UNIVERSITY OF ALBERTA

2023

Annual Investment Report

Investments at a Glance

$3.2 Billion
Total Assets

Endowment	Non-Endowed
$1.7 Billion Endowment Assets	**$1.5 Billion** Non-Endowed Assets
6.3% 2023 Fiscal Year Return	**2.8%** 2023 Fiscal Year Return
$60 Million 2023 Spending Allocation	**$57 Million** 2023 Operating and Strategic Support
9.1% 10 year Annualized Return	**4.0%** 10 year Annualized Return
$451 Million 10 year Cumulative Spending Allocation	**$388 Million** 10 year Cumulative Support

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Letter from the Chair

Investment Committee as of March 31, 2023

APPOINTED:

Derek Brodersen, CFA Chair

Maria Holowinsky, CFA Vice-Chair

Kelly Featherstone, CFA

Kevin McDowell, CFA

Jai Parihar, CFA

Peter Pontikes, CFA

Rakesh Saraf, CFA

EX-OFFICIO:

Kate Chisholm, K.C.

Bill Flanagan

Peggy Garritty

I am pleased to present the 2023 annual investment report on behalf of the University of Alberta Investment Committee. The University's investment assets totaled $3.2 billion as of March 31, 2023, of which $1.73 billion represented endowments. Over the year, endowment support for scholarships, faculty, and research reached another record of $60 million, or just more than $1 million per week.

The University Endowment Pool (UEP) returned 6.3% this past year amidst heightened volatility and relatively weak performance from traditional assets, namely fixed income. Over the last decade, the UEP has exceeded its long-term target of 7.25% with a 9.1% annualized return. This healthy long-term performance has led to investment assets reaching another all time high, in turn allowing for increased funding support across campus. The Non-Endowed Investment Pool (NEIP) returned 2.8%, with performance more muted due to the challenging environment for fixed income. Despite the difficulties, the portfolio was still able to provide near record financial support to the University during a tough period.

Over the past year, the world returned to a life that more or less resembled the pre-pandemic era, albeit with a unique set of new challenges. Recent persistently high inflation has impaired the standard of living in most countries, particularly those that do not benefit from a vast wealth of natural resources like Canada. In turn, central banks embarked on the most rapid series of interest rate increases since the stagflation era of the 1970's, resulting in significant drawdowns across most global equity and fixed income markets. Hedge funds thrived during this period of volatility and price dispersion across assets, while valuations in private markets remained largely unchanged. As we moved into 2023, a mild winter across most of the globe eased concerns over the looming global energy crisis, while the war in Ukraine entered its second year. In March of 2023, multiple US regional bank failures dramatically altered the expectations of most market participants with respect to the path forward for interest rates. As a result, equity markets rallied significantly after the Federal Reserve reengaged in quantitative easing. As the impact of higher interest rates continues to work through the economy, many are now wondering if a recession is lurking. Amidst this backdrop, the University's investment program remains well positioned to navigate this difficult environment.

The UEP benefitted from nearly all its strategic allocations this past year. Diversifiers led the way, while performance from Growth and Inflation Sensitive strategies was more modest. Deflation Hedging performed poorly for the second consecutive year as the headwind of rising interest rates proved challenging. The Investment Committee continued to oversee Management's implementation of the UEP and NEIP's respective investment programs, as well as revisions to the Statement of Investment Principles & Beliefs.

I would like to acknowledge members of the Investment Committee and Management for their continued hard work and dedication in support of the University and its stakeholders. In particular, I would like to thank Sandy McPherson and R. Ryan Thompson, whose tenures on the Investment Committee ended this past year.

