %	2021 ($ thousands)	2021 %
Fixed income	31.0 - 39.0%	35.0%	$1,910,739	31.9	$1,971,281	29.7
Equities (b)	45.0 - 55.0%	50.0%	3,089,569	51.7	3,787,860	57.1
Alternatives	11.0 - 19.0%	15.0%	966,242	16.2	859,960	13.0
Strategic and currency investments	(a)		14,567	0.2	14,540	0.2
		100.0%	$5,981,117	100.0	$6,633,641	100.0

(a) An investment manager may, at its discretion, use currency overlays limited to a notional amount of 2.5% of that manager's mandate of the Plan's assets.

(b) To be consistent with the SIP&G that took effect January 1, 2022, Private Equities are shown with Equities for both 2021 and 2022.

a) Credit Risk

i) Debt securities

The Plan is indirectly exposed to credit risk associated with the underlying debt securities held in the pools. 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 4 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 Plan's investments in debt securities by credit rating at December 31, 2022:

Credit rating	2022	2021
Investment Grade (AAA to BBB-)	81.8%	83.3%
Unrated	18.2%	16.7%
	100.0%	100.0%

Note 5 a) Credit Risk (continued)

ii. Counterparty default risk - derivative contracts

The Plan 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 5(f)). The investment manager is responsible for selecting and monitoring derivative counterparties on behalf of the Plan. The investment manager monitors counterparty risk exposures and actively seeks to mitigate counterparty risk by requiring that counterparties collateralize mark-to-market gains for the Plan. 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 Plan's net exposure in respect of favourable contracts with the same counterparty.

iii. Security lending risk

To generate additional income, the Plan participates in a securities-lending program. Under this program, the Plan may lend investments held in the pools to eligible third parties for short periods. At December 31, 2022, the Fund's share of securities loaned under this program is $157,703 (2021: $166,322) and collateral held totals $172,479 (2021: $182,883). 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 Plan 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.

If the value of the Canadian dollar increased by 10.0% against all other currencies, and all other variables are held constant, the potential loss in fair value to the Plan would be approximately 3.3% of total investments (2021: 3.1%).

The following table summarizes the Plan's exposure to investments denominated in foreign currencies held in pooled investment funds:

($ thousands)

2022			2021		
Currency		**Fair Value**	**Currency**		**Fair Value**
US dollar	$	2,186,662	US dollar	$	2,277,779
Other foreign currencies (<1%)		445	Other foreign currencies (<1%)		9,136
Total foreign currencies	$	2,187,107	**Total foreign currencies**	$	2,286,915

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Note 5 (continued)

c) Interest Rate Risk

The Plan is exposed to interest rate risk associated with the underlying interest-bearing securities held in pooled investment funds. Interest rate risk relates to the possibility that the investments will change in value 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 1.0% and all other variables are held constant, the potential loss in fair value to the Plan would be approximately 3.0% (2021: 3.2%) of the Plan's total investments.

d) Market Price Risk

Market price risk relates to the possibility that the value of an instrument will change due to future fluctuations in market prices caused by factors specific to an individual investment or other factors affecting all instruments traded in the market. The Plan is exposed to market price risk associated with the underlying investments held in the pools. If market indices (S&P/TSX, S&P500, S&P1500 and MSCI ACWI and their sectors) declined by 10.0%, and all other variables are held constant, the potential loss in fair value to the Plan would be approximately 5.4% (2021: 5.9%) of total investments. Changes in fair value of investments are recognized in the statement of changes in net assets available for benefits.

e) Liquidity Risk

Liquidity risk is the risk that the Plan will encounter difficulty in meeting obligations associated with its financial liabilities under both normal and stressed conditions. Liquidity requirements of the Plan are met through income generated from investments, employee and employer contributions, and by investing in pools that hold publicly traded liquid assets traded in active markets 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. These sources of cash are used to pay pension benefits and operating expenses, purchase new investments, settle derivative transactions with counterparties and settle margin calls on futures contracts. The Plan's future liabilities include the pension obligation and exposure to net payables to counterparties (Note 5(f)).

Note 5 (continued)

f) Use of Derivative Financial Instruments in Pooled Investment Funds

The Plan has indirect exposure to derivative financial instruments through its investment in units of the pools. Derivative financial instruments are used to 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.

