2019 INVESTMENT COMMITTEE ANNUAL REPORT

Investment Committee Annual Report
For the Year Ended March 31, 2019

Contents

Letter from the Investment Committee Chair

On behalf of the University of Alberta Investment Committee, I am pleased to present the 2019 annual report. The investment assets under the oversight of the Investment Committee totaled $2.47 billion as of March 31, 2019, of which $1.43 billion represented endowments. Over the year $49 million for program spending on scholarships and research was generated by endowment assets, almost $1 million per week - an increase of $11 million from the prior year.

The University Endowment Pool's (UEP) return for the year was 5.8% which outperformed its benchmark return of 4.7%, but fell short of the long-term target of 7.25%. This target has been achieved over the longer term with a ten year annualized return ending March 31, 2019 of 10.6%. The Non-Endowed Investment Pool (NEIP) returned 3.4%, which exceeded its benchmark return of 2.9%.

Capital market volatility persisted throughout the fourth quarter of 2018 as global markets reacted to conflicting macroeconomic forces, followed by a strong rebound to start 2019. Economic growth on balance has been stable in most regions amidst growing trade tensions and populist politics across the world. Some central banks such as the Federal Reserve had begun to tighten monetary policy only to pause in early 2019. This was primarily due to market volatility increasing in late 2018 as equity and commodity markets declined. Developed market equities generated respectable performance while emerging markets struggled after several years of robust returns. Canadian fixed income posted small gains as interest rates rose to begin the year, pricing in central bank hawkishness, only to fall across the yield curve after a more dovish stance prevailed. Real estate continued to generate stable returns while commodities suffered a drawdown to end 2018. The UEP benefited this past year from being heavily invested in growth assets that were biased towards developed markets at the expense of other asset classes.

Over the past year, the Investment Committee oversaw Management's implementation of both the UEP and NEIP strategic asset allocation. Management continued to implement the strategic organizational plan and related recommendations to ensure the University maintains strong investment management practices.

In the coming year Management will identify and allocate capital to investment opportunities in a variety of asset classes and strategies for both the UEP and NEIP with the oversight of the Investment Committee. Risk measurement and reporting for the UEP and NEIP will continue to be refined to ensure the risk profiles remain commensurate with their respective return objectives and time horizons.

I would like to acknowledge the continued hard work and dedication of both Management and members of the Investment Committee to the University and its stakeholders.

Dave Lawson, CFA
Chair, Board Investment Committee, University of Alberta

Investment Committee

March 31, 2019

Appointed

Dave Lawson, CFA, Chair

Jim Drinkwater, Vice-Chair

Derek Brodersen, CFA

Charlene Butler

John Butler

Gordon Clanachan

Maria Holowinsky, CFA

Sandy McPherson, CFA

Peter Pontikes, CFA

Ex-Officio

Michael Phair

Douglas Stollery, QC

Dr. David Turpin, CM, PhD, LLD, FRSC

Executive Summary

The investment assets of the University of Alberta that are under the purview of the Investment Committee had a total market value of $2.47 billion as of March 31, 2019 (2018 - $2.25 billion). This amount consisted of $1.43 billion (2018 - $1.38) in Endowed Funds and $1.04 billion (2018 - $0.87) in Non-Endowed Funds.

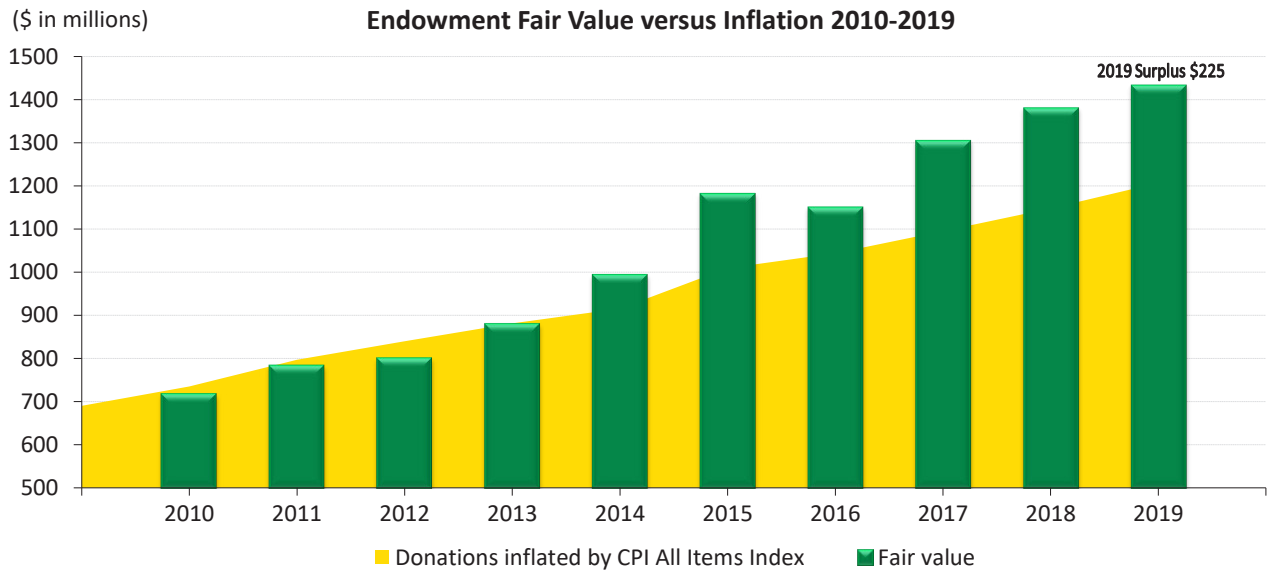
With very few exceptions, the Endowed Funds are pooled together and invested collectively in the University Endowment Pool (UEP). Endowment funds represent permanently restricted capital, and only a portion of the annual earnings can be spent for their specified purpose. The investment objective of the UEP is to achieve a long-term rate of return that in real dollars (i.e. adjusted for inflation) meets or exceeds total endowment spending, as outlined in the UEP Spending Policy. By meeting this objective the University is able to provide a comparable level of support to future generations that current beneficiaries receive.

