

# Universities Academic Pension Plan

2015 Annual Report

# 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 The Banff Centre. The UAPP was set up under the Public Sector Pension Plans Act (Alberta) and the Provincial Treasurer was the trustee until December 31, 2000. The UAPP became an independent pension plan registered under the Employment Pension Plans Act (Alberta) 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 academic staff associations and the boards of governors of four Alberta universities and The Banff Centre as Sponsors.

- ❖ The Board of Trustees, 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 Alberta Government also contributes towards eliminating the unfunded liability for service before 1992.
- ❖ The UAPP has approximately 7,790 active members, 1,850 deferred members and 4,960 pensioners.
- ❖ The UAPP Fund's market value at the end of 2015 was \$4,044 million.

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# GOVERNANCE OF THE PLAN

## 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 EPPA,
- 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
- learn, adapt and change to conduct the UAPP business better.

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## Board Composition

The Board of Trustees (Board) of the UAPP oversees the Plan. The Board is composed of five employer trustees and four employee trustees. However, 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.

## 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.

# GOVERNANCE OF THE PLAN

## Investment Committee

Phyllis Clark (Chair)  
Aditya Kaul (Vice-Chair)  
Linda Dalgetty  
Geoffrey Hale  
Bob Normand  
Andrew Tambone  
Damon Williams

## Employee Appointees

Geoffrey Hale

Aditya Kaul

## Employer Appointees

Bruce Byford

Paul Rogers (Vice-Chair)

Phyllis Clark

Eric Wang

Linda Dalgetty

Estelle Lo

Nancy Walker (Chair)

## Audit Committee

Nancy Walker (Chair)  
Bruce Byford  
Paul Rogers

## Actuarial Committee

Phyllis Clark (Chair)  
Estelle Lo  
Paul Rogers  
Eric Wang

# GOVERNANCE OF THE PLAN

## Administration Service Provider

### Buck Consultants

Member Pension inquiries:  
201 City Centre Drive  
Suite 1000  
Mississauga, ON L5B 4E4  
Attn: UAPP Administrator  
Phone: 1.866.709.2092  
Email: [uappadmin@acs-hro.com](mailto:uappadmin@acs-hro.com)

## Pensioner Payroll Provider

### CIBC Mellon Global Securities Services

Pensioner Payroll inquiries:  
CIBC Mellon Pension Benefits Dept.  
PO Box 5858, Station B  
London, ON N6A 6H2  
Phone: 1.800.565.0479  
Email: [www.CIBCMellon.com](http://www.CIBCMellon.com)

## Management Team

### Executive Director

Dave Schnore  
Phone: 780.415.8869  
E-mail: [dave.schnore@uapp.ca](mailto:dave.schnore@uapp.ca)

### Director, Finance & Administration

Chris Schafer, ASA, ACIA  
Phone: 780.415.8870  
E-mail: [chris.schafer@uapp.ca](mailto:chris.schafer@uapp.ca)

## Investment Management

Alberta Investment Management Corp.

Beutel Goodman & Company Ltd.

Fiera Capital Corporation

## Asset Consultants & Actuary

Aon Hewitt

## Auditor

KPMG LLP

## Contact the Board

### UAPP Office

#1002, Park Plaza  
10611 98 Avenue  
Edmonton, AB T5K 2P7  
Fax: 780.415.8871  
Website: [www.uapp.ca](http://www.uapp.ca)

### Pension Officer

Vinko Majkovic, BSc, RPA  
Phone: 780.415.8868  
E-mail: [vinko.majkovic@uapp.ca](mailto:vinko.majkovic@uapp.ca)

### Administrative Officer

Anna Pinkowicz  
Phone: 780.415.8866  
E-mail: [anna.pinkowicz@uapp.ca](mailto:anna.pinkowicz@uapp.ca)



**Nancy Walker (Chair)**  
University of Lethbridge



**Paul Rogers (Vice-Chair)**  
University of Calgary



**Phyllis Clark**  
University of Alberta



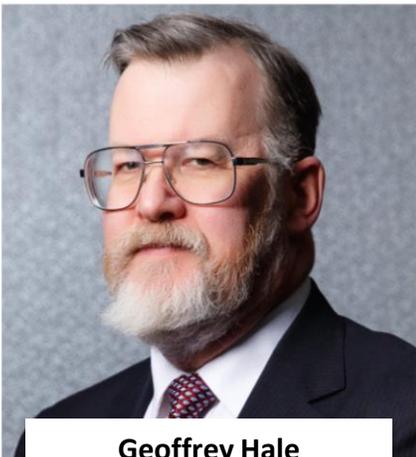
**Bruce Byford**  
Banff Centre



**Linda Dalgetty**  
University of Calgary



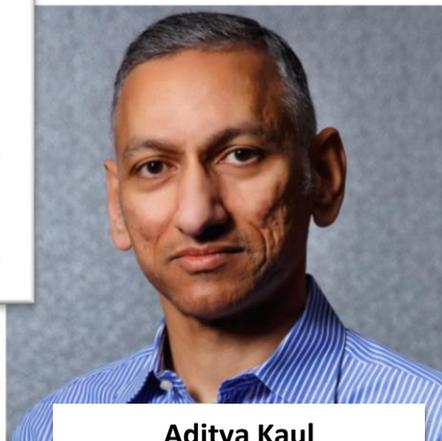
**Eric Wang**  
Athabasca University



**Geoffrey Hale**  
University of Lethbridge

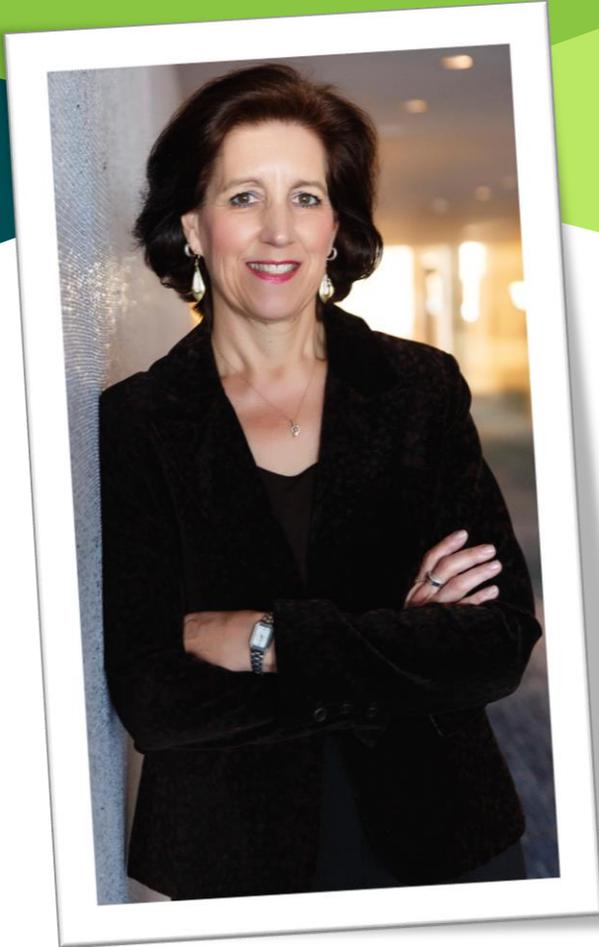


**Estelle Lo**  
Athabasca University



**Aditya Kaul**  
University of Alberta

# CHAIR'S MESSAGE



On behalf of the Board, I am pleased to present the annual report of the Universities Academic Pension Plan for the year ended December 31, 2015. This report provides you with the financial statements and details on the financial health of the Plan and discusses the challenges that the UAPP and all defined benefit pension plans continue to face. I am pleased to report that the Board continues to focus on keeping the UAPP on a sound financial footing and securing your benefits.

Despite continued economic uncertainty during 2015, the UAPP Fund returned 7.6%, outperforming the benchmark by 1.1% and ranking the UAPP return in the first quartile of balanced fund returns. This is the fourth straight year that we have achieved solid returns which have exceeded our

benchmark and the investment return assumed for actuarial valuation purposes. This investment performance resulted from strong returns mainly from our foreign equity and infrastructure investments. The UAPP Fund grew by \$276.1 million during 2015 to end the year with \$4.04 billion in assets.

Based on the actuarial extrapolation, the actuarial liabilities are \$4.96 billion at December 31, 2015, an increase of \$253 million from 2014. The resulting actuarial deficiency has decreased by \$119.6 million to end the year at \$1.02 billion. The funding position of the Plan then has increased from 75.7% to 79.4%. The legacy issues associated with the pre-1992 service continue to provide challenges to the funding position of the Plan. The Board endeavors to focus on Plan funding and investment performance to ensure sufficient assets are available to meet the future obligations and secure Plan benefits.

The Board approved an actuarial valuation of the Plan as at December 31, 2014 that strengthened the Plan's actuarial assumptions which should reduce the volatility of future funding requirements.

Due to the low inflation and interest rate environment, the long-term expected return on the investments was lowered from 7.01% to 6.37%. Based on this lower long-term return expectation, the Board lowered the discount rate or rate used to calculate the present value of the liabilities from 6.25% to 5.95%. Also, the Board fully adopted new mortality tables which reflect significant improvements in mortality.

The adoption of the new mortality tables and lower discount rate along with other minor adjustments to assumptions caused an increase in the actuarial value of the Plan's liabilities. Based on the results of this strengthened valuation, the combined employee and employer contributions shall increase by a total of 1.44% of salary effective July 1, 2016. This increase will be shared equally between employees and employers and the new contribution rates will pay for the current service costs and the unfunded liabilities. A copy of the actuarial valuation is available on the UAPP's website at [www.uapp.ca](http://www.uapp.ca) under the "Publications" tab. As mentioned previously, the Board is committed to maintaining the Plan on a sound financial footing.

During 2015, the Board adopted a Funding Policy for the Plan which provides a framework for funding the Plan based on factors that are relevant to the UAPP. The recent actuarial valuation was performed in accordance with the Funding Policy and a copy of the Policy is also available on the UAPP's website under the "Publications" tab.

The Investment Committee and the Board continue to monitor the performance of the Fund and developments in the capital markets on an

ongoing basis. The Investment Committee and the Board also regularly review the UAPP's investment policies and asset mix. The Board, on the recommendation of the Investment Committee, commenced an asset liability modelling study during 2015, in order to review the Fund's risk/return profile and asset mix. This project will be completed in 2016 with possible revisions to the Fund's asset mix policy.

The Board places a high priority on quality services to members and is pleased to note members continue to be provided with excellent service, as shown by the performance against the standards set in ten key areas of service vital to our members. The details of the standards and related performance are included in the section dealing with Plan Administration in this Report.

We regularly update UAPP members and other stakeholders through publications such as the quarterly Communiqué and the website. A call centre is also available to members seeking information about the UAPP. The Retirement Planning tool that is available through the website is heavily used by the members. The Trustees' Office also provides pension information sessions when requested by employers.

It is my pleasure, on behalf of the Board, to thank Bob Normand, Andrew Tambone and Damon Williams who, as external members of the Investment Committee, give generously of their time to the work of our Investment Committee.

Our relationship with our investment managers is vital to the successful execution of the Board's investment policies. In this regard, we thank the staff at Alberta Investment Management Corporation, Beutel Goodman & Company Ltd., and Fiera Capital Corporation for their service to the UAPP during the year and look forward to our on-going cooperative and mutually beneficial relationship.

On behalf of the Board, I extend my thanks to Gillian Danby who left the Board during the year. To replace Gillian as the Board's employer representative from the Banff Centre, we welcome Bruce Byford and look forward to working with him.

As outgoing Chair, thank you to my colleagues on the Board with whom I have worked closely over the past two years and who have helped make the experience both a positive and productive one. The Board welcomes Paul Rogers as the new Chair of the Board and wishes him well in his new responsibilities.

The Board relies on a small team to carry out its mandate. On behalf of the Board, it is my great pleasure to acknowledge and thank our strong team at the Trustees' Office for their dedication and service to the UAPP.



Nancy Walker  
Chair, Board of Trustees

# MANAGEMENT DISCUSSION & ANALYSIS

## FINANCIAL POSITION OF THE PLAN

### THE PLAN'S ASSETS

The market value of the Plan's assets grew to \$4,043.7 million at December 31, 2015 from \$3,767.6 million at the end of 2014, reflecting an increase of \$276.1 million. The Fund achieved an investment return of 7.6% for 2015. The discount rate used in the most recent actuarial valuation is 5.95% per year starting in 2015. Despite exceeding the expected return for 2015, actual returns were lower than in prior years when the fund earned 12.2% in 2014 and 13.1% in 2013. The year 2015 marked the first time since 2008 that benefit payments (\$243.6 million) exceeded contributions (\$240.9 million).

