

2018

Annual Report

UBC Faculty Pension Plan
Year In Review



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Message from the Chair and Executive

We are pleased to present the UBC Faculty Pension Plan's (the "Plan") Annual Report for 2018. The Plan's continued success is built on the Board's primary goal of providing a well-managed and cost-effective pension plan.

An area of focus in 2018 was to increase members' awareness of the retirement options that are available to them within the Plan. One of the unique features of the Plan is the ability to leave your funds in the Plan at retirement, and to continue to access the same low-cost investment funds that you did as an active member. As well, you have the flexibility to structure your retirement income to meet your needs, including the ability to choose to use some (or all) of your savings to purchase a variable payment life annuity from the Plan, that is payable until death. We have also seen an increase in the amount of money that members are transferring into the Plan from other registered plans.



Mike Leslie, Orla Cousineau and Joost Blom

On the investment side, 2018 proved to be a very challenging year with a correction in the stock markets for the first time in ten years and continuing low interest rates leading to weak bond returns as well. The Canadian stock market was particularly hard hit in 2018 due to the large Energy and Mining sectors underperforming from a significant drop in the price of oil and less perceived demand for other commodities going forward. Areas including slowing global economic growth, trade and tariff wars, Brexit negotiations, China's slowing economy and many central banks starting to raise interest rates all weighed on investor's concerns around the stock markets.

Bond returns were low in 2018 as the Bank of Canada increased interest rates three times which hurt prices of the existing bonds. The lowering of inflation expectations in the latter part of 2018 also hurt Real Return Bonds which we have held primarily for inflation protection reasons. The Plan's exposure to Canadian commercial real estate in the Balanced Fund continued to provide strong consistent returns with a low degree of volatility.

In 2018, there were no changes to either the asset mixes or the investment managers in any of the FPP's fund options. However, in the latter part of 2018 we did initiate an Asset Mix Study with an outside consulting firm to review the asset mixes of both the Balanced Fund and Bond Fund options. This is an exercise we typically engage in every three to five years as part of our overall investment governance oversight and we expect the results in the first half of 2019.

Also in early 2019, a survey was sent out to Plan members to gauge their interest in a potentially new Fossil Fuel Free Balanced Fund option. The results from this survey are expected by late March 2019.

At the end of 2018 we saw one change in Board membership. After 14 years on the Board, Dr. Joanne Emerman retired from the Board. We are grateful for her contributions and service to the Board. This year we welcome a new Board Member, Dr. Murray Carlson, who was appointed by the Board of Governors effective January 1, 2019 and Dr. Kenneth Carty was reappointed for a second term.

Yours truly,

Handwritten signature of Joost Blom in black ink.

Joost Blom
Chair

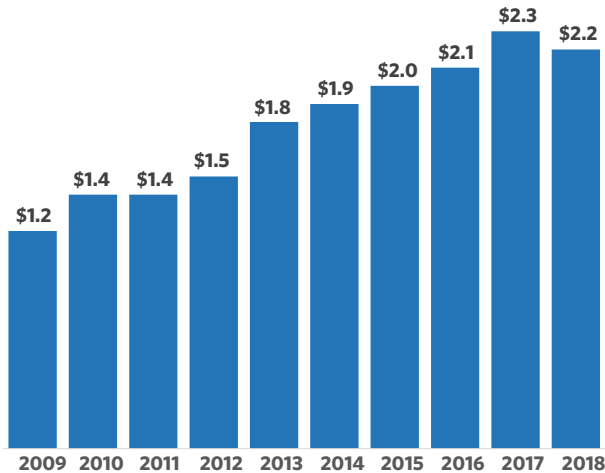
Handwritten signature of Orla Cousineau in black ink.

Orla Cousineau
Executive Director, Operations

Handwritten signature of Mike Leslie in black ink.