Derek Brodersen, CFA
Chair, Board Investment Committee

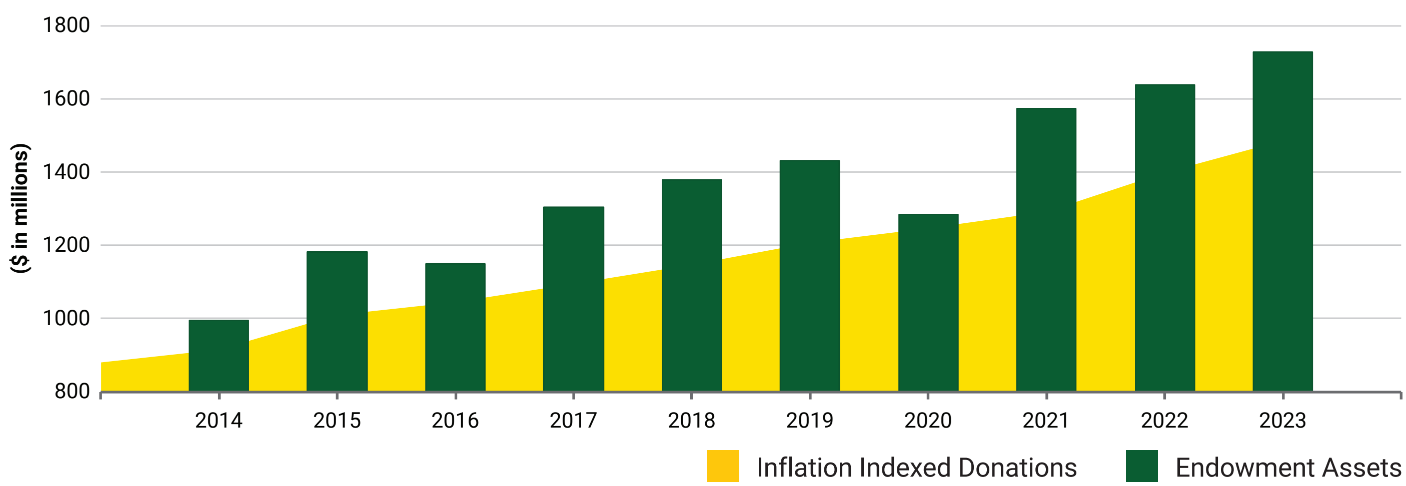
2023 Highlights

Endowment Assets

With few exceptions, endowment assets are pooled and invested collectively in the University Endowment Pool (UEP). Endowment assets represent permanently restricted capital, and annually only a portion of the earnings can be allocated for their specified purpose. The investment objective of the UEP is to achieve a long-term rate of return that in real terms (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 preserve intergenerational equity for students and researchers, ensuring a comparable level of support between current beneficiaries and future generations.

- The market value of endowment assets ended the 2023 fiscal year at $1.73 billion, up $88 million from 2022. A total of $60 million was made available for support for academic programs, faculty, research, and scholarships, an increase of just under $3 million from the prior fiscal year.
- The UEP returned 6.3% during the year as all Strategic Roles posted positive performance led by Diversifiers. Growth and Inflation Sensitive strategies also generated healthy gains while Deflation Hedging was slightly positive. Over the past ten years, the UEP's annualized return was 9.1%, well above the long-term objective of 7.25%.
- The real value of the endowments declined by 2.7%, as the 6.3% return was exceeded by total expenditures of 4.7% and inflation of 4.3%. In dollar terms after adjusting for inflows and considering timing differences, the value of the endowments over their cumulative inflation adjusted target changed little during the year, but in percentage terms declined to 16.3%. The current surplus is required to protect against future market volatility and allows for stable spending support heading into the coming year.