The Non-Endowed Investment Pool (NEIP) consists primarily of expendable operating and research funds. It is mainly shorter-term in nature, with a greater focus on liquidity and capital preservation.

Endowment Funds - Highlights

- The UEP returned 5.8% during the year as returns from most asset classes were positive. Exceptions were emerging market equities, energy and renewables, and absolute return strategies which generated negative returns.
- The market value of the Endowment Funds increased to $1.43 billion, up $52 million from the end of fiscal 2018. This increase is comprised of $82 million in investment gains plus $36 million in donations, less the $49 million spending allocation, $8 million for internal and external investment management costs, and the $9 million administrative assessment.
- During the year, the real value of the endowments decreased by 0.9%. This decrease was due to the fact that total expenditures of 4.8% and inflation of 1.9% exceeded the return of 5.8%. As a result, the value of the endowments over their cumulative inflation adjusted objective decreased to $225 million as at March 31, 2019, or 18.7% as outlined in Exhibit 1. A surplus of this magnitude or greater is required to help ensure spending sustainability in periods of capital market downturns.

Exhibit 1



- For the fiscal year, $49 million was made available for program spending on academic programs, faculty support, research, and scholarships. This represents an increase of $11 million from the previous year and reflects the impact of the revised UEP Spending Policy that went into effect this year
- The fund's benchmark returned 4.7%, indicating UEP outperformance of 1.1% over the past year. On a four and ten year basis the fund has outperformed its benchmark by an annualized rate of 1.4% and 0.4% respectively.

Non-Endowed Funds - Highlights

- The NEIP recorded an overall return of 3.4% for the year which exceeded its benchmark return by 0.5%.
- The Yield strategy's enhanced asset allocation was initiated over the past year with investments in unconstrained global fixed income, Canadian preferred shares, and private credit.
- An investment income reserve consisting of re-invested earnings was also established. This reserve enables the funding of future strategic initiatives once its targeted value is achieved.

Major Initiatives During the Year

Implementation of the UEP Strategic Asset Allocation

Within the Growth strategy, five commitments were made to various private equity funds throughout the year while capital continued to be called and distributed by several funds that were committed to in prior years. Due to the prolonged investment period in private equity, it is anticipated that an overweight allocation to global equities and private equity secondaries funds will be maintained for the foreseeable future. The Inflation Sensitive strategy saw two commitments made to North American energy private equity funds as well as the funding of a commodities strategy. In the Diversifiers strategy, Management completed its search for a bespoke hedge fund provider that was funded on April 1, 2019. Due to the implementation of this strategy taking place immediately subsequent to fiscal year end the UEP held a higher cash level than normal as of March 31, 2019.

Establishment of Internal Risk Measurement and Reporting

Making further use of its investment information technology, Management initiated an internal risk measurement and reporting on the UEP (the "Risk Dashboard") to provide greater insight into various risks, and scenarios and their corresponding potential impacts on the overall portfolio. This reporting also allows Management to more accurately assess the style exposures of all public equity managers as a whole, allowing for a "big picture" view of the over $1 billion invested in public equities. Early results allow Management to assess liquidity, volatility, and value at risk (VaR). As further refinements are made and trends are tracked, Management and the Investment Committee will be able to establish a risk budget, which can lead to better tactical investment decisions.

Implementation of the NEIP Yield Strategy

During the year an unconstrained global fixed income mandate search was completed resulting in allocations to two complimentary investment managers. Another search was also initiated for a Canadian preferred share mandate. During the early stages of the search, Canadian preferred shares declined in value commensurate with most global equity markets. Management identified this as a reasonable entry point and gained exposure to the asset class with the purchase of an exchange traded fund (ETF) towards the end of 2018. The ETF will fund the investment manager selected for active management of this strategy. A commitment to a private credit fund was also completed during the year.