	Number of counterparties		Plan's Indirect Share ($ thousands)	
By counterparty	2022	2021	2022	2021
Contracts in net favourable position (current credit exposure)	1	10	$ 173	$ 3,213
Contracts in net unfavourable position	13	6	(41,109)	(3,583)
Net fair value of derivative contracts	14	16	$ (40,936)	$ (370)

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 $173 (2021: $3,213) 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 4. Accordingly, they are not recognized in the statement of financial position.

	Plan's Indirect Share ($ thousands)	
Types of derivatives used in pools	2022	2021
Equity-based derivatives	$ 70	$ 323
Foreign currency derivatives	(41,452)	(703)
Interest rate derivatives	446	10
Net fair value of derivative contracts	$ (40,936)	$ (370)

i) Equity derivatives 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 derivatives. Rights, warrants, futures and options are also included as structured equity replication 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. At December 31, 2022, deposits in futures contracts margin accounts totaled $100 (2021: $910). Cash and non-cash collateral for derivative contracts pledged and received, respectively, totaled $40,668 (2021: $8,988) and $nil (2021: $nil).

NOTE 6 PENSION OBLIGATION

a) ACTUARIAL VALUATION AND EXTRAPOLATION

An actuarial valuation of the Plan was carried out as at December 31, 2020 by the Plan's actuarial consultants, Aon. The December 31, 2020 valuation results were extrapolated to December 31, 2022.

The pension obligation has been determined using the projected benefit method prorated on service. The assumptions used in the valuation extrapolation were developed as the best estimate of expected short-term and long-term market conditions and other future events. After consultation with the Plan's actuary, the Board of Trustees adopted this best estimate.

The major assumptions used are:

Note 6 a) Actuarial Valuation and Extrapolation (continued)

	2020 Valuation and 2022 Extrapolation	**2020 Valuation and 2021 Extrapolation**
	%	%
Asset real rate of return		
For 2 years after valuation	3.05	3.05
Thereafter	3.05	3.05
Inflation rate		
For 2 years after valuation	2.25	2.25
Thereafter	2.25	2.25
Discount rate	5.30	5.30
Salary escalation rate *		
For 2 years after valuation	0.00	0.00
Thereafter	2.75	2.75
Mortality table	85% (100% for females) of 2014 Public Sector Canadian Pensioner table with generational projection (Scale MI-2017)	85% (100% for females) of 2014 Public Sector Canadian Pensioner table with generational projection (Scale MI-2017)

** In addition to merit and promotion*

The next actuarial valuation of the Plan must be carried out no later than December 31, 2023. Any differences between the actuarial valuation results and extrapolation results as reported in these financial statements that affect the financial position of the Plan will be accounted for as gains or losses in the following year.

b) SENSITIVITY OF CHANGES IN MAJOR ASSUMPTIONS

The Plan's future experience will inevitably differ, perhaps significantly, from these assumptions. Any differences between the actuarial assumptions and future experience will emerge as gains or losses in future valuations and may materially affect the financial position of the Plan.

Note 6 b) Sensitivity of Changes in Major Assumptions (continued)

	Changes in Assumptions (%)	Increase in Plan's Actuarial Deficiency ($ thousands)	Increase in Current Service Cost as a % of Pensionable Earnings *
Inflation rate increase holding discount rate and salary escalation assumptions constant	1.0	460,000	1.48
Salary escalation rate increase holding inflation rate and discount rate assumptions constant	1.0	152,400	1.35
Discount rate decrease holding inflation rate and salary escalation assumptions constant	(1.0)	1,100,200	5.82

* The current service cost as a % of pensionable earnings as determined by the December 31, 2020 valuation is 23.31%

NOTE 7 DEFICIT

($ thousands)

	2022			2021		
	Pre-1992	Post-1991	Total	Pre-1992	Post-1991	Total
Deficit (surplus), beginning of year	$ 791,500	$ (712,799)	$ 78,701	$ 818,800	$ (194,354)	$ 624,446
Decrease (increase) in net assets available for benefits	133,300	507,686	640,986	(1,100)	(875,745)	(876,845)
Net (decrease) increase in accrued pension liability	(29,900)	352,800	$ 322,900	(26,200)	357,300	331,100
Deficit (surplus), end of year	$ 894,900	$ 147,687	$ 1,042,587	$ 791,500	$ (712,799)	$ 78,701

In accordance with the requirements of the Province of Alberta *Public Sector Pension Plans Act*, separate accounting is required of the pension deficit with respect to service that was recognized as pensionable as at December 31, 1991.