Exhibit 1: Endowment Assets vs. Inflation Indexed Donations

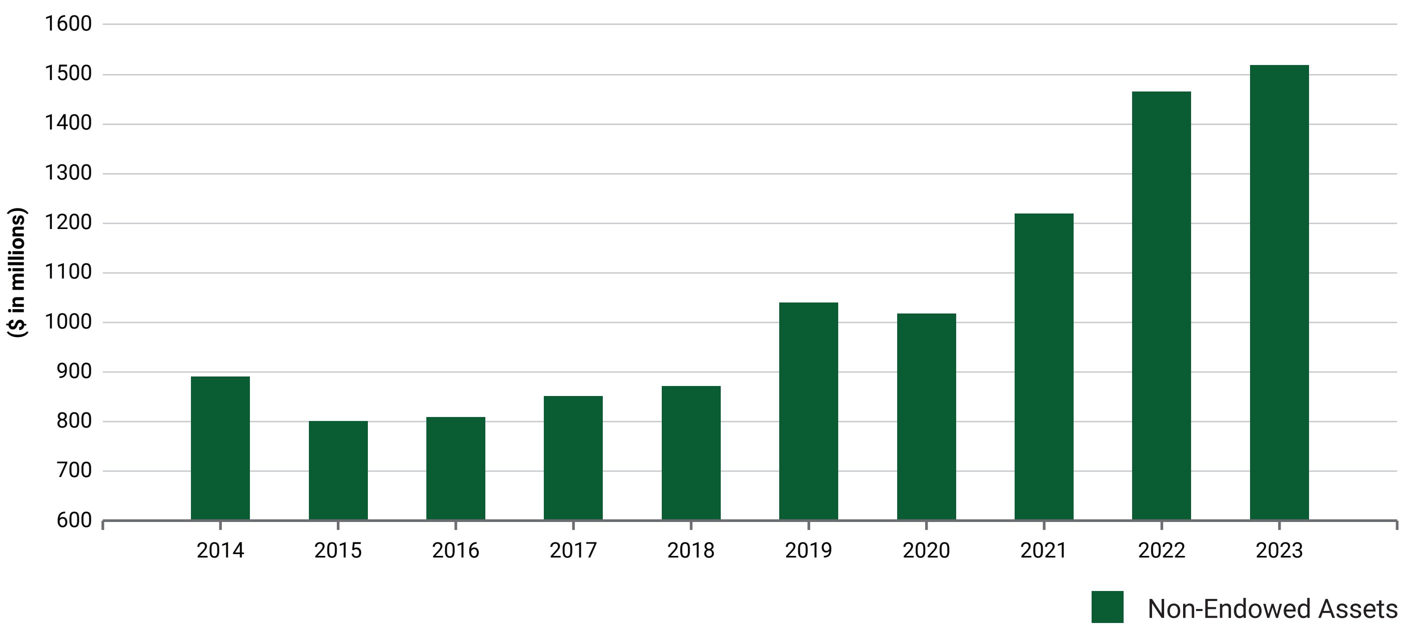


Non-Endowed Assets

In contrast, the Non-Endowed Investment Pool (NEIP) consists primarily of expendable operating and research funds. Its time horizon is shorter-term in nature and it has a commensurately lower risk profile. Like the UEP, these assets are pooled together for investment purposes until required. Investment earnings derived from this program directly support the University's annual operating budget and future strategic initiatives.

- The market value of non-endowed assets ended the 2023 fiscal year at $1.52 billion as outlined in Exhibit 2, up $53 million from 2022. A total of $20 million of income was made available for operating budget support.
- The NEIP returned 2.8% for the year as positive performance from Liquidity and Return Seeking was partially offset by poor performance in Yield strategies. Over the past ten years, the NEIP's annualized return was 4.0%.
- During the year, $37 million of earnings were transferred to the investment income reserve. The value of the NEIP's Yield and Return Seeking strategies exceeded their underlying obligations by $243 million or 25.5% as of March 31, 2023. This includes both realized and unrealized earnings. Realized earnings support the investment income reserve of $108 million.

Exhibit 2: Non-Endowed Assets



Major Initiatives During the Year

UEP and NEIP Investment Program Implementation

Management had another productive year with respect to the implementation of the University's investment program, with most of the activity focused on the UEP.

The UEP continued to see the allocation to illiquid strategies increase, through a combination of additional allocations and performance. As a result, the overall exposure to non-traditional assets (private markets and hedge funds) finished the year at another all time high of 39%. Within Growth, five buyout/growth/venture capital fund commitments were made. In Inflation Sensitive, two commitments were made to value-add real estate funds in Europe and Asia, while two commitments were made in real assets. Distributions from real assets accelerated throughout the year as companies returned significant amounts of cash back to investors amidst a robust commodity price environment. With respect to Diversifiers, Management and its advisor were relatively active and made several changes to the manager lineup to better align with changing macroeconomic conditions. Exposure to long/short equity and trend following managers was reduced, with proceeds reallocated to relative value strategies focused on commodities and volatility trading.

The NEIP saw its allocation to Return Seeking increase throughout the year, due to a reallocation of capital and positive performance. The Return Seeking strategy closed the year at an all time high of $600 million. With respect to Yield, muted top line performance understates the dispersion of the underlying strategies during a particularly volatile year for fixed income. Management revisited its Canadian commercial mortgage search that had been on hold since the start of the pandemic, and finalized its commitment during the summer of 2022.

Statement of Investment Principles & Beliefs

In late 2022, Management and the Investment Committee engaged in a half-day session to review the Statement of Investment Principles & Beliefs (SIP&B). This session was facilitated by one of the University's long tenured consultants with representation from the Canadian office, as well as the endowments and foundations team located in the US. It had been many years since the last facilitated session was held, and new Investment Committee members brought fresh perspectives and thoughtful ideas for discussion. Management and the Investment Committee are pleased with the outcome, and the revamped SIP&B will continue to serve as a foundational document that drives policy decisions into the future.