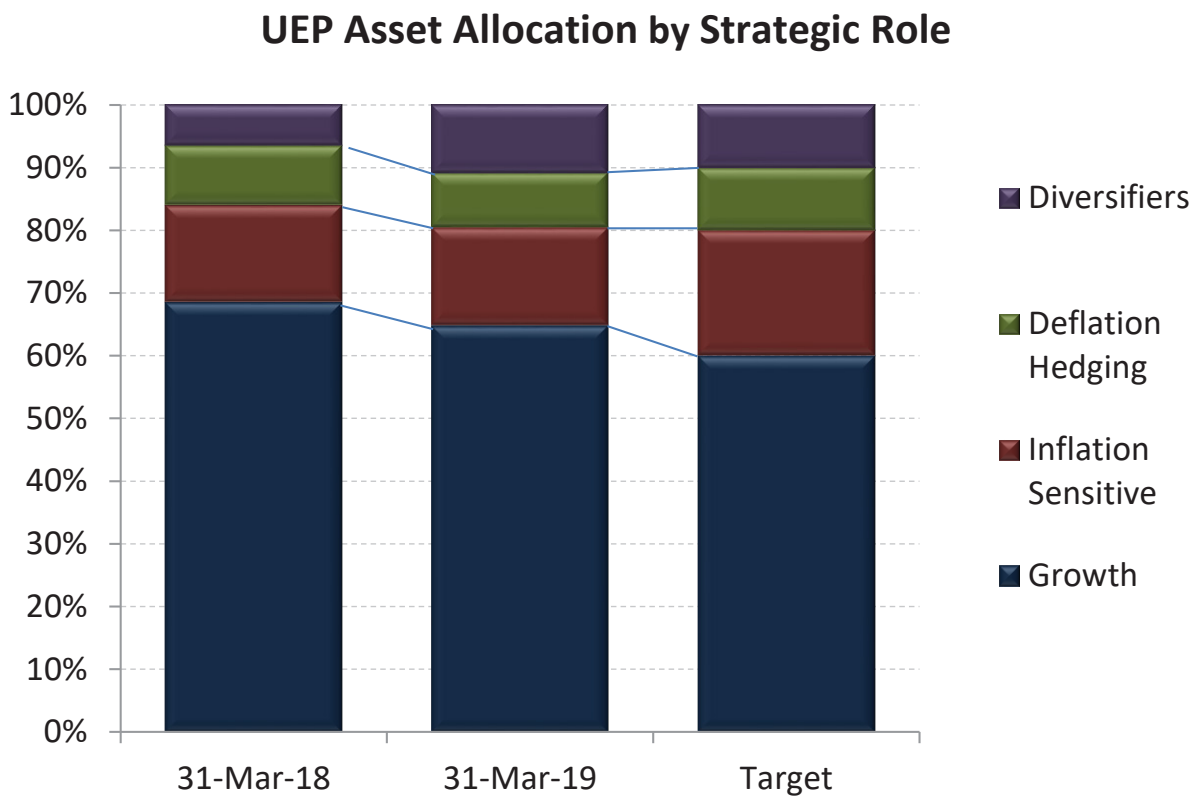
Endowment Funds

The primary investment objective for the UEP is to achieve a long-term real rate of return that equals or exceeds total endowment spending. Emphasis is placed on preserving intergenerational equity to ensure all beneficiaries, current and future, receive comparable levels of support. Assets are classified based on the strategic role they perform within the portfolio, specifically: Growth, Inflation Sensitive, Deflation Hedging, and Diversifiers.

- To meet spending targets and grow the value of the assets over time, a large allocation to public and private equities, hedge funds, and other assets with exposure to equity market returns is necessary.
- Inflation sensitive assets are those that adjust to unexpected and/or rising inflation. The assets in this category include real estate, natural resource equities, energy and renewables, and commodities.
- Deflation hedging assets are those that remain liquid and increase in value during times of extreme economic and capital market turmoil. This asset class consists of high-quality sovereign bonds.
- Diversifiers are any asset classes or investment strategies that have low or no correlation with the capital markets and inflation.