Mike Leslie
Executive Director, Investments

Financial Highlights

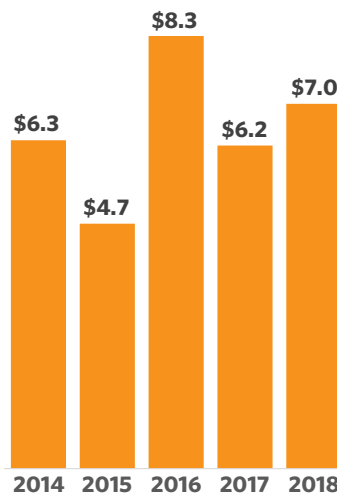


\$2.2
billion
Total Assets of the Plan

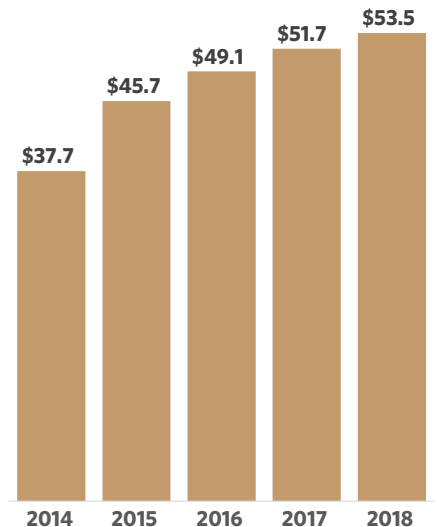
\$65.6
million
Total Contributions to the Plan



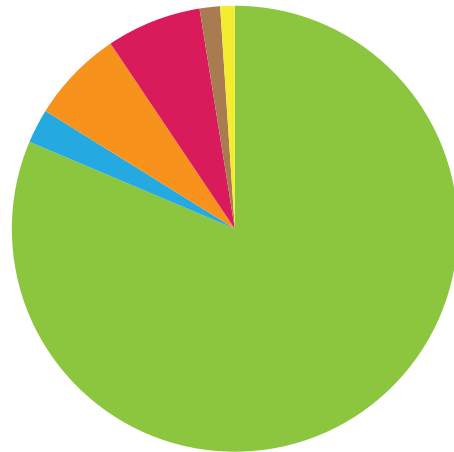
\$7.0
million
Total Transfers into the Plan



\$53.5
million
Total Retirement Benefits Paid



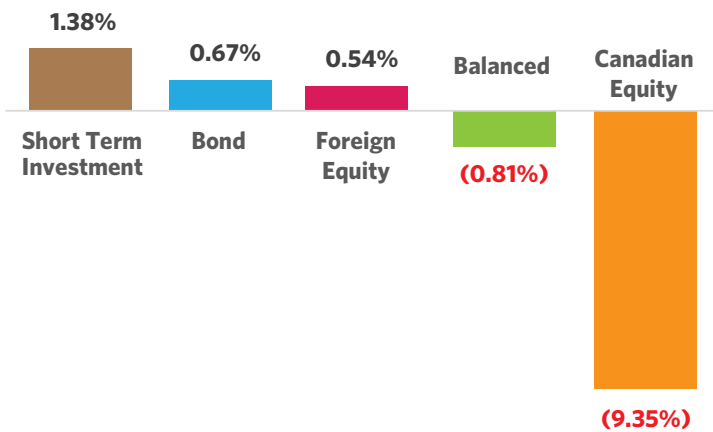
Market Value of the Funds as at December 31, 2018



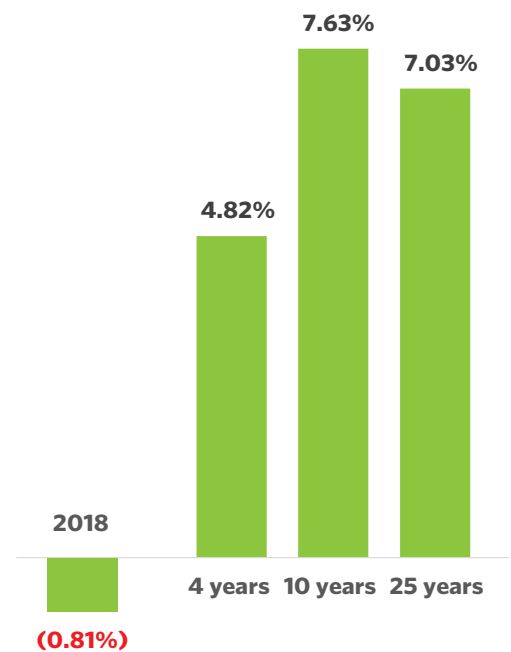
- **Balanced \$1,820 M**
82% of Total Funds
- **Bond \$55.5M**
2% of Total Funds
- **Canadian Equity \$150.7 M**
7% of Total Funds
- **Foreign Equity \$153.8 M**
7% of Total Funds
- **Short Term Investment \$33.1 M**
1% of Total Funds
- **Guaranteed Investment Certificates and Cash \$23.5 M**
1% of Total Funds

