



**STATEMENT OF INVESTMENT
POLICIES & GUIDELINES**

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1. INTRODUCTION

Background and Plan History

The Public Service Pension Plan (“the Plan”) is established and maintained under the *Public Sector Pension Plans Act* (“the Act”). The purpose of the Plan is to provide retirement benefits to employees of 32 participating employers, which include the Government of Alberta, five universities, four public colleges, provincial corporations and several government boards, agencies and commissions. Funding of the Plan is shared equally between the Plan members and employers.

The Plan is a contributory defined benefit plan that was established in 1947 by the Alberta Legislature for the employees of the Alberta government and certain other provincial agencies. Benefits are based on years of credited service and the member’s highest five consecutive years’ pensionable salary. On service after 1965, the benefit accrual rate is 1.4% up to the Canada Pension Plan (CPP) Year’s Maximum Pensionable Earnings (YMPE) and 2% above the YMPE. The benefit accrual rate for service before 1966, prior to integration with the CPP, is 2%.

The Plan rules provide for annual Cost-of-Living Adjustments (COLA) at 60% of the annual increase in the Alberta Consumer Price Index. However, depending on the funded status of the Plan and its funding requirements, the Public Service Pension Board (“the PSP Board”) has the discretion to increase COLA benefits above the 60% increase.

The President of Treasury Board and Minister of Finance is the Trustee of the Plan. However, the Act authorizes the Lieutenant Governor in Council to appoint a PSP Board made up of six individuals. The Government of Alberta nominates three individuals and the Alberta Union of Provincial Employees nominates three individuals to the PSP Board. The Act sets out the duties and responsibilities of the PSP Board, which include setting general policy guidelines for the management and investment of the Plan’s assets. This Statement of Investment Policies & Guidelines is a general policy guideline established pursuant to Section 3(2) of Schedule 2 of the Act. The PSP Board has established an Investment Committee, which includes two to three external members who are experienced in the investment industry. The PSP Board also utilizes the knowledge and expertise of its external investment consultants.

The President of Treasury Board and Minister of Finance, as Trustee of the Plan, is responsible for managing and investing the assets according to the PSP Board’s Statement of Investment Policies & Guidelines as set out in this document, as well as the investment provisions of the *Income Tax Act*, Alberta’s *Employment Pension Plans Act*, and the *Financial Administration Act*. Alberta Investment Management Corporation (“AIMCo”), a provincial crown corporation, manages and invests the assets on behalf of the President of Treasury Board and Minister of Finance and the PSP Board. An Operating Protocol is signed by the PSP Board and the President of Treasury Board and Minister of Finance with a mutual review of the Operating Protocol to occur every three years.

The assets of the Plan are held in the Public Service Pension Fund (“the Fund”). Member and employer contributions and investment earnings are paid into the Fund; Plan benefits and administration costs are paid out of the Fund.



Investments

The PSP Board, the President of Treasury Board and Minister of Finance, and AIMCo have a legal and fiduciary obligation to act in the best financial interest of the Fund's beneficiaries and to exercise the highest standard of care. This must override all other considerations.

Investment activity and earnings are an important funding source for a pension plan. Therefore, investment policies and strategies are vital to all of the Plan's stakeholders.

Investment policy establishes eligible investments, asset class weights and the amount of discretion given to fund managers. These factors are the principal determinants of risk and return. As such, investment policy plays a crucial role in determining the extent to which benefit obligations can be offset by the Fund's investment earnings.

On a long-term basis, a low-risk investment policy for the Fund will earn low rates of return. This may mean that the Plan's liabilities grow faster than its assets. This, in turn, may necessitate higher contribution rates to meet the Plan's benefit obligations. On the other hand, a high-risk investment policy would be expected to provide a higher rate of return, but may lead to unacceptable levels of return volatility, potentially resulting in temporary periods of high contribution rates. It is therefore important that the investment policy establishes a balance between the Plan's risk tolerance and return objectives.

The goal of this investment policy statement is to establish guidelines which ensure that the Fund is managed within an appropriate and prudent level of risk.

The PSP Board has adopted the investment policy set out in this document after considering:

- the financial needs of the Plan as they relate to the members and other stakeholders;
- the PSP Board's investment beliefs, as documented in the Statement of Investment Beliefs (Appendix D);
- the risk tolerance of the PSP Board; and
- the aim to maintain stable contribution rates.

In order to review the Plan's strategic asset allocation, the PSP Board will undertake an asset liability study every five years.



2. FUND OBJECTIVES AND ASSET MIX POLICIES

Long-term Investment Objectives

Because investment earnings are the Plan's most important funding source, the PSP Board has set an investment policy solely in the interests of Plan stakeholders to ensure the Plan assets are managed effectively and efficiently in order to provide promised benefits for the Plan's beneficiaries while limiting the variability of member and employer contributions.

The PSP Board believes that the promised pension benefits can best be met by having the proper long-term asset mix, including proper diversification as well as prudent management of investment risks.

The PSP Board's expectations for the Fund will be expressed in the "real rate of return". The real rate of return is the actual rate of return adjusted for the effects of inflation. It provides the best measure of the growth in assets relative to Plan liabilities. In the most recent actuarial valuation, the PSP Board used a real rate of return of 3.80%, after any Margins for Adverse Deviation.

Asset Mix Policies

The PSP Board has adopted the following long-term asset mix policy:

Fixed Income	21.0%
Equities	55.0%
Alternatives	24.0%

The PSP Board has developed this asset mix policy with a long-term view given its current funding status. This was reinforced in an asset/liability study conducted in 2015, which projected anticipated returns for a 10-year period. The ranges for each of these three major asset categories, described in the table below, are judged to be reasonable and not expected to prejudice the long-term policy mix. AIMCo has the discretion to make decisions respecting the Fund's tactical asset allocations within these ranges. In the event that AIMCo is not in compliance with the asset mix policy, AIMCo is required to advise the PSP Board directly or through the PSP Board Staff in a timely manner, detailing the nature of the non-compliance, and describe the action taken or recommend a course of action to either remedy the situation or revisit the policy, as appropriate.