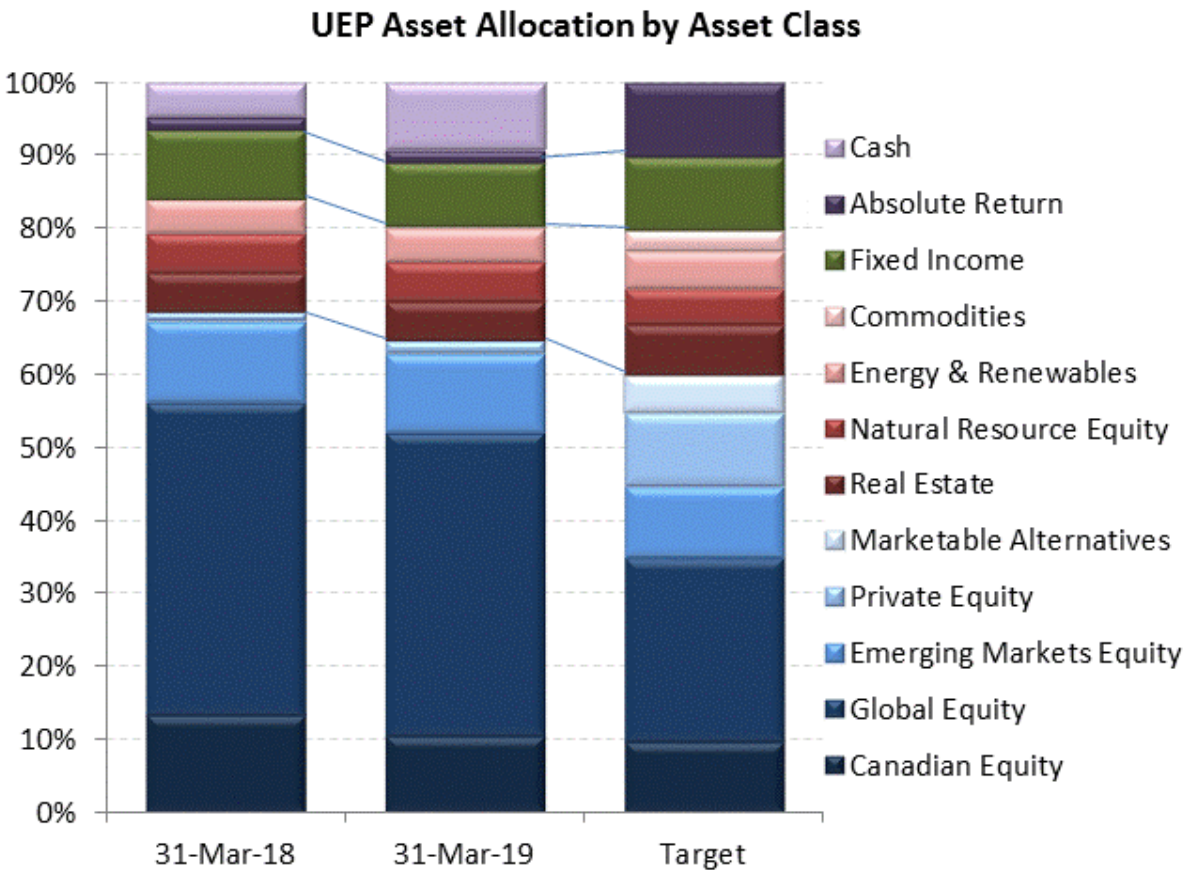
Endowment investments are categorized by Strategic Role in Exhibit 2.

Exhibit 2



Investments are also categorized by Asset Class in Exhibit 3.

Exhibit 3



Investment Performance Relative to Objectives

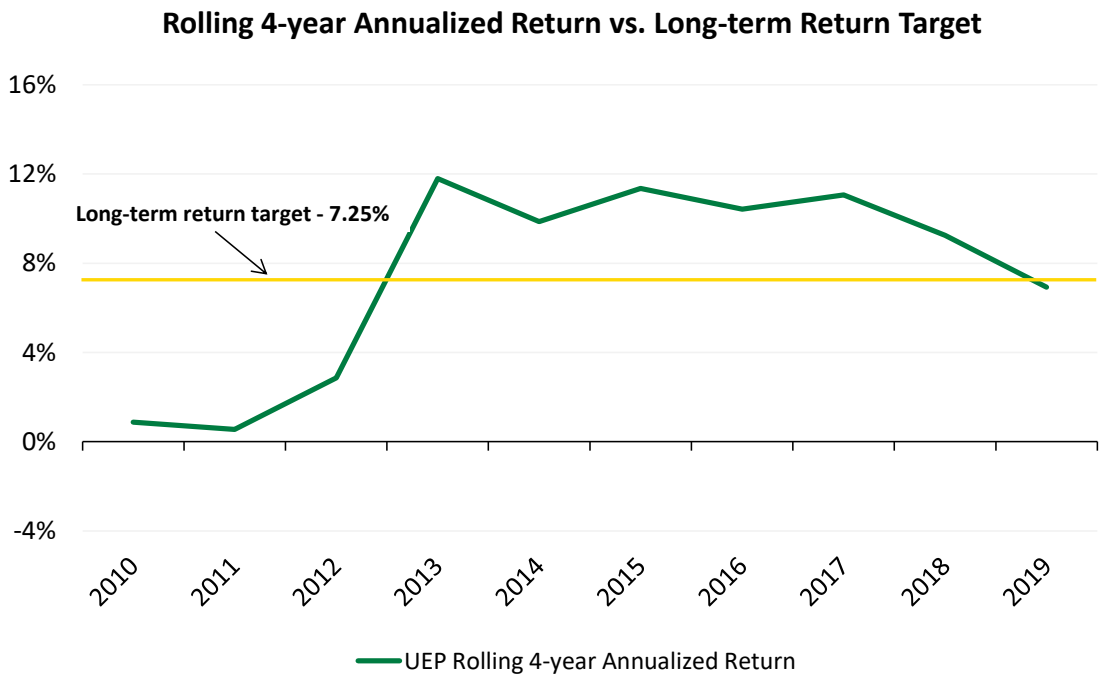
The UEP return over the past year fell short of total spending plus CPI by 0.9%. The four and ten year annualized excess return above spending and inflation for the period ending March 31, 2019 were 1.0% and 4.2% respectively.

The fiscal 2019 return of 5.8% reflects:

- Performance from developed market public equities relative to other asset classes.
- An overweighting of developed market public equities at the expense of other assets.
- Active managers adding value over their benchmarks in aggregate.
- Canadian dollar depreciation which, on balance, enhanced returns.