The following table summarizes the net assets available for benefits, pension obligation, and the resulting deficit as at December 31, 2022 allocated between the pre-1992 and post-1991 periods:

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Note 7 (continued)

($ thousands)

	2022			2021		
	Pre-1992	Post-1991	Total	Pre-1992	Post-1991	Total
Net assets available for benefits	$ 464,300	$ 5,549,813	$ 6,014,113	$ 597,600	$ 6,057,499	$ 6,655,099
Pension obligation	1,359,200	5,697,500	7,056,700	1,389,100	5,344,700	6,733,800
Deficit (surplus)	$ 894,900	$ 147,687	$ 1,042,587	$ 791,500	$ (712,799)	$ 78,701

The deficit for accounting purposes may differ from that for funding purposes (see Note 15).

NOTE 8 CONTRIBUTIONS

($ thousands)

	2022	2021
Current service		
Employers	$ 104,807	$ 102,728
Employees	103,590	101,600
Contributions to meet post-1991 unfunded liability and optional service		
Employers	7,400	14,741
Employees	11,340	15,170
Contributions to meet pre-1992 unfunded liability		
Employers	15,880	14,603
Employees	15,880	14,603
Province of Alberta	12,012	12,009
	$ 270,909	$ 275,454

FINANCIAL STATEMENTS

NOTE 9 INVESTMENT INCOME AND CHANGE IN FAIR VALUE

The following is a summary of the Plan's investment income (loss) and change in fair value by asset class:

($ thousands)

	Investment Income	Change in Fair Value	2022 Total	Investment Income	Change in Fair Value	2021 Total
Fixed income	$ 64,782	$ (376,238)	$ (311,456)	$ 72,172	$ (103,994)	$ (31,822)
Equities						
Canadian	60,386	(78,291)	(17,905)	112,040	77,107	189,147
Foreign	-	(294,171)	(294,171)	106,842	243,054	349,896
Private equity	31,716	(56,770)	(25,054)	77,244	204,168	281,412
	92,102	(429,232)	(337,130)	296,126	524,329	820,455
Alternatives						
Real estate	20,410	17,793	38,203	5,587	54,569	60,156
Infrastructure	69,018	(18,313)	50,705	32,290	56,240	88,530
Timberland	3,240	10,338	13,578	2,383	4,470	6,853
	92,668	9,818	102,486	40,260	115,279	155,539
Strategic and currency investments	(2,217)	(2,269)	(4,486)	5,603	(4,095)	1,508
	$ 247,335	$ (797,921)	$ (550,586)	$ 414,161	$ 531,519	$ 945,680

The change in fair value includes realized and unrealized gains and losses on pool units and currency hedges. Realized and unrealized gains and (losses) on pool units total $64,787 and ($862,706) respectively (2021: $162,496 and $368,265 respectively). Realized and unrealized gains and (losses) on currency hedges total ($2) and $nil respectively (2021: $438 and $320 respectively).

Income earned in pooled investment funds is distributed to the Plan daily based on the Plan'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, and income and expense on derivative contracts.

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NOTE 10 INVESTMENT RETURNS, CHANGE IN NET ASSETS AVAILABLE FOR BENEFITS, AND PENSION OBLIGATION

The following is a summary of investment returns (losses), the annual change in net assets, the annual change in the pension obligation and the percentage of the pension obligation supported by net assets.

	(percentage)				
	2022	2021	2020	2019	2018
Increase (decrease) in net assets attributed to:					
Investment income					
Policy benchmark return (PBR) on investments	(7.5)	11.1	10.1	14.4	(0.2)
Value (lost) added by investment managers	(1.1)	5.0	(3.9)	(0.9)	(0.3)
Time weighted rate of return, at fair value [a]	**(8.6)**	**16.1**	**6.2**	**13.5**	**(0.5)**
Other sources [b]	(1.0)	(0.9)	(0.7)	(0.1)	0.1
Percent change in net assets [c]	**(9.6)**	**15.2**	**5.5**	**13.4**	**(0.4)**
Percent change in pension obligation [c]	**4.8**	**5.2**	**3.6**	**5.3**	**4.3**
Percent of pension obligation supported by net assets	**85.2**	**98.8**	**90.2**	**88.6**	**82.3**

a) The annualized total return and policy benchmark return on investments over five years is 4.9% (PBR: 5.3%), ten years is 7.6% (PBR: 7.3%), and twenty years is 7.4% (PBR: 7.1%). The Plan's actuary estimates the long-term net investment return on assets for funding purposes to be 5.3% (2021: 5.3%).

b) Other sources includes employee and employer contributions and transfers from other plans, net of benefit payments, transfers to other plans and administration expenses.

c) The percent change in net assets and pension obligation are based on the amounts reported on the statement of changes in net assets available for benefits and the statement of changes in pension obligation, respectively.