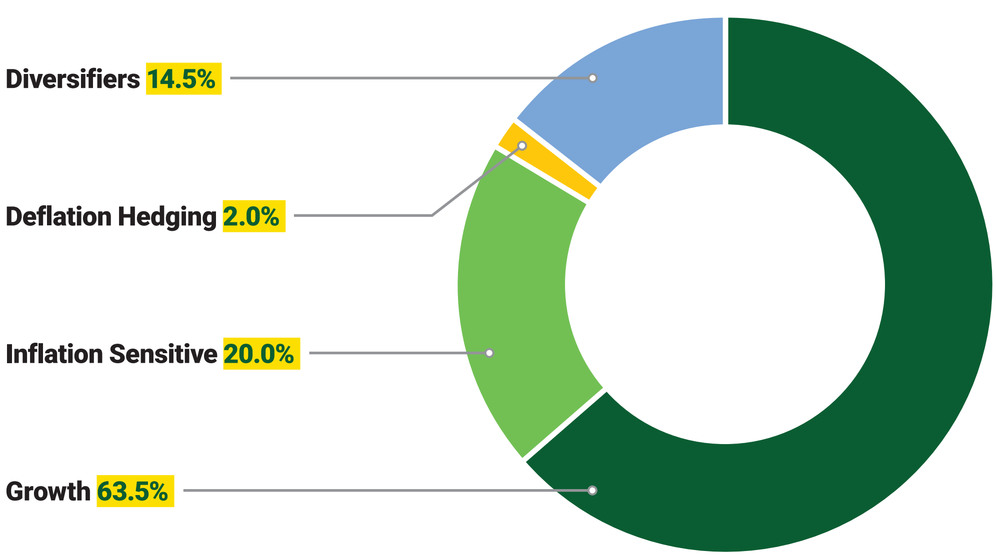
Endowment Assets

The primary investment objective for the UEP is to achieve a long-term real rate of return that equals or exceeds total endowment spending and inflation. 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 growth assets such as public and private equities is necessary.
- Inflation sensitive assets are those that respond favourably to unexpected and/or rising inflation. The assets in this category include real estate, infrastructure, natural resource equities, energy and renewables, mining, and commodities.
- Deflation hedging assets are expected to remain liquid and maintain their value during times of extreme economic and capital market turmoil. This strategy consists of high-quality sovereign bonds.
- Diversifiers are investment strategies that have low or no expected correlation with the capital markets or inflation and include hedge funds and cash.

Endowment assets are summarized by Strategic Role in Exhibit 3.

Exhibit 3: UEP Asset Allocation by Strategic Role as of Mar 31, 2023

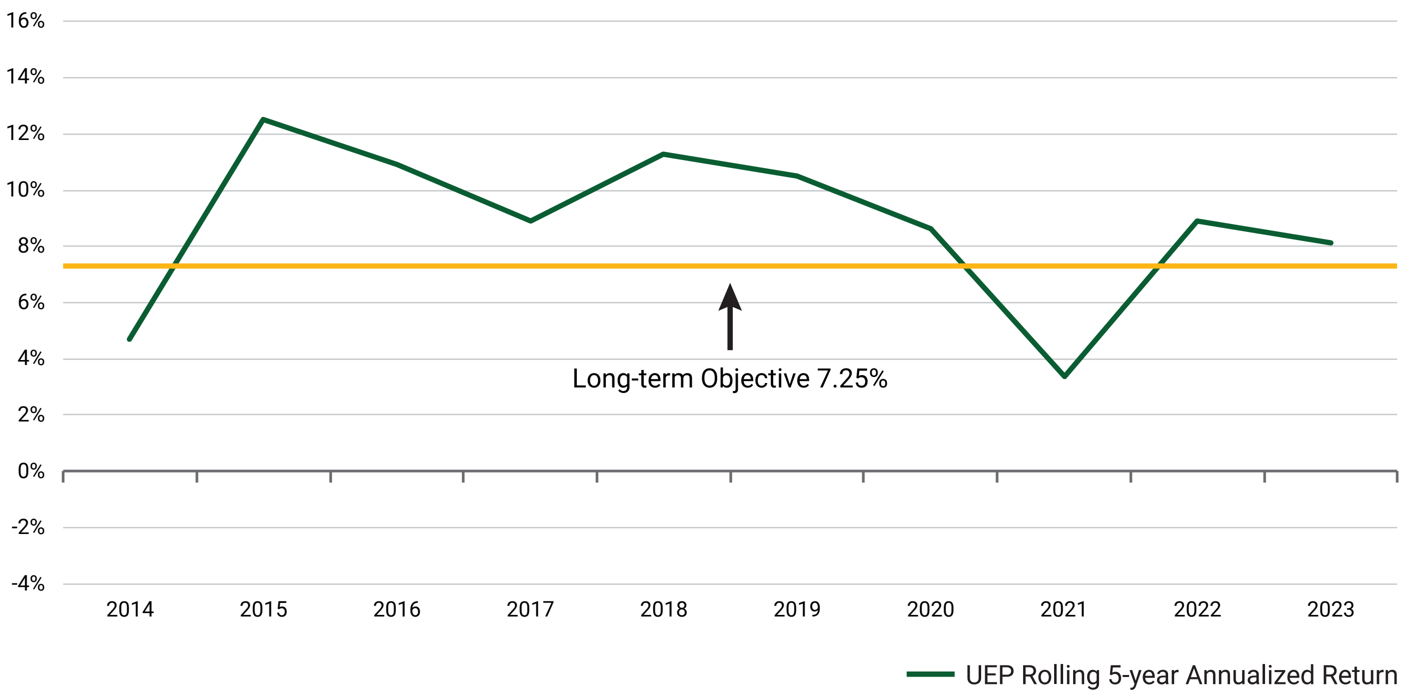


Investment Performance Relative to Objectives

The UEP return over the past year trailed total spending plus inflation by 2.7%. This was due principally to inflation registering 4.3% on a year over year basis for March 2023, still well above Management's long-term expectation of 2%, which is based on the inflation bands used by the Bank of Canada. The ten year and since inception annualized excess return above spending and inflation as of March 31, 2023 were 2.2% and 1.8% respectively. This indicates that the UEP's investment program has been able to grow endowment principal in real terms over its history.