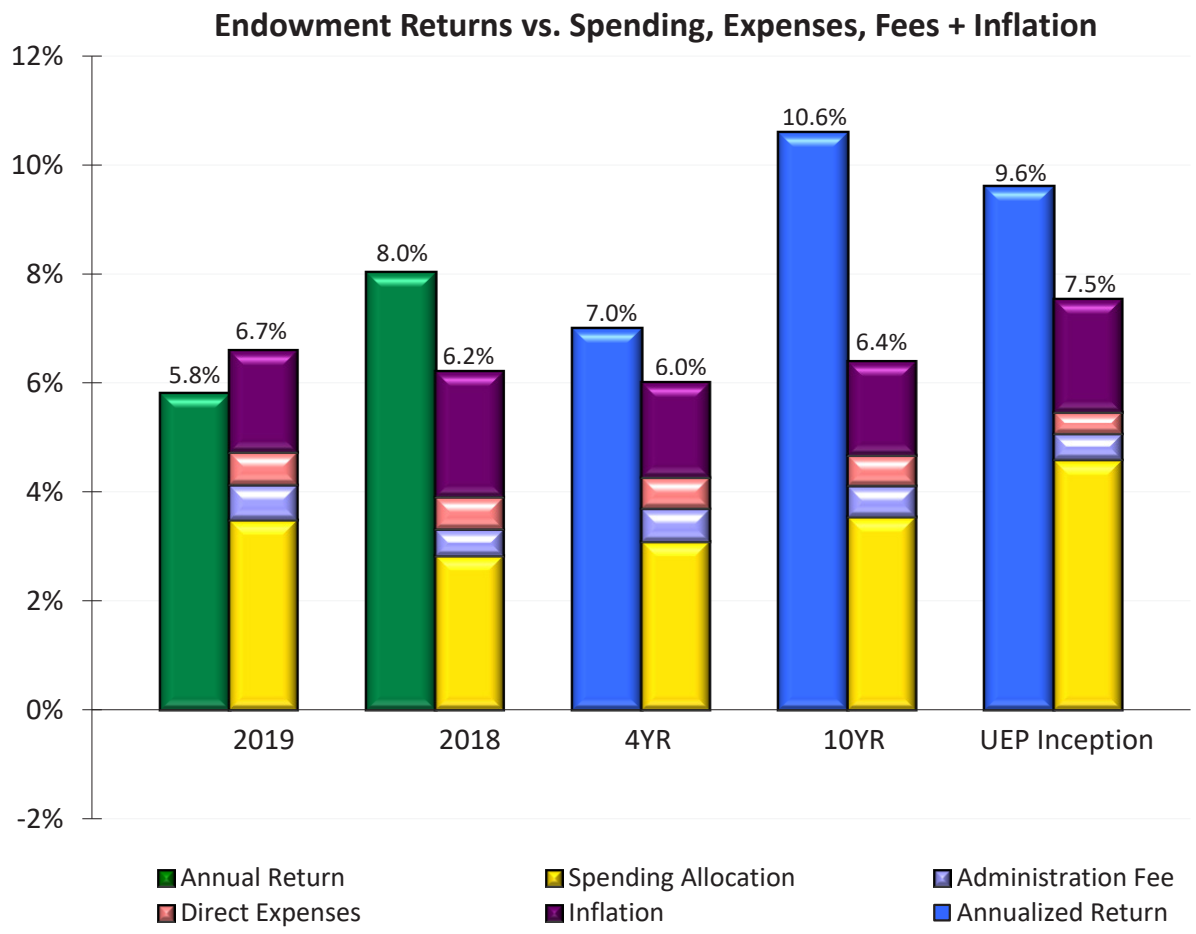
The UEP is invested for the long-term and is expected to provide a return in excess of spending and inflation in some years to compensate for years when this is not the case. Exhibit 4 illustrates the UEP's historical performance relative to the return objective of 7.25%.

Exhibit 4



As shown in Exhibit 5, since its April 1989 inception the UEP has produced an annualized return of 9.6%. This return has exceeded annualized total endowment spending plus inflation of 7.5% over that time period. This objective has also been achieved over all other time frames shown in the graph below with the exception of this past year, indicating that the UEP remains in a position to allow for stable support for students, researchers, and the University community.

Exhibit 5


Endowment Returns vs. Spending, Expenses, Fees + Inflation
12%
10%
8%
6%
4%
2%
0%
-2%
5.8%
6.7%
8.0%
6.2%
7.0%
6.0%
10.6%
6.4%
9.6%
7.5%
2019
2018
4YR
10YR
UEP Inception
Annual Return
Spending Allocation
Administration Fee
Direct Expenses
Inflation
Annualized Return

Further Perspectives on Investment Performance

The returns of individual asset classes in the UEP are measured against their respective benchmarks. The total fund return is measured against the benchmark outlined in Exhibit 6. The difference between the UEP and its benchmark return reflects the impact of allocation decisions by Management together with active management decisions by our external managers.