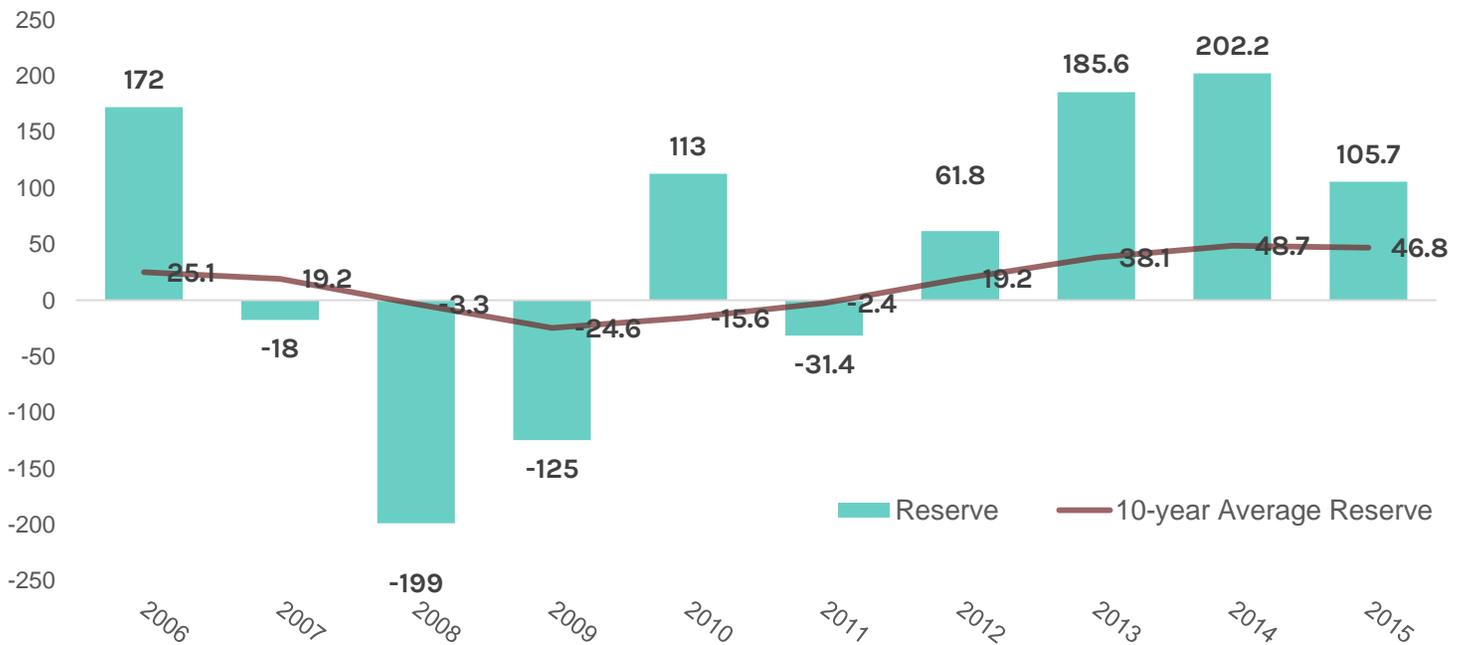
\$ Millions	December 31, 2015			December 31, 2014		
	Pre-92	Post-91	Total	Pre-92	Post-91	Total
Service Period						
Fair Value of Net Assets	787.6	3,256.1	4,043.7	824.9	2,942.7	3,767.6
Actuarial Adjustment	(25.5)	(80.2)	(105.7)	(51.0)	(151.2)	(202.2)
Actuarial Value of Net Assets	762.1	3,175.9	3,938.0	773.9	2,791.5	3,565.4
Accrued Pension Liability	1,627.0	3,334.0	4,961.0	1,677.6	3,030.4	4,708.0
Actuarial Deficiency	(864.9)	(158.1)	(1,023.0)	(903.7)	(238.9)	(1,142.6)
Funded Ratio	46.8%	95.3%	79.4%	46.1%	92.1%	75.7%

When calculating the funding requirements for the Plan under the Employment Pension Plans Act, the market value of the assets are smoothed to soften the impact of market volatility, producing the actuarial value of the assets. UAPP uses 3-year averaging of the differences between the assumed rates of return and the actual market rates of return, as described in Note 14 of the Financial Statements. For 2015, the actuarial value of the Fund grew to \$3,938.0 million at the end of the year from \$3,565.4 million at the end of 2014. The December 31, 2015 actuarial value of the Fund is \$105.7 million lower than the market value.

# MANAGEMENT DISCUSSION & ANALYSIS

In years when actual returns exceed the assumed rates of return, the Fund builds up a reserve that can be used when the markets perform below the assumed rate. In 2015, the investment return was higher than the assumed discount rate of 5.95%. As such, the Plan had a smoothing reserve of \$105.7 million at December 31, 2015 to offset future lower-than-expected returns. Since the investment return in 2014 was higher than the assumed discount rate of 6.25%, the smoothing reserve was \$202.2 million. For the fourth consecutive year, the actual return on plan assets exceeded the assumed return, resulting in continued positive reserves. The smoothing reserve has fluctuated from a high of \$202.2 million (2014) to a low of -\$199 million (2008), averaging \$46.8 million over the last 10 years.

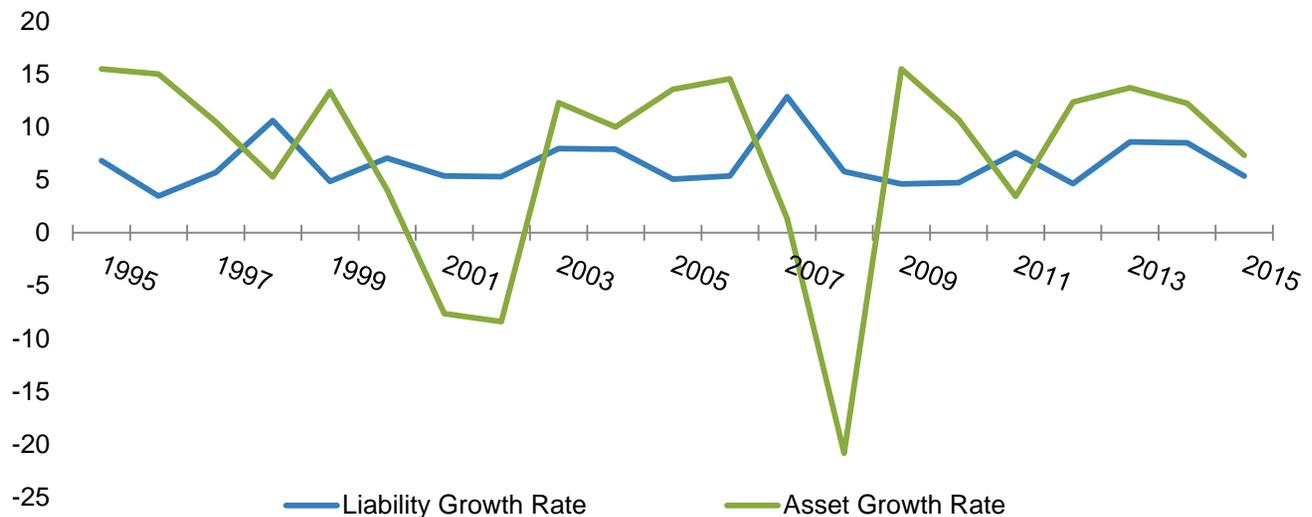
## Smoothing Reserve over 10 Years (Actuarial Adjustment) (\$ millions)



## THE PLAN'S LIABILITIES

The Plan's total pension obligation, as at December 31, 2015, is calculated to be \$4,961.0 million, as compared to \$4,708.0 million at the end of 2014, thus growing by 5.4% over the year. The December 31, 2015 liability is based on an extrapolation of the liability determined in the December 31, 2014 actuarial valuation while the liability from last year's financial statements is based on an extrapolation of the liability determined in the December 31, 2012 actuarial valuation. The Plan has historically undertaken an actuarial valuation every two years with the next scheduled for December 31, 2016.

**Comparison of Asset and Liability Annual Growth Rates (%)**



Because of the long-term nature of pension plans like UAPP, several economic and demographic assumptions are included in actuarial valuations and extrapolations. A number of assumptions have been changed from the 2014 financial statement extrapolation to the 2015 financial statement extrapolation.

As a result of an experience study conducted in 2015, rates of termination, retirement, and merit increases on earnings have been revised to better reflect more recent experience. The other significant change is a reduction in the discount rate from 6.25% per annum to 5.95% per annum. As a result of this change, the asset real rate of return decreased by 30 basis points, from 4.0% per annum to 3.7% per annum.

Other, less impactful changes in assumptions include a decrease in the salary escalation rate from 1.5% for the first two years after valuation to 1.0%, an increase in the adjustment factor for female mortality rates from 95% to 100%, and a decrease in the percent of terminating members electing a deferred pension from 70% to 60%.

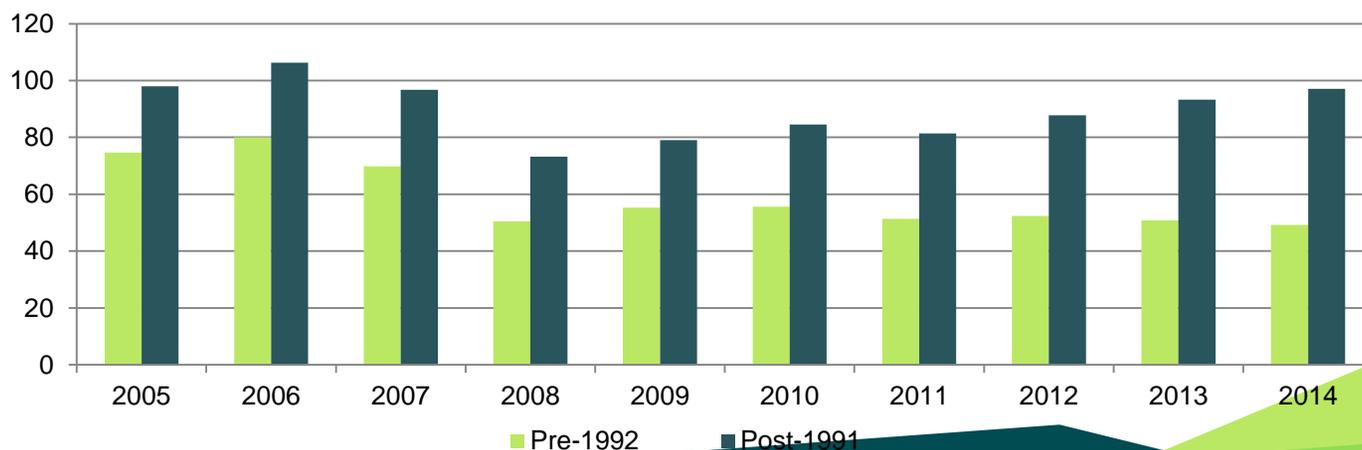
The Board has historically undertaken an actuarial valuation every two years with adjustments to contribution rates as necessary to ensure the Plan continues to move towards paying off all deficits. As such, the Board will consider completing an actuarial valuation as at December 31, 2016.

## THE PLAN'S FUNDED RATIO

The actual return on plan assets exceeded the extrapolated increase in the liability during 2015. As a result, the Plan's funded ratio on a market-value basis increased to 81.5% in 2015 from 80.0% in 2014. The funded ratio on an actuarial value basis was 79.4% since the actuarial value of assets was \$105.7 million lower than the market value at December 31, 2015. The funded ratio on an actuarial value basis was 75.7% in 2014.

Since the Government of Alberta contributes towards a portion of the pre-1992 unfunded liability and does not contribute towards any of the post-1991 unfunded liability, the Plan must account for deficits in these periods separately. The funded ratio for pre-1992 service is 46.8% (2014: 46.1%) on the actuarial value basis while the funded ratio for post-1991 service is 95.3% (2014: 92.1%) on the same basis.

### Funded Status on the Pre-1992 and Post-1991 Service based on Market Value of Assets (percentage funded)



The unfunded liability for pre-1992 service is amortized such that it will be eliminated by December 31, 2043. The Government of Alberta makes contributions fixed at 1.25% of total salary towards this unfunded liability with the remainder of the deficit funding shared between the employers and employees. The required contribution rates from employers and employees are determined at each actuarial valuation. The funded ratio for pre-1992 service continues to be significantly less than the funded ratio for post-1991 service due mainly to the long amortization period for the elimination of the pre-1992 unfunded liability. The Government of Alberta's share of the contributions was approximately 50% when the cost-sharing was first established in the early 1990's. It now stands at 30% of the total pre-1992 unfunded liability contribution.

For post-1991 service, the Plan has been fully funded in the past and is expected to be fully funded in the future. The funded ratio for this service is significantly impacted by investment returns. Unfunded liabilities related to this service are amortized over 15 years in accordance with pension legislation and contributions are shared between employers and employees.

## LOOKING TO THE FUTURE

Pension benefits earned in the UAPP are based on a member's highest average salary and include an annual cost-of-living adjustment of 60% of the increase in the Alberta Consumer Price Index. This adjustment is guaranteed and applies to both deferred pensions and pensions-in-pay.

Given the long-term nature of the Plan, assumptions are required in the actuarial valuations when calculating the liability, representing the value of benefits already earned by members, and the current service cost, representing the value of benefits to be earned in the future. Economic assumptions used include rates of inflation, salary increases, and return on Plan assets, among others. Demographic assumptions used include rates of retirement, termination and mortality; spousal profile, etc.

# MANAGEMENT DISCUSSION & ANALYSIS

Like most defined benefit pension plans, the UAPP has “aged” from a young plan, with a majority of members actively accruing benefits and making contributions to the plan, to a more mature plan, with a growing group of members retired and in receipt of monthly pensions. An interesting metric showing the maturing of a pension plan is the ratio of liabilities for retired members against the liabilities for active members. The UAPP has seen a noticeable increase in the number of retirements, particularly over the past three years. As a result, this ratio has recently increased dramatically.

Despite poor investment returns during the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2015, the full year yielded a return greater than assumed. Combined with strong asset returns in 2012 through 2014, the Plan’s financial position has improved on the asset side of the ledger over the past four years. However, the Plan continues to struggle with other factors that have prolonged the unfunded liabilities.