The PSP Board follows a prudent asset diversification policy, consistent with its investment beliefs and applicable legislation to reduce exposure to any single investment risk and stabilize total fund investment returns. The PSP Board, through its asset allocation, establishes a portfolio that is broadly diversified by (i) asset classes, (ii) countries, (iii) issuers and credits, (iv) individual securities, (v) currencies, and (vi) investment products and securities.

The Fund will be managed with a view of providing sufficient liquidity to meet the Plan's financial obligations as they become payable.

To diversify risk and enhance expected returns, the Fund's investments will be allocated among the following major asset classes and maintained within the corresponding ranges as a percentage of the Fund's market value.

TABLE 1: ASSET MIX POLICY WEIGHTS AND RANGES

<u>SECURITY CLASS</u>	<u>BENCHMARK</u>	<i>(% of Market Value of Plan Assets)</i>		
		<u>TARGET WEIGHT</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>
Fixed Income				
Money Market	FTSE TMX Canada 91 Day T-Bill Index	0.5	0	3.0
Universe Bonds	FTSE TMX Canada Universe Bond Index	7.0	4.0	10.0
Long Bonds	FTSE TMX Canada Long Term Government Bond Index	7.0	4.0	10.0
Private Mortgages	FTSE TMX Canada Universe Bond Index	5.0	3.0	7.0
Opportunistic Fixed Income ¹	FTSE TMX Canada Universe Bond Index	1.5	0	3.0
Total Fixed Income		21.0	11.0	33.0
Equities				
Canadian Equity	S&P/TSX Composite Index	13.0	10.0	18.0
Global Equity, Traditional	MSCI World (C\$) Index	22.0	19.0	27.0
Global Equity, Low Volatility	MSCI World Minimum Volatility (C\$) Index	11.0	8.0	14.0
Emerging Markets Equity	MSCI EM (C\$) Index	5.0	0	7.0
Private Equity	CPI + 7.0%	4.0	0	6.0
Total Equities		55.0	37.0	65.0
Alternatives				
Canadian Real Estate	REALpac/IPD Large Institutional All Property Index	13.0	10.0	15.0
Foreign Real Estate	REALpac/IPD Large Institutional All Property Index	2.0	0	3.0 ²
Infrastructure ³	CPI + 4.5%	9.0	5.0	12.0
Total Alternatives		24.0	15.0	30.0

Notes:

¹ Includes Private Debt & Loans

² Foreign Real Estate: 2.0% of value of Plan assets with organic growth is permitted to 3.0%.

³ Includes Timberland: It is the PSP Board's intention to divest from this asset class; however, until fully divested, organic growth will be permissible.



Absolute Return Strategies/Hedge Funds

The limit for absolute return strategies/hedge funds is 15% for the Fund. The Absolute Return strategy / hedge fund allocation is within the Global Equity, Traditional asset class.

Opportunistic Securities

There may be opportunities available for AIMCo to fund certain investments outside those asset classes as listed in Table 1. These alternative investments are expected to exhibit better risk/return profiles, allowing AIMCo to deploy capital in a more efficient manner when managing the investments of the Fund. The PSP Board provides AIMCo with the autonomy to investigate and fund these investments. By investing in these opportunistic securities, it is recognized that they will become part of the Fund's global equity allocation as seen in Table 1.

Due to the potential illiquid nature of some opportunistic securities, the PSP Board recognizes that some of the positions may take considerable time to divest. Opportunistic securities will have a maximum allocation of 3.0% of the market value of Fund assets.

Asset Mix Transition

During a reasonable period following any material changes approved by the PSP Board to the asset mix, the minimum and maximum allocation weights will not apply for asset classes that have restricted liquidity (such as private equity, private income, real estate and timberland) or liquid asset classes if liquid asset classes are the source of funds for the asset mix transition.

Implications of Investment Policy

The asset/liability study conducted by the PSP Board in 2015 showed that the new asset mix is expected to achieve a similar rate of return and a lower investment risk. Specifically, the asset mix policy weight for Fixed Income was reduced and the asset mix policy weight for Global Equity, Low Volatility was increased. For the valuation as of December 31, 2014, the Actuary used a 3.80% real return to assess the financial position of the Plan (after Margins for Adverse Deviation). The Plan's actuarial assumptions in this valuation include a nominal valuation rate of 6.05%, which is comprised of an assumed real return of 3.80% (after inclusion of Margins for Adverse Deviation) and expected inflation of 2.25%.

The Plan's financial position is affected favourably or adversely by numerous non-investment factors including wage growth, inflation, termination rates, mortality rates, member growth and benefit changes.

If the Fund's real rate of return is greater than 3.80% over a given period then an actuarial valuation will reveal a gain attributable to investment and inflation experience. Conversely, if the Fund's real rate of return is less than 3.80%, an actuarial valuation will reveal a loss attributable to investment and inflation experience. A real rate of return of 3.80% will produce neither a gain nor a loss.

By adopting an investment policy that is expected to result in a long-term expected rate of return that exceeds the discount rate (which includes the Margin for Adverse Deviation) used to establish contribution rates, the PSP Board is explicitly planning to meet contractual benefit



obligations as well as build an appropriate “margin” to reduce the volatility in member and employer contribution rates.