2018 Fund Net Rates of Return

Balanced Fund -0.81%

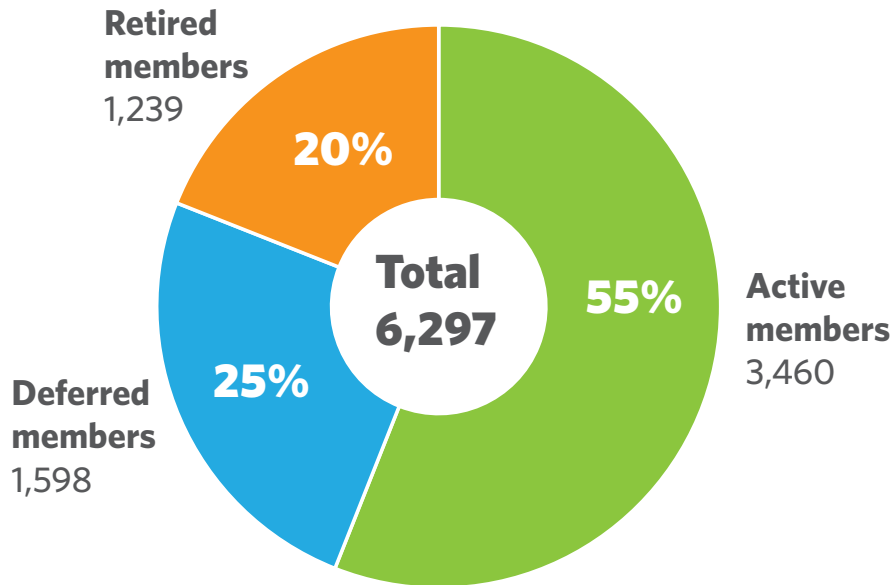


Balanced Fund Annualized Net Rate of Return

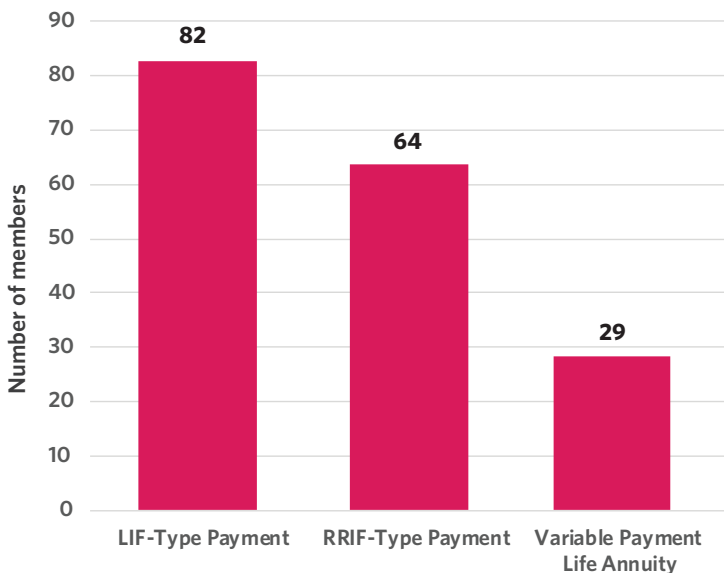


Membership Highlights

Total Plan Membership



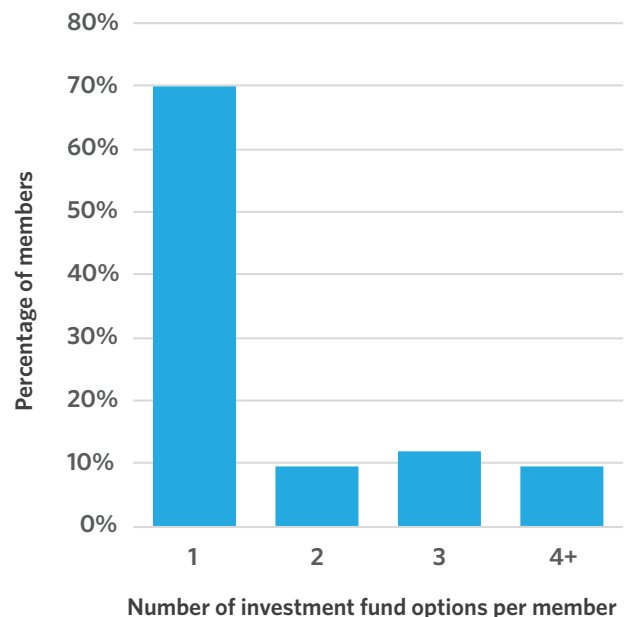
Retirement Incomes started in 2018



Total assets transferred to retirement income within the Plan: **\$105.4M**

75% of retiring members' assets stayed in the Plan

Fund Options Usage



Investment Philosophy

The FPP is an integral part of saving for retirement for our members. The objective of the Plan is to grow your funds over time such that at retirement there is sufficient capital accumulated to help fund your retirement years.

The FPP provides a number of different fund options so that members can design an asset mix strategy that meets their unique needs and risk profile. The Balanced Fund option is also provided for those members who prefer a pre-established diverse mix of the various asset classes. It seeks to provide satisfactory long-term growth with moderate year-to-year volatility through a broadly diversified number of asset classes and investment managers.

The FPP hires external investment management firms to invest in each asset class. These are large professional firms that are market leaders in their field. Due to the large asset size of the FPP, we can attract world-class firms to work with us at attractively low fees, and provide a wide range of both asset class and investment manager style diversification.

The FPP employs both active and passive investment strategies within the fund options as some capital markets or asset classes are more efficient than others. Active managers are used where there is a high probability of adding value and/or providing downside protection in a cost-effective manner over a passive strategy.

We understand that with any investing there are numerous risks involved such as currency risk, interest rate risk, credit risk, inflation risk and high volatility risk. The FPP seeks to mitigate these risks to some degree by providing broad diversification across asset classes, manager styles, regional exposures and asset classes that provide some inflation protection. However, we also realize that these risks must be assumed to some degree to be able to earn a meaningful return over time in excess of the inflation rate.