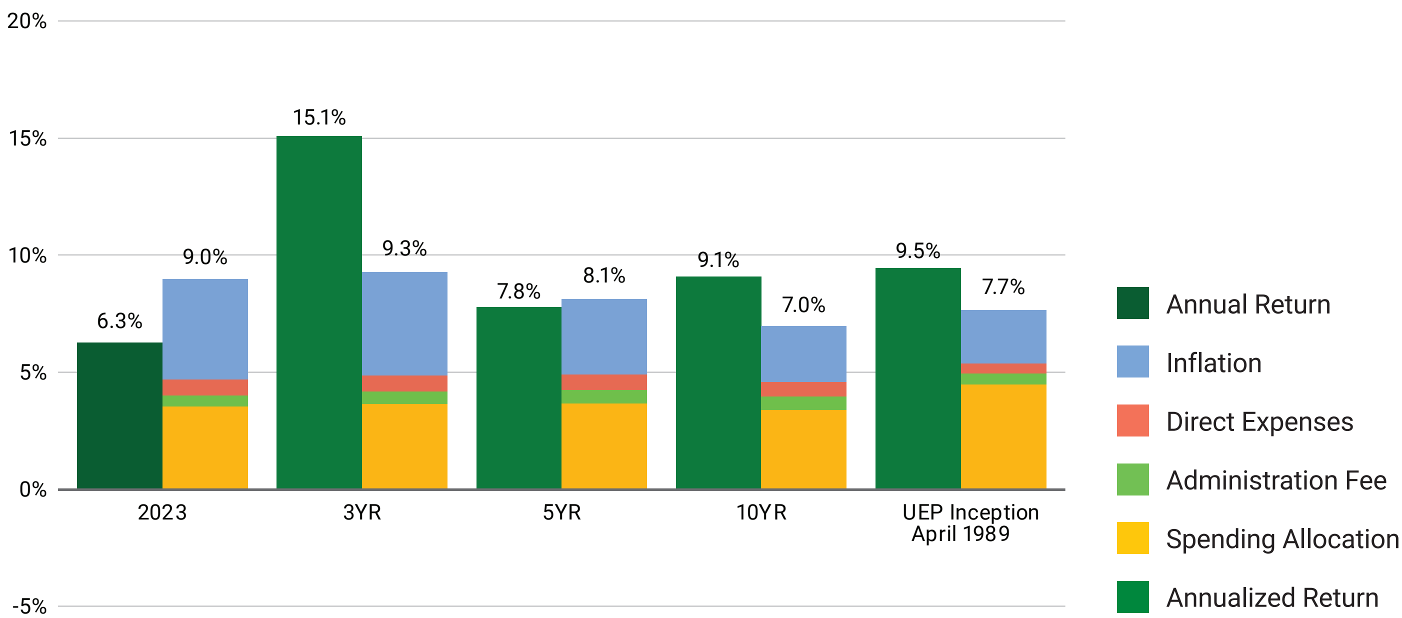
The UEP remains invested for the long-term with the expectation of providing a return in excess of spending and inflation in some years to compensate for years when this is not the case. Exhibit 4 illustrates the UEP's historical performance relative to the return objective of 7.25%.

Exhibit 4: Historical Performance vs. Long-term Objective



As shown in Exhibit 5, since its April 1989 inception the UEP has produced an annualized return of 9.5%. This performance has exceeded since inception annualized endowment spending plus inflation of 7.7%. Performance has also surpassed spending and inflation over the past three, and ten-year periods while keeping pace on a five-year basis. The UEP remains in a position to allow for stable support for students, researchers, and the University during this uncertain environment.

Exhibit 5: Endowment Returns vs. Spending, Expenses, Fees + Inflation



Further Discussion on Investment Performance

Management measures the performance of all underlying strategies against relevant benchmarks while the Total Fund is compared to the benchmark outlined in Exhibit 6 that was adopted on April 1, 2022. The only change made this past year was to reduce the weight of the MSCI ACWI IMI, a global public equity index, by 5% and commensurately increase the weight of the MSCI ACWI IMI + 3% (3-month lag). Management made this change to reflect the progress being made in moving the UEP's allocation to private markets closer to the long-term strategic target. Deviations in performance between the UEP and its benchmark reflect the impact of Management's allocation decisions and value added by investment managers.

Exhibit 6: UEP Investment Policy Benchmark

MSCI ACWI IMI	50%
MSCI ACWI IMI + 3% (3 mth lag)	10%
IPD/Realpac Global Property Index	10%
S&P Global Natural Resources Index	10%
FTSE Canada Federal Bond Index	5%
LIBOR + 6%	15%
Total	**100%**

The UEP returned 6.3% over the past year, which exceeded the benchmark return of 3.3%. Diversifying strategies led the way as elevated volatility across most traditional markets proved to be a fertile environment for hedge funds. The portfolio's Growth and Inflation Sensitive strategies also contributed positively as all underlying allocations generated gains over the course of the year. Deflation Hedging posted a small gain and outperformed the passive benchmark, which generated a loss for the year due to rising interest rates across the yield curve. Further commentary on each of the UEP's Strategic Roles is provided below.