Exhibit 6

UEP Investment Policy Benchmark	
MSCI Canada IMI	15%
MSCI World IMI	45%
MSCI Emerging Markets IMI	10%
IPD/Realpac Canada Property Index	5%
S&P Global Natural Resources Index	5%
Dow Jones North America Select Junior Oil/Gas Index	5%
FTSE/TMX All Federal Bond Index	10%
HFRI Fund of Funds Composite Index	5%
	100%

The UEP return of 5.8% outperformed its benchmark return of 4.7%, primarily attributable to security selection by global equity investment managers. In aggregate the UEP's active public equity managers were able to add value during a year of mixed trends for equities. With respect to allocation, the value added by the overweight to global equity also contributed positively to performance, as did an underweight allocation to fixed income. The underweight allocation to inflation sensitive and diversifiers in aggregate was also a positive contributor to performance as these strategies performed poorly on a relative basis compared to public equities during the year.

Growth

Growth assets generated a 7.5% return. Performance was led by developed market public equities and private equity. Heightened volatility over the course of the year fostered an environment which favoured active managers, particularly those with a focus on quality, growth, and low volatility factors. Value and small cap portfolios lagged while emerging markets trailed their developed market counterparts by a wide margin. After several relatively poor years the Canadian equity market outperformed most markets which benefited the UEP given its overweight to benchmark allocation.

The UEP's existing private equity funds in secondary and venture capital strategies continued to call capital and progressed through their investment periods. The University's initial private equity investments in 2014 are moving into the harvesting phase, starting to distribute proceeds back to the UEP. In coordination with its private markets advisor, Management made five fund commitments (three to buyout, one to private credit, and one to venture capital) during the year and will continue to execute on investment opportunities over the coming years in accordance with its implementation plan.

Inflation Sensitive

Inflation Sensitive assets posted a modest return of 1.3% over the year with significant divergence between the underlying strategies. Real estate investments performed the best with contribution from both income and capital appreciation. Core real estate in Canada had its best returns in half a decade and US core real estate provided double digit returns. Value-add strategies in the US and Europe continue to distribute capital as properties are sold on an opportunistic basis.

Natural resource equity produced a small positive return as publicly traded resource investments navigated through a volatile commodity environment. From a sector perspective, agriculture and metals outperformed energy as the price of oil nearly halved towards the end of 2018. The UEP's existing energy private equity funds declined alongside their public equity peers while Management capitalized on the opportunity to allocate funds in this environment by committing to two additional funds – one each focused on Canada and the United States.

Deflation Hedging

The Deflation Hedging strategy produced a return of 4.2% for the year as interest rates declined sharply across the yield curve following the Bank of Canada adopting a more dovish tone. While having a shorter modified duration than the index this past year hampered relative performance slightly, the portfolio continues to be managed with an emphasis on capital preservation to support endowment spending during times of prolonged capital market stress.

Diversifiers

In aggregate Diversifiers generated lower results with a return of 3.4%. Managed futures were flat for the year while cash generated positive returns due to higher interest rates and exchange rate gains associated with an allocation to US T-bills. Cash was maintained at a higher than typical level during the latter half of the fiscal year as rebalancing proceeds were retained to fund the anticipated bespoke hedge fund portfolio.

Responsible Investment

The University's Statement of Investment Principles and Beliefs (SIP&B) includes the following statement on responsible investment:

> *As a long-term investor, the University of Alberta believes that investments in companies with positive attributes such as high ethical standards, respect toward their employees, human rights, and a commitment to the communities in which they do business can improve long-term financial performance. Conversely, investments in companies that manage their environmental, social and governance (ESG) risks poorly can negatively impact returns. The university believes that a proactive approach of engagement on ESG risks and opportunities is more constructive than excluding particular investments.*

As of March 31, 2019 the UEP had 83% of its assets managed externally. Of these assets, 85% were managed by signatories to the Principles for Responsible Investment (PRI), a United Nations sponsored organization founded in 2005 and leading proponent of responsible investment. An additional 7% of assets are with managers who belong to the United Kingdom's Stewardship Code or Global Reporting Initiative Sustainability Reporting Guidelines. Overall, a substantial portion of the UEP's assets are invested with Environmental, Social, and Governance (ESG) issues considered as part of the investment process.

Specific examples of engagement or investments undertaken by external managers and Management over the past year are outlined below:

Environmental

During the year, one of the University's global small cap equity managers, who is not a PRI signatory, but maintains an internal ESG policy and integrates ESG factors into their decision making process, initiated an investment in Bakkafrost, a Faroe Islands based integrated salmon producer. The investment decision was partially based on Bakkafrost's environmental approach and the resulting competitive advantage this gives the company. The company produces all of its own feed, using natural ingredients, while its competitors have less traceability of ingredients and use non-organic feed. Bakkafrost is a founding member of the Global Salmon Initiative and in 2015 had the first Faroese farming site certified by the Aquaculture Stewardship Council (ASC). Since then the company has received ASC certification for 9 of its 14 sites and is committed to having all sites certified by 2020. Additionally, Bakkafrost has made an investment in a local biogas plant that will use waste products from its farms to produce renewable energy and fertilizer, displacing 11,000 tonnes of CO_2 emissions annually. The trend towards increased global demand for sustainable protein production also influenced this investment decision. The United Nations Food and Agricultural Organization estimates that approximately 25% of the world's agricultural harvest is used for meat production. The feed conversion ratio for salmon is significantly lower than that of other meats.