NOTE 11 BENEFIT PAYMENTS

	($ thousands)	
	2022	**2021**
Retirement benefits	$ 290,020	$ 274,436
Termination benefits	47,789	43,727
Death benefits	1,190	1,380
	$ 338,999	$ 319,543

FINANCIAL STATEMENTS

NOTE 12 INVESTMENT EXPENSES

	($ thousands) 2022	2021
Amount charged:		
Management fees [a]	$ 19,676	$ 22,213
Alberta Treasury Board and Finance [b]	54	54
Total investment expenses	$ 19,730	$ 22,267
Decrease in expenses	(11.4%)	(20.6%)
Increase in average investments under management	1.8%	10.5%
(Decrease) increase in value of investments attributed to active management [c]	(1.1%)	5.0%
Investment expenses as a percent of dollar invested	0.3%	0.4%

a) For investment management services, including non-recoverable GST of $395 (2021: $859).

b) For investment accounting and Plan reporting services.

c) Active management is currently applied in the fixed income, private equity and alternative asset classes.

NOTE 13 ADMINISTRATIVE EXPENSES

	($ thousands) 2022	2021
General administration costs	$ 2,372	$ 2,357
Board costs	46	25
Actuarial fees	90	41
Audit fees	72	56
	$ 2,580	$ 2,479

General Plan costs, including the costs for benefit administration and delivery, amounted to $152 per member (2021: $149 per member).

FINANCIAL STATEMENTS

NOTE 14 REMUNERATION OF BOARD OF TRUSTEES MEMBERS

The Plan defines its key management personnel as the Board of Trustees and other members of the senior executives responsible for planning, controlling, and directing the activities of the Plan.

	Chair	Trustee
Remuneration rates effective April 1, 2009		
Up to 4 hours	$ 219	$ 164
4 to 8 hours	383	290
Over 8 hours	601	427

	2022	2021
The following amounts were paid:		
Remuneration		
Chair	$ 2,418	$ 4,835
Trustees (8)	25,000	19,664
Travel expenses		
Chair	236	-
Trustees (8)	4,891	-

Trustees are paid for attending and preparing for Board of Trustees and Committee meetings and for time spent on specified Plan business upon the approval of the Board of Trustees. Preparation time for a meeting is remunerated at no more than 4 hours.

NOTE 15 CAPITAL

The Plan defines its capital as the funded position. The actuarial surplus or deficit is determined by an actuarial funding valuation performed, at a minimum, every three years. The objective is to ensure that the Plan is fully funded over the long term.

The Plan's surplus or deficit is determined on the fair value basis for accounting purposes. However, for funding valuation purposes, asset values are adjusted for fluctuations in fair values to moderate the effect of market volatility on the Plan's funded status. Under this method, asset values are calculated based on what the asset value would be at the valuation date had the assets earned precisely the rate of return assumed in the actuarial valuation. This calculation is carried out independently at each of two starting points, namely the market value as at each of the two-calendar year ends preceding the valuation date. These two calculated values, together with the market value as at the valuation date, are averaged to determine the actuarial value of assets with a constraint limiting the actuarial value not to exceed 110% or fall below 90% of net assets available for benefits.

Note 15 (continued)

Actuarial asset values for funding valuation purposes amounted to $6,412,613 at December 31, 2022 (2021: $6,233,799), comprising of $493,100 (2021: $554,400) pre-1992 and $5,919,513 (2021: $5,679,399) post-1991.

