

Statement of Investment Principles

for the York University Pension Fund



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Executive Summary

This Statement of Investment Principles documents the overall investment management strategy to help ensure a sustainable York University Pension Fund for its members. This document sets forth the following and associated rationale:

Investment policy principles:

- › **POLICY ASSET ALLOCATION:** 40% liability-hedging assets; 60% return-seeking assets.
- › **ASSET MIX POLICY:** use the same asset mix for active and retired members.
- › **MINIMUM TARGET ALLOCATION:** No more than 20% of the portfolio will be invested in Non-Traditional Credit or Real Assets.
- › **REBALANCING:** Cash flows will be applied to maintain the balanced ratio per the policy, unless doing so may create liquidity constraints.
- › **PUBLIC MARKET EQUITIES:** A diversified portfolio that includes actively managed global equities is expected to reduce risk while outperforming its benchmarks.
- › **PRIVATE EQUITY:** The current Fund structure is not currently supportive of an allocation to private equity.
- › **TRADITIONAL FIXED INCOME:** The Fund will have a meaningful policy allocation to investment-grade fixed income investments that will be used primarily for risk management purposes.
- › **NON-TRADITIONAL CREDIT:** The Fund will have a meaningful policy allocation to non-traditional credit which will be used primarily for risk management and return purposes.
- › **REAL ASSETS:** Non-public market investment allocations will include Real Estate, Infrastructure and other similar investments, but not Agriculture or Timberland at this time.
- › **CASH:** The asset mix policy will not include an allocation to cash.
- › **HEDGE FUNDS:** The asset mix policy will not include an allocation to hedge funds.

Implementation strategy principles

- › **LEVERAGE:** The fund will not directly borrow money to make investments, unless appropriate; and if so, only if there is no possibility of losing more than the amount of the Fund's investment in that specific vehicle.



- › **CURRENCY HEDGING:** The Fund will passively hedge 100% of the foreign fixed income portfolio, 50% of the foreign Real Asset exposure and 0% of foreign equities.
- › **SUSTAINABLE INVESTING:** The Fund will consider the key ESG (environmental, social and governance) aspects that may affect sustainable long-term growth.
- › **SECURITIES LENDING:** The Fund will not participate in a securities lending program for separately managed (segregated) mandates.
- › **DERIVATIVES:** Derivatives may be used, with proper expertise and oversight, to create positions and exposures that are consistent with these Principles.

Manager structure principles

- › **INTERNAL/EXTERNAL FUND MANAGEMENT:** The Fund will use external money management services and not create its own internal manager structure.
- › **SELECTION AND EVALUATION PROCESS FOR MANAGERS:** The selection and evaluation process will focus on a detailed assessment of both quantitative and qualitative factors in reviewing managers for all of the desired mandates.
- › **POOLED VS. SEGREGATED VEHICLES:** In general, pooled funds will be used for public market mandates, unless there are restrictions, in which case a segregated vehicle may be a reasonable choice.
- › **ACTIVE AND PASSIVE FUND MANAGEMENT:** The Fund will have an orientation toward active fund management; however, passive fund management may be used on a limited basis.
- › **SPECIALTY FUND MANAGEMENT:** The Fund will use primarily specialty fund management in conjunction with the maintenance of a disciplined rebalancing policy so that the asset mix does not drift.
- › **INVESTMENT STYLE AND FUND MANAGERS:** In general, active managers will be retained with an absolute return bias (instead of a benchmark or tracking-error focus).

Ongoing monitoring principles

- › **MEASUREMENT PERIOD:** For publicly traded or liquid investments, performance will be assessed over rolling four-year periods, and reviewed on a quarterly basis. Illiquid investments will be evaluated following two years' worth of investment performance and for periods of not less than two years.
- › **BENCHMARKS:** A benchmark target, along with the real rate of return target will be the primary tools for assessment at the Fund level. Appropriate benchmarks will be identified for the Fund and for each asset class and manager mandate.
- › **MANDATE COMPLIANCE:** All of the Fund's managers will be monitored against the parameters outlined in their segregated or pooled funds' investment policies.
- › **TRANSPARENCY AND REPORTING OF LEVERAGE:** The amount of the Fund's capital allocated to each asset class, investment manager and product shall be disclosed at least quarterly. The Fund will only invest in products which provide timely transparency of the underlying investments and the level of leverage employed.

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Preamble

The purpose of this Statement of Investment Principles (the “Principles”) is to set forth and document the underlying principles that form the basis for the overall investment strategy, including the policy asset mix and the implementation approach of the York University Pension Fund (the “Fund”). The identification and documentation of the assumptions made in developing the investment strategy contributes to a better understanding of the core investment principles that support the investment portfolio.

Together with the Statement of Investment Policies and Procedures (the “SIP&P”), the investment manager agreements and mandates, these Principles contribute toward the prudent and effective management and governance of the Fund, and forms part of the risk management framework. Although these Principles serve as input to the SIP&P, where there is a conflict between the Principles and the SIP&P, the SIP&P shall override this document. The Principles are solely for the internal use of York University, the Pension Fund Investment Committee (PFIC), the Pension Fund Board of Trustees (BoT), and the members of the York University Pension Plan.

It is intended that the Principles will constitute a working document and will be reviewed by the PFIC and confirmed or amended, as needed by the BoT on a periodic basis. This will help ensure that the document continues to reflect the values the PFIC and the BoT believe are appropriate to prudently invest the Fund. At a minimum, the Principles should be reviewed in the context of each asset mix review exercise carried out for the York University Pension Plan (the “Plan”) and should be confirmed or amended, as appropriate.

The Principles are grouped into four sections: **investment policy**, implementation strategies, manager structure, and ongoing monitoring. Each section identifies several principles, with a risk statement of the principle and the underlying rationale for its adoption.

Investment Policy: The particular asset classes selected and the target allocation of assets in a portfolio to these asset classes.

Financial & Risk Management Objectives and Framework

All investment decisions must be made to ensure that the Fund is appropriately invested to meet the Plan's obligations over the long term. This fiduciary objective must always be paramount in considering whether specific approaches are optimal.

Fiduciaries include the BoT, PFIC and also York University, as Plan Administrator. Maintaining full funding on a going concern valuation measure is an appropriate fiduciary objective.