**Ratio of Retired Liability To Active Liability in Funding Valuations**



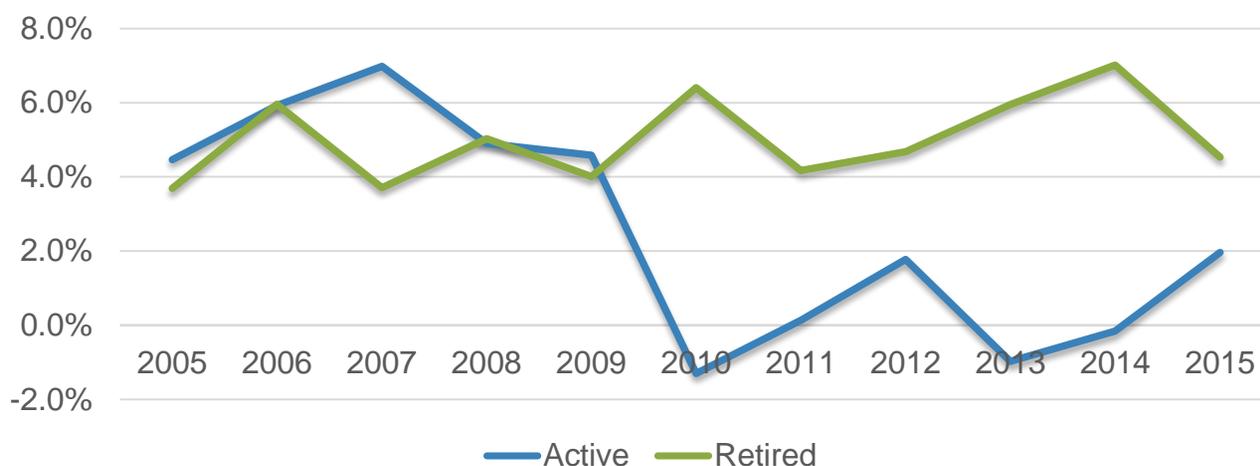
First among these factors is the decreasing discount rate which is used to value Plan liabilities. The discount rate has been reduced as a result of an extended period of low Government of Canada long bond rates. Interest rates used to calculate lump sum values of pension benefits are derived from these low bond rates. When these rates are low, the lump sums, or commuted values, are high. In the mid-1990’s, Government of Canada long bonds yielded over 8%. At the end of 2014, the same bond yielded only 2.3%. A year later, the yield is down to 2.2%.

# MANAGEMENT DISCUSSION & ANALYSIS

In 2014, the Canadian Institute of Actuaries released the results of a nation-wide mortality study which indicated that Canadians are living longer than expected. The study further noted that improvements to mortality have been happening faster than had been previously projected. As a result, new mortality tables were produced which reflect greater longevity. The Plan adopted the most recent mortality tables for the actuarial valuation, recognizing that stronger tables result in higher liabilities.

It is also worth noting that contributions to fund deficits are dependent upon the active members of the pension plan. All contributions, whether from employees, employers, or the Government of Alberta, are calculated based on earnings of the active membership. Despite a 2.0% year-over-year increase in the size of this group during 2015, growth in active membership has recently lagged behind growth in the retired membership.

### Annual Growth in Membership



The Board begins 2016 in the final stages of an asset/liability study to review the Plan's target asset mix in the context of the liabilities. The end result should better enable the Plan to attain its investment objectives over the long-term. The Board is also working with the pension administrator, Buck Consultants, on upgrades to the Retirement Planner and its platform which is used for member calculations. Employees and employers should see improvements in the user experience once the upgrades are in place.

## INVESTMENT REPORT

### INVESTMENT BELIEFS AND APPROACH

As discussed in previous Annual Reports, the development of the 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. Over the long term, longer term bonds will outperform cash and shorter term bonds. Longer term bonds will outperform during periods of stable and declining interest 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.

# MANAGEMENT DISCUSSION & ANALYSIS

5. 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.
6. 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.
7. 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.
8. 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.
9. 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.

**10.** Investment managers should be monitored regularly for changes in ownership, investment process and philosophy, key investment personnel, 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. 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 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.

# MANAGEMENT DISCUSSION & ANALYSIS

This table compares the Board's current Long-term Policy Asset Mix benchmark and ranges to the actual asset mix of investments for 2015 and 2014. A copy of the full text of the UAPP's SIP&G is available on the UAPP website [www.uapp.ca](http://www.uapp.ca) under Publications.

## Long-term Policy Asset Mix (percentage of Fund)

Asset Class	2015				2014			
	Benchmark	Min	Max	Actual	Benchmark	Min	Max	Actual
	%			%	%			%
<b>Money market and fixed Income</b>								
Cash & short term	0.0	0.0	1.0	0.4	0.0	0.0	1.0	0.3
Universe bonds	10.0	8.0	12.0	8.0	10.0	8.0	12.0	8.7
Private mortgages	5.0	3.0	7.0	4.8	5.0	3.0	7.0	4.9
Long duration bonds	10.0	8.0	12.0	9.7	10.0	8.0	12.0	10.2
Real return bonds	7.0	5.0	9.0	6.9	7.0	5.0	9.0	6.6
	32.0	26.0	38.0	29.8	32.0	26.0	38.0	30.7
<b>Public equities</b>								
Canadian	17.5	15.0	20.0	16.9	17.5	15.0	20.0	17.5
Foreign								
Global	29.5	26.0	31.0	30.4	33.5	30.0	35.0	31.2
Emerging markets	8.0	4.0	9.0	8.2	4.0	0.0	5.0	7.6
	55.0	50.0	60.0	55.5	55.0	50.0	60.0	56.3
<b>Alternative investments</b>								
Real estate	8.0	5.0	11.0	8.4	8.0	5.0	11.0	7.3
Infrastructure and private debt & loan	4.0	1.0	6.0	4.3	4.0	1.0	6.0	3.9
Timberland	1.0	0.0	1.0	0.8	1.0	0.0	1.0	0.8
	13.0	6.5	17.0	13.5	13.0	6.5	17.0	12.0
<b>Strategic opportunities and currency</b>	-	-	-	1.2	-	-	-	1.0
<b>Total</b>	100.0			100.0	100.0			100.0

As can be seen from the table, the Plan holds a highly-diversified portfolio of investments in fixed income securities, Canadian and foreign equities, alternative investments, and strategic opportunities. This includes 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 sale of units.

There are thousands of securities held in various pooled investment funds. These securities may be bought and sold on a daily basis. The Plan has a broad global diversification across publicly traded equities and fixed income which increases opportunities to add value. In addition, the Fund's investments in real estate and infrastructure provide better cash yields that grow with inflation.

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

UAPP engages three investment managers to manage its investment portfolio. Beutel, Goodman & Company Ltd. and Fiera Capital Corporation manage its Canadian long bond and universe bond portfolios totaling 17.8% of total investments. The majority of UAPP's investments totaling 82.2% are managed by AIMCo. AIMCo manages UAPP's public equity investments, alternative investments, private mortgages, and real return bonds.

Beutel, Goodman & Company Ltd. is a privately owned Canadian company founded in 1967, with over \$35 billion in assets under management. Fiera Capital Corporation was established in 2003 and has over \$100 billion in assets under management. AIMCo is a provincial corporation, established on January 1, 2008, reporting to the President Treasury Board and Minister of Finance. In total, AIMCo administers investment portfolios of approximately \$90 billion on behalf of other public sector pension plans and the Government of Alberta. These investment managers invest the UAPP's assets subject to the investment policies set out in the Board's SIP&G. The investment managers manage the majority of the Plan's investments through pooled investment funds.

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 Hewitt, 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 in order to meet the return objectives of the Plan, the UAPP must take on risk inherent in the assets in which the UAPP invests. The UAPP invests in a diverse set of asset types to help improve the likelihood of achieving our desired results for a given level of risk.

Investment risk management is a key focus for the Board and the investment managers. Investment managers 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.

The UAPP monitors the risk of the Plan's liabilities in relation to the investment 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 assumption. According to the audited financial statements, a decrease in the discount rate by 1% increases the pension obligation by approximately \$702 million. The current discount rate of 5.95% includes a long-term real rate of return of 3.7% and an assumed inflation rate of 2.25%. The real rate of return represents the Plan's long-term investment return objective for funding purposes. In the 2014 actuarial valuation, the discount rate decreased to 5.95% from 6.25% used in the 2012 valuation.

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.

## 2015 INVESTMENT

### PERFORMANCE

At December 31, 2015, the fair value of the Plan's investments totaled \$4.025 billion, up from \$3.749 billion at the end of the previous year.

Overall, UAPP finished the 2015 year earning an overall investment return of 7.6%, after expenses, compared to 12.2% in 2014.

**Investments: \$4.025 billion**  
(2014: \$3.749 billion)

**Return on Investments: 7.6%**  
(2014: 12.2%)

**Investment Income: \$294.7 million**  
(2014: \$417.8 million)

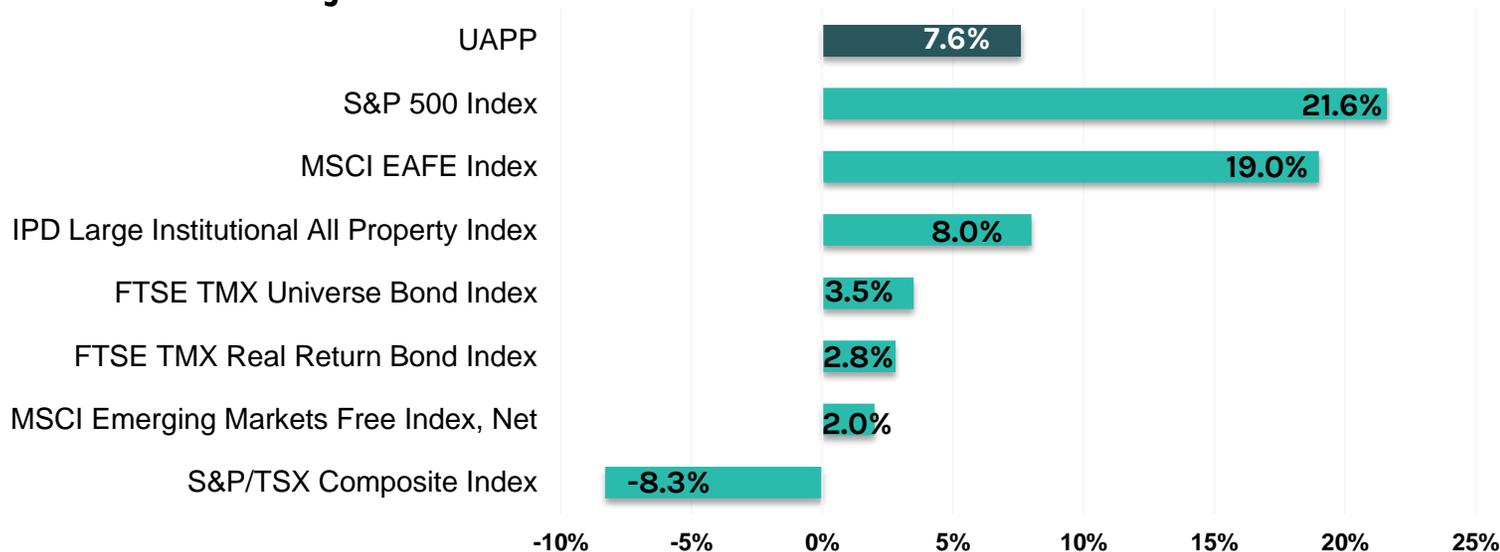
**Investment Expense: \$13.8 million**  
(2014: \$12.8 million)

# MANAGEMENT DISCUSSION & ANALYSIS

The year started out strong with UAPP earning 6.8% on its investments in the 1st quarter. The market declined in the 2nd and 3rd quarters with UAPP's investments losing 0.9% and 2.4% respectively. Investment markets reacted negatively to declining oil and commodity prices, concerns over growth in China and the global economy, uncertain U.S. Federal Reserve interest rate policy, and the ongoing debt crisis in Greece. In the 4th quarter, investments earned 4.2% for a final year end return of 7.6%. The Plan recognized significant foreign exchange gains when translating foreign investments into Canadian dollars.

The following chart summarizes the market returns in Canadian dollars from various indices around the world and the overall return of UAPP for 2015.

## Returns for Major Markets and the UAPP



The Standard & Poor's (S&P) 500 Index, which tracks the performance of the top 500 American companies, gained 21.6% in Canadian dollars (1.4% in U.S. dollars) compared to 23.9% in Canadian dollars (13.7% in U.S. dollars) in 2014.

Approximately 18% of the Plan's investments (2014: 19%) are denominated in U.S. dollars. The weaker Canadian dollar in relation to U.S. dollar had a positive impact on the value of U.S. dollar investments held by the Plan. At December 31, 2015, one U.S. dollar was worth \$1.38 Canadian compared to \$1.16 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, 2015 resulting in higher returns in Canadian dollars.

# MANAGEMENT DISCUSSION & ANALYSIS

The MSCI EAFE Index covering Europe, Australasia and the Far East, gained 19.0% in Canadian dollars compared to a gain of 3.7% in 2014.

Approximately 22% (2014: 20%) of the Plan's investments is denominated in currencies other than the Canadian and U.S. dollar including the Euro which comprises 4% (2014: 4%) of the Plan's investments. At December 31, 2015, one Euro was worth \$1.50 Canadian compared to \$1.40 Canadian at the beginning of the year.