The following table summarizes on the funding basis, the accrued pension liability, net assets available for benefits, and the resulting deficit as at December 31, 2022 allocated between the pre-1992 and post-1991 periods:

($ thousands)

	2022			2021		
	Pre-1992	**Post-1991**	**Total**	**Pre-1992**	**Post-1991**	**Total**
Net assets available for benefits	$ 464,300	$ 5,549,813	$ 6,014,113	$ 597,600	$ 6,057,499	$ 6,655,099
Actuarial adjustment for fluctuation in fair value of net assets	28,800	369,700	398,500	(43,200)	(378,100)	(421,300)
Actuarial value of net assets available for benefits	493,100	5,919,513	6,412,613	554,400	5,679,399	6,233,799
Pension obligation	1,359,200	5,697,500	7,056,700	1,389,100	5,344,700	6,733,800
Actuarial deficit (surplus)	$ 866,100	$ (222,013)	$ 644,087	$ 834,700	$ (334,699)	$ 500,001

The Plan's unfunded liability for service prior to January 1, 1992 is being financed by additional contributions of 1.25% of salaries by the Province of Alberta with employers and employees equally sharing the balance of the contributions of 3.57% (3.04% prior to July 1, 2022) of salaries as required to eliminate the unfunded liability on or before December 31, 2043. The actuarial valuation shows the present value of the Province of Alberta's obligation for future additional contributions was $227,400 at December 31, 2020.

The Plan's unfunded liability for service after December 31, 1991 was being financed by special payments of 3.24% of salaries shared equally between employers and employees to eliminate the unfunded liability by June 30, 2022. Special payments to finance this unfunded liability are not required from July 1, 2022. The additional contributions and special payments have been included in the rates shown in Note 1(b).

NOTE 16 COMPARATIVE FIGURES

Comparative figures have been reclassified to be consistent with 2022 presentation.

NOTE 17 APPROVAL OF FINANCIAL STATEMENTS

These financial statements were approved by the Board of Trustees of the Plan on March 30, 2023.

GLOSSARY-TERMS

Active Management
Managing the investments of a portfolio with the objective of outperforming the return of its benchmark. Active management generally takes two forms - security selection and change in asset allocations within the prescribed ranges. Security selection is the buying and selling of particular securities to earn a return above a market index. Asset allocation refers to changing asset class or sector weights to earn a return above what would be available from maintaining the asset class or sector weight in the benchmark.

Alternative Assets
Holdings that are considered non-traditional assets, including real estate, infrastructure, and timberland. These assets act as a hedge against inflation and are known for being less liquid than traditional assets. They are typically held by investors with long-term investment horizons.

Asset Mix/Allocation
The allocation of a pension fund's investments among various asset classes such as bonds, equities, real estate, etc.

Benchmark
A standard against which investment performance is measured.

Bonds
Certificates of indebtedness issued by corporations, municipalities or governments on which the issuer promises to pay a specified amount of interest for a specified length of time and to repay the loan on maturity or the expiration date. A bond purchaser is lending money to the issuer.

Credit Spread
The difference in yield between two bonds due to differences in credit quality.

Duration
The weighted average term to payment of the cash flows of a bond.

Emerging Market
An economy in the earlier stages of development whose markets have sufficient size and liquidity and are receptive to foreign investment (examples include China, Greece, and Brazil).

Equities/Common Stock
Units of ownership of a corporation where owners typically are entitled to vote on the selection of directors and other important matters as well as to receive dividends on their holdings. In the event that a corporation is liquidated, the claims of secured and unsecured creditors and owners of bonds and preferred stock take precedence over the claims of those who own common stock. The liability of owners of equity is limited to the amount paid for the stock.

External Manager
A third-party firm contracted by the Investment Manager to provide investment management services.

Growth Stock
A share in a company whose earnings are expected to grow at an above-average rate relative to the market.

Large Cap
"Large cap" refers to firms with large market capitalization. Market capitalization is simply the market value of a corporation's outstanding shares. In the US market, this refers to companies with market capitalization above $10 billion. These are mega companies of the financial world and include Apple, Alphabet, and Microsoft. Classifications such as "large cap", "mid cap", or "small cap" are only approximations that change over time.

Mid Cap
Similar to the "Large cap" definition but, in the US market, "mid cap" refers to companies with market capitalization between $2 and $10 billion.

GLOSSARY-TERMS

Passive Management
Managing the investments of a portfolio with the objective of matching/replicating the performance of a given market index or benchmark.

Policy Benchmark/Return
The "policy benchmark" is a composite return based on the percentage of a pension plan's fund allocated by policy to each asset class and the market index for that class. It is used to measure the plan's relative performance.

Pooled Fund
A fund in which money from two or more investors is accepted for investment and where units allocated to each investor serve to establish the proportionate interest at any time of each investor in the assets of the fund.

Private Income/Infrastructure
Private income opportunities represent privately-negotiated investments in private and publicly-traded entities. These investments are selected, structured and managed to provide (i) a current income component of total return, (ii) diversification and (iii) an inflation hedge. These investment opportunities are typically capital-intensive and may include infrastructure projects, bridge loans and corporate finance arrangements. Most infrastructure assets are illiquid assets.