The **hybrid** nature of the Plan creates investment challenges for the Fund. Unlike either a traditional **defined benefit** or **defined contribution** plan, the determination of the pension benefit levels at retirement is dependent upon Fund returns, as well as factors such as salary and years of service. In addition, pensioners may receive future increases, depending on the future Fund returns.

The Fund will be appropriately diversified to manage and reduce **volatility** and protect returns in declining markets and provide a stable level of investment returns for an acceptable level of **risk**. This investment philosophy is consistent with high quality investments, downside protection, and diversification.

Managing these key financial objectives requires the adoption of a long-term approach to reviewing investment manager performance, as both the long-term result achieved over an entire market cycle and the pattern in which results are delivered within the market cycle are

Fiduciary: Person or entity who acts for the benefit and on behalf of another person or group of persons. A fiduciary holds a legally enforceable position of trust.

Hybrid: Refers to a pension plan that combines certain characteristics of defined benefit plans with certain characteristics of defined contribution plans.

Defined Benefit (DB): Pension arrangement where the benefits payable to members are clearly specified, usually as a percentage of salary at, or near, retirement. The contributions that are required to ensure that this commitment can be met will vary depending on the plan's investment and demographic experience and the benefits to be provided. The employer bears the investment risk in such an arrangement.

Defined Contribution (DC): Pension or savings arrangement where the rate of contribution paid by the employer and/or the employee is defined (usually a percentage of salary). The benefits paid to members will depend on the contributions paid into the plan on behalf of the member, the investment return earned on those contributions and the terms available at retirement for converting the fund into a pension. The employee bears the investment risk in such an arrangement. Also known as money purchase or capital accumulation.

Volatility: The variability of the price of a security, portfolio, or investment returns; typically expressed as **standard deviation**.

Standard Deviation: A measure of the dispersion of a set of numbers around the average. In a regression analysis (which assumes a normal distribution), 68% of the data points fall between 1 standard deviation below the average and 1 standard deviation above. Standard deviation is frequently used as a measure of risk.

important factors in achieving the objectives. These risk management principles led to the development of an asset mix and other policies designed to achieve these objectives.

The risk-management framework brings an additional lens to managing the risk/reward trade offs of investing, informing investment decisions by considering risk from a macro, fund, **asset class** and manager-level perspective. Sustainability and other Environmental, Social and Governance (ESG) factors will be considered when assessing the many different risks within the risk-management framework. Both qualitative and quantitative factors may be considered throughout the process.

Risk: Unless otherwise specified, in this context risk refers to the volatility of returns.

Asset Class: A segment of the investment opportunity set, such as cash, fixed income, equities, real estate, infrastructure, and **commodities**.

Commodities: A tangible substance, such as food, grains, metals, oil and gas, etc., which investors buy or sell through futures contracts.

Asset Mix or Asset Allocation: Distribution of investments across categories of assets, such as cash, equities and fixed income. Asset allocation affects both risk and return and is a central concept in financial planning and investment management.

Macro risks are external factors which may impact long-term investment performance and opportunities and includes influences such as political risks, macroeconomic factors, geopolitical events and climate change. These long-term themes are considered when assessing new asset classes, or reassessing the strategic asset mix and may directly, or indirectly influence the investment biases in the Fund.

Fund level risk analysis considers how the overall Fund is evolving compared to the desired risk and return profile over the long-term. The Fund is constructed with complementary asset classes to smooth the long-term performance and to preserve capital in challenging markets. When establishing the Fund's asset mix, the diversification benefits of combining multiple asset classes are considered, as well as the practical aspects of minimizing complexity to the Fund and over-diversification. The return and volatility at the Fund level within the context of the overall **asset allocation** objectives are continually assessed.

Asset class level risk is assessed over the longer term and market cycles. The Fund's Investment Policy is developed from long-term target return and volatility assumptions based on capital market outlooks for each asset class. Asset class returns are periodically reassessed versus the long-term assumptions to ensure the Fund remains on track to meet its long-term objectives and identify any areas that may warrant reassessment.

Manager-level risk considers each individual investment manager's return and risk profile, compared to expectations and their stated goals to identify issues before they manifest within the Fund's performance. In addition to closely monitoring the performance of individual

managers, regular updates are received on the qualitative aspects of the managers that may affect their ability to deliver on the mandate for which they were hired.

Investment Policy Principles

Policy Asset Allocation

Principle

The policy asset allocation is 40% **liability-hedging assets** and 60% **return-seeking assets** and is diversified by asset class, investment managers and style. The policy asset allocation will formally be reviewed every four to five years, by conducting an asset allocation study.

Rationale

The nature of York’s hybrid pension plan design means the Fund must balance the University’s resources with the fiduciary responsibility of managing the pension liabilities. The Fund is targeting an appropriate long-term risk-adjusted return while managing its “mismatch risk”, which is reflected in the different way the Fund and the Plan’s liabilities react to economic conditions (particularly changing interest rates).

The Fund is exposed to a variety of investment risks through its investment in the capital markets. The return target and mismatch risk must consider the Fund’s returns relative to the level of risk required to achieve the desired outcomes. The policy asset allocation sets out the long-term strategic allocation to different asset classes that the fiduciaries believe is most likely to appropriately manage these risks and achieve the financial objectives.

In managing risk, the asset classes are categorized within two broad groups: liability-hedging assets and return-seeking assets. The proportion invested in each category and the use of different asset classes within each category attempts to best manage the risk/reward trade-offs. Some asset classes, such as **Real Estate** and **Infrastructure**, have characteristics of both liability-hedging and return-seeking assets.