Social

AMN Healthcare is a staffing company focused on the placement of nurses and health professionals on temporary assignment at hospitals and healthcare facilities throughout the United States of America. The University's other global small cap equity manager, a founding member of PRI, identified that a sizable pay differential exists in the nursing profession, even though women significantly outnumber men. Senior management and board members of AMN Healthcare were engaged and encouraged to take a leadership position on this matter by not only examining its own practices but also by raising the issue of pay disparity with its industry peers. AMN Healthcare has subsequently focused on its own operations by undertaking pay audit of its directly employed staff. The company is now starting to turn its attention towards driving change in its industry. AMN Healthcare is part of the Bloomberg Gender-Equality Index, which distinguishes companies committed to transparency in gender reporting and advancing women's equality. AMN Healthcare was named for the second year to the Human Rights Campaign Corporate Equality Index, a premier benchmarking survey in the United States of America for corporate policies and practices relating to LGBTQ workplace equality. The manager also reported that they have engaged with AMN Healthcare on scaling up its existing volunteer efforts to support healthcare training initiatives in lower and middle income countries.

Governance

Shin-Etsu Chemical has been a long standing Japanese investment for one of the University's global large cap equity managers, who is also a PRI signatory. Prior to the Global Financial Crisis, Shin-Etsu had a respectable dividend profile and maintained an appropriate strategic level of cash. Over the past decade sensible prudence turned into excessive caution. The investment manager concluded that Shin-Etsu's capital allocation was at odds with the best interests of shareholders as dividends were held flat as the company's cash balance grew. After a prolonged and persistent engagement with the company on this matter, Shin-Etsu recently doubled its dividend per share, bringing its dividend yield closer to the average of broader global equity markets.

Investment Performance Relative to Peers

The University of Alberta participates in annual benchmark studies with our North American peers. The Canadian Association of University Business Officers (CAUBO) surveys as of December 31. The most recent published data from CAUBO is for the period ending December 31, 2017. This data may make shorter-term comparisons less than informative due to timing. The University's ten year return of 7.0% for the period ending December 31, 2017 compared favourably to the CAUBO 10 year median return of 6.4%. In the United States, the National Association of College and University Business Officers (NACUBO) in conjunction with Teachers Insurance and Annuity Association of America (TIAA), surveys as of June 30. As US dollar returns can be very different to Canadian dollar returns due to exchange rate movement and allocations to Canadian equities and fixed income, a short-term direct comparison is usually not meaningful. However, over five or ten year periods, the University's returns have been very comparable to many larger US endowments.

Costs

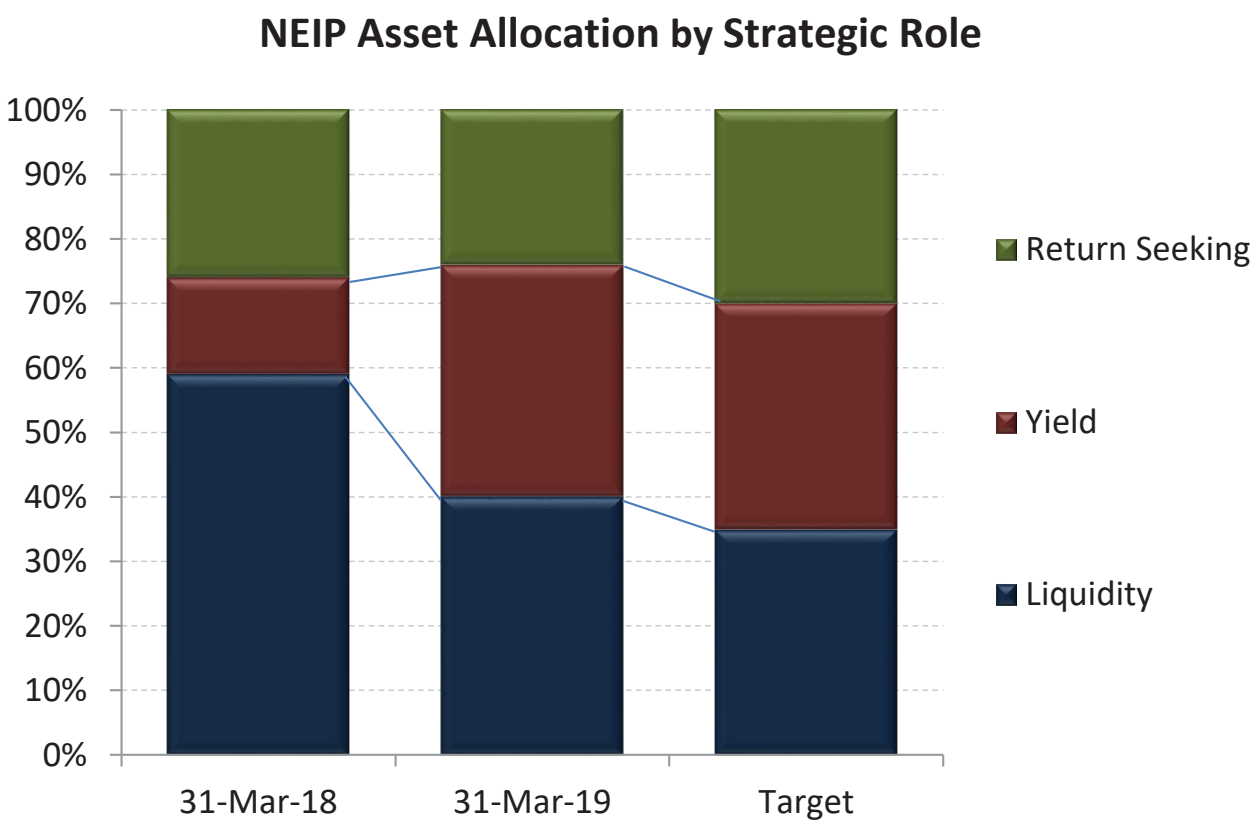
The fund incurred direct expenses (investment management and custodial fees) of $8 million or 0.6%. As a percentage of assets under management these costs are consistent with prior years. An administrative fee to support centrally funded indirect costs associated with endowment programs is charged to the endowments. For 2019 this amounted to $9 million or 0.7%.