Growth

Growth assets generated a 5.5% return for the year as public equity and private markets both contributed positively to performance. The public equity program posted a return of 5.5%, which materially outperformed the MSCI ACWI IMI return of 0.0%. This was due predominantly to the portfolio having an overweight allocation to Canada and commensurate underweight allocation to the US, which lagged behind most other equity markets over the past year. From a factor perspective, value strategies outpaced their growth and low volatility counterparts and contributed positively to relative performance. The portfolio remains tilted towards smaller capitalization companies and is more globally diversified than the benchmark.

Over the past year the private markets program posted a 6.3% return and continued to grow due to increased capital calls by existing General Partners (GP's). Management was also very active and completed five new fund commitments (four to buyout/growth, and one to venture capital). As of March 31, 2023, the allocation to private markets was 11.3% compared to the strategic target of 20%. Management will continue working alongside its private markets advisor to build out the program over the coming years, with emphasis on existing GP's and opportunistic new allocations where appropriate.

Inflation Sensitive

Inflation Sensitive assets posted a return of 5.9% over the year with positive contribution from most underlying allocations. The real estate & infrastructure portfolio generated a 6.9% return as core strategies in the US and Canada posted gains in aggregate, and valuations remained steady even with interest rates rising throughout the year. Value-add strategies continued to call and distribute capital in line with Management's expectations. Management also completed two commitments, one to a European value-add fund with an existing GP, and the UEP's first Asian value-add fund. The allocation to real estate & infrastructure remains underweight, and Management will continue to cautiously deploy capital over the coming years.

The real assets program also contributed positively with a 5.7% return for the year. Gains were broad based as natural resource public equities, private energy & renewables, and directional commodity futures all performed well. These asset classes generally faced headwinds over the past year, as commodities came off the highs experienced after the Russian invasion of Ukraine began in February 2022. The combination of favourable weather and behavioural adaptation eased concerns over a global energy crisis, which ultimately resulted in lower commodity prices and inflation. As a result, performance over the past year was generated more through manager skill as opposed to market momentum when compared to the prior year. Management closed on two new commitments and one co-investment with existing GP's during the year. For the second consecutive year, real asset distributions were significant leading to a slight decline in the overweight allocation. Over the coming years Management will continue to opportunistically redeploy capital with a focus on enhancing diversification across real assets.

Deflation Hedging

The Deflation Hedging strategy produced a return of 0.3% for the year as interest rates across the yield curve moved sharply higher, due to persistently high inflation and a withdrawal of central bank stimulus, which led to tighter monetary conditions. The portfolio outperformed the FTSE Canada Federal Bond Index return of -1.2%, and maintained its defensive position over the course of the year. With real interest rates at the shorter end of the yield curve now positive for the first time in many years, Management plans to assess the relative attractiveness of sovereign bonds and if appropriate, address the underweight allocation over the coming year.

Diversifiers

In aggregate, Diversifiers were the top performing strategy this past year with an 11.6% return. While performance was strong, it lagged behind the benchmark return of 17.6%. The UEP's diversified hedge fund program benefitted over the past year from significant allocations to trend following and global macro managers, who exhibited their strongest performance in many years. Heighted volatility across traditional markets and macro instability led to a plethora of opportunities across assets classes for managers in this space. The portfolio maintained a small cash position throughout the year for liquidity purposes, which generated a 1.3% return. With an inverted yield curve, money market is now quite attractive and Management expects to carry a slightly higher position over the near term.

Investment Performance Relative to Endowment Peers

The University of Alberta participates in annual benchmark studies with our North American peers. The Canadian Association of University Business Officers (CAUBO) surveys endowment asset allocation and returns as of December 31. The most recent published data from CAUBO is for the period ending December 31, 2021. This data may make shorter-term comparisons less than informative due to timing issues. The UEP's ten year annualized return of 10.4% for the period ending December 31, 2021 exceeded the CAUBO ten year median return.

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 those in Canadian dollars due to exchange rate fluctuations, comparisons are usually not meaningful. However, NACUBO also produces an Endowment Study of Canadian Institutions. This survey of 16 institutions includes many peer institutions as the eight institutions in the over $750 million category include McGill University, UBC, University of Toronto, and Western University. The UEP's ten-year net return of 8.8% for the period ending June 30, 2022 was higher than the 8.4% weighted average of the category.