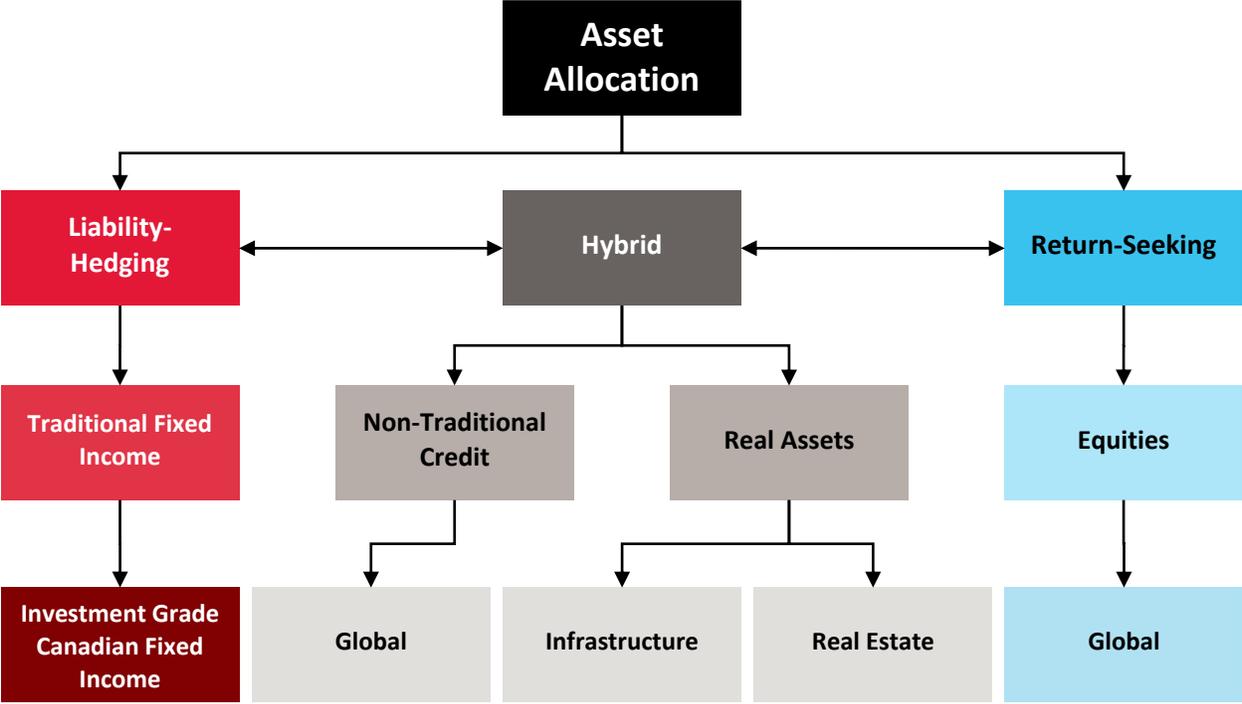
Liability-Hedging Assets: These assets partially hedge the Plan liabilities. In general, they have similar characteristics to the Plan’s liabilities and will respond to movements in interest rates and inflation in directionally the same manner as the liabilities.

Return-Seeking Assets: These assets are used to improve the funded ratio of the Plan. These assets may react differently than the underlying liabilities to different economic stimuli, and over a market cycle are expected to generate positive returns for the Fund, and add value relative to a relevant benchmark.

Real Estate: Property in land, building or housing, as distinct from personal property (e.g., cars); also known as physical property to distinguish itself from property trusts.

Infrastructure: Physical structures and networks that provide essential services to society, including oil and gas pipelines, electric transmission and distribution facilities, water distribution facilities, toll roads, airports, prisons, hospitals and so on.

The following diagram provides a depiction of the thought processes involved in allocating assets:



Within the return-seeking category, investment risk should be managed by investing in several different asset classes that provide diversification in their response to different economic stimuli. The liability-hedging asset classes provide some protection against movements in interest rates and will move directionally with the liabilities as interest rates change.

Asset allocation studies review the expected future performance of the policy asset allocation under a wide variety of forward-looking economic scenarios and to determine whether a change in policy mix is likely to improve the financial performance of the Fund. In addition, qualitative discussions – which incorporate items such as implementation considerations, capital markets observations and expectations, and economic trends – will impact the outcome of the asset allocation study.

Asset Mix Policy

Principle

The same asset mix will be maintained for all assets of the Fund, i.e., the asset mix will be the same for active and retired members, and individuals will not be able to choose their own asset mix. The same rate will be used to credit interest for all Plan members.

Rationale

The Plan text does not contemplate different asset mixes for different Fund purposes (e.g., for the provision of retirement and termination benefits vs. the crediting of annual interest on member contributions, nor for members of different ages and/or risk profiles).

Minimum Target Allocation

Principle

For any asset class in which the Fund invests, the target allocation will be at least 5%.

Rationale

If the allocation to an asset class is less than 5%, the return, or risk mitigation, impact on the Fund is expected to be insufficient to outweigh the additional resource commitment for manager selection and monitoring. Also, for many types of investments, the level of fees relative to the amount of the investment decreases when the amount of the investment increases.

Maximum Target Allocations

Principle

No more than 20% of the portfolio will be invested in **Non-Traditional Credit** or **Real Assets**.

Non-Traditional Credit: Covers a large range of lending opportunities including private debt, high-yield bonds, emerging markets debt, direct lending and commercial mortgage-backed securities.

Rationale

Non-Traditional Credit and Real Assets are typically less liquid than traditional asset classes; a 20% cap on the allocation to these asset classes will help manage liquidity and ensures the Fund remains diversified amongst these non-traditional investments.

Real Assets: Physical assets available for investment by institutional investors, including real estate, infrastructure and commodities.

Rebalancing

Principle

A disciplined **rebalancing** policy will be maintained to ensure asset class allocations stay within asset mix policy ranges as specified in the SIP&P. To the extent possible, cash flows from contributions and portfolio distributions will be used to

Rebalancing: Making adjustments to a portfolio to counteract the fact that different assets have performed differently over a period, and thus comprise different percentages of the portfolio than originally intended. Timing (how often to rebalance), ranges (how far the asset mix can drift before rebalancing), and targets (to rebalance back to) are important aspects of rebalancing.

assist in maintaining the asset classes within their policy ranges. Under certain extreme circumstances, rebalancing may be suspended due to liquidity constraints.

Rationale

An effective rebalancing policy ensures that the actual mix does not drift too far away from the policy **benchmark**, which has been set after extensive analysis of the assets and liabilities. In addition, disciplined rebalancing creates an automatic 'buy low, sell high' action in the Fund and so can add value and be a useful risk management tool.