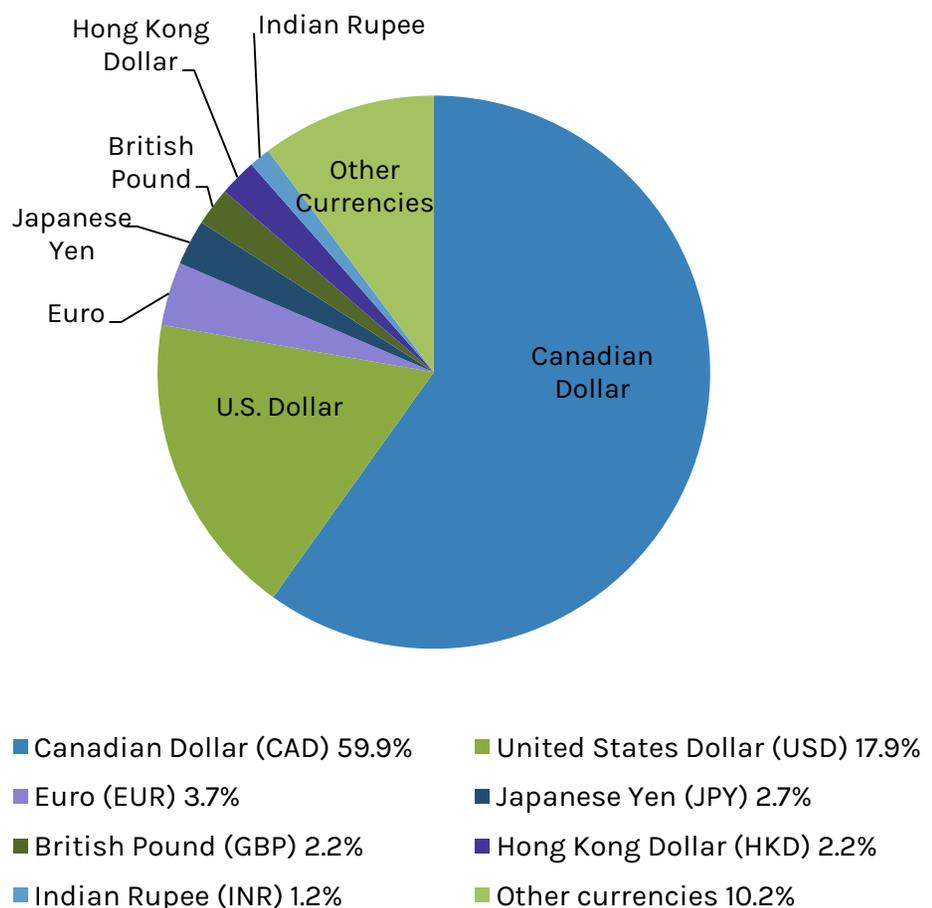
The Canadian real estate market represented by the IPD Large Institutional All Property Index increased by 8.0% in 2015 compared to an increase of 7.1% in 2014.

The FTSE TMX Universe Bond Index and the FTSE TMX Real Return Bond Index posted gains of 3.5% and 2.8% respectively compared to gains of 8.8% and 13.2% in 2014.

Outside of Canada, the Morgan Stanley Capital International (MSCI) Emerging Markets Free Index gained 2.0% in 2015 in Canadian dollars compared to a gain of 6.6% in 2014.

The Canadian stock market represented by the S&P Toronto Stock Exchange (TSX) Composite Index lost 8.3% in 2015 compared to a gain of 10.6% in 2014.

**UAPP Investments by Currency**

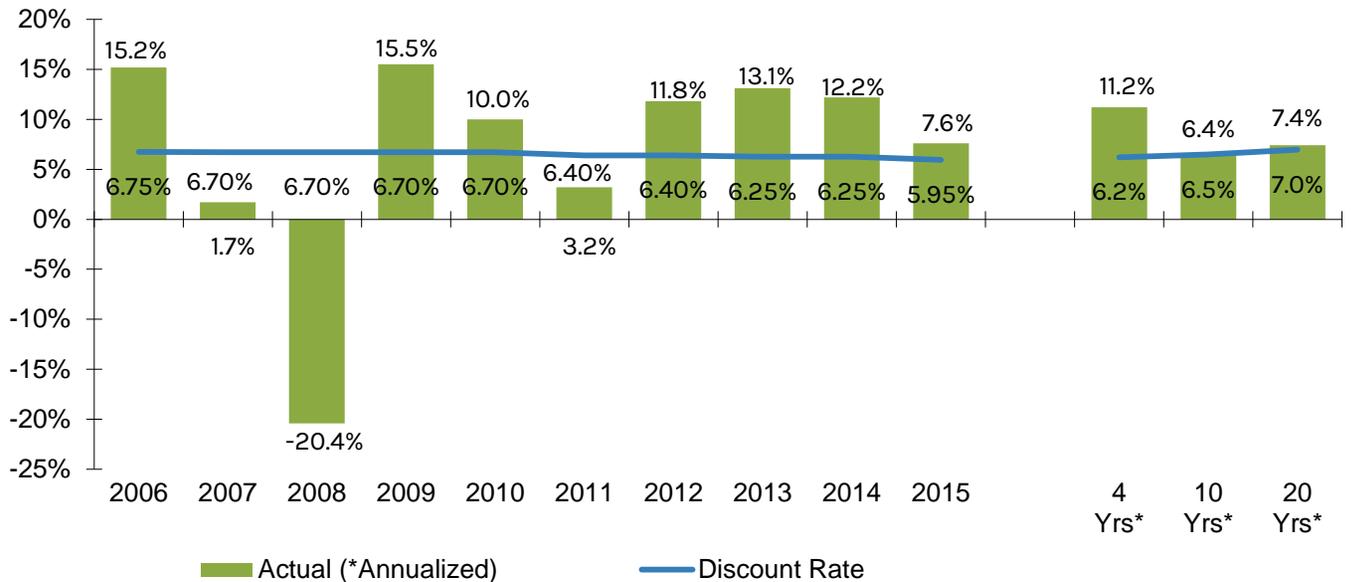


The chart to the above right shows UAPP's exposure to foreign currencies and its investments in Canadian dollars.

# MANAGEMENT DISCUSSION & ANALYSIS

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 discount rate for funding purposes.

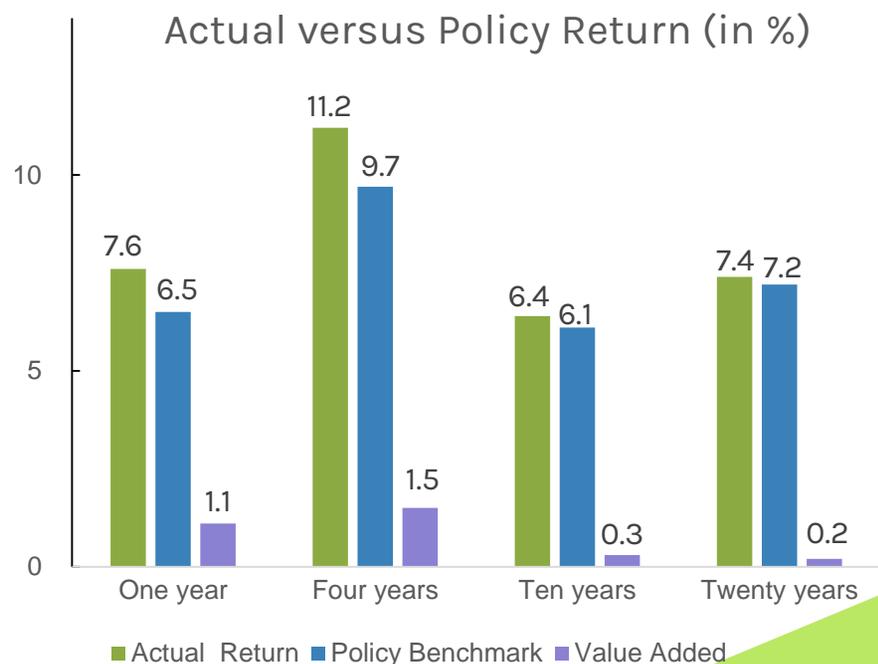
## Actual Return vs. Discount Rate



The Plan’s annualized returns over four, ten, and twenty years are 11.2%, 6.4%, and 7.4% respectively. Over four, ten, and twenty years the Plan’s cumulative discount rates are 6.2%, 6.5%, and 7.0% respectively.

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.

Over the past four years, the value added by investment management decisions was 1.5% per annum.



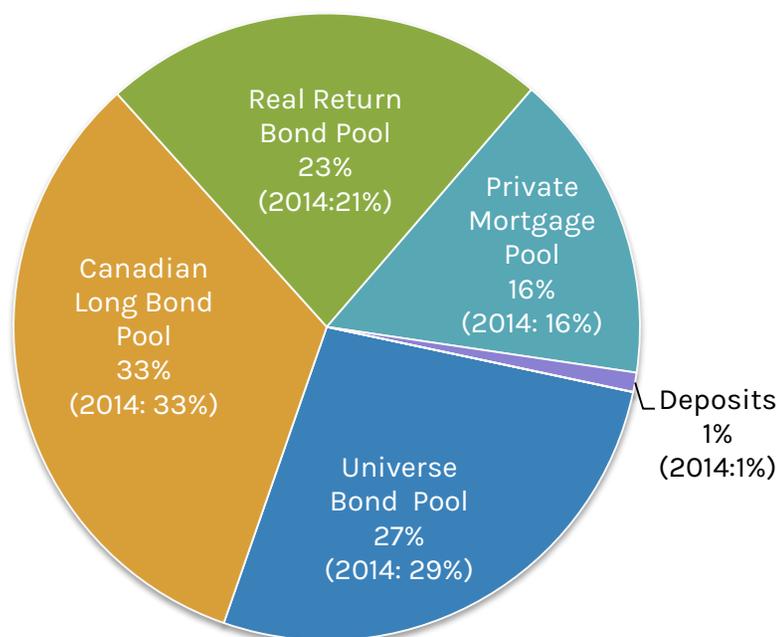
# MANAGEMENT DISCUSSION & ANALYSIS

## PERFORMANCE BY ASSET CLASS

### FIXED INCOME

At December 31, 2015, fixed income holdings comprise 29.8% of the Plan's total investments or \$1,201 million compared to 30.7% or \$1,149 million at December 31, 2014. The Canadian long bond portfolio and the universe bond portfolio is primarily managed by Beutel, Goodman & Company Ltd. and Fiera Capital Corporation. AIMCo manages private mortgages, real return bonds, and deposits in the Consolidated Cash Investment Trust Fund.

**Summary of Fixed Income Holdings  
(by pooled investment fund)**



In 2015, the Plan's total fixed income securities gained 3.0%, 0.4% less than the combined benchmark gain of 3.4%.

	Benchmark Index		Net Value Added (lost)
	Actual Return	Combined Benchmark*	
Total Fixed Income	%	%	%
One year	3.0	3.4	(0.4)
Four year	3.8	3.6	0.2

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

# MANAGEMENT DISCUSSION & ANALYSIS

## CANADIAN EQUITIES

At December 31, 2015, Canadian public equities represented 16.9% of the Plan's total investments or \$678 million, up from \$656 million (or 17.5% of the Plan's total investments) at the end of the previous year. The Plan's Canadian equity portfolio is invested in AIMCo's Canadian Equities Master Pool. The Pool includes directly held investments in Canadian public companies and structured equity products which replicate Canadian public equity investments using index swaps and futures contracts linked to the Standard and Poor's Toronto Stock Exchange (S&P/TSX). Interest bearing securities support the notional value of index swaps and futures contracts.

Canadian Equities Master Pool Industry Exposure Relative to Benchmark December 31, 2015	Benchmark	Over (Under)
	TSX Composite Index	Benchmark
Sector	%	%
Consumer discretionary	6.9	1.0
Consumer staples	4.5	1.3
Energy	18.5	0.9
Financials	38.3	(0.8)
Health Care	3.2	(0.5)
Industrials	8.3	0.7
Information technology	3.2	0.6
Materials	9.5	(0.1)
Telecommunications	5.4	0.1
Utilities	2.2	0.8
	100.0	

In 2015, the Canadian equity portfolio lost 7.4%, 0.9% better than the benchmark loss of 8.3%.

	Actual Return	Benchmark Index Combined Benchmark	Net Value Added (lost)
Total Canadian Equities	%	%	%
One year	(7.4)	(8.3)	0.9
Four year	7.7	5.3	2.4

# MANAGEMENT DISCUSSION & ANALYSIS

## FOREIGN PUBLIC EQUITIES

At December 31, 2015, foreign public equities comprised 38.6% of the Plan's total investments or \$1,555 million compared to 38.8% or \$1,455 million the previous year. UAPP's global public equity portfolio consists of units owned in AIMCo's Global Equities Master Pool (79%) and Emerging Markets Equity Pool (21%).

In 2015, the foreign public equity portfolio gained 17.3%, 2.2% better than the benchmark gain of 15.1%.

	Actual Return	Benchmark Index Combined Benchmark*	Net Value Added (lost)
Total Foreign Equities	%	%	%
One year	17.3	15.1	2.2
Four year	19.0	17.3	1.7

\* The combined benchmark includes the MSCI World Index and the MSCI Emerging Markets Index.

## GLOBAL EQUITIES MASTER POOL

The Plan's global equity portfolio is invested in units of AIMCo's Global Equities Master Pool. The Pool's investment in global developed equity markets consists of countries whose economies and capital markets are well established and mature. The Pool's global developed portfolio includes directly held investments in public companies in the U.S., Europe, Australasia, and the Far East (EAFE) with smaller allocations to emerging markets and Canada. The Pool replicates exposure to foreign equity markets by investing in structured equity products using index swaps and futures contracts. Interest bearing securities support the notional value of index swaps and futures contracts.

# MANAGEMENT DISCUSSION & ANALYSIS

In 2015, the Plan's global equity portfolio gained 20.6%, 1.7% greater than the MSCI World Index gain of 18.9%.