The PSP Board will meet with AIMCo not less frequently than twice per year to consider investment issues. AIMCo will be consulted on any planned amendment to the investment policy set out in this document and will participate in annual reviews of the investment policy. Changes in the investment policy may be necessary if there have been fundamental changes in the benefit design of the Plan, the actuarial assumptions or statutes applicable to the Plan.

The PSP Board will communicate investment policy changes to AIMCo in writing. AIMCo will acknowledge receipt of the changes and confirm implementation of same or advise the PSP Board of any concerns with the changes or implementation timing within 15 calendar days of receipt of the notice of change. The PSP Board and AIMCo will work collaboratively to resolve any concerns with the investment policy changes.

Permissible Investments

Permissible Investments are qualified investments under the prudent person rule defined in the *Financial Administration Act*, as amended from time to time, as investments that adhere to investment and lending policies, standards and procedures that a reasonable and prudent person would apply in respect of a portfolio of investments to avoid undue risk of loss and obtain a reasonable return. The investments of the Fund must comply with the investment policy and also be in compliance with and recognized as qualified investments under applicable federal and provincial legislation.

Permissible Investments includes investments through units of any AIMCo pooled fund or segregated fund as approved by AIMCo’s Board, provided that such vehicles conform to the investment policy. AIMCo is responsible for notifying the PSP Board of any changes to pooled fund product descriptions.

Environmental, Social and Governance (ESG) Factors

Responsible corporate behavior with respect to Environmental, Social and Governance (ESG) factors is recognized to have a positive influence on long-term shareholder value. AIMCo is responsible for developing a strategy with respect to ESG factors and reporting on this strategy to the PSP Board.

Leverage

Leverage may be used in the Fund for the purpose of enhancing returns and managing risk. Leverage magnifies the actual returns beyond those experienced by the underlying securities, both on the upside and on the downside.

Common examples of portfolios that contain leverage are portable alpha or overlay strategies, absolute return strategies, real estate, and private investments. In each case, leverage is understood to be an integral part of the underlying strategy and it is monitored, giving particular consideration to the related risks.

Leverage may be employed in connection with the investment of the Fund, provided that:



1. Such leverage may only be employed insofar as permitted by applicable laws and regulations;
2. AIMCo has given due consideration to the risks associated with the use of leverage in the circumstances;
3. AIMCo has established appropriate risk control measures in respect of the use of leverage; and
4. The employment of leverage does not violate the risk constraints for the Plan.

Derivatives

The use of derivatives and synthetic securities is permitted in a manner consistent with the overall investment policies and risk tolerance of the Plan and applicable legislation.

3. PERFORMANCE EVALUATION

The performance objective is to earn a return, net of investment fees, that exceeds the rate of return of the benchmark portfolio, weighted by the specified asset mix policy outlined in Section 2 (Fund Objectives and Asset Mix Policies).

The returns of the Fund are the percentage change in the fair value of the Fund, inclusive of accrued dividends and interest receivable. AIMCo uses fair values derived from independent pricing sources. Investments are recorded by AIMCo on a trade date basis. The returns are calculated using a daily time-weighted rate of return methodology and are geometrically linked to determine the annual and the annualized portfolio returns since inception. Return calculations are in accordance with the investment performance measurement industry best practices. A rolling four-year time horizon will be used for determining whether the net of investment fees return objective¹ over the Policy Benchmark has been met. The PSP Board expects that, in aggregate, the Fund will earn a return approximately 85 basis points per annum above the Policy Benchmark over the long term, net of investment fees, over 4-year rolling time periods.

It is the intention of the PSP Board to reassess the investment policy set out in this document at least annually. However, if at any time AIMCo feels that the objectives cannot be met, or that the guidelines or restrictions are imprudent, or that the investment policy restricts performance, AIMCo will notify the PSP Board in writing.

On a quarterly basis, AIMCo will submit to the PSP Board a report(s) that will indicate whether or not AIMCo was in compliance with the established investment guidelines throughout the quarter. In the event that AIMCo was not in compliance with the guidelines, AIMCo is required to advise the PSP Board directly or through the PSP Board Staff in a timely manner, detailing the

¹ Effective July 1, 2010, the value-added objective is 85 basis points.
From October 1, 2006 to June 30, 2010, the value-added objective was 70 basis points.
Prior to October 2006, the value-added objective was 50 basis points.



nature of the non-compliance, and describe the action taken or proposed to correct the non-compliance within a reasonable time period. Within the report(s), AIMCo will also provide attribution analysis on the Fund's performance.

Risk Management

Risk management involves both qualitative and quantitative assessments and decision making. The use of quantitative tools for measuring and reporting on risk is only one part of the overall risk management program.

4. VALUATION OF INFREQUENTLY TRADED ASSETS

Where a public market price is not available for an asset, a suitable method of valuation shall be used including the use of: discounted cash flows, earnings multiples, appraisals, prevailing market rates for instruments with similar characteristics or other pricing models as appropriate. External appraisers may be used to provide independent valuations or verify the reasonableness of internal valuations.

5. LENDING OF CASH AND SECURITIES

The PSP Board may lend the cash and securities of the Plan as a means of generating incremental income or otherwise supporting an investment strategy, in a manner consistent with industry standards.

6. CODE OF CONDUCT

AIMCo and its employees and directors shall adhere to AIMCo's Code of Conduct and Ethical Standards. AIMCo's Code of Conduct and Ethical Standards will, at a minimum, adhere to the CFA Institute Code of Ethics and Standards of Professional Conduct. The AIMCo Board is responsible for approving changes to the AIMCo Code of Conduct and Ethical Standards and AIMCo will advise the PSP Board of any such changes. A current version of the Code of Conduct and Ethical Standards will be maintained and available on AIMCo's website. AIMCo will review each external manager's code of conduct and ensure it is acceptable.