Benchmark: Measure against which a portfolio's performance is assessed. The benchmark may be a market index for portfolios focusing on a particular market e.g. MSCI World Index, or a combination of market indices. Where a relevant market index does not exist (e.g., for some Real Assets), the benchmark may be based on cash, inflation, a market index which has some relationship to the investment, or an absolute return target.

Public Market Equities

Principle

Public market **equities** will be used primarily as return-seeking assets and the Fund will have a meaningful allocation to the asset class. The inclusion of a diversified portfolio of **global equities** is expected to reduce risk. Where there is a reasonable expectation of positive net of fees return relative to an appropriate benchmark, the investments will be actively managed.

Equity: Investment or ownership interest possessed by shareholders in a corporation.

Global Equity: Equity issued anywhere in the globe which includes Canadian issuers.

Rationale

Equity investments have, in the longer term, provided a higher return than **fixed income**, albeit with a higher level of return volatility (risk). While history cannot be relied on to determine the level of future returns, the past relationships can be explained and represent a useful indicator of future relative performance. Therefore, since equity positions represent ownership in companies, they should, over the long term, provide a return premium over fixed income, which represent lending to companies. As such, an asset mix with a higher allocation to equities is expected to produce higher returns in the long-term but may result in periods of poor performance in the short term.

Fixed Income: A security that provides a return in the form of fixed periodic interest payments and the eventual return of principal upon maturity.

The Canadian market is very concentrated (by both industry and company) and represents only 2-3% of the world's equity market capitalization. A diversified portfolio of global equities is

expected to reduce risk within the public market equity portfolio. In fact, **modern portfolio theory** asserts that there are risk reduction benefits to be gained by diversifying equities across regions. As the expectation is that skilled managers will be identified for each mandate, it is believed that the decision to invest in emerging markets should be left to the discretion of the global equity managers.

Modern Portfolio Theory: Theory of portfolio optimization that seeks to construct an optimal portfolio by considering the relationship between risk and return.

The key risks being managed in the public market equity portfolio are the absolute volatility of returns and preserving capital during equity bear markets. The public equity portfolio will be invested in a manner expected to produce strong long-term performance and provide protection during down equity markets.

Private Equity

Principle

The current Fund structure is not supportive of an allocation to **Private Equity** currently.

Private Equity: These are companies that are not publicly traded. Generally, they lack liquidity; as such, the expected returns and risk from this asset class are higher than those from public equities.

Rationale

Private equity offers the potential for Fund diversification; however, there are several practical considerations that may dilute their attractiveness.

Private equity returns can be very diverse and are quite dependent upon identifying and retaining skilled managers. Such due diligence exercise can be time-consuming. In addition, a diversified private equity portfolio typically takes time to build out as the year in which a fund is launched (referred to as the vintage year) can impact long-term returns. A robust portfolio will consist of multiple investments with different commitment dates. Furthermore, the dispersion of private equity returns differs by strategy; building out a successful risk-managed strategy may require multiple commitments to different managers.

Although private equity may be of interest in the future, building a diversified portfolio will consume significant resources for due diligence, selection and oversight and likely needs to be managed over multiple years before the program is robust. Furthermore, the Fund has exposure to other illiquid assets, notably some infrastructure investments that have similar expected return profiles to private equity investments. As such, the diversification benefits from private equity at a Fund level may be less compelling.

Traditional Fixed Income

Principle

The Fund will have a meaningful policy allocation to investment-grade fixed income investments that will be used primarily for **risk management** purposes. This portion of the portfolio will be of high quality and will be invested in Canadian **bonds**. The portfolio will be actively managed.

Risk Management: Control or mitigation of volatility.

Bonds: Are the most common type of fixed-income security and include money markets and preferred shares. Typically, they are a certificate of debt issued by a government or company, promising regular interest payments on a specified date or range of dates, usually with final capital payment at redemption.

Rationale

Fixed income investments are the main component of the liability-hedging asset category and are used primarily for risk management purposes. Fixed income tends to have relatively low return volatility and provides diversification relative to public market equities. In addition to partially hedging the liabilities, these characteristics will help to manage the volatility of the Fund.

The liability-hedging characteristics of the investment-grade fixed income portfolio will tend to be long-term and directional. Fixed income will not exactly match the liabilities, though it will decrease risk. The Canadian market provides enough depth to construct a high quality **traditional fixed income** portfolio and, given the Plan's obligations are in Canadian dollars, the core fixed income

Traditional Fixed Income: Traditional fixed income is the certificate of debt issued by a government or company, promising regular interest payments on a specified date or range of dates, usually with final capital payment at redemption. Investment grade refers to the quality of the credit – corporate or sovereign bonds rated 'BBB-' or above are considered investment grade and there is a high probability the fixed income issuer will repay its debt.

portfolio will be invested solely in Canadian fixed income. Diversification can be achieved through investment in Canadian sovereign and Canadian corporate fixed income. In aggregate, this portion of the portfolio will maintain an average rating of investment grade.

Non-Traditional Credit

Principle

The Fund will have a meaningful policy allocation to non-traditional credit which will be used primarily for risk management and return purposes.

Non-traditional credit may include private debt, high-yield bonds, bank loans, distressed debt, emerging markets debt and direct lending. Given the complexity of this asset class, active management will be employed.

Rationale

Non-traditional credit is expected to diversify the Fund's return drivers beyond investment grade credit risk, interest rate risk, and inflation. Non-traditional credit can potentially enhance the Fund's returns as it is more illiquid, inefficient, and under-researched by the traditional fixed income market. The current low interest rate environment, combined with heightened spread volatility, creates an opportune environment for these skill-based strategies that typically have a low **correlation** to traditional asset classes and can improve the Fund's overall risk profile.

Correlation: Reference to the Correlation Coefficient, which is a statistical measure of the degree to which the movements of two variables are related. A correlation of 1.0 indicates that the two variables move perfectly in tandem. A correlation of 0.0 indicates a random relationship between the variables, and a correlation of -1.0 indicates perfect negative correlation (perfect tandem but in opposite directions). Combining assets in a portfolio with negative correlations or with positive correlations less than 1.0 will reduce total portfolio volatility.

Real Assets

Principle

There will be a policy allocation to Real Assets which are non-public market investments and include Real Estate, Infrastructure and other similar investments. Agriculture and Timberland are other categories of Real Assets which the Fund has reviewed and will not invest in at this time.