Global Equities Master Pool Industry Exposure Relative to Benchmark December 31, 2015	Benchmark	
	MSCI World Total Return Index	Over (Under) Benchmark
Sector	%	%
Consumer discretionary	13.3	0.6
Consumer staples	10.4	(0.9)
Energy	6.1	(0.4)
Financials	20.8	1.9
Health Care	13.5	0.8
Industrials	10.7	0.6
Information technology	14.2	1.6
Materials	4.4	0.2
Telecommunications	3.4	(0.1)
Utilities	3.2	(0.7)
	100.0	

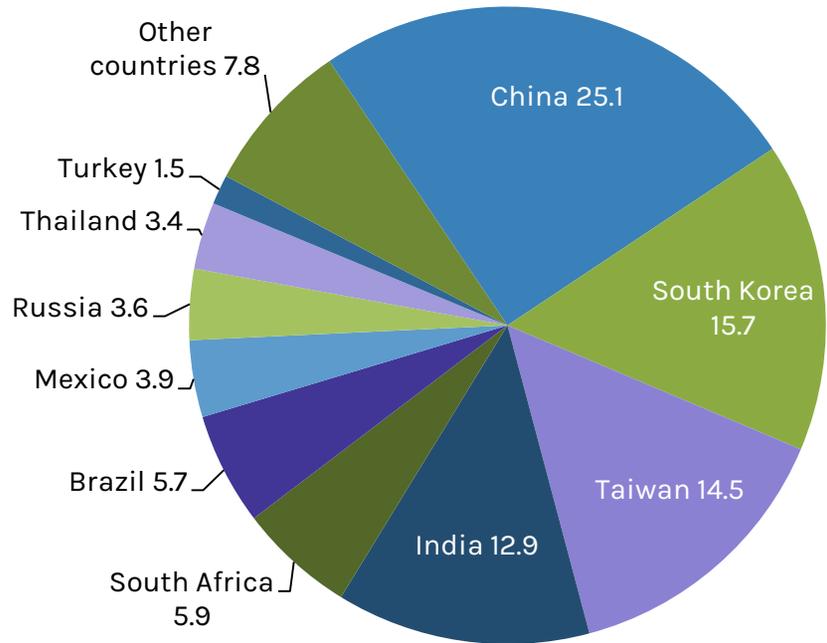
Global Equities Master Pool Relative Regional Exposure to Benchmark December 31, 2015	Benchmark	
	MSCI World Total Return Index	Over (Under) Benchmark
Region	%	%
United States	58.8	0.0
Europe, Australasia & the Far East	38.1	3.0
Emerging markets	0.0	1.1
Canada	3.1	(0.6)
	100.0	

## EMERGING MARKETS POOL

Approximately 21% of UAPP's foreign equity portfolio includes an investment in AIMCo's Emerging Market Pool which holds actively managed investments in economies which are in the early stages of development and whose market has sufficient size and liquidity and is receptive to foreign investment.

In 2015, the Plan's emerging markets portfolio gained 6.2%, 4.2% more than the MSCI Emerging Markets Index gain of 2.0%.

**Top Ten Countries in Emerging Markets Pool  
(in per cent)**



## ALTERNATIVE INVESTMENTS

Alternative investments totaling \$544 million or 13.5% (2014: \$451 million or 12.0%) of the Plan's total portfolio includes real estate, infrastructure, private debt and timberland investments. In 2015, the Plan's actual gain from alternative investments was 9.5%, 1.9% more than the combined benchmark gain of 7.6%. Over four years, the annualized return was 9.8%, 1.0% greater than the combined benchmark gain of 8.8%.

## REAL ESTATE

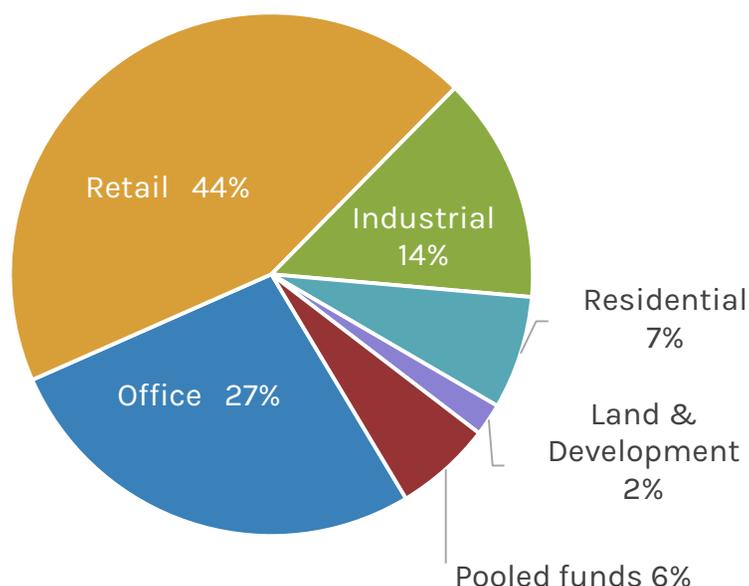
At December 31, 2015, real estate investments comprised 8.4% of the Plan's total investments or \$339 million compared to 7.3% or \$276 million the previous year. Real estate investments provide diversification and high cash flow and are expected to provide protection from inflation. The UAPP invests in AIMCo's Private Real Estate Pool which includes a mix of office, retail, industrial, and residential properties located in Ontario, Alberta, Quebec, and British Columbia.

# MANAGEMENT DISCUSSION & ANALYSIS

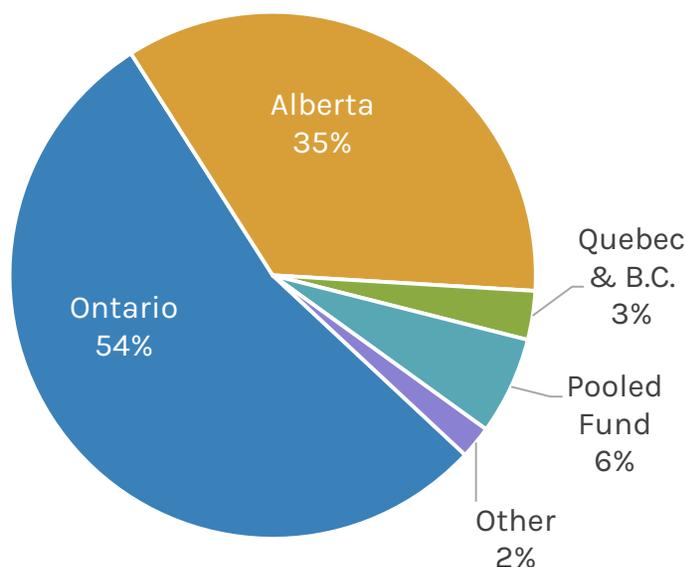
In 2015, the Plan's actual gain from real estate investments was 5.1%, 2.9% less than the benchmark gain of 8.0%.

	Actual Return	Benchmark Index Combined Benchmark	Net Value Added (lost)
Total Real Estate	%	%	%
One year	5.1	8.0	(2.9)
Four year	10.2	9.9	0.3

Private Real Estate Pool  
(By Sector)



Private Real Estate Pool  
(By Province)



## PRIVATE INCOME (INFRASTRUCTURE AND PRIVATE DEBT AND LOAN)

At December 31, 2015, the UAPP's investment in AIMCo's Infrastructure and Private Debt and Loan Pools comprised 4.3% of total Plan investments or \$171 million compared to 3.9% or \$145 million at the end of the previous year. The investment in infrastructure pools, totaling \$122 million (2014: \$99 million), includes projects that provide attractive returns and include projects in transportation (e.g. toll roads, airports, ports, and rails), power (e.g. contracted power generation and power transmission pipelines), and utilities (e.g. water, waste water, and natural gas networks). The investment in the Private Debt and Loan Pool, totaling \$49 million (2014: \$46 million), include investments in debt instruments such as senior secured debt and convertible debt which are generally unrated or non-investment grade.

# MANAGEMENT DISCUSSION & ANALYSIS

In 2015, investments in infrastructure and private debt and loan gained 19.1%, 11.7% more than the benchmark gain of 7.4%. The out-performance was primarily due to a large increase in the value of a toll road in Chile.

Infrastructure, Private Debt & Loan	Actual Return %	Benchmark Index Combined Benchmark %	Net Value Added (lost) %
One year	19.1	7.4	11.7
Four year	9.8	7.3	2.5

## TIMBERLAND

At December 31, 2015, the UAPP's investment in AIMCo's Timberland Pool comprised 0.8% of total Plan investments or \$34 million compared to 0.8% or \$31 million at the end of the previous year. The Timberland investment includes forestry land in Canada and globally. The investment in Canada represents an interest in a limited partnership which holds forestry land and land held for higher and better use in the Province of British Columbia. The foreign investment primarily includes forestry and agricultural land in Australia and New Zealand.

In 2015, the Timberland investment gained 7.6%, 2.2% more than the benchmark gain of 5.4%.

Timberland	Actual Return %	Benchmark Index Consumer Price Index (CPI) Plus 4% %	Net Value Added (lost) %
One year	7.6	5.4	2.2
Four year	7.5	5.3	2.2

## STRATEGIC OPPORTUNITIES POOL AND CURRENCY HEDGES

At December 31, 2015, the UAPP's investment in AIMCo's Strategic Opportunities Pool comprised 1.2% of total Plan investments or \$47.6 million compared to 1.0% or \$37.8 million at the end of the previous year. AIMCo's Strategic Opportunities Pool consists of investments in infrastructure and hydropower in Brazil and Colombia. In 2015, the Strategic Opportunities Pool earned a return of 42.9%, 23.3% more than the benchmark gain of 19.6%.

At December 31, 2015, the fair value of the UAPP's investment in foreign forward exchange contracts totaled a negative \$0.5 million compared to a negative \$0.7 million at the end of the previous year.

# MANAGEMENT DISCUSSION & ANALYSIS

## TABLE OF INVESTMENT RETURNS

	December 31, 2015		Annual Returns				
	Investments (in millions)	Asset Mix (%)	2015 %	2014 %	2013 %	2012 %	Annualized 4 yr %
<b>Total Fund</b>	<b>\$ 4,024.5</b>	<b>100.0%</b>	7.6	<b>12.2</b>	<b>13.1</b>	<b>11.8</b>	11.2
Policy Return			6.5	11.8	11.2	9.4	9.7
Value Added from Active Management			1.1	0.4	1.9	2.4	1.5
Consumer Price Index (1)			1.4	2.0	0.9	0.8	1.3
<b>Total Fixed Income</b>	<b>\$ 1,201.3</b>	<b>29.8%</b>	3.0	<b>11.7</b>	<b>(5.0)</b>	<b>5.3</b>	3.8
Combined Benchmarks			3.4	12.5	(5.6)	4.1	3.6
<b>Short-term fixed income</b>	15.6	0.4%	0.9	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	1.2
FTSE TMX 91-Day T-Bill Index			0.6	0.9	1.0	1.0	0.9
<b>Universe Bonds</b>	323.4	8.0%	2.7	<b>7.4</b>	<b>0.4</b>	<b>7.5</b>	4.5
FTSE TMX Universe Bond Index			3.5	8.8	(1.2)	3.6	3.6
<b>Private Mortgages (2)</b>	194.2	4.8%	5.0	<b>9.7</b>	<b>0.4</b>	<b>4.5</b>	4.9
FTSE TMX Universe Bond Index plus 1%			4.5	9.8	(0.2)	4.6	4.6
<b>Long Duration Bonds</b>	392.2	9.7%	2.4	<b>15.5</b>	<b>(6.3)</b>	<b>5.3</b>	4.1
FTSE TMX Long Bond Index			3.8	17.5	(6.2)	5.2	4.7
<b>Real Return Bonds</b>	275.9	6.9%	3.0	<b>13.5</b>	<b>(12.5)</b>	<b>3.1</b>	1.3
FTSE TMX Real Return Bond Index			2.8	13.2	(13.1)	2.9	1.0
<b>Total Public Equities</b>	<b>\$ 2,232.6</b>	<b>55.5%</b>	9.0	<b>13.8</b>	<b>24.5</b>	<b>15.1</b>	15.4
Combined Benchmark			7.1	12.2	23.2	11.8	13.4
<b>Total Canadian Equities</b>	677.8	16.9%	(7.4)	<b>12.3</b>	<b>15.5</b>	<b>12.2</b>	7.7
S&P/TSX Composite Capped Index			(8.3)	10.6	13.0	7.2	5.3
<b>Total Foreign Equities</b>			17.3	<b>14.4</b>	<b>28.7</b>	<b>16.3</b>	19.0
MSCI World Index and MSCI Emerg'g Mkts Index			15.1	12.8	28.1	13.8	17.3
<b>Global Equities</b>	1,224.6	30.4%	20.6	<b>15.4</b>	<b>35.5</b>	<b>16.1</b>	21.6
MSCI World Index			18.9	13.5	31.1	13.6	19.1
<b>Emerging Markets</b>	330.2	8.2%	6.2	<b>10.4</b>	<b>5.4</b>	<b>17.0</b>	9.6
MSCI Emerging Markets Index			2.0	10.1	17.2	14.6	10.8
<b>Alternative Investments</b>	<b>\$ 543.5</b>	<b>13.5%</b>	9.5	<b>6.2</b>	<b>11.0</b>	<b>12.8</b>	9.8
Combined Benchmark			7.6	7.3	10.4	11.3	8.8
<b>Real Estate</b>	338.7	8.4%	5.1	<b>6.4</b>	<b>12.7</b>	<b>17.3</b>	10.2
IPD Large Institutional All Property Index			8.0	7.1	10.9	13.8	9.9
<b>Infrastructure and Private Debt and Loan</b>	171.1	4.3%	19.1	<b>8.1</b>	<b>4.7</b>	<b>7.9</b>	9.8
CPI plus 6%			7.4	8.0	6.9	6.8	7.3
<b>Timberland</b>	33.7	0.8%	7.6	<b>(2.9)</b>	<b>28.4</b>	<b>(0.4)</b>	7.5
CPI plus 4%			5.4	6.0	4.9	4.8	5.3
<b>Strategic Opportunities Pool</b>	<b>\$ 47.6</b>	<b>1.2%</b>	42.9	<b>16.0</b>	<b>9.0</b>	<b>4.0</b>	20.3
<b>Currency Hedges</b>	<b>(0.5)</b>	<b>-</b>	n/a	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	n/a

(1) The Consumer Price Index (CPI) is reported on a one month lagged basis.