7. VOTING RIGHTS

AIMCo has been delegated the responsibility to vote securities in a prudent manner in order to enhance the Fund's investment returns. AIMCo will monitor any voting of securities delegated to an external manager.

8. RELATED PARTY TRANSACTIONS

AIMCo may not enter into a transaction with a related party unless:



- a) the transaction is required for the operation or administration of the Plan and the terms and conditions of the transaction are not less favorable to the Plan than market returns or conditions; or
- b) the securities of the related party are acquired at a public exchange.

“Related party” is defined as Section 6 of Schedule III to the Pension Benefits Standards Regulations, 1985 (Canada) as amended from time to time. A related party is a person who is the administrator of the Plan including any officer, director or employee of the administrator, or any person who is a member of the Board. It also includes investment managers and their employees, a union representing employees of the employer, a member of the Plan, a spouse or child of the persons named previously, among others. Related party does not include government or government agencies.



APPENDIX A – GLOSSARY

Accrued Interest: interest income on a fixed income security that has been earned, but has not yet been paid.

Active Management: managing the investments of a portfolio with the objective of outperforming the return of its benchmark. Active Management generally takes two forms – security selection or asset allocation decisions. Security selection is the buying and selling of particular securities to earn a return above a market index. Asset allocation refers to changing asset class or sector weights to earn a return above what would be available from maintaining the asset class or sector weight in the benchmark.

Actuarial Valuation: a mathematical analysis of the financial condition of a pension plan by comparing the values and expected return of the plan's assets and projected liabilities. The PSP Board must have the Plan's Actuary prepare an actuarial valuation at least once every three years. Within a reasonable time after receiving the actuarial valuation report, the PSP Board, following the recommendations made by the Plan's Actuary in the report, shall adjust contribution rates so the rates meet the funding requirements of the Plan.

Actuary: person professionally trained in the technical and mathematical aspects of pensions and related fields. An actuary determines the amount of contributions required to fund the future benefits promised to members. The Plan requires that its actuary be a Fellow of the Canadian Institute of Actuaries.

Asset Allocation: the long-term asset mix policy decision made by the PSP Board to allocate the Fund among various asset classes such as fixed income, equities, alternatives/inflation sensitive, etc.

Asset Class: a group of securities or assets with similar characteristics that cannot be replicated with another combination of securities, assets and/or asset classes. This may be broadly defined (equities, bonds) or more narrowly defined (Canadian small cap equities, real return bonds).

Asset Class Weights: the specific relative proportion of each type of asset represented among the asset/security classes in the Fund's investment portfolio.

Asset Mix: the percentage distribution of Fund assets invested among various asset classes. Typical asset mixes are broadly delineated by fixed income (e.g., bonds and mortgages), equities (e.g., stocks and shares) and alternatives/inflation sensitive (e.g., real return bonds, venture capital, stocks).

Assets: a resource having economic value, for which a pension fund has an expectation of future benefit. Asset value grows with successful investment activities.

Attribution Analysis: a mathematical process that is used to determine the impact of security selection and asset allocation decisions on value-added or loss. Attribution analysis is used to understand the source of excess returns resulting from Active Management.

Basis Point (bps): a basis point is 1/100th of 1% (i.e., 0.01%).



Benchmark: a standard against which performance is measured. Common benchmarks used in investment management are the FTSE TMX Canada Universe Bond Index for Canadian fixed income, the S&P/TSX Composite Index for Canadian public equities, the MSCI World (C\$) Index for global public equities, among others.

Beneficiary: person who is to receive a benefit provided by the Plan. This includes both members and persons designated to receive benefits in the event of a member's death.

Benefit Obligations: obligation of a pension plan to pay dollar amounts to members or other beneficiaries who meet the eligibility requirements of the Plan.

Bonds/Notes: certificates of indebtedness issued by corporations, municipalities or governments on which the issuer promises to pay a specified amount of interest for a specified length of time and to repay the loan on maturity or the expiration date. A bond purchaser is lending money to the issuer. Bonds and notes have terms to maturity greater than one year.

Capitalization: the value of a company or index based on the most recent price of one share, multiplied by the number of shares outstanding. Companies are sometimes classified according to size of capitalization: large cap, mid cap or small cap. There is no fixed definition of the break points between each of these, and it will vary by country.

Collateral: property, or anything considered to have economic value, pledged by a borrower to secure a loan.

Consumer Price Index (CPI): measures the relative weighted average price at various times of a selected basket of goods and services within an economy. It includes such things as clothing, food, housing, gasoline, health, personal care services, recreation and education. Consumer price indices are generally compiled and published by government statistical services (e.g., Statistics Canada).

Cost-of-Living Adjustment (COLA): an increase to pensions according to the rise in cost-of-living as measured by some index. COLA increases under the Plan are granted according to the Alberta Consumer Price Index.

Debentures: a type of debt instrument that is not secured by physical assets or collateral. Debentures are backed only by the general creditworthiness and reputation of the issuer. Like other types of bonds, debentures are certificates of indebtedness.

Defined Benefit Plan: a pension plan under which a member's benefits are determined according to a definite formula. The Plan provides benefits according to a formula based on a percentage of the member's highest five-year average salary multiplied by years of pensionable service up to a maximum.

Derivative: financial obligations/contracts that derive their value from the value of one or more underlying assets (such as a financial instrument, index or commodity). Derivatives include forwards, swaps, futures and options.



Equity Index: a measure of the performance of an individual stock or a basket of stocks. Familiar equity indices include but are not limited to the S&P/TSX Composite Index, the S&P500 Index and the MSCI ACWI.

Fair Value: the amount for which an asset could be bought or sold in a free and efficient market. Fair value is also commonly referred to market value.