Investment Program Costs

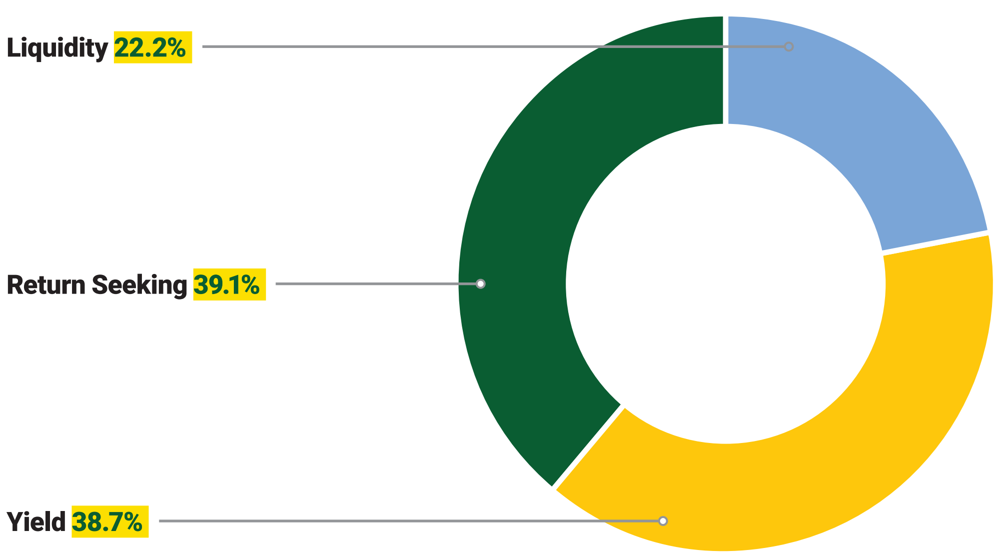
Investment management fees of $11 million or 0.7% were paid directly by the endowments during the year. An administrative fee to support centrally funded indirect costs associated with endowment programs is charged to the endowments. For 2023, this amounted to $8 million or 0.5%.

Non-Endowed Assets

The Non-Endowed Investment Pool (NEIP) represents the University's operating, capital, and restricted funds, which are pooled together for investment purposes. Updated long-term cash flow projections indicate that a substantial portion of these funds will not be spent in the short-term. Accordingly, the Non-Endowed funds are structured to reduce opportunity cost by investing 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 diversified across global fixed income, preferred shares, private credit, commercial mortgages, and absolute return strategies. The investments within the Yield generally have a five to ten year investment period.
- To further enhance long-term returns, the Return Seeking strategy accesses global public and private markets by investing in the UEP.

Exhibit 7: NEIP Asset Allocation by Strategic Role as of Mar 31, 2023



Investment Performance Relative to Objectives

The NEIP returned 2.8% for the year, which trailed the benchmark return of 4.9%. The Yield strategy lagged its inflation-linked benchmark as inflation rose to levels not seen in decades. This was partially offset by positive contribution from Return Seeking, while Liquidity had its strongest year in recent memory due to the impact of higher interest rates. Further commentary on each of the NEIP's strategic roles is provided below.

Liquidity

The internally managed Liquidity program returned 2.8% and benefitted from the highest interest rates seen in many years. Management is now generating between 4.5-5.0% on incremental investments, which provides stable core support to the University's operating budget.

Yield

The Yield program returned -1.7% with mixed results from the underlying allocations, and substantially underperformed the CPI + 3% benchmark of 7.4%. Global unconstrained fixed income managers suffered due to the headwind of rising interest rates, which negatively impacted the value of virtually all fixed income securities over the year. With much of the pain likely to have passed, the portfolio is now currently yielding approximately 5.0% with improved underlying credit quality.

After being the best performing strategy last year, Canadian preferred shares were the worst performing strategy. Rising bond yields are generally seen as positive for this asset class, however this trend was dwarfed by rising inflation and recession fears. Preferred shares also became highly correlated with equities over the past year. In addition, financial sector issuers make up a substantial portion of the Canadian preferred share market, and the same rise in interest rates placed pressure on the interest rate margins of banks and insurance companies. Proposed income tax changes in the most recent federal budget also weighed on the sector. After a disappointing year, the portfolio is now yielding approximately 6.5% with no material deterioration in quality.

The private credit allocation continued to call capital as expected and has held up well thus far despite the challenging environment for fixed income more broadly, as most of the underlying instruments have a floating interest rate tied to central bank rates.

Absolute return managers provided nice diversification in an otherwise disappointing year and generated positive performance due to opportunities on both the long and short side across many asset classes.

During the year, Management revisited its commercial mortgage investment manager search that began in 2020. A commitment to this asset class was made in the summer of 2022 and capital will be called over time.

Return Seeking

The Return Seeking strategy invests in the UEP with the objective of enhancing growth over time. This strategy returned 6.3% and saw its allocation increased by $30 million during the year to bring the weight closer to target. As of March 31, 2023 the Return Seeking allocation was an all time high of $600 million.

Following another year of positive performance, the value of the Yield and Return Seeking strategies over their underlying cost stood at $243 million or 25.5%, which includes both realized and unrealized earnings. The surplus value supports the University's investment income reserve, which is one element of the NEIP's risk management strategy. Amounts in excess of 17% may be used for future strategic initiatives. Cumulative realized earnings of $108 million have been transferred to the investment income reserve.