In 2018, there were no changes made to the asset mixes of each fund option or to the investment managers used within these funds.

A large number of our members choose to leave their accumulated assets in the Plan after they retire. The FPP provides a number of retirement options to assist members and allow them to continue to invest in our highly diversified, cost-effective funds.

Market Commentary

Stocks

Stock markets had a weak 2018 as global economic growth slowed and geopolitical concerns weighed on investors. The Canadian market's return of -8.9% lagged many other developed countries largely due to the underperforming Energy and Financial sectors that represent a large part of the stock index. Lack of exposure in the Canadian index to the strong Information Technology sector also hurt performance. Both non-North American and Emerging Market stocks were weak (-5.7% and -7%, respectively) in 2018. The U.S. S&P 500 index was up 4% in Canadian dollar terms. Investors rotated out of riskier assets (i.e. stocks) primarily due to ongoing trade wars, increasing interest rates and concerns around slowing economic growth.

Bonds

Bond returns were low in 2018 at just 1.4% as bond prices were driven down by three Bank of Canada increases to its Policy Rate in 2018. The increase to 1.75% in October led to the highest rate in almost 10 years. The highest returns were from the Federal Government Bond sector while Real Return Bonds witnessed negative returns (-0.7%) in 2018 as investors lowered their expectations around increases in the inflation rate. The Bank of Canada has indicated that the pace of any further rate increases may be slowed based on weaker economic data and the negative effect of falling oil prices.

Commercial Real Estate

The commercial real estate market had another strong year in Canada with overall returns in the 8% range. Most major urban areas and property sectors witnessed high occupancy rates with the exception being the Calgary office sector which still remains very weak. Property lease income continued strong with escalating lease rates in several key markets and industry sectors.