Fiduciary: a relationship of trust and confidence where one person (the fiduciary) must exercise a high standard of care in managing money, assets or property for the benefit of others. As the legal owner of the assets of the Plan fund, the PSP Board holds a trust and fiduciary relationship with respect to Plan members and beneficiaries.

Fixed Income Futures Contract: see also definition for Futures Contract. Fixed income futures contracts are traded in the futures market such as the Montreal Stock Exchange. Examples of fixed income futures contracts include but are not limited to the 5-and 10-year Government of Canada bond futures contract (the CGF and the CGB contracts) and the Bankers Acceptance contracts (BAX).

Forward Contract: an agreement or obligation to buy an underlying security/asset at a specified price on a specified date in the future. Forward contracts are privately negotiated agreements between the counterparties and are not subject to standardized rules and are not traded on exchanges.

Forward Currency Contract: an agreement to buy or sell a country's currency at a specific price, usually 30, 60 or 90 days in the future. This guarantees an exchange rate on a given date.

Fund Managers: the entity or body responsible for investing a pension fund's assets. AIMCo, a provincial crown corporation, has been delegated responsibility for managing the Fund.

Funding Status: the ratio of the Plan's assets to its liabilities determined in the Plan's actuarial valuation for funding purposes.

Futures Contract: an agreement or obligation to buy an underlying security/asset at a specified price on a specified date in the future. Futures contracts are similar to a Forward Contract, but usually with periodic, often daily, "mark-to-market" activity, whereby the seller pays into a margin account if the value of the underlying security has moved up, while the buyer pays into the margin account if the value has decreased. Futures contracts are generally subject to standardized rules and are traded on exchanges.

Hedging: transactions employed to protect the value of a portfolio from the volatility in the underlying holdings.

Index: a basket of securities traded on a particular exchange, as defined by the administrators of that market index. Indices are often used to measure the total return of the market (capital appreciation and income) and as performance benchmarks. Many indices are investable, meaning that it is possible to replicate investment performance through passive investment.

Inflation: the rate at which the general level of prices for goods and services is rising and correspondingly purchasing power is falling. Also see CPI.



Inflation Sensitive: investments whose rate of return or cash flows that tend to be positively correlated to an economy's rate of inflation. Commonly cited inflation sensitive assets include inflation-linked bonds, infrastructure, timberland, commodities and real estate. Inflation sensitive assets are desirable within pension and endowment funds because they help to hedge inflation rate risk.

Integration: a feature of pension plan design that takes into account contributions and benefits under the Canada Pension Plan when setting the Plan's contribution and benefit rates. A lower contribution/benefit rate applies on salary up to the Year's Maximum Pensionable Earnings (YMPE) under the Canada Pension Plan.

Internal Rate of Return (IRR): interest rate that makes the net present value of all cash flows equal to zero. IRR, unlike time weighted rate of return, is sensitive to the timing of cash flows. IRR is commonly used within the Private Equity industry as a measure of investment performance because the manager generally has discretion over the timing of individual cash flows.

Investment Earnings: income earned on contributions and assets held in the Fund including income from realized capital gains or losses, interest, dividends, rents, security lending, swaps, etc.

Leverage: the use of various financial instruments or borrowed capital reinvested in higher expected returning assets in order to magnify the return of an investment. Leverage may include borrowing cash, short-selling securities as in arbitrage, hedging and overlay strategies or through the use of uncollateralized derivatives.

Liquid Assets: assets that can be promptly and easily turned into cash without materially affecting the asset's price.

Margin(s) for Adverse Deviation: the amount of conservative bias contained in an actuarial assumption (see Funding Policy Statement for further information).

Market Value: the price that would be obtained in the purchase or sale of the asset in an open market under conditions requisite to a fair transaction between parties who are at arm's length, free of undue pressure to trade and acting prudently, knowledgeably and willingly.

Mortgage: a debt instrument by which the borrower (mortgagor) gives the lender (mortgagee) a lien on property as security for the repayment of a loan.

Net Long Strategy: an investment management technique that overweights and underweights securities in equal measure to add value in a risk controlled manner. Essentially, a manager sells securities viewed negatively on the expectation that the value of these securities will underperform. With the proceeds of these sales, the manager buys securities that are viewed positively, i.e., securities the manager expects will outperform. The securities sales and offsetting security purchases are designed in such a manner that the net exposure to the market does not change. Securities that are underweight more than their total index weight are sold "short" (see short selling). These strategies are also commonly known as 120/20, 130/30 and active extension.

Nominal Return: a measure of return that does not net out the effect of inflation.



Notional Value: the underlying exposure or face value of assets or financial instruments underlying a derivatives contract.

Passive Management: managing the investments of a portfolio with the objective of matching/replicating the performance of a given broad-based market index or benchmark.

Policy Benchmark: a benchmark return for the Fund which is derived from the long-term asset mix policy and the benchmark/market indices assigned to each asset class. Actual performance of the Fund is measured against the Policy Benchmark and is also used to determine the efficacy of Active Management for the entire Fund.

Pooled Fund: a fund established that is duly authorized to operate as a fund in which money from two or more depositors is accepted for investment and where units allocated to each depositor serve to establish the proportionate interest at any time of each depositor in the assets of the fund.

Portfolio: the group of assets (such as stocks, bonds) held by an investor.

Private Placements: the act of raising of capital via private rather than public offering. The result is the sale of securities to a relatively small number of investors. Private placements are not offered to the general investing public. Investors involved in private placements are usually large banks, mutual funds, insurance companies, and pension funds. Since a private placement is offered to a few, select individuals, the placement generally does not have to be registered with securities regulators.

Proxy: the written power of attorney given by shareholders of a corporation, authorizing a specific vote on their behalf at corporate meetings.