Responsible Investment

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

In general, the Board Investment Committee believes that:

The integration and assessment of environmental, social, and governance (ESG) risks in the investment process along with proactive engagement, where appropriate, can lead to improved long-term financial performance.

And

Higher levels of equity, diversity, inclusion, and indigeneity (EDII) contributes positively towards employee engagement and organizational success.

Responsible investment considerations remain a key part of Management's activities as it carries out its fiduciary duty in stewardship of the University's investments. As part of its ongoing due diligence, Management regularly engages with its trusted investment partners on ESG and EDII matters. Over the past couple of years, increased focus has been placed on reducing, where appropriate, the carbon intensity of select portfolios without sacrificing investment performance. ESG and EDII also remain a key part of the due diligence process for all new investment strategies across both the UEP and NEIP. Management has selected two examples that highlight efforts over the past year to address responsible investment considerations.

Federated Hermes Limited – Wage Support for Lowest Paid Employees

The University has maintained an allocation to the Federated Hermes Limited ("FH") Global Small Cap Equity strategy since 2014. FH has deep roots in responsible investment dating back to 2006 as a founding member of the Principles for Responsible Investment (PRI), a global organization focused on encouraging investors to use responsible investment to enhance returns and better manage risks. For well over a decade, FH has integrated responsible investment into almost all strategies across the firm, and has strived to pursue engagement as a constructive approach rather than divestment.

Over the past year, FH worked extensively to engage with numerous portfolio companies that were seen to be prioritizing short-term corporate profits at the expense of their employees, particularly those at the lower end of the wage scale. As inflation continues to disproportionately affect those that are least equipped to handle it, FH believes that companies can still maintain their obligation to shareholders while helping those that are working hard to achieve that profitability. FH noted that various independent resources cited record levels of employee stress, quit rates, labour strikes, and the risk of reduced productivity going forward as key reasons why this issue remains important. When it comes to engagement, FH directly approached the board of directors of many portfolio companies to request their assistance in addressing this matter. There is evidence in select portfolio companies to suggest that while increasing employee wages is likely to be a headwind to near term profitability, over the long-term it results in less employee turnover, operational savings, and higher productivity. This is especially critical in the age of social media where transparency of employee satisfaction has never been better. While it is too early to assess the direct impact of this engagement on the portfolio, the emphasis remains on maintaining a positive dialogue with companies and working towards outcomes that are mutually beneficial for employees and shareholders.

Angelo Gordon – Irish Value Housing II

In the aftermath of more than a decade characterized by low interest rates, housing markets have experienced a substantial surge in prices across various jurisdictions. However, this upward trend has also come at a time that challenges new construction projects due to the inflation of commodity prices. Recognizing the pressing need to address the housing crisis, Angelo Gordon, one of the University's European value add real estate managers, has forged partnerships with local councils in Ireland. Together, they aim to tackle the challenges faced by 86,000 families who find themselves on a waiting list for affordable housing in that country.

To meet this demand, a combination of existing multifamily structures in dire need of refurbishment and new developments have been pre-leased to the Irish government. These leases span a 25-year period, carry an attractive yield for investors, and are indexed to inflation, ensuring that both investors are provided a return on their capital and Irish families obtain affordable housing for decades to come.

Since the inception of this partnership between Angelo Gordon and the local councils, notable progress has already been made. The largest property recently saw the successful delivery of 135 units. Furthermore, momentum continues to build with two additional projects currently under construction, further expanding the availability of affordable homes. Presently, a total of 328 units are either undergoing refurbishment or in the process of development. This worthwhile effort ensures that a number of families will soon have access to safe, affordable housing and revitalized communities.

Looking Forward

With the pandemic now largely in the rear view mirror, Management has resumed all routine activities when it comes to stewardship of the University's investments. This includes regular in-person meetings as well as on site due diligence reviews with investment managers and engagement with fellow institutional investors. While certain aspects of daily life were streamlined during the pandemic, a return to in-person interaction both as a team and with our trusted investment partners has been most welcome. Though still early, the coming year is poised to be another busy one for Management in its oversight of the University's investments.

The world is certainly a more complicated place due to heightened geopolitical tensions, stubbornly high inflation, the rapid evolution of artificial intelligence, and the looming energy transition. Amidst this backdrop, investment opportunities are sure to arise, and Management will continue to focus on trying to capitalize on them in a risk-controlled manner.

Over the coming year, the UEP will continue to see the allocation to illiquid assets increase across the portfolio through investments with existing and new GPs. Regarding the NEIP, Management intends to complete a review of the Yield portfolio to determine whether the current strategic asset allocation remains appropriate in an environment of structurally higher inflation and interest rates. Finally, it goes without saying that Management and the Investment Committee will continue to work collaboratively, remain focused on ensuring the risk-return profiles of the UEP and NEIP remain consistent with their respective objectives and time horizons, and provide sound management of the University's fiscal resources.

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