Rationale

The Fund has initially identified Real Estate and Infrastructure as the preferred investments for the Real Asset allocation as they are fundamentally different from equities and fixed income while offering the potential for risk diversification. Where historic results are available, they have demonstrated a relatively low correlation to traditional asset classes. The diversification opportunity is greater with private investment, as opposed to indirect investment through publicly traded securities that tend to have a higher correlation with equity markets.

These investments are expected to also enhance the Fund's return and may have a positive correlation with inflation. In addition, Real Estate and Infrastructure are expected to generate relatively predictable and sustainable cash flows.

Real Assets are illiquid investments, and typically require capital to be locked-up for a long period. An allocation to Real Assets can require significant resource commitment for manager selection and performance monitoring.

The ability to increase returns with some inflation protection, generate relatively predictable and sustainable cash flows, and diversify the sources of returns, justifies an allocation to Real Assets despite some of these challenges.

At this time, Agriculture and Timberland will not be considered as analysis suggested an allocation will not materially improve the overall risk-adjusted return expectation of the Fund and implementation involves a number of risks and practical (e.g., availability of product) considerations.

Cash

Principle

Cash is not an appropriate long-term investment for the Fund, and the asset mix policy will not include an allocation to cash.

Rationale

Cash is expected to have the lowest long-term rate of return, relative to other asset classes. In addition, a cash allocation is not required from a liquidity perspective as the contributions into the Fund, and availability of assets that are easily liquidated, are sufficient to cover the required cash flows for the foreseeable future.

A small amount of residual cash will be held in the Fund to manage these cash flows. From time to time, the Fund may have more significant cash holdings; for example, cash may be used during periods of manager transition where there is a need to temporarily replicate market returns using derivative instruments. These transitional flows do not represent a policy allocation to cash.

Hedge Funds

Principle

The Fund does not currently have an allocation to **Hedge Funds**.

Rationale

While Hedge Funds may not have a significant impact on the Fund's long-term return expectations, they may improve the overall risk profile of the Fund through diversification. These skill-based strategies typically have a low correlation to traditional asset classes. However, there are several practical considerations that dilute their attractiveness.

Hedge funds require more resources for due diligence and selection and oversight. As these strategies may employ **derivatives, leverage** and/or **short selling**, care must be taken to ensure that the manager's risk controls are adequate, and consideration given to the legal structure of the investment vehicle. Many of these vehicles also limit the investor's transparency regarding the underlying investments (i.e., the ability to examine all of the portfolio holdings at any point in time) requiring specialized monitoring to adequately assess the risks.

These strategies also have additional complexities, which may include liquidity constraints and higher fees relative to traditional equity and fixed income mandates. Therefore, they must be expected to generate sufficient excess net returns in order to make it worthwhile given these complexities. Currently, the diversification benefits of hedge funds are expected to be limited and are not sufficient to justify an allocation to this category. Hedge funds could be considered in the future and invested within the Fund if deemed appropriate at the time.

Hedge Funds: Primarily skill-based strategies expected to generate positive returns that have no or low correlation to the equity or fixed income markets. These strategies may employ derivatives, leverage and short selling. Hedge funds have various names, such as "equity market neutral". There are usually no appropriate market indices for hedge funds, so benchmarks for performance monitoring are often based on an absolute return target or a return in excess of cash.

Derivatives: Financial instruments whose value is derived from the value of another investment, typically a stock, bond, currency or commodity. Can be used for reducing exposure (hedging) or gaining exposure with no or little capital employed. Some examples of derivatives are futures, swaps and options.

Leverage: The use of a small amount of capital to gain a much higher exposure to an investment or asset class, typically through derivatives or by borrowing capital.

Short selling: Selling a security that is not currently owned, but borrowed from a third party (e.g., from pension funds and other institutional investors through their securities lending programs) to execute settlement with the buyer. The seller therefore has a negative exposure to the security, creating a profit if it goes down in value and a loss if it goes up in value. Can be used to add value, for hedging, or to provide a temporary source of funds with which to make additional investments beyond those afforded by the original capital (i.e., to leverage the original capital).

Implementation Strategies Principles

Leverage

Principle

The Fund will not directly borrow money to make investments; however, in some cases, leverage is an intrinsic part of the investment and may be used by the Fund's investment managers providing appropriate considerations are given to the risks involved.

Investment in leveraged asset categories will only be made through vehicles where there is no possibility of losing more than the amount of the Fund's investment in that specific vehicle.

Rationale

For certain types of investment, such as Real Estate and Infrastructure, leverage is an intrinsic characteristic of the investment, as the manager typically borrows money to finance a portion of the purchase of the investment or to cover part of the cost of improvements on an investment. Infrastructure and Real Estate investments often create leverage using mortgages or similar vehicles to finance a portion of the purchase of the asset.

Typically, leverage is created through short selling or the use of derivatives. Short selling is a form of borrowing and thus, by its nature, creates leverage. Allowing a manager to short sell securities expected to perform poorly and to reinvest the proceeds to increase exposure to securities expected to outperform can improve portfolio returns. However, short-selling can result in significant losses when a short position moves against the investor. Additionally, whenever leverage is employed, it will magnify position exposures and often introduces counterparty exposure. As such, care must be taken to ensure that the manager's risk controls are adequate, and consideration given to the legal structure of the investment vehicle.

Currency Hedging

Principle

The Fund will passively **hedge** 100% of the foreign fixed income portfolio. The Fund will passively hedge 50% of the foreign Real Asset exposure (Infrastructure and Real Estate). Foreign equities will be unhedged.

Hedge (hedging): Action taken to protect the value of a portfolio against a change in market prices. It is usually used to reduce or eliminate risk, although similar techniques can also be used to speculate in a market.

Hedged mandates will be hedged at the portfolio level, not at the security level (i.e., a global US dollar denominated portfolio will hedge the US dollar exposure, and not the currency denomination of the underlying securities that comprise the portfolio).

Rationale

Over the long term, there is expected to be no return from currencies or **currency hedging**. Currencies have, however, exhibited relatively high likelihoods of large movements over a short time period that can have a significant positive or negative effect on the Canadian dollar return of the foreign investments in the portfolio. These movements can directly affect the retirement income of Plan members. Since currency represents an uncompensated risk in the Fund, a thoughtful hedging strategy can reduce this risk.