Non-Endowed Funds

The Non-Endowed Investment Pool (NEIP) represents the University's operating, capital, and restricted funds, which are pooled together for investment purposes until required. Long-term cash flow projections indicate that a substantial portion of these funds will not be required in the short-term. Accordingly, Non-Endowed funds are invested across three distinct strategies with varying maturity profiles as summarized in Exhibit 7.

- To meet the University's cash flow requirements, the Liquidity strategy focuses primarily on the preservation of capital and invests in money market securities maturing within one year.
- To generate additional returns above liquidity assets while maintaining an appropriate level of risk, the Yield strategy is permitted to invest in fixed income securities, preferred shares, mortgages, private credit, and absolute return strategies.
- To further enhance long-term returns, the Return Seeking strategy accesses global public and private markets by investing in the UEP.

Exhibit 7



The NEIP benefited from higher investable balances and rising short-term interest rates over the course of most of the year with a return of 3.4% against a benchmark return of 2.9%. The Liquidity strategy remained overweight at 40% of the NEIP, but declined in absolute dollar terms as allocations were made to new investment mandates in the Yield strategy. The Liquidity strategy returned 1.9% compared to the benchmark return of 1.5%.

The NEIP's Yield strategy grew substantially over the past year. Two unconstrained global fixed income managers with offsetting investment styles were hired in the fall of 2018. Management also initiated exposure to Canadian preferred shares through an Exchange Traded Fund (ETF) following a price decline in late 2018. The ETF will fund the active investment manager selected for this strategy. Finally, the NEIP made its first allocation to private credit with a commitment to a US senior loan fund in conjunction with the UEP. The Yield strategy continues to hold internally-managed Canadian bonds that will be used to fund other Yield strategies in the coming year. This portfolio returned 3.4% against a benchmark return of 3.5%.

The Return Seeking strategy invests in the UEP. This strategy returned 5.8% compared to its benchmark return of 4.7%, and contributed meaningfully to the overall NEIP return of 3.4%.

Once the NEIP's investment strategy is fully implemented, it is expected to earn higher returns than the Liquidity strategy while remaining within an acceptable level of risk due to diversification of return drivers. Given the inherent volatility of financial markets, steps have been taken to lessen the reliance of the University's operating budget on investment returns. To protect the operating budget from potential future fluctuations, an investment income reserve was formally established and funded from re-investing investment income from the Yield and Return Seeking strategies. Once the reserve exceeds its target value of 17% of the underlying investment cost, it will serve as a source of funding for future strategic initiatives. As of March 31, 2019 the reserve stood at $55 million or 9.7% of its underlying investment cost.

Closing Thoughts and Outlook

Following another year of positive investment results the real value of the UEP remains healthy, allowing for a continued stable and predictable spending allocation that will benefit students, faculty, researchers, and the broader University community. Over the past year the Investment Committee oversaw Management as it made significant progress in implementing the strategic asset allocation of both the UEP and NEIP. Development of an internal risk measurement and reporting initiative is also well underway with further refinements expected over the coming year. The future incorporation of enhanced risk budgeting will assist Management and the Committee with assessing the ongoing appropriateness of all existing investment strategies, and provide better insight into the underlying sources of risk in the University's investments.

Under the purview of the Investment Committee, Management will continue to carry out the implementation of both the UEP and NEIP's strategic asset allocations over the coming year. With respect to the UEP, the strategic allocation to private equity will require several new commitments and additional hedge fund allocations will be made. The NEIP's Yield allocation will see capital deployed into commercial mortgages, private credit, and absolute return strategies. Additional effort will continue to be placed on ensuring the risk profile of the UEP and NEIP remains consistent with their respective objectives and time horizons.

Investments & Treasury

Financial Services
3rd Floor Administration Building
University of Alberta

Ron Ritter
Director, Investments & Treasury
P: 780.492.9987
E: ron.ritter@ualberta.ca

UNIVERSITY OF ALBERTA