Investment Fund Performance

Balanced Fund

The Balanced Fund is the Plan's default fund. The target asset mix is 20% Canadian equities, 30% Global equities, 40% Bonds and 10% Commercial Real Estate. It is managed by three Canadian equity managers, three Global equity managers, four bond managers and two real estate managers.

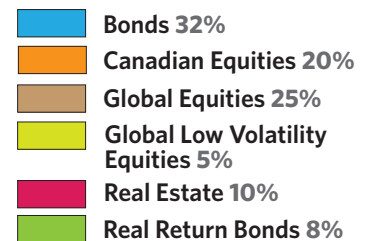
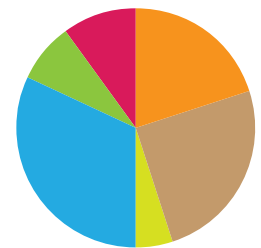
The weak results in 2018 (-0.4%) were primarily due to weak stock returns, especially in Canada in the fourth quarter. This was the first major annual correction in stock market returns in a decade-long expansion since the Great Financial Crisis of 2008. Overall global economic growth appeared to be slowing and this hurt many commodity based sectors such as Energy and Mining stocks which have a heavy weighting within the Canadian stock index. The ongoing trade war between the U.S. and China and other geopolitical events made investors nervous which hurt stock returns.

The Bond component of the Fund also witnessed low returns reflecting the continuing low interest rate environment and the negative affect on medium and long-term bond prices of three rate increases in Canada.

The Real Estate component (i.e. 10% of the Fund) added very favourably to the Fund's results in 2018 with an overall return of 8%.

Annual Gross Rate of Return (%)

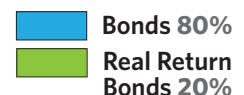
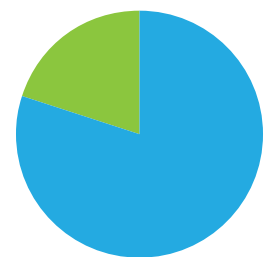
| | 1 year | 4 years |
|------------------|--------------|-------------|
| Actual | -0.40 | 5.26 |
| Benchmark return | -0.78 | 4.70 |
| Value added | 0.38 | 0.56 |



Bond Fund

The Bond Fund consists mostly of Canadian bonds, with 20% of the Fund allocated to Real Return Bonds. It is managed by four different managers - two who employ an active management strategy, and two who employ a passive strategy. Over the long term, the fund is expected to earn a return between the Short Term Investment Fund and the Balanced Fund.

The Fund's low return of 1% in 2018 was a result of increasing interest rates, weak performance from the Real Return bond component, and our active bond managers underperforming the index benchmark. When the Bank of Canada raises interest rates (three times in 2018) this typically reduces prices of the existing bonds such as the ones the Fund holds. Approximately 46% of the Fund is managed under passive index mandates. The other 54% of the Fund uses two active managers and both of these managers underperformed their index benchmark for the year. Longer term both active managers have added value net of fees over the index return.



Annual Gross Rate of Return (%)

| | 1 year | 4 years |
|------------------|-------------|-------------|
| Actual | 0.98 | 2.33 |
| Benchmark return | 1.12 | 2.15 |
| Value added | -0.14 | 0.18 |

Investment Fund Performance cont'd

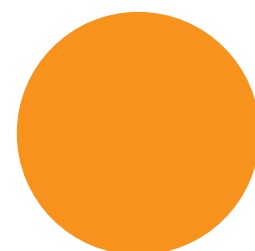
Canadian Equity Fund

Equities are expected to earn the highest long-term average rates of return of the major asset classes with the highest level of risk or volatility. Excess volatility is reduced by diversifying across different investment styles with three different active investment managers.

The Canadian stock market index had a weak year in 2018 at -8.9% with most of this poor performance coming in the fourth quarter (-10.1%). Much of this weak performance was attributable to the poor Energy, Materials and Financial sector's performance that, when combined, these three industry sectors account for almost a two-thirds weighting in the stock market index. The price of oil dropped nearly 25% in 2018 (and 38% in the fourth quarter alone) which, along with government mandated production cuts, hurt Energy company share prices.