Currency Hedging: Strategy designed to reduce (partial hedge) or eliminate (100% hedge) exchange rate risk in a portfolio of non-domestic assets, through the use of currency futures/forwards or by the purchase, sale or borrowing of the exposed currency.

The main rationale for investing in fixed income markets is to mute the volatility of the Fund returns, particularly against interest rate movements. Over the longer term, Canadian and global fixed income yields have tended to trend in the same direction; however, currency movements can often overwhelm these interest rate shifts, particularly in the shorter term. Hedging the entire currency exposure preserves the interest rate characteristics of the global fixed income investments, which is essential to hedging the Fund's liabilities while eliminating unwanted currency volatility.

The Fund has exposure to foreign Real Assets (i.e., Infrastructure and Real Estate). These assets offer the potential for risk diversification as they differ from both equities and fixed income, but also capture some characteristics of both Return-Seeking and Liability-Hedging Assets. The linkage between Real Assets and the Fund's Canadian denominated liabilities is not as direct as fixed income; however, there are some similarities, including long-term predictable cash flows that are often inflation protected. Partially hedging these assets strengthens the linkage between the Liability Hedging characteristics of these assets and the Canadian-denominated obligations. Furthermore, investments in Real Assets are expected to be long-term in nature, therefore the Fund can tolerate some volatility from currency movement in these investments, as theoretically, they will be held to maturity and should help smooth the volatility of the Return-Seeking Asset portfolio. Partially hedging the Real Asset portfolio will reduce unwanted currency risk without diluting the Return-Seeking characteristics of the investments.

For the Fund's non-domestic Return-Seeking assets (which are currently global equities), the correlation between Canadian dollar strength and the performance of foreign equity market currencies (in particular, the U.S. market) is particularly strong. Consequently, currency hedging increases the volatility of foreign equity returns for the Canadian investor, so remaining unhedged decreases the expected currency volatility.

The investment managers will attempt to maximize their risk/return profile in the currency in which their portfolio is measured (and often will actively manage the currency risk or invest based partially on their currency beliefs). From a Canadian perspective, currency volatility can be very large and often uncorrelated to the underlying portfolio. This risk can be reduced by

hedging at the portfolio level which will reduce the currency risk, but not undermine the manager's portfolio investment decisions.

Currency exposures can be actively managed versus a targeted hedge ratio depending on the views on the directional nature of a currency pairing. Since hedging strategies are used by the Fund fundamentally to reduce risk, and little, if any incremental value is expected to be added from actively hedging, currency hedging will be managed passively.

Sustainable Investing

Principle

Sustainable Investing considerations provide a consistent framework for all aspects of Fund investment, management and oversight. Underscoring this framework are Environmental, Social and Governance (ESG) factors; these factors are very broad in nature and can have a material impact on the performance of the Fund over the long term. They are important considerations for the Fund's management.

By bringing a practical lens that considers governance and the size of the Fund, the internal resources, and the investment structure, the Fund can best be positioned to manage the risks and opportunities from these three ESG pillars of Sustainable Investing. Specifically, the key Environmental risk faced by the Fund is currently climate change and, at a macro level, the Fund will focus on the risks and opportunities associated with a transition to a low-carbon economy. From a Social perspective, the Fund will seek to make a positive societal impact, without diverging from its fiduciary responsibility, while considering the practical limitations of its size and internal resources. From a Governance perspective, the focus on diversity is applied to the internal governance structure of the Fund and is a fundamental expectation of any external providers.

Sustainable Investing makes no judgment as to the ethics or morality of any investment and does not change the Fund objectives.

Rationale

Empirical studies show that there is a positive link between corporate sustainable business practices and share price performance. In addition, encouraging sustainable business practices is, in and of itself, a desirable goal.

Climate change will have a meaningful impact on the long-term financial outcomes of the Fund. Specifically, climate change and the accompanying transition to a low-carbon economy may negatively impact some returns while also providing opportunities for innovative solutions and investments. The Fund manages this long-term megatrend by considering the impact of the transition to a low-carbon economy on asset class returns as an important input when making investment decisions, selecting investment products or retaining investment managers.

Diversity of fiduciaries is beneficial as people with different backgrounds and perspectives providing opinions in a respectful environment will spark value creation through examining investment issues from multiple lenses. Diversity typically encapsulates gender, sexual orientation and race; it may extend to other areas including languages, training, educational backgrounds, demographics and other factors.

From a practical perspective, opportunities to work with like-minded investors to affect change and improve outcomes for all investors by engaging investment managers, industry professionals, other investors and regulators, are continuing to be explored. Participation in industry groups is expected to expand the impact the Fund can have on the industry by expanding the Fund's resources and reach.

Securities Lending

Principle

For separately managed (segregated) mandates, the Fund will not participate in a securities lending program.

Rationale

The amount of revenue that is likely to be generated from securities lending is relatively small and is not sufficient compensation for the potential risks.

Derivatives

Principle

Derivatives may be used, with proper expertise and oversight, to create positions and exposures that are consistent with these Principles.

Rationale

Derivatives are broadly used by investment managers for implementing positions and managing risk exposures. With the proper oversight, including management of counterparty exposures and liquidity risks, derivatives are an effective way for managers to implement their investment ideas and manage risk in their portfolios.

There are some actively managed funds which use derivatives to create short positions and enable the investment manager to express a negative view of a particular investment (and often allows them to increase their exposure in other areas of the portfolio they view as favorable through leverage). Shorting positions requires a unique skill set and can significantly increase risk in a portfolio (a short position can theoretically lose a material amount of money if the holding rises in value).

To the extent derivatives are used, the Fiduciaries will have to be satisfied that the manager has the requisite level of expertise in the instruments they are using, are transparent in their usage, and understand the risks associated with using these investment tools.

Manager Structure Principles

Internal/External Fund Management

Principle

The Fund will use external money management services and not create its own internal manager structure. The Fund will neither develop nor maintain any internal fund management resources.

Rationale

The Fiduciaries believe that, given the resources available and the size of the Fund, asset classes are most effectively managed by hiring skilled external managers. The goal is to employ the most appropriate managers for each of the mandates in its investment management structure. The Fund should be managed by external investment management firms who have the necessary resources and expertise to run their respective strategies.