(2) The benchmark for Private Mortgages is the FTSE TMX Universe Bond Index plus 1%.

## ADMINISTRATION REPORT

The Board is responsible for the operation and administration of the UAPP, including the collection of member data and contributions, the calculation and payment of pensions and related benefits, and the communication of pension information to members, pensioners, and employers. The 2015 results in these areas are as follows.

### ACTIVE MEMBERSHIP & CONTRIBUTIONS

Active membership in the UAPP increased 2.0% in 2015 to 7,790 members at December 31, 2015 from 7,640 at the end of 2014. Over the last decade, active membership in the UAPP has grown on average at a rate of 2.6%.

Participation	2015	2014
Active Members	7,790	7,640
Deferred Members*	1,849	1,720
Pensioners	4,960	4,745
<b>TOTAL</b>	<b>14,599</b>	<b>14,105</b>

\*includes non-vested, terminated members

As a result of growth in active membership, higher salaries, and higher contribution rates, total contributions received from employers, employees, and the Province of Alberta grew by 4.2%, to \$240.9 million in 2015 from \$231.1 million in 2014.

New Pensioners	2015	2014
Retirements at Age 65 or Later	100	100
Retirements Before Age 65	154	186
Pensions to Surviving Spouses	9	9
<b>TOTAL</b>	<b>263</b>	<b>295</b>

### PENSIONERS & BENEFIT PAYMENTS

In 2015, the number of retired members and surviving spouses of pensioners receiving a pension from the UAPP increased by 4.5% to 4,960 from 4,745 in 2014. There were 263

new pension recipients in 2015. During the year, retirement benefits paid to pensioners rose by 7.0% (2014: 7.3%), to \$211.4 million from \$197.6 million in 2014.

# MANAGEMENT DISCUSSION & ANALYSIS

Pensioners were granted a cost-of-living increase of 1.56% effective January 1, 2015. The most popular pension choice among the new retirees with a spouse is a Joint Life pension.

New Pensioners Percentage Electing Option	2015	2014
Single life – with or without guarantee	28%	30%
Joint life – 2/3 spouse, no guarantee	15%	7%
Joint life – 2/3 spouse, 10-year guarantee	15%	11%
Joint life – 100% spouse, no guarantee	18%	15%
Joint life – 100% spouse, 10-year guarantee	24%	37%
TOTAL	100%	100%

## MONTHLY PAYMENT DISTRIBUTION

Dollar Value (\$) Per Month	Member Pensions	Spouse Pensions	Total
1 to 999	746	24	770
1,000 to 1,999	638	37	675
2,000 to 2,999	627	33	660
3,000 to 3,999	691	22	713
4,000 to 4,999	746	11	757
5,000 to 5,999	595	7	602
6,000 to 6,999	394	7	401
7,000 and over	379	3	382
TOTAL	4,816	144	4,960

## TERMINATED, DEFERRED, AND DECEASED MEMBERS

Termination and pre-retirement death benefits amounting to \$32.2 million (2014: \$26.0 million) were paid during the year to or on behalf of former members of the UAPP. The number of terminated members who continue to have funds in the Plan increased to 1,849 at the end of 2015 from 1,720 in 2014.

## PLAN EXPENSES

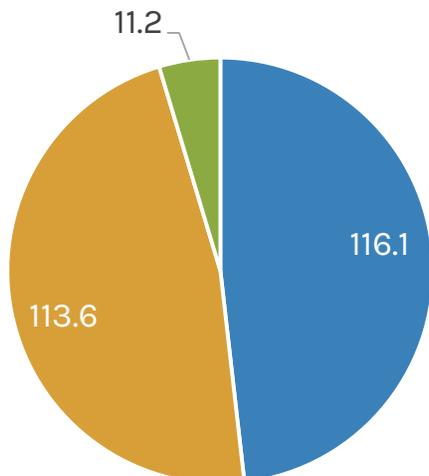
Management works diligently to ensure services provided to the UAPP are efficient and cost-effective. In 2015, the UAPP's general plan expenses amounted to \$2.1 million (\$147 per member) compared to \$2.0 million (\$145 per member) in 2014.

# MANAGEMENT DISCUSSION & ANALYSIS

## Growth of Members and Pensioners



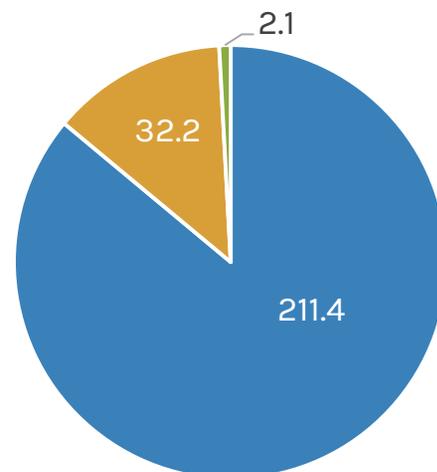
## Contributions (\$ millions)



■ Members\* ■ Employers ■ Province of Alberta

*\*members' contributions include optional service contributions*

## Payments (\$ millions)



■ Pension Benefits  
 ■ Termination and Pre-Retirement Death Benefits  
 ■ Administration Expenses

# MANAGEMENT DISCUSSION & ANALYSIS

## SERVICE TO MEMBERS

The UAPP's goal is to provide high-quality pension services in a timely manner to members. To assess and promote quality service, service standards have been established and the delivery of services against those standards is closely monitored.

Service standards of direct interest to members are as follows:

Responsibilities	Service Level Standards	2015 Results
<b>Time to answer calls</b>	80% of calls answered within 20 seconds with a call abandonment rate below 5%	90.3% of calls answered within 20 seconds with a call abandonment rate of 2.6%
<b>Escalated calls and voice mails</b>	Answered within 1 business day	100% of calls answered within 1 business day
<b>Emails</b>	Answered within 2 business days	99.7% of emails answered within 2 business days
<b>Written enquiries</b>	Answered within 5 business days	100% of written enquiries answered within 5 business days
<b>Statement of options on termination</b>	5 business days from receipt of all required information	100% of options on termination issued within 5 business days from receipt of all required information
<b>Statement of options on retirement</b>	5 business days from receipt of all required information	99.6% of options on retirement issued within 5 business days from receipt of all required information
<b>Statement of options on death</b>	5 business days from receipt of all required information	100% of options on death issued within 5 business days from receipt of all required information
<b>MPO* estimate requests</b>	5 business days from receipt of all required information	97.8% of MPO* estimates issued within 5 business days from receipt of all required information
<b>MPO final calculations</b>	10 business days from receipt of all required information	100% of MPO* final calculations issued within 10 business days from receipt of all required information
<b>MPO payment authorization</b>	3 business days from receipt of all required information	100% of all MPO* payment authorizations issued within 3 business days from receipt of all required information

\*Matrimonial Property Order

## PLAN COMMUNICATIONS

Member Handbooks were updated and posted to our website in March 2015, and the Communiqué was issued quarterly to update members and employers on topical subjects related to UAPP and pensions. Personal annual statements were made available to active members in May giving the details of their entitlements to the end of 2014. New annual statements were provided to retired members in June. To promote member understanding of the UAPP, the Trustees' Office continued to offer employers pension seminars for groups of employees as well as one-on-one information sessions.

The new UAPP website was launched in early 2015 and Plan members and others visited the site in greater numbers than in 2014 with over 50,600 hits in 2015. Popular subjects of interest included Contact Us, News, Forms, Links, Frequently Asked Questions, Cost-of-Living Adjustments, Communiques, Information Sheets, Member Handbook, Contribution Rates, and Annual Report. Early reviews on the redesigned UAPP website have been very positive.

Plan members also continued to make greater use of the Buck helpline for pension-related information. In 2015, there were over 3,000 calls handled by the call center. Plan members accessed the Retirement Planner over 7,100 times during 2015.

## OTHER DEVELOPMENTS IN 2015

- ⊙ Improvements and new additions, such as Forms and Frequently Asked Questions, were made to the re-designed UAPP website.
- ⊙ The fifth audit of select pensioners commenced in 2015 in accordance with the audit policy.
- ⊙ Buck can now provide welcome letters directly to new members rather than require employers to distribute.
- ⊙ More member information seminars and one-on-one member sessions were offered than in any prior year. An employer session was also conducted for the first time.
- ⊙ A pre-recorded member information session was posted to the new website for general viewing but specifically for members unable to attend an in-person information session.

## THE YEAR AHEAD

Key plans for 2016 include:

- ⦿ Assess effectiveness of and seek improvements to re-designed UAPP website.
- ⦿ Audit approximately 25% of the pensioners.
- ⦿ Offer more member information seminars, in-person and online, and one-on-one member sessions.
- ⦿ Promote the use of the website to encourage member and employer self-service.
- ⦿ Improve service by expanding direct delivery to members where possible.
- ⦿ Upgrade Retirement Planner on the website for members and make improvements to the employer experience with the system.

# MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The financial statements and information in the 2015 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 2015 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. and Fiera Capital Corporation, acting as investment managers, and Buck Consultants Limited 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 operations, investments, and 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

# INDEPENDENT AUDITOR'S REPORT

## To the Board of Trustees of Universities Academic Pension Plan

We have audited the accompanying financial statements of Universities Academic Pension Plan, which comprise the statement of financial position as at December 31, 2015, the statements of changes in net assets available for benefits and changes in pension obligation for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

### *Management's Responsibility for the Financial Statements*

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

### *Auditors' Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform an audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements 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. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

### *Opinion*

In our opinion, the financial statements present fairly, in all material respects, the financial position of Universities Academic Pension Plan as at December 31, 2015, and the changes in its net assets available for benefits and changes in its pension obligation for the year then ended in accordance with Canadian accounting standards for pension plans.

*KPMG LLP*

Chartered Professional Accountants

Edmonton, Canada

April 29, 2016

# FINANCIAL STATEMENTS

## Statement of Financial Position

As at December 31, 2015

	(\$ thousands)	
	2015	2014
<b>Net assets available for benefits</b>		
Assets		
Investments (Note 3)	\$ 4,024,583	\$ 3,748,524
Contributions receivable		
Employers	9,154	9,363
Employees	9,355	9,461
Province of Alberta	1,131	798
Accounts receivable and accrued investment income	324	160
<b>Total Assets</b>	<b>4,044,547</b>	<b>3,768,306</b>
Liabilities		
Accounts payable and accrued liabilities	893	732
<b>Total Liabilities</b>	<b>893</b>	<b>732</b>
<b>Net assets available for benefits</b>	<b>4,043,654</b>	<b>3,767,574</b>
<b>Pension obligation and deficit</b>		
Pension obligation (Note 5)	4,961,000	4,708,000
Deficit (Note 6)	(917,346)	(940,426)
<b>Pension obligation and deficit</b>	<b>\$ 4,043,654</b>	<b>\$ 3,767,574</b>

*The accompanying notes are part of these financial statements.*

## Statement of Changes In Net Assets Available For Benefits

For the year ended December 31, 2015

	<i>(\$ thousands)</i>	
	<b>2015</b>	<b>2014</b>
<b>Increase in assets</b>		
Contributions (Note 7)	\$ 240,861	\$ 231,059
Investment income (Note 8)	294,704	417,823
	<u>535,565</u>	<u>648,882</u>
<b>Decrease in assets</b>		
Benefit payments (Note 10)	(243,587)	(223,642)
Investment expenses (Note 11)	(13,777)	(12,778)
Administrative expenses (Note 12)	(2,121)	(2,050)
	<u>(259,485)</u>	<u>(238,470)</u>
<b>Increase in net assets</b>	276,080	410,412
<b>Net assets available for benefits at beginning of year</b>	3,767,574	3,357,162
<b>Net assets available for benefits at end of year</b>	<u>\$ 4,043,654</u>	<u>\$ 3,767,574</u>

*The accompanying notes are part of these financial statements.*

## Statement of Changes In Pension Obligations

For the year ended December 31, 2015

(\$ thousands)

	2015			2014
	Pre-1992	Post-1991	Total	Total
<b>Increase in pension obligation</b>				
Interest accrued on pension obligations	\$ 104,900	\$ 199,000	\$ 303,900	\$ 280,300
Benefits earned	-	154,000	154,000	146,500
Actuarial assumption changes (Note 5(a))	31,900	78,800	110,700	166,600
	136,800	431,800	568,600	593,400
<b>Decrease in pension obligation</b>				
Benefits paid, including interest	138,100	113,100	251,200	230,600
Net experience gains	39,900	6,700	46,600	-
Cost-of-living experience gain (loss)	9,400	8,400	17,800	(5,800)
	187,400	128,200	315,600	224,800
<b>Net increase (decrease) in pension obligation</b>	(50,600)	303,600	253,000	368,600
<b>Pension obligation at beginning of year</b>	1,677,600	3,030,400	4,708,000	4,339,400
<b>Pension obligation at end of year (Note 5)</b>	\$ 1,627,000	\$ 3,334,000	\$ 4,961,000	\$ 4,708,000

The accompanying notes are part of these financial statements.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## 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 The 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 also 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 1.25% of salary and the balance of the required contributions are equally split between employees and employers.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 1 (continued)

Under the Employment Pension Plans Amendment Regulation 245/2003 (Order in Council 357/2003), the Plan is exempt from funding solvency deficiencies effective January 1, 2003 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, 2014 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 were 11.82% of pensionable salary up to the YMPE, 15.02% on pensionable salary above the YMPE and up to the pensionable salary cap, and 1.44% on earnings above the pensionable salary cap. Employers contribute at the same rate as employees.