A slowdown in the important housing market due to tighter mortgage financing guidelines and higher mortgage rates also had a negative impact on investor's views on future economic growth in Canada.

Two of our three active managers underperformed the stock index in 2018 which led to the Fund underperforming its index benchmark. Longer term, these managers have added significant value, net of fees, over the stock market index.



Canadian Equities 100%

Annual Gross Rate of Return (%)

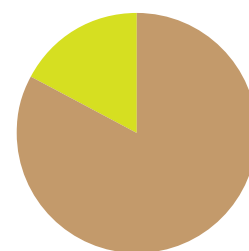
| | 1 year | 4 years |
|------------------|--------------|-------------|
| Actual | -9.00 | 3.22 |
| Benchmark return | -8.88 | 2.48 |
| Value added | -0.12 | 0.74 |

Foreign Equity Fund

The Foreign Equity Fund is a diversified portfolio of global equities. The returns are affected by changes in currency exchange rates and excess volatility is reduced by diversifying across different investment styles, different countries and different investment managers. It is managed by two active managers and one passive manager who has two different mandates.

The Fund had weak performance in 2018 with a return of just 1%. This return was helped by the Canadian dollar depreciating against other foreign currencies which increases our returns as we do not hedge the foreign currency exposure. The U.S. market was the strongest component of the Fund with an index return of the S&P 500 of 4%. Non-North American and Emerging Market's stock returns were both weak at -5.7% and -7% respectively.

The larger weighting in the Information Technology and Health Care sectors in the U.S. market helped returns as both of these sectors had strong results. The U.S. Federal Reserve increased interest rates four times in 2018 to a range of 2.25% to 2.5% which also had a negative effect on stock prices. European stocks were weak due to ongoing trade tensions, concerns around Brexit negotiations and disputes between Italy and the European Union.



Global Equities 83%
Global Low Volatility Equities 17%

(continued on next page)

Investment Fund Performance cont'd

Of our two active global managers, one significantly outperformed the global stock index while the other manager underperformed this benchmark. Our Low Volatility passive manager performed much stronger than the other managers in 2018 as was expected given Low Volatility mandates typically outperform the broader markets in weak periods.

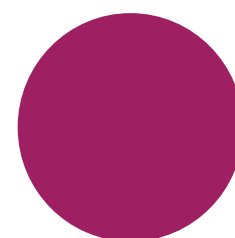
Annual Gross Rate of Return (%)

| | 1 year | 4 years |
|------------------|-------------|-------------|
| Actual | 1.02 | 9.63 |
| Benchmark return | 0.11 | 9.16 |
| Value added | 0.91 | 0.47 |

Short Term Investment Fund

The Short Term Investment Fund (STIF) is the Plan's lowest risk/lowest return option. It typically produces a return similar to prevailing short-term interest rates in Canada.

Returns were low but higher than the previous 5- and 10-year annualized returns. This was largely due to the three Policy Rate increases by the Bank of Canada in 2018 which directly affects short term bonds like those held in this Fund. The Policy Rate increase to 1.75% in October 2018 was the highest rate in almost 10 years. The STIF had the highest returns of all the FPP fund options in 2018 which is unusual and certainly not the case for longer timeframes.



Short term debt 100%

Annual Gross Rate of Return (%)

| | 1 year | 4 years |
|------------------|-------------|-------------|
| Actual | 1.54 | 0.99 |
| Benchmark return | 1.38 | 0.77 |
| Value added | 0.16 | 0.22 |

Total Fund Management Fees*

| | |
|----------------------------|-------|
| Balanced Fund | 0.47% |
| Bond Fund | 0.35% |
| Canadian Equity Fund | 0.44% |
| Foreign Equity Fund | 0.57% |
| Short Term Investment Fund | 0.17% |

*effective December 31, 2018 and include all the operating expenses and investment management fees. Effective February 1, 2019, these figures were reduced by 0.02%.