Practically, it is difficult to attract, retain, and adequately remunerate the best of highly qualified internal portfolio management personnel according to prevailing investment industry standards. In addition, internal management provides less flexibility, staff relations are complex, and it is difficult to adequately address the career growth aspirations of its incumbents. Also, good governance for an internally managed investment organization requires an extensive internal administration structure.

For actively managed assets, there are competent external managers that have the potential to consistently generate significant value added, net of fees. It is believed that the Fund has the appropriate resources, with assistance from external advisors, as required, to assess the skill of a manager and whether they are likely to be able to meet the desired objectives for their specific mandate.

Selection and Evaluation Process for Managers

Principle

The selection and evaluation process will focus on a detailed assessment of both quantitative and qualitative factors in reviewing managers for all of the desired mandates. The extent to which a manager incorporates environmental, social and governance factors will be explicitly considered when hiring and assessing managers. Detailed due diligence will be carried out, to the extent possible, at the managers' offices, to assess these various qualitative factors before a manager is recommended to PFIC and occasionally after the manager has been hired. External advisors will be used to provide detailed comparative information, including qualitative and quantitative information, to facilitate the selection or ongoing evaluation process and due diligence.

Rationale

A manager's past performance is not necessarily predictive of future results. In addition to quantitative factors (e.g., historical performance relative to suitable benchmark, fee structure, consistency of portfolios with stated styles), it is important to assess the qualitative factors (e.g., strength and stability of the investment personnel, consistency of reward structures with the investment approach and the efficacy of the investment process) that impact future long-term performance. Both sets of criteria provide important information with respect to fund managers. In addition, the incorporation of sustainability criteria when evaluating management capabilities, future growth prospects, and potential risks for companies, can have a meaningful impact on managers' security selection and portfolio construction decisions.

External advisors have extensive databases that are regularly updated, and are dedicated resources for manager research and evaluation.

Pooled vs. Segregated Vehicles

Principle

For public market mandates, it is generally preferred to invest using pooled vehicles if available. However, in cases where there are specific mandate restrictions, a segregated vehicle may be a reasonable choice. Direct investments in Real Assets will be accessed through limited partnership vehicles (which are by definition pooled vehicles).

Rationale

Pooled funds offer some potential advantages, through lower transaction costs and simpler registration requirements for global and emerging markets. This is particularly true when the manager uses a model portfolio construct in which all of that manager's portfolios with unconstrained mandates are virtually identical in composition.

Segregated portfolios permit greater control over the mandate guidelines and the securities and provide greater transparency on the day-to-day holdings of the manager.

Direct investments in Real Assets will be made in limited partnerships, or similar vehicles, that limit the exposure to losses exceeding the investment in the actual investment in a particular product.

Active and Passive Fund Management

Principle

The Fund will have an orientation toward **active fund management**.

However, **passive fund management** may be used on a limited basis, in a market where

Active Fund Management: Approach to investment management where the aim is to outperform a particular market index or benchmark through asset allocation and/or stock selection and/or currency decisions.

there may be fewer opportunities for profitable active management (defined as positive value added relative to an appropriate benchmark on a net of fees basis) and where the benchmark itself is of adequate quality for investment.

Passive Fund Management: Approach to investment management which aims to replicate a particular market index or benchmark fund and does not attempt to actively manage the portfolio.

Rationale

Even modest value added through active management (net of the additional fees) has a significant effect on increasing the long-term return to the Fund. Historical analysis indicates that global equities is an asset class where active management has generated added value.

Active managers can also reduce risk by mitigating the magnitude of negative returns from the market. The level of long-term return and the pattern in which those returns are delivered are both important aspects in achieving the Plan's financial objectives. Thus, an equity manager who provides a return that merely matches the performance of their benchmark index over the long-term but provides that performance with significantly lower volatility and better bear market protection is helping to achieve the financial objectives. In addition, the long-term nature of the key liabilities is best matched to an active manager who applies a very long-term benchmark-agnostic approach to investing rather than the momentum-driven approach that is inherent in passive investing.

It is believed that the Fiduciaries can select active managers for most asset classes that will provide, in aggregate and over the long term, returns that outperform their passive benchmark indices and will do so with a pattern of returns that will improve the stability of performance. This approach is likely to result in manager portfolios that significantly deviate from the composition of the relevant benchmark index.

The existence of a market index does not, in and of itself, mean that the index is a good investment. Some market indices show a high degree of concentration (e.g., the S&P/TSX Composite Index). While these indices can be used as benchmarks, many active investment managers will operate a more diversified portfolio.

Where it is believed that an investment mandate does not provide a significant opportunity for active managers to either significantly improve long-term returns or provide a better pattern of returns, the mandate will be managed on a passive basis to minimize costs.

Specialty Fund Management

Principle

The Fund will use primarily **specialty fund management** in conjunction with the maintenance of a disciplined rebalancing policy so that the asset mix does not drift.

Specialty Fund Management: Specialty fund management refers to the use of separate mandates (and potentially different managers) for each asset class, with no discretion given to the managers to make asset mix shifts.

Rationale

The use of specialty management rather than **balanced fund management** will allow the Fund to have “best-in-class” managers in each asset category. Managers are selected based on their expected ability to provide the optimal level and pattern of performance within each asset class. In addition, studies in Canada and the US have shown that the median active balanced manager has tended to lose value through asset mix management.

Balanced Fund Management: Refers to the use of a single manager for all asset classes. The manager may or may not have discretion to make asset mix shifts.

Investment Style and Number of Managers

Principle

Where appropriate and practical, the Fund will use managers with complementary **investment styles** within asset classes. In general, active managers will be retained with an absolute return bias (instead of a benchmark or tracking-error focus).

Investment Style: Approach followed by an active investment manager in selecting stocks. Example: A growth investment style is employed by investment managers who invest in companies that have superior growth prospects. Generally, these companies have higher price-to-earnings and price-to-book ratios and lower dividend yields. A value investment style is an approach that places emphasis on identifying shares that are believed to be under-priced (based on indicators such as P/E ratio, P/B ratio, and dividend yield) by the market. A core investment approach is not dominated by a particular style of investing such as value or growth.