Public Equities/Common Stock: units of ownership of a corporation where owners typically are entitled to vote on the selection of directors and other important matters as well as to receive dividends on their holdings, and in the event that a corporation is liquidated, the claims of secured and unsecured creditors and owners of bonds and preferred stock take precedence over the claims of those who own common stock. Owners of equity have limited liability to the amount paid for the stock.

Public Offerings: the sale of investment securities by an organization to the public. Public offerings must be registered with and approved by securities regulators and are normally conducted by an investment underwriter. Generally, any sale of securities to more than 35 investors is deemed to be a public offering. The term public offering is equally applicable to a company's initial public offering, as well as subsequent offerings.

Rate of Return/Return: the change in value of an investment or group of investments, expressed as a percentage of the investment, at the beginning of the time period under consideration. The rate of return measures income (dividends, cash interest and accrued interest) and capital appreciation (or capital depreciation) and may be either positive or negative.

Rating Agency: a firm or organization set up to rate the creditworthiness of a security issuer.

Real Rate of Return: the return achieved by an asset after adjustments for inflation.



Restricted Liquidity/Illiquid: assets with restricted liquidity, also referred to as illiquid assets, that cannot quickly and easily be converted into cash without materially affecting the asset's price due to factors such as inefficient or non-existent secondary markets.

Risk: the chance that the actual outcome deviates from the expected outcome. Within an investment context, risk is often defined as the exposure to the chance of loss or underperformance against a hurdle rate or benchmark rate of return. Common measures of risk include standard deviation, Value-at-Risk (VaR), and tracking error.

Risk Tolerance: the intellectual, emotional or organizational ability to withstand risk. Risk tolerance is one's willingness to withstand adverse outcomes with the view that, over a longer horizon, the net outcome from an investment position will be favourable.

Securities Lending: the practice of lending securities to third parties in return for a fee.

Security: an instrument representing ownership (equity), a debt agreement (bonds), or the rights to ownership (derivatives). A security is essentially a contract that can be assigned a value and traded. Examples of a security include a note, stock, preferred share, bond, debenture, option, future, swap, right, warrant, or virtually any other financial asset.

Security Selection: the decision to over/underweight specific securities relative to the market index or benchmark. Security selection is used in Active Management utilizing the investment skills and experience of the fund manager.

Segregated Fund Investments: investment assets of the pension plan that are not held in a pooled fund.

Short Selling: selling a security that one does not own.

Swap: a privately negotiated contract between two parties to exchange a stream of periodic payments on certain dates in the future based on an underlying investment. The size of these payments is normally determined in relation to a nominal, underlying amount called the notional amount. The underlying security, representing the notional amount, is not exchanged between counterparties. Swaps available in and between all financial markets include, but are not exclusive to, equities, currencies, fixed income and commodities.

Synthetic Securities: is the combination of two or more securities in such a way that the return of the combination is, for all practical purposes, the same as that of another single security.

Time-Weighted (Rate of Return): neutralizes the effect that the size and timing of cash flows can have on the calculation of returns. The investment industry uses time-weighted rates of return when comparing the returns of one fund to another fund or to a benchmark index. Unlike IRR, time weighted rate of return is not sensitive to the timing of individual cash flows.

Tracking Error: the amount by which the performance of a portfolio (either passively or actively managed) differs, or is expected to differ, from that of its benchmark, i.e., it quantifies the variability in returns between the portfolio and its benchmark. Formally, the tracking error is the standard deviation of the difference between a portfolio's return and that of its benchmark.



Trustee: the person or persons designated as having responsibility for holding and investing plan contributions and also having responsibility for other financial aspects of a pension plan. Under the *Public Sector Pension Plans Act*, all of the duties, powers and functions as trustee, except for the PSP Board's legal ownership of the assets of the plan fund, are deemed to have been delegated to the President of Treasury Board and Minister of Finance. As such, the President of Treasury Board and Minister of Finance is the trustee of the Public Service Pension Plan and its Fund.

Underlying Securities: assets that must be delivered when a derivative contract is exercised. Underlying securities can also be referred to assets that back futures and swap exposures in order to avoid financial leverage.

Units of a Pool: shares representing ownership interest in an investment pooled fund.

Valuation: an appraisal or a determination of the fair value, as of a given date, of an asset or portfolio.



APPENDIX B – SECURITY CLASS DESCRIPTIONS

Absolute Return Strategies/Hedge Funds: encompass a wide variety of investments and trading strategies in private and publicly traded securities with the objective of realizing positive returns independent of market direction. Investments in absolute return strategies are made through multi-hedge fund-of-funds investments to increase strategy diversification.

Active Currency Overlays: investments that seek to generate positive returns through active currency (primarily using forward currency contracts) trading from anticipated movements in foreign exchange rates.

Alternatives: any publicly traded or privately held investment (both foreign and domestic). Alternatives include, but are not limited to, private debt, infrastructure, timberland and real estate.

Canadian Public Equities: Canadian common shares, preferred shares or other equity-related securities issued by publicly traded corporations on a recognized stock exchange or trust units issued by unincorporated trusts that are listed on recognized stock exchanges. This security class may also include any instrument that is derived from such securities (e.g., options, futures, forwards, equity swaps).

Canadian Real Estate: investments in the operation and creation of income producing real estate properties with capital appreciation potential located in major urban areas in Canada with a long-term focus.

Commodities: physical substances such as food, grains, oil, gas and metals which are interchangeable with other products of the same type, and which investors buy or sell, usually through futures contracts on commodities exchanges. Commodities form the base inputs into the business production process. The prices of commodities are determined by global supply and demand factors.