The contribution rates in effect from July 1, 2014 for employees of Athabasca University, The Banff Centre and the professional staff of the Athabasca University Faculty Association were 11.32% of pensionable salary up to the YMPE and 14.52% on pensionable salary above the YMPE and up to the pensionable salary cap. Employers contribute at a rate 1.0% higher than employees. In addition, employees and employers provide equal matching contributions of 1.44% on earnings above the pensionable salary cap.

Effective July 1, 2016, contribution rates 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 shall increase to 12.41% of pensionable salary up to the YMPE, 15.91% on pensionable salary above the YMPE and up to the pensionable salary cap, and 1.77% on earnings above the pensionable salary cap. Employers contribute at the same rate as employees.

Also effective July 1, 2016, contribution rates for employees of Athabasca University, The Banff Centre, and the professional staff of the Athabasca University Faculty Association shall increase to 11.91% of pensionable salary up to the YMPE and 15.41% on pensionable salary above the YMPE and up to the pensionable salary cap. Employers contribute at a rate 1.0% higher than employees. In addition, employees and employers provide equal matching contributions of 1.77% on earnings above the pensionable salary cap.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 1 (continued)

### 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.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 1 (continued)

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

### 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 TRANSFERS

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 3, the Plan's investments consist primarily of direct ownership in units of pooled investment funds ("the pools").

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 2 (continued)

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 financial does not report the financial instruments of the pools on its statement of 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 share of the financial risks in Note 4.

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

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

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.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 2 (continued)

### C. INVESTMENT INCOME

- (a) Investment income is recorded on an accrual basis.
- (b) Investment income is reported in the statement of changes in net assets available for benefits and in Note 8 and includes the following items recorded in the Plan's accounts:
  - i. Income distributions from the pools, based on the Plan's prorata share of total units issued by the pools; and
  - ii. Changes in fair value of units including realized gains and losses on disposal of units and unrealized gains and losses on units determined on an average cost basis.

### D. INVESTMENT EXPENSES

Investment expenses include all amounts incurred by the Plan to earn investment income (see Note 11). 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 date, of various economic and non-economic assumptions.

### G. MEASUREMENT UNCERTAINTY

In preparing these financial statements, estimates 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.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 2 (continued)

Measurement uncertainty exists in the valuation of the Plan's pension obligation, private investments, real estate and timberland pools. Uncertainty arises because:

- i) the Plan's actual experience may differ, perhaps significantly, from assumptions used in the extrapolation of the Plan's pension obligation; and
- ii) the estimated fair values of the Plan's private investments, real estate and timberland pools may differ significantly from the values that would have been used had a ready market existed for these investments.

While best estimates have been used in the valuation of the Plan's pension obligation, private investments, real estate and timberland 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 net investment income 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 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. 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.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 3 (continued)

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 4).

Asset class	(\$ thousands)				
	Fair Value Hierarchy <sup>(a)</sup>			2015	2014
	Level 1	Level 2	Level 3	Fair Value	Fair Value
<b>Fixed Income</b>					
Cash and short-term securities	\$ -	\$ 15,570	\$ -	\$ 15,570	\$ 12,765
Bonds and mortgages	-	715,633	194,203	909,836	892,624
Real return bonds	-	275,924	-	275,924	243,921
	-	1,007,127	194,203	1,201,330	1,149,310
<b>Public Equities</b>					
Canadian	554,672	123,115	-	677,787	656,306
Global	958,888	166,984	98,753	1,224,625	1,169,061
Emerging markets	322,082	8,131	-	330,213	285,767
	1,835,642	298,230	98,753	2,232,625	2,111,134
<b>Alternatives</b>					
Real estate	-	-	338,754	338,754	275,531
Infrastructure and private debt and loans	-	-	171,056	171,056	144,731
Timberland	-	-	33,676	33,676	30,675
	-	-	543,486	543,486	450,937
<b>Strategic and currency investments* <sup>(b)</sup></b>	-	(462)	47,604	47,142	37,143
<b>Total investments</b>	\$1,835,642	\$1,304,895	\$ 884,046	\$ 4,024,583	\$ 3,748,524

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

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 3 (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. This level includes publicly traded listed equity investments totaling \$1,835,642 (2014: \$1,649,121).
- **Level 2:** fair value is estimated using valuation techniques that make use of market-observable inputs other than quoted market prices. This level includes debt securities and derivative contracts not traded on a public exchange totaling \$1,304,895 (2014: \$1,358,719). For these investments, fair value is either derived from a number of prices that are provided by independent pricing sources or from pricing models that use observable market data such as swap curves and credit spreads.
- **Level 3:** fair value is estimated using inputs based on non-observable market data. This level includes private mortgages and all alternative investments totaling \$884,046 (2014: \$740,684).

Reconciliation of Level 3 Fair Value Measurements:

	<i>(\$ thousands)</i>	
	<b>2015</b>	<b>2014</b>
<b>Balance, beginning of year</b>	\$ 740,684	\$ 554,500
Investment income *	79,785	47,147
Purchases of Level 3 pooled fund units	121,202	178,973
Sale of Level 3 pooled fund units	(57,625)	(39,936)
<b>Balance, end of year</b>	<b>\$ 884,046</b>	<b>\$ 740,684</b>

\* Investment income includes unrealized gains of \$43,544 (2014: \$21,410).

B. Valuation of Financial Instruments in the Pools

The methods used to determine the fair value of investments recorded in the pools is 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.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 3 (continued)

- **Public equities:** Public equities 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.
- **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. The fair value of infrastructure investments is estimated by managers or general partners of infrastructure 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. Private debt and loans are valued similar to private mortgages. 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 is estimated by managers or general partners of private equity funds and joint ventures. 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 4(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 and futures contracts are valued based on quoted market prices. Options to enter into interest rate swap contracts are valued based on discounted cash flows using current market yields and volatility parameters which measure

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 3 (continued)

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.

## NOTE 4 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 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. The purpose of the SIP&G is to ensure the Plan is invested and managed in a prudent manner in accordance with current, accepted governance practices incorporating an appropriate level of risk. The Board 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 4(b)).

Actuarial liabilities of the Plan are primarily affected 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 has established the following asset mix policy ranges:

Asset Class	Target Asset Policy Mix	Actual Asset Mix			
		2015		2014	
		(\$ thousands)	%	(\$ thousands)	%
Fixed income	26.0 – 38.0%	1,201,330	29.8	1,149,310	30.7
Public equities	50.0 – 60.0%	2,232,625	55.5	2,111,134	56.3
Alternatives	6.5 – 17.0%	543,486	13.5	450,937	12.0
Strategic and currency investments	(a)	47,142	1.2	37,143	1.0
		\$ 4,024,583	100.0	\$ 3,748,524	100.0

(a) Up to 5% of the fund may be invested in strategic opportunities and/or currency overlays that are not part of any other asset class.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 4 (continued)

### 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. Credit risk can also lead to losses when issuers and debtors are downgraded by credit rating agencies usually leading to a fall in the fair value of the counterparty's obligations. Credit risk exposure for financial instruments is measured by the positive fair value of the contractual obligations with counterparties. The fair value of all investments reported in Note 3 is directly or indirectly impacted by credit risk to some degree. The majority of investments in debt securities are with counterparties with credit ratings considered to be investment grade.

The table below summarizes these debt securities by counterparty credit rating at December 31, 2015:

<u>Credit rating</u>	<b>2015</b>	<b>2014</b>
Investment Grade (AAA to BBB-)	84.2%	84.5%
Speculative Grade (BB+ or lower)	0.0%	0.0%
Unrated	15.8%	15.5%
	<b>100.0%</b>	<b>100.0%</b>

#### ii) Counterparty default risk - derivative contracts

The Plan's maximum credit risk in respect of derivative financial instruments is the fair value of all contracts with counterparties in a favourable position (see Note 4(f)). The Plan can only transact with counterparties to derivative contracts with a credit rating of A+ or higher by at least two recognized ratings agencies. Provisions are in place to either transfer or terminate existing contracts when the counterparty has their credit rating downgraded. 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.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 4 (continued)

### iii) Security lending risk

To generate additional income, the Plan participates in a securities-lending program. Under this program, the custodian may lend investments held in the pools to eligible third parties for short periods. At December 31, 2015, the Fund's Share of securities loaned under this program is \$180 million (2014: \$164 million) and collateral held totals \$193 million (2014: \$172 million). 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. Approximately 40% (2014: 39%) of the Plan's investments, or \$1,615 million (2014: \$1,461 million), are denominated in currencies other than the Canadian dollar, with the largest foreign currency exposure being to the US dollar (18%) and the euro (4%).

If the value of the Canadian dollar increased by 10% against all other currencies, and all other variables are held constant, the potential loss in fair value to the Plan would be approximately 4.0% of total investments (2014: 3.9%).

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 4 (continued)

The following table summarizes the Plan's exposure to foreign currency investments held in the pools at December 31, 2015:

<u>Currency</u>	(\$ millions)			
	2015		2014	
	Fair Value	Sensitivity	Fair Value	Sensitivity
US dollar	\$ 719	\$ (72)	\$ 722	\$ (72)
Euro	149	(15)	128	(13)
Japanese yen	107	(10)	84	(8)
British pound	90	(9)	85	(9)
Hong Kong dollar	88	(9)	70	(7)
Indian rupee	50	(5)	36	(4)
South Korean won	48	(5)	33	(3)
New Taiwan dollar	47	(5)	33	(3)
Other foreign currencies (below 1%)	317	(32)	270	(27)
<b>Total foreign currency investments</b>	<b>\$ 1,615</b>	<b>\$ (162)</b>	<b>\$ 1,461</b>	<b>\$ (146)</b>

### 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 5.0% (2014: 5.2%) of total investments.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 4 (continued)

### D. Price Risk:

Price risk relates to the possibility that equity investments will change in value due to future fluctuations in market prices caused by factors specific to an individual equity investment or other factors affecting all equities traded in the market. The Plan is exposed to price risk associated with the underlying equity investments held in the pools. If equity market indices (S&P/TSX, S&P500, S&P1500 and MSCI ACWI and their sectors) declined by 10%, and all other variables are held constant, the potential loss in fair value to the Plan would be approximately 5.3% (2014: 5.6%) 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. 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. 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 accrued pension benefits obligation and exposure to net payables to counterparties (Note 4(f)).

### 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 cost effectively gain access to equity markets in the pools, manage asset exposure within the pools, enhance pool returns and manage interest rate risk, foreign currency risk and credit risk in the pools.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 4 (continued)

By counterparty	Number of counterparties	Plan's Indirect Share	
		(\$ thousands)	
		2015	2014
Contracts in favourable position (current credit exposure)	23	\$ 16,785	\$ 18,957
Contracts in unfavourable position	18	(27,336)	(6,899)
<b>Net fair value of derivative contracts</b>	41	\$ (10,551)	\$ 12,058

- i) Current credit exposure: The current credit exposure is limited to the amount of loss that would occur if all counterparties to contracts in a favourable position totaling \$16,785 (2014: \$18,957) were to default at once.
- ii) Cash settlements: Receivables or payables with counterparties are usually settled in cash every three months.
- iii) Contract notional amounts: The fair value of receivables (receive leg) and payables (pay leg) and the exchange of cash flows with counterparties in pooled funds are based on a rate or price applied to a notional amount specified in the derivative contract. The notional amount itself is not invested, received or exchanged with the counterparty and is not indicative of the credit risk associated with the contract. Notional amounts are not assets or liabilities and do not change the asset mix reported in Note 3. Accordingly, there is no accounting policy for their recognition in the statement of financial position.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 4 (continued)

Types of derivatives used in pools	Plan's Indirect Share	
	(\$ thousands)	
	2015	2014
Structured equity replication derivatives	\$ 163	\$ 15,370
Foreign currency derivatives	(9,172)	(2,139)
Interest rate derivatives	(1,673)	(1,192)
Credit risk derivatives	131	19
<b>Net fair value of derivative contracts</b>	<b>\$ (10,551)</b>	<b>\$ 12,058</b>

- i) Structured equity replication derivatives: Equity index swaps are structured to receive income from counterparties based on the performance of a specified market-based equity index, security or basket of equity securities applied to a notional amount in exchange for floating rate interest paid to the counterparty. Floating rate notes are held in equity pools to provide floating rate interest to support the pay leg of the equity index swap. Rights, warrants, futures and options are also included as structured equity replication derivatives.
- ii) Foreign currency derivatives: Foreign currency derivatives include contractual agreements to exchange specified currencies at an agreed upon exchange rate and on an agreed settlement date in the future.
- iii) Interest rate derivatives: Interest rate derivatives exchange interest rate cash flows (fixed to floating or floating to fixed) based on a notional amount. Interest rate derivatives primarily include interest rate swaps and cross currency interest rate swaps, futures contracts and options.
- iv) Credit risk derivatives: Credit risk derivatives include credit default swaps allowing the pools to buy and sell protection on credit risk inherent in a bond. A premium is paid or received, based on a notional amount, in exchange for a contingent payment should a defined credit event occur with respect to the underlying security.
- v) Deposits: At December 31, 2015 deposits in futures contracts margin accounts totalled \$8,261 (2014: \$18,648) and deposits as collateral for derivative contracts totalled \$288 (2014: \$ nil).

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## NOTE 5 PENSION OBLIGATION

### A. ACTUARIAL VALUATION AND EXTRAPOLATION

An actuarial valuation of the Plan was carried out as at December 31, 2014 by the Plan's actuarial consultants, Aon Hewitt. The December 31, 2014 valuation results were extrapolated to December 31, 2015.