The equity portfolio structure will seek to achieve long-term returns consistent with equity market expectations, but with lower volatility and a bias to capital preservation.

The equity portfolio will be comprised of Core and Satellite portfolios. The Core portfolio will seek to provide market-like returns, but with lower volatility, through its investment in products that track against the market (like index funds) and have broad diversification. The Satellite portfolio will seek to enhance the overall equity portfolio return through investments in concentrated, benchmark-agnostic, high-conviction products with a goal to provide returns above the market index.

The Fund will have a multi-manager structure with at least one manager for each asset class in the asset mix policy, but the total number of managers will be optimized to ensure overall cost-efficiency. In addition, the multi-manager structure will be such that it produces a return that promises value added relative to the asset class benchmark.

Rationale

Investment managers – particularly managers of equity investments - exhibit distinct and consistent management biases or styles. These styles can be combined, within asset classes, in teams of managers so that returns are preserved, and the aggregate level of risk is lowered. A lower number of managers, however, can result in lower manager costs and lower monitoring costs. Additionally, over-diversification can dilute the aggregate value added from a multi-manager structure by moving the total asset class closer to a structure akin to the benchmark.

The key risks being managed in the public market equity portfolio are the absolute volatility of returns and the preservation of capital during equity bear markets. The public equity portfolio will be invested in a manner expected to produce strong long-term performance and provide protection during down equity markets. The Core and Satellite portfolio structure helps achieve this goal.

Ongoing Monitoring Principles

Measurement Period

Principle

For publicly traded or liquid investments, performance will be assessed over rolling four-year periods, and reviewed on a quarterly basis.

Illiquid investments will be evaluated following two years' worth of investment performance, and for periods of not less than two years.

Rationale

It is important to allow for a reasonable time horizon to measure quantitative Fund and individual manager mandate performance. At the Fund level, returns achieved by different asset classes change with market cycles and it is necessary to have the appropriate time to assess the success of the strategy. At the mandate level, studies have shown that style has a strong impact on a manager's returns.

In hiring each manager, it is important to clearly understand the types of market conditions during which the manager should be expected to underperform and to outperform. Shorter-term performance assessment should focus on understanding what has been driving the benchmark over the recent period and determining whether the manager's performance is in accordance with expectations. Thus, a manager's underperformance during a period which underperformance would normally have been expected should not be viewed in a negative context. Conversely, outperformance during a period which the manager was expected to underperform could be a cause for concern, as this would imply the fund manager did not respect the investment philosophy and strategy for that fund.

For portfolios that are not benchmark-focused, it will be necessary to evaluate manager performance against objectives over a longer time horizon. Benchmark-agnostic portfolios can display very different performance patterns compared to benchmarked portfolios and can therefore underperform or outperform for considerable periods. The key measurement period for assessing performance for individual managers will be a full market cycle – for ease of tracking, a market cycle will be assumed to span a four-year period (although it is recognized that any particular cycle is likely to be either shorter or longer than this). During interim periods, the monitoring will focus on patterns of performance specific to the individual manager's mandate (i.e., whether the return over a specific period is consistent with expectations given the factors that drove the markets included in their mandate).

Prolonged periods of manager underperformance can, however, be costly for the Fund, and the reality is that very few decision-makers have tolerance for prolonged underperformance. A four-year time period provides a reasonable compromise between:

- › the requirement for sufficient time to prove success; and,
- › a realistic time frame within which fiduciaries will tolerate underperformance.

Illiquid assets will only be evaluated following two years' worth of performance as the J-curve effect that is present earlier in investment period can dramatically obscure the actual success of a manager, particularly in the early days of an allocation.

Benchmarks

Principle

Benchmark targets will be the primary basis of assessment for the Fund's managers' performance. A benchmark target, along with the **real rate of return** target will be the primary tools for assessment at the Fund level. Appropriate benchmarks will be identified for the Fund and for each asset class and manager mandate. **Peer group** comparisons will be used sparingly.

Real Return: Inflation-adjusted return.

Peer Group: Term sometimes used to describe the total number of operators or competitors in a particular field (for example, a group of equity investment managers), or the number of available stocks from which a portfolio is selected. Investment manager performance surveys are also referred to in this way.

Rationale

Benchmarks based on market indices reflect the primary investment opportunity set for a given asset class. Market index returns can be replicated using low-cost index management, and therefore provide an objective hurdle for active management. Constituents of benchmarks are transparent and are (generally) unbiased as well as being specified in advance.

Even where a relevant market index does not exist, a benchmark still needs to be selected to assess whether the investment manager or strategy is providing returns in line with the expectation when the manager/strategy was selected. Benchmarks may include a return in excess of cash or an absolute return target.

Peer groups, on the other hand, while useful to a point, have certain inherent characteristics that render them less valid as performance targets. Peer group comparisons do not always recognize differing mandates or investment restrictions placed on managers. Also, survivor bias, where poor performing managers fall out of the measurement group, may be inherent in peer groups.

Mandate Compliance

Principle

All of the Fund’s managers will be monitored against the parameters outlined in their segregated or pooled funds’ investment policies. In addition, managers’ oversight and execution of their proxy voting policies will be monitored.

Rationale

Effective execution of proxy voting rights is an important indication of a manager’s alignment on a variety of sustainable investing factors. A “drift” by any manager from the processes and controls specified in its mandate may result in the Fund being exposed to unintended biases, or to risks that are specifically prohibited with respect to the Fund.

Transparency and Reporting of Leverage

Principle

The amount of the Fund’s capital allocated to each asset class, investment manager and product (i.e., an investment product may include one or more strategies) shall be disclosed at least quarterly.

The Fund will only invest in products which provide timely transparency of the underlying investments and the level of leverage employed. Any products that employ leverage to increase exposures shall be noted, along with the amount of leverage being used.

Rationale

There are numerous products available in the industry and a lack of standardization of nomenclature. Leverage may be used and not inherently visible. Thus, additional reporting may be necessary to clarify the exposure and the nature of the investments.

It may not be practical to receive disclosure of all underlying holdings, as these positions are often considered proprietary to the investment manager. Thus, the transparency principle is not been extended to the underlying holdings.