Emerging Markets (Public Equity): emerging market common shares, preferred shares or other equity-related securities issued by publicly traded corporations in economies that are in earlier stages of development and listed on a recognized stock exchange. This security class may also include any instrument that is derived from such securities (e.g., options, futures, forwards, equity swaps). Emerging markets economies have sufficient size and liquidity for institutional investments and are receptive to foreign investments. Emerging markets tend to be more volatile than developed markets due to political, social, regulatory and currency uncertainty. Examples of emerging economies include Brazil, Russia, India, China and Mexico.

Equities: domestic and foreign ownership interest in both publicly traded and private enterprises.

Fixed Income Securities: all debt securities with a term-to-maturity of more than one year. The debt issues may be public offerings or private placements restricted to institutional investors. This security class may also include any instrument that is derived from such securities (e.g., options, forwards, bond swaps).



Foreign Real Estate: investments in the operation and creation of income producing real estate properties with capital appreciation potential located in major urban areas outside of Canada with a long-term focus.

Global Equities: includes U.S. Public Equities and Non-North American Public Equities.

Long Bonds: comprised primarily of semi-annual pay fixed rate government and corporate bonds issued in Canada and denominated in Canadian dollars, with an investment grade rating and a remaining effective term to maturity of at least ten years.

Money Market Securities (Cash or Short-term Investments): all high quality debt securities with a term-to-maturity of less than one year.

Non-North American Public Equities: non-North American common shares, preferred shares or other equity-related securities issued by publicly traded corporations listed on a recognized stock exchange. This security class may also include any instrument that is derived from such securities (e.g., options, futures, forwards, equity swaps). This security class covers both developed (i.e., Europe, Australasia and Far East) and emerging markets.

Other Fixed Income: fixed income securities that do not fit the criteria of Liability Matching Assets (e.g., Private Mortgages and Universe Bonds).

Private Debt: loans or securities extended to a borrower on a privately negotiated basis where the borrower is typically a private company. Debt interest can be in the form of either fixed or floating rate. Loan covenants, where they exist, are privately negotiated.

Private Equities: equity securities of companies that are not typically listed on a public exchange. Private equities are generally illiquid and thought of as a long-term investment. Private equity investments are global in nature and include all forms of private placement investing such as buyouts, mezzanine capital, and venture capital.

Private Income/Infrastructure: private income opportunities represent privately negotiated investments in private and publicly traded entities (both foreign and domestic). These investments are selected, structured and managed to provide 1) a current income component of total return, 2) diversification and 3) an inflation hedge. These investment opportunities are typically capital intensive and may include infrastructure projects (long-life assets used to provide essential services), bridge loans and corporate finance arrangements (with a current income component of total return). Most infrastructure assets are illiquid assets.

Private Mortgages: fixed income securities that are secured by first mortgage loans on commercial properties. Mortgage loans are less liquid than marketable fixed income securities therefore a risk premium is expected in making the decision to invest. This premium, expressed in terms of an interest rate differential (spread) over Canada bond yields, will vary depending on the prevailing interest rate structure and changing supply and demand conditions.

Real Return Bonds: fixed income securities with returns that are linked to inflation to generate specified rates of return after adjusting for the effects of inflation.



Tactical Asset Allocation (TAA): an active management strategy that alters the portfolio weights of the asset mix policy to take advantage of perceived short-term anomalies or mispricings in global financial markets on an opportunistic basis. Synthetic investments such as equity index and fixed income futures or swaps and forward currency contracts are often used to obtain desired exposures.

Timberland: timberland investments are made primarily in privately owned areas of woodland, that is, forested areas consisting of both hardwood and softwood species. When responsibly managed, timberland investments are a renewable and sustainable resource. Timberland investments are illiquid assets or assets that have restricted liquidity.

Universe Bonds: consists of a broadly diversified selection of Government of Canada, provincial, corporate and municipal bonds issued domestically in Canada and denominated in Canadian dollars with a remaining effective term to maturity greater than one year and a minimum credit rating of BBB.

U.S. Public Equities: U.S. common shares, preferred shares or other equity-related securities issued by publicly traded corporations listed on a recognized stock exchange. This security class may also include any instrument that is derived from such securities (e.g., options, futures, forwards, equity swaps).



APPENDIX C – BENCHMARK DESCRIPTIONS

FTSE TMX Canada 91 Day T-Bills Index: an index maintained by FTSE TMX Global Debt Capital Markets that generally reflects the performance of the Canadian money market as measured by investments in 91 Day Treasury Bills.

FTSE TMX Canada Long Term Government Bond Index: an index maintained by FTSE TMX Global Debt Capital Markets that includes bonds issued by the Government of Canada (including crown corporations), provincial governments (including provincially guaranteed securities) and municipal governments. The index consists of semi-annual pay fixed rate bond issues in Canada and denominated in Canadian dollars, with a remaining term to maturity of greater than ten years. Total returns are calculated daily and are weighted by market capitalization. Bonds included in the index must meet minimum liquidity requirements, as defined by FTSE TMX Global Debt Capital Markets.

FTSE TMX Canada Real Return Bond Index (FTSE TMX Canada RRB Index): an index maintained by FTSE TMX Global Debt Capital Markets that tracks the performance of real return (inflation-linked) bonds issued in Canada with terms to maturity of more than one year and a minimum credit rating of BBB (low).

FTSE TMX Canada Universe Bond Index: an index maintained by FTSE TMX Global Debt Capital Markets that covers most marketable domestically issued Canadian bonds with terms to maturity of more than one year. It is comprised of federal, provincial and municipal government issuers and AA through BBB-rated corporate issuers, weighted on a market basis including accrued interest. The index is calculated on a total-return basis including capital gain (loss) as well as interest income earned on each debt category and sub-category. The purpose of this index is to reflect performance of the broad Canadian bond market in a manner similar to the way the S&P/TSX Composite Index represents the Canadian equity market.