Real Return Bond
A fixed-income security (a bond) that generates a specified real rate of return. The real interest rate is the nominal (set) interest rate minus inflation.

Small Cap
Similar to the "Large cap" definition but, in the US market, "small cap" refers to companies with market capitalization less than $2 billion.

Statement of Investment Policies and Goals
A comprehensive statement by the Board outlining, among other things, the asset mix of the Fund, the allowable range for each asset class and the benchmarks for measuring performance.

Swap
A privately-negotiated contract between two parties to exchange a stream of periodic payments on certain dates in the future based on an underlying investment. The size of these payments is normally determined in relation to a nominal, underlying amount, called the notional amount. The underlying security, representing the notional amount, is not exchanged between counterparties.

Timberland
Timberland investments are made primarily in privately-owned areas of woodland; that is, forested areas consisting of both hardwood and softwood species. When responsibly managed, timberland investments are a renewable and sustainable resource. Timberland investments are illiquid assets.

Unfunded Liability
When the actuarial valuation determines that a pension fund's accrued liabilities exceed the assets available for the payment of benefits.

Value Stock
A stock that tends to trade at a lower price relative to its fundamentals (i.e. dividends, earnings, sales, etc.) and thus considered undervalued by an investor.

YMPE (Year's Maximum Pensionable Earnings)
The maximum earnings set each year for the Canada Pension Plan (CPP) up to which employers and employees are required to make base CPP contributions.

GLOSSARY-INDICES

Consumer Price Index (CPI)
An indicator of the change in prices encountered by consumers. It is obtained by calculating, on a monthly basis, the cost of a fixed "basket" of commodities purchased by a typical consumer during a given month. The CPI is published by Statistics Canada and is a widely used indicator of inflation (or deflation) in Canada.

FTSE (Financial Times Stock Exchange) Canada 91-Day T-Bill Index
An index that represents the performance of Government of Canada 91-day Treasury Bills.

FTSE Canada Overall Long-Term Bond Index
An index that tracks the performance of approximately 600 marketable, domestically issued, Canadian bonds with terms to maturity of more than 10 years. This index is comprised of Canada's, provincial, municipal, and AAA- through BBB-rated corporate issuers.

FTSE Canada Real Return Bond Index
An index that tracks the daily performance of real return (inflation-linked) bonds issued in Canada.

FTSE Canada Universe Bond Index
An index that tracks the performance of approximately 1,600 marketable, domestically issued, Canadian bonds with terms to maturity of more than one year. This index is comprised of Canada's, provincial, municipal and AAA- through BBB-rated corporate issuers.

MSCI (Morgan Stanley Capital International) EAFE (Europe, Australasia, and Far East)
An index maintained by the MSCI Index Committee that is designed to measure developed public market equity performance, excluding the US and Canada. The MSCI EAFE Index consists of 21 market country indices capturing large and mid-cap equities across developed markets in Europe, Australasia, and the Far East.

MSCI Emerging Markets Net Index
An index maintained by the MSCI Index Committee that is designed to measure emerging public market equity performance net of withholding taxes. The MSCI Emerging Market Index consists of 25 emerging market country indices.

MSCI/REALpac Canadian All Property Index
An index that measures the total return from a diversified pool of about 2,400 properties, compiling property level information from pension funds, life insurance companies, and real estate managers on a quarterly basis.

MSCI World Total Return Net Index
An index maintained by the MSCI Index Committee designed to measure market equity performance of developed markets. The MSCI World Total Return Net Index is a free float-adjusted market capitalization index that is calculated on a total return basis, which includes reinvestment of net dividends after deduction of withholding taxes. The index consists of securities across large and mid-cap segments and across style and sector segments in 23 developed markets.

S&P/TSX (Standard & Poor's/Toronto Stock Exchange) Capped Composite Index
An index maintained by the S&P Canadian Index Committee that measures the return on the largest companies and trust units listed on the Toronto Stock Exchange. Any stock in the S&P/TSX Capped Composite Index whose float capitalization exceeds 10% of the Index is capped at 10% during the quarterly rebalancing process.

S&P 500 Index
An index maintained by the S&P Index Committee that includes a representative sample of 500 leading operating companies in the US economy to create a broad market portfolio representing the market capitalization of US public equities.

UNIVERSITIES ACADEMIC PENSION PLAN

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