Investment Manager Performance

| Asset Class | Manager | Gross Rates of Return (%) | |
|----------------------------|---|--------------------------------------|---------|
| | | For periods ending December 31, 2018 | |
| | Index-based Benchmark | 1 year | 4 years |
| Canadian Equity | | | |
| | Connor, Clark & Lunn Q-Growth Fund (active) | -8.94 | 3.21 |
| | Leith Wheeler Investment Counsel (active) | -11.43 | 3.04 |
| | Guardian Capital LP (active) | -6.48 | 3.99 |
| | S&P/TSX Composite TR | -8.89 | 2.49 |
| Non-Canadian Equity | | | |
| | MFS (active) | -0.87 | 9.51 |
| | MSCI World ex Canada Net (CAD) Index | -0.15 | 9.13 |
| | Arrowstreet Capital (active) | 2.24 | n/a |
| | MSCI World Investable Market Index | -1.25 | n/a |
| | BlackRock MSCI ACWI ex Canada Index (passive) | -0.85 | n/a |
| | MSCI ACWI ex Canada Index | -0.98 | n/a |
| | BlackRock MSCI World ex Canada Minimum Volatility Index (passive) | 4.52 | n/a |
| | MSCI World ex Canada Minimum Volatility (CAD) Index | 4.42 | n/a |
| Fixed Income | | | |
| | AllianceBernstein (active) | 0.98 | 2.61 |
| | PIMCO Canada Corp. (active) | 1.36 | 2.64 |
| | SSGA/Windwise Canadian Universe Bond Index (passive) | 1.38 | 2.28 |
| | FTSE TMX Canada Universe Bond | 1.41 | 2.27 |
| | BlackRock - Real Return Bond Fund (passive) | -0.03 | 1.54 |
| | FTSE TMX Canada Real Return Bond | -0.05 | 1.57 |
| Real Estate | | | |
| | BCI - Realpool (active) | *6.66 | *5.60 |
| | Bentall Kennedy (active) | 9.16 | 6.89 |
| | Consumer Price Index + 4% | 6.00 | 5.74 |
| Money Market | | | |
| | Sun Life Financial Money Market (active) | 1.57 | 0.99 |
| | FTSE TMX Canada Cdn 91-Day Treasury Bill | 1.38 | 0.76 |

* net of all fees

Board of Trustees

as at January 1, 2019

The UBC Faculty Pension Plan is administered by a Board of Trustees composed of eight trustees. Four trustees are elected by and from the members of the Plan and four are appointed by the University. The responsibilities of the Board are outlined in detail in the Plan's Governance Policy, available on the Plan's website.

| Appointed by the UBC Board of Governors | Elected by Plan Members |
|--|--|
| Mr. Joost Blom, Chair Professor Emeritus, Peter A. Allard School of Law Term expires December 31, 2020 | Dr. Joy Begley Associate Professor, Sauder School of Business Term expires December 31, 2021 |
| Dr. Joyce Boon Associate Professor Emerita, Biology, UBC Okanagan Term expires December 31, 2020 | Dr. Lorenzo Garlappi Associate Professor, Sauder School of Business Term expires December 31, 2021 |
| Dr. Murray Carlson Divisional Chair/Professor, Finance Division Sauder School of Business Term expires December 31, 2022 | Dr. Robert L. Heinkel, Vice-Chair Professor, Sauder School of Business Term expires December 31, 2019 |
| Dr. R. Kenneth Carty Professor Emeritus, Political Science Term expires December 31, 2022 | Mr. Vijay Verma Researcher Emeritus, TRIUMF Term expires December 31, 2019 |

Management & Staff

| | |
|---|---|
| <p>Orla Cousineau Executive Director, Pensions</p> | <p>Mike Leslie Executive Director, Investments</p> |
| <p>Debbie Wilson Director, Pensions</p> | <p>Diana Iampietro Manager, Faculty Pension Plan</p> |
| <p>Lorraine Heseltine Member Services Specialist</p> | <p>Lily Lee Member Services Associate</p> |
| <p>Louise Mah Pension Clerk</p> | <p>Maricres De Leon Pension Plan Accountant</p> |
| <p>Shirley Lim Project Coordinator</p> | <p>Helena Huynh Systems Analyst</p> |
| <p>Kathy Pang Communications Manager</p> | <p>Chelsey Maher Communications Assistant</p> |
| <p>Sarah Halvorson Office Administrator</p> | <p>Sharina Duprey Administrative Assistant</p> |