The pension obligation was 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 were:

	<b>2014 Valuation and 2015 Extrapolation</b>	<b>2012 Valuation and 2014 Extrapolation</b>
	%	%
Asset real rate of return		
For 2 years after valuation	3.70	4.00
Thereafter	3.70	4.00
Inflation rate		
For 2 years after valuation	2.25	2.25
Thereafter	2.25	2.25
Discount rate	5.95	6.25
Salary escalation rate *		
For 2 years after valuation	1.00	1.50
Thereafter	2.75	2.75
Mortality table	85% (100% for females) of 2014 Public Sector Canadian Pensioner table with generational projection (Scale CPM-B)	85% (95% for females) of 2014 Public Sector Canadian Pensioner table with generational projection (Scale CPM-B)

\* In addition to merit and promotion

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 5 (continued)

An actuarial valuation of the Plan will be carried out no later than December 31, 2017. Any differences between the actuarial valuation results and extrapolation results as reported in these financial statements will affect the financial position of the Plan and 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.

(\$ thousands)

	Changes in Assumptions %	Increase in Plan's Actuarial Deficiency \$	Increase in Current Service Cost as a % of Pensionable Earnings *
Inflation rate increase holding discount rate and salary escalation assumptions constant	1.0	338,100	1.5
Salary escalation rate increase holding inflation rate and discount rate assumptions constant	1.0	68,700	0.8
Discount rate decrease holding inflation rate and salary escalation assumptions constant	(1.0)	701,700	4.1

\* The current service cost as a % of pensionable earnings as determined by the December 31, 2014 valuation is 20.03% (December 31, 2012 valuation: 18.40%).

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## NOTE 6 DEFICIT

	<i>(\$ thousands)</i>			<b>2014</b>
	<b>2015</b>			
	<b>Pre-1992</b>	<b>Post-1991</b>	<b>Total</b>	
<b>Deficit, beginning of year</b>	\$ 852,700	\$ 87,726	\$ 940,426	\$ 982,238
Decrease (increase) in net assets available for benefits	37,300	(313,380)	(276,080)	(410,412)
Net increase (decrease) in accrued pension liability	(50,600)	303,600	253,000	368,600
<b>Deficit, end of year</b>	<b>\$ 839,400</b>	<b>\$ 77,946</b>	<b>\$ 917,346</b>	<b>\$ 940,426</b>

In accordance with the requirements of the 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, 2015 allocated between the pre-1992 and post-1991 periods:

	<i>(\$ thousands)</i>			<b>2014</b>
	<b>2015</b>			
	<b>Pre-1992</b>	<b>Post-1991</b>	<b>Total</b>	
Net assets available for benefits	\$ 787,600	\$ 3,256,054	\$ 4,043,654	\$ 3,767,574
Pension obligation	1,627,000	3,334,000	4,961,000	4,708,000
Deficit	<b>\$ 839,400</b>	<b>\$ 77,946</b>	<b>\$ 917,346</b>	<b>\$ 940,426</b>

The deficit for accounting purposes may differ from that for funding purposes (see Note 14).

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## NOTE 7 CONTRIBUTIONS

	(\$ thousands)	
	2015	2014
Current service		
Employers	\$ 76,610	\$ 74,275
Employees	76,527	74,309
Contributions to meet post-1991 unfunded liability and optional service		
Employers	24,107	23,246
Employees	26,760	25,240
Contributions to meet pre-1992 unfunded liability		
Employers	12,851	11,491
Employees	12,851	11,491
Province of Alberta	11,155	11,007
	<u>\$ 240,861</u>	<u>\$ 231,059</u>

## NOTE 8 INVESTMENT INCOME

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

	(\$ thousands)			
	Income	Change in Fair Value	2015 Total	2014 Total
<b>Fixed income</b>	\$ 55,402	\$ (19,987)	\$ 35,415	\$ 118,065
<b>Public equities</b>				
Canadian	11,997	(65,554)	(53,557)	73,862
Foreign	231,209	21,405	252,614	192,587
	243,206	(44,149)	199,057	266,449
<b>Alternatives</b>				
Real estate	11,260	6,041	17,301	16,887
Infrastructure and private debt & loans	931	27,769	28,700	11,648
Timberland	598	1,976	2,574	(738)
	12,789	35,786	48,575	27,797
<b>Strategic and currency investments</b>	7,915	3,742	11,657	5,512
	<u>\$ 319,312</u>	<u>\$ (24,608)</u>	<u>\$ 294,704</u>	<u>\$ 417,823</u>

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 8 (continued)

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 \$19,672 and \$(40,592) respectively (2014: \$11,625 and \$63,070 respectively). Realized and unrealized gains and losses on currency hedges total \$(3,881) and \$193 respectively (2014: \$979 and \$(655) 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, income and expense on derivative contracts and write-downs of securities held in pools which are indicative of a loss in value that is other than temporary.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## NOTE 9 INVESTMENT RETURNS, CHANGE IN NET ASSETS 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.

	<i>(percentage)</i>				
	2015	2014	2013	2012	2011
Increase (decrease) in net assets attributed to:					
Investment income					
Policy benchmark return (PBR) on investments	6.5	11.8	11.2	9.4	2.6
Value added by investment managers	1.1	0.4	1.9	2.4	0.6
<b>Total return on investments <sup>(a)</sup></b>	<b>7.6</b>	<b>12.2</b>	<b>13.1</b>	<b>11.8</b>	<b>3.2</b>
Other sources <sup>(b)</sup>	(0.3)	0.0	0.6	0.7	0.3
<b>Percent change in net assets <sup>(c)</sup></b>	<b>7.3</b>	<b>12.2</b>	<b>13.7</b>	<b>12.5</b>	<b>3.5</b>
<b>Percent change in pension obligation <sup>(c)</sup></b>	<b>5.4</b>	<b>8.5</b>	<b>8.6</b>	<b>4.6</b>	<b>7.6</b>
Percent of pension obligation supported by net assets	<b>82</b>	<b>80</b>	<b>77</b>	<b>74</b>	<b>69</b>

a) The annualized total return on investments over five years is 9.5% (PBR: 8.2%), ten years is 6.4% (PBR: 6.1%) and twenty years is 7.4% (PBR: 7.2%). In the 2014 valuation, the Plan's actuary decreased the expected long-term net investment return on assets for funding purposes to 5.95% from 6.25% in the 2012 valuation.

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 increases 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 obligations, respectively.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## NOTE 10 BENEFIT PAYMENTS

	(\$ thousands)	
	2015	2014
Retirement benefits	\$ 211,414	\$ 197,638
Termination benefits	29,166	22,457
Death benefits	3,007	3,547
	<u>\$ 243,587</u>	<u>\$ 223,642</u>

## NOTE 11 INVESTMENT EXPENSES

	(\$ thousands)	
	2015	2014
Amount charged:		
Management fees <sup>(a)</sup>	\$ 13,723	\$ 12,724
Alberta Treasury Board and Finance <sup>(b)</sup>	54	54
<b>Total investment expenses</b>	<u>\$ 13,777</u>	<u>\$ 12,778</u>
<b>Increase in expenses</b>	<u>7.8%</u>	<u>8.3%</u>
<b>Increase in average investments under management</b>	<u>9.6%</u>	<u>13.0%</u>
<b>Increase in value of investments attributed to active management</b>	<u>1.1%</u>	<u>0.4%</u>
<b>Investment expenses as a percent of :</b>		
Dollar earned	4.7%	3.1%
Dollar invested	0.4%	0.4%
Investment expenses per member	<u>\$ 959.00</u>	<u>\$ 906.00</u>

a) For investment management services, including non-recoverable GST of \$260 (2014: \$373).

b) For investment accounting and Plan reporting services.

## NOTE 12 ADMINISTRATIVE EXPENSES

	(\$ thousands)	
	2015	2014
General administration costs	\$ 1,943	\$ 1,882
Board costs	62	45
Actuarial fees	62	65
Audit fees	54	58
	<u>\$ 2,121</u>	<u>\$ 2,050</u>

General Plan costs, including the costs for benefit administration and delivery, amounted to \$147.00 per member (2014: \$145.00 per member).

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## NOTE 13 REMUNERATION OF BOARD MEMBERS

Remuneration rates as approved by Plan Sponsors are as follows:

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

	2015	2014
The following amounts were paid:		
Remuneration		
Chair	\$ 4,866	\$ 3,600
Trustees (8)	24,565	21,234
Travel expenses		
Chair	2,427	447
Trustees (8)	13,288	9,612

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

## NOTE 14 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 (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

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## Note 14 (continued)

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.

Actuarial asset values for funding valuation purposes amounted to \$3,937,954 at December 31, 2015 (2014: \$3,565,374), comprising of \$762,100 (2014: \$773,900) pre-1992 and \$3,175,854 (2014: \$2,791,474) 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, 2015 allocated between the pre-1992 and post-1991 periods:

	<i>(\$ thousands)</i>			<b>2014</b>
	<b>2015</b>			
	<b>Pre-1992</b>	<b>Post-1991</b>	<b>Total</b>	
Net assets available for benefits	\$ 787,600	\$ 3,256,054	\$ 4,043,654	\$ 3,767,574
Actuarial adjustment for fluctuation in fair value of net assets	(25,500)	(80,200)	(105,700)	(202,200)
Actuarial value of net assets available for benefits	762,100	3,175,854	3,937,954	3,565,374
Pension obligation	1,627,000	3,334,000	4,961,000	4,708,000
<b>Actuarial deficit</b>	<b>\$ 864,900</b>	<b>\$ 158,146</b>	<b>\$ 1,023,046</b>	<b>\$ 1,142,626</b>

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 2.87% (3.54% effective July 1, 2016) 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 \$237.4 million at December 31, 2014.

# NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2015

## **Note 14 (continued)**

The Plan's unfunded liability for service after December 31, 1991 is being financed by special payments of 5.79% (4.93% effective July 1, 2016) of salaries shared equally between employers and employees on or before December 31, 2027.

The additional contributions and special payments have been included in the rates shown in Note 1(b).

## **NOTE 15 COMPARATIVE FIGURES**

Comparative figures have been reclassified to be consistent with 2015 presentation.

## **NOTE 16 APPROVAL OF FINANCIAL STATEMENTS**

These financial statements were approved by the Board of Trustees of the Plan.

# GLOSSARY TERMS

## **Absolute Return Strategies/Hedge Funds**

Encompass a wide variety of investments and trading strategies in private and publicly-traded securities with the objective of realizing positive returns independent of market direction. Investments in absolute return strategies are made through fund-of-funds and specific fund investments to increase strategy diversification.

## **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.

## **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. Bonds have terms to maturity greater than one year.

## **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.

# GLOSSARY TERMS

## **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 between \$10 billion and \$200 billion. These are the mega companies of the financial world and include ExxonMobil, Microsoft, Citigroup, Wal-Mart and General Electric. Classifications such as “large cap” or “small cap” are only approximations that change over time.

## **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

return 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 (long-life assets used to provide essential services), bridge loans and corporate finance arrangements (with a current income component of total return). 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.

# GLOSSARY

## TERMS

### **Small Cap**

“Small cap” refers to firms with relatively smaller market capitalization. Though there is no rigorous definition, in the US, a company with a market capitalization of between \$300 million and \$2 billion is considered a small cap. The definition can change over time.

### **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. Swaps available in and between all financial markets include, but are not exclusive to, equities, currencies, fixed income and commodities.

### **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.

### **Total Return**

Interest and dividend income plus price increases or decreases.

### **Tracking Error**

The difference between the performance of a position and the performance of a benchmark.

### **Treasury Bill/T-bill**

A short-term government debt security.

### **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 by the Canada Pension Plan (CPP) up to which employers and employees are required to make CPP contributions.

# GLOSSARY

## INDICES

### **BMO Small Cap Index**

An index maintained by Bank of Montreal that is made up of 400 representative Canadian public companies and income trusts with market capitalizations of less than 0.1% of the S&P/TSX Composite total capitalization. This index is market capitalization weighted.

### **Consumer Price Index (CPI)**

An indicator of the 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 TMX 91-Day T-Bills Index**

An index maintained by PC Bond that represents the performance of Government of Canada 91-day Treasury Bills.

### **FTSE TMX Long Bond Index**

An index maintained by PC Bond that tracks the performance of most 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 TMX Long Government Bond Index**

An index maintained by PC Bond that tracks the performance of bonds issued by the government of Canada (including crown corporations), provincial governments (including provincially guaranteed securities) and municipal governments with terms to maturity of more than 10 years.

### **FTSE TMX Real Return Bond Index**

An index maintained by PC Bond that tracks the performance of real return (inflation-linked) bonds issued in Canada with terms to maturity of more than one year and a minimum credit rating of BBB.

### **FTSE TMX Universe Bond Index**

An index maintained by PC Bond that tracks the performance of most 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 ACWI (Morgan Stanley Capital International All Country World Index)**

An index maintained by the MSCI Index Committee designed to measure market equity performance of developed and emerging markets. The MSCI ACWI is a free float-adjusted market capitalization index

# GLOSSARY

## INDICES

that is calculated on a total return basis, which includes re-investment of net dividends after deduction of withholding taxes. The MSCI ACWI consists of more than 2,400 securities across large and mid-cap segments and across style and sector segments in 46 developed and emerging markets.

### **MSCI EAFE (Morgan Stanley Capital International – Europe, Australasia, 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 (Morgan Stanley Capital International) Emerging Markets Free 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 23 emerging market country indices.

### **REALpac/IPD Large Institutional All Property Index**

An index maintained by the Canadian Institute of Real Estate Investment

Managers/International Property Databank that measures the total return from a diversified pool of over 2,100 properties.

### **Russell 2500 Index**

An index maintained by Russell Investments that measures the performance of the 2500 smallest companies in the Russell 3000. The Russell 2500 is taken to represent small and mid cap US equities.

### **S&P/TSX 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.

### **Standard & Poor's 500 Index**

An index maintained by the Standard & Poor's Index Committee that includes a representative sample of 500 leading operating companies in the US economy to create a broad market portfolio representing approximately 75% of the market capitalization of US public equities.



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