MSCI ACWI (MSCI All Country World Index (“MSCI ACWI”)): an index maintained by MSCI Inc. designed to measure the equity market performance of developed and emerging markets. The MSCI ACWI is a free float-adjusted market capitalization index that is calculated on a total return basis, which includes re-investment of net dividends after deduction of withholding taxes.

MSCI Emerging Markets Index (“MSCI EM Index”): an index maintained by MSCI Inc. that is designed to measure equity market performance of emerging markets. The MSCI EM Index is a free float-adjusted market capitalization index.

MSCI World Index: an index maintained by MSCI Inc. that is designed to measure developed public market equity performance. The MSCI World Index is a free float-adjusted market capitalization index.



REALpac/IPD Canada Large Institutional All Property Index: an index maintained by Real Property Association of Canada / Investment Property Databank Limited that measures the total return from all Canadian funds such as large institutional pension funds, insurance companies and segregated managed funds, which individually have real estate portfolios valued greater than \$1.5 billion.

S&P/TSX Composite Index: an index maintained by the S&P/TSX Canada Index Policy Committee that measures the total return on the largest companies and trust units that trade on the Toronto Stock Exchange.



APPENDIX D – STATEMENT OF INVESTMENT BELIEFS

Background

The Public Sector Pension Plans Act provides that the Trustee of the Public Service Pension Plan (PSP Plan) hold the assets of the PSP Plan in trust for the purposes of providing benefits accrued under the PSP Plan and to pay the expenses of maintaining the PSP Plan. The PSP Plan Trustee (President of Treasury Board and Minister of Finance) has delegated to Alberta Investment Management Corporation (AIMCo) the day to day management of the assets held under the PSP Plan. In managing the PSP Plan fund assets AIMCo must follow the general investment policy guidelines established by the PSP Board.

In order to assist it in developing and evaluating general investment and management policies and in the interest of good governance, the Public Service Pension Board (PSP Board) has developed fundamental beliefs to form the basis for current and future general investment and management policies. These beliefs will be reviewed periodically, and at least every three years, to ensure that they continue to reflect the beliefs of the PSP Board.

The assets of the PSP Plan must have a return on investments sufficient, when combined with employer and member contributions, to provide for the payment of benefits accrued to members and to pay the expenses of maintaining the PSP Plan. The long-term nature of the PSP Plan benefits means the PSP Board anticipates the interest of members over a period commencing from their dates of membership in the PSP Plan to the dates of their final pension payments, which may exceed 70 years.

Beliefs

The PSP Board believes that the promised pension benefits can best be met by having the proper long-term asset mix, including proper diversification as well as prudent management of investment risks.

1. General investment beliefs

In establishing the general investment policy for the assets held under the PSP Plan, it is the general belief of the PSP Board that:

- 1.1 the risk to the various stakeholders is that the assets held by the PSP Plan are insufficient to meet the future obligations of the PSP Plan.
- 1.2 it is reasonable to target consistent long-term portfolio returns to minimize fluctuations in the cash contributions required.
- 1.3 the key factor in determining the long-term investment returns and risk (volatility) of the portfolio is the strategic asset mix.



These five categories properly describe the key components of the portfolio:

- Money Market
- Liability Matching Assets
- Other Fixed Income
- Equities
- Alternatives

Costs paid by the PSP Plan in the form of administration, investment manager and custodial fees have an impact on the overall PSP Plan returns over time and must be managed.

2. Beliefs influencing decisions regarding PSP Plan strategic asset mix

- 2.1 Over the long term equities will outperform debt instruments (e.g., cash, money market, bonds, mortgages), but returns from equities will be more volatile than returns from debt instruments. The expectation is to earn incremental return from investing in equities.
- 2.2 Diversification within and across asset classes, both domestically and internationally, can reduce risk over the long term without compromising expected returns and is a prerequisite to prudent fund management. The benefits associated with a diversified portfolio must be traded off against the additional costs.
- 2.3 In general, long-term bonds closely match the cash flows of PSP Plan liabilities. They also reduce return volatility over the long term as compared to other asset classes. In most years, long-term bonds provide higher returns than short-term bonds (except in periods of a significant rise in nominal interest rates).
- 2.4 Liabilities are sensitive to inflation (through cost-of-living pension adjustments and benefits tied to salary increases) and may be matched to inflation sensitive asset classes (e.g., real-return bonds, which provide direct inflation protection, and real estate and infrastructure, which provide indirect inflation protection).
- 2.5 Periodic asset mix rebalancing ensures that portfolio risk does not drift from the levels desired by the PSP Board.

In general, the PSP Board believes that Tactical Asset Allocation strategies do not add consistent, long-term value. Notwithstanding this belief, deviation from the PSP Plan's asset mix may be prudent on occasion due to short-term market conditions.

- 2.6 There is not expected to be any incremental return associated with an asset mix policy allocation to currency hedging. Instead, an asset mix policy allocation to currency hedging, when used, is expected to be used to mitigate risk.
- 2.7 There are systematic market factors that may enhance risk-adjusted returns relative to traditional equity benchmarks. Such factors may include value, low volatility, size and momentum. The strength of these factors varies over market cycles.
- 2.8 In general, higher risk-adjusted returns may be achieved by holding less liquid investments. Some exposure to less liquid investments is appropriate.



- 2.9 AIMCo should be monitored regularly for changes in investment process and key investment personnel, and for investment performance against relevant peer groups and indices. Investment performance should be evaluated over at least a 4-year period. Emphasis should be placed, not only on the level of returns, but also on the amount of risk taken to achieve those returns.