



PUBLIC SECTOR PENSION INVESTMENT BOARD
(“PSP INVESTMENTS”)

RISK APPETITE OVERVIEW

February 10, 2017

Introduction

Maintaining a risk-aware culture in which undue risks are avoided and calculated risks are taken in pursuit of investment objectives is of the highest priority. All employees of PSP Investments are not only active participants in risk identification, but also in risk evaluation, management, mitigation, reporting and monitoring.

This document is an overview of our Risk Appetite Statement, which complements existing PSP Investments policies and procedures, such as the Statement of Investment Policies, Standards and Procedures (“SIP&P”). The Risk Appetite Overview outlines the appetite, attitude and tolerances to risk of the Board of Directors (“Board”) and management.

PSP Investments’ Mandate and Return Objective

The mandate of PSP Investments is to manage the assets earmarked for the funding of the post-2000 liabilities (“post-2000 liabilities”) of the relevant federal public sector pension plans (“Plans”). As per the *Public Sector Pension Investment Board Act*, PSP Investments’ statutory mandate requires it to invest its assets under management “with a view to achieving a maximum rate of return, without undue risk of loss, having regard to the funding, policies and requirements of the Plans and the ability of those Plans to meet their financial obligations.”

The Treasury Board Secretariat (“TBS”), which oversees the Government of Canada’s (“Government”) relationship with PSP Investments, communicates from time to time a long-term rate of return objective (“Return Objective”) for the pension assets managed by PSP Investments. The Return Objective is currently set at a real return of 4.1%. This is the long-term rate of return assumption currently used by the Chief Actuary of Canada to determine the level of pension contributions for the funding of the post-2000 liabilities.

Government Risk Appetite

Investments in the financial markets that would guarantee the Return Objective on a risk-free basis do not exist. It is simply not possible for PSP Investments to deliver the Return Objective consistently over the long-term without incurring risk and volatility in results.

While undertaking investment risk in seeking to achieve the Return Objective, PSP Investments takes into consideration the impact of such risk on the funding of the Plans and the Government’s assumed appetite for such pension funding risk. This includes the possibility of additional funding being required as a result of less favourable investment performance. This assumption of the Government’s risk appetite is referred to as the “Risk Appetite Assumption” and is used by PSP Investments to develop its investment strategy. It is determined by reviewing, through asset-liability studies, the pension funding risk resulting from investing in a passive portfolio (“Reference Portfolio”) that would replicate market indices of public debt and equity markets. The Reference Portfolio is designed with the lowest possible investment risk consistent with the Return Objective.

Investment Approach

The investment approach leading to PSP Investments’ “Actual Portfolio” is summarized in Figure 1. It is focused on delivering a higher return than the Reference Portfolio without increasing pension funding risk above the level inherent in the Risk Appetite Assumption.

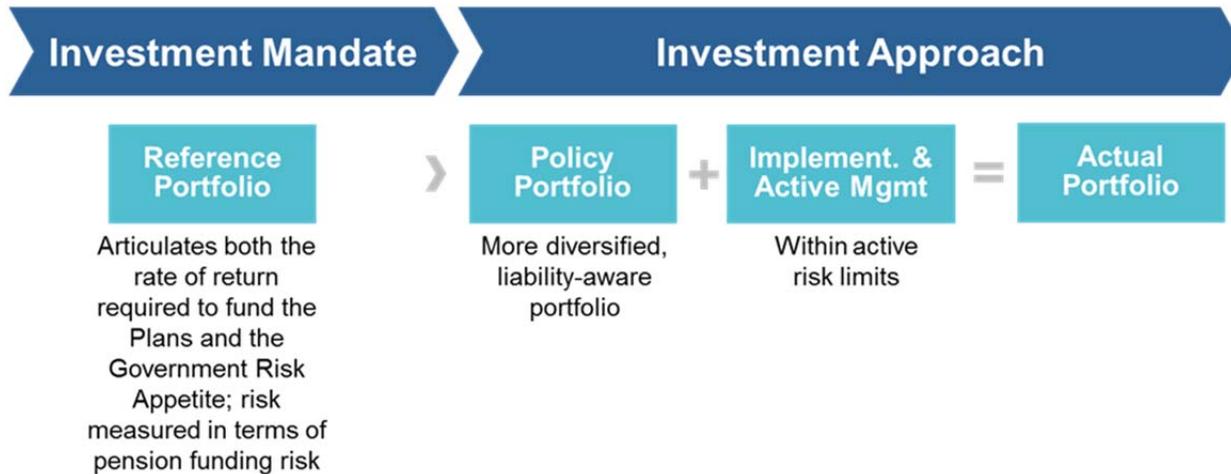


Figure 1: Investment Approach

Policy Portfolio

The Policy Portfolio articulates PSP Investments’ long-term target exposure to asset categories/classes and geographies. PSP Investments recognizes that the Policy Portfolio is the predominant factor in determining performance and risk over time. As such, it is reviewed annually or more frequently if required.

The Policy Portfolio is built as a more diversified, resilient and robust, liability aware portfolio. It is designed to leverage the characteristics of the post-2000 liabilities and the funding thereof. This is achieved by including investments in asset categories/classes which may introduce alternate sources of risks and returns (e.g. illiquidity).

Implementation of the Policy Portfolio and Active Management

The implementation of the Policy Portfolio refers to the actions taken to execute the Policy Portfolio. PSP Investments recognizes that the implementation of the long-term target weights of the Policy Portfolio should be effected in a prudent and orderly manner, subject to market conditions and investment opportunities, and at a reasonable cost. It also recognizes that overly precise control of the Policy Portfolio targets can result in transaction costs that are not economically justified. Assets are therefore rebalanced in accordance with the Portfolio Rebalancing Policy approved by the Board of Directors, with the purpose of ensuring that over time, deviations from the long-term target weights of the Policy Portfolio do not materially impact the long-term objectives of PSP Investments.

In seeking additional returns above the Policy Portfolio, active management programs are designed to further increase the probability of generating the Return Objective without increasing the funding risk level inherent in the Risk Appetite Assumption. The active risk limits are set annually by the Board and are budgeted by asset class/program.

Actual Portfolio

The Actual Portfolio reflects the actions taken to execute the Policy Portfolio and seeks to add returns above the Policy Portfolio.

Alignment with Stakeholders

PSP Investments recognizes that it is not responsible for the funding of the Plans, or for the measurement of contribution requirements, or for the design of the pension benefits. That said, PSP Investments has a responsibility to maintain communications with the Government to ensure ongoing alignment of its investment approach with the funding of the post-2000 liabilities.

Long Term Capital Market Assumptions

The projections on asset class returns and inflation are driven by Long-Term Capital Market Assumptions (“LTCMAs”) developed by PSP Investments. The LTCMAs are reviewed annually by the Board, or more frequently, if necessitated by changes in market conditions. In addition, the actual long-term performance of each asset class is reviewed regularly against their respective LTCMAs and the methodology is periodically subject to external review.

Scope and Diversification of Asset Categories/Classes

PSP Investments believes its investment performance benefits from diversification across sectors and regions globally. To this end, PSP Investments supports investment in asset classes that help to achieve its Return Objective, having regard to the Risk Appetite Assumption.

PSP Investments recognizes that appropriate due diligence, research and access to qualified expertise is necessary prior to adding a new asset category/class to the Policy Portfolio. Any such addition or change requires approval from the Board¹.

Total Fund Investment Risk

In alignment with the total fund approach at PSP Investments, total fund investment risk is measured by using annualized volatility within a maximum tolerance level. Volatility within this context refers to the amount of uncertainty or risk related to the fluctuation in the value of PSP Investments’ portfolio.

New Business Activities

While new initiatives are encouraged, new business activities will not be undertaken without sufficient expertise, due diligence and alignment with the Board-approved asset class strategy. Management is

¹ Eligible asset classes are defined in the SIP&P in Sections 5 and 6.

responsible for obtaining prior approval of all new business activities from the New Business Activity Committee and/or the Board as required under the SIP&P.

Synthetic and Derivative Instruments

PSP Investments carefully uses synthetic and derivative instruments to assist in achieving investment and financial objectives, including strategies to mitigate its risks, reduce costs, increase cash, liquidity or diversify financing and investing alternatives.

Internal and External Management

PSP Investments recognizes the value of long-term relationships with selected external investment managers. Such relationships represent a valuable addition to PSP Investments' internal resources and capabilities, and provide access to specialized investment opportunities, insights and knowledge, as well as increased exposure to select markets and global investment opportunities.

The selection process for external investment managers is rigorous and comprehensive, it ensures the alignment of objectives and the safeguard of PSP Investments' reputation.

Leverage

PSP Investments believes in the prudent use of leverage for enhancing returns, but always in a manner which will not adversely affect PSP Investments' AAA rating (or equivalent rating) by recognized credit rating agencies.

Liquidity

PSP Investments manages its liquid short-term investments to ensure PSP Investments meets all relevant financial obligations on a timely basis, while reducing the risk of liquidating assets unexpectedly and potentially at unfavourable prices.

Foreign Exchange

PSP Investments has established a Currency Hedging Policy that defines the desired level of hedging as well as the framework to manage risks arising from hedging activities and to set boundaries to ensure prudence and care in its implementation.

Performance Assessment

To determine the effectiveness of PSP Investments' investment approach, results are evaluated at least annually against the Return Objective and the Risk Appetite Assumption.

Reputation

PSP Investments strives to maintain the highest of professional and ethical standards. Neither PSP Investments, nor the Board will tolerate behaviours that could in any way cause the public reputation of PSP Investments, its image with its stakeholders, or its standing in the global investment community to be undermined.

Responsible Investment

PSP Investments recognizes that a broad range of financial and non-financial considerations are relevant in terms of making investment decisions. In analyzing the risks inherent in any investment, PSP Investments looks to identify, monitor and mitigate environmental, social, and governance (“ESG”) issues that are, or could become, material to long-term financial performance.

Fraud and Corruption

PSP Investments will not tolerate any dishonest or unethical behaviour on the part of PSP Investments’ employees, business partners or Board members. There is no tolerance for any form of fraud or corruption.

Modelling Risk and Valuation Risk

In assessing the fair value of its investment assets, PSP Investments employs accurate and transparent valuations and does not accept any valuation process inconsistent with global regulations or accounting standards. Given that financial models are the cornerstone of our valuation, risk measurement, and investment decision-making processes, we regularly review the methodology, criteria, and results of our models.

Concentration Risk

PSP Investments does not support unwarranted exposure to concentration risk at the aggregate level. Specifically, the areas monitored and subject to limits include the size of individual investments, the counterparty, geographic region, sector, strategy and concentrations in external managers.

Credit and Counterparty

PSP Investments actively evaluates and monitors counterparty risk of all transactions exposed to counterparty performance.

Governance

PSP Investments conducts its affairs in a manner compliant with its governing statute and all applicable laws and regulations, and is guided by the governance guidelines of Canadian securities regulators, the Financial Stability Board’s (FSB) Principles for Sound Compensation, and evolving global best practices.

The role of the Board includes providing stewardship to PSP Investments’ strategic direction and investment approach, establishing overall guidelines and limits, and monitoring the exercise of these delegated authorities through reporting at the Board on a regular basis. Management’s responsibilities include managing the investments and operations of PSP Investments and maintaining risks within delegated authorities, limits, and guidelines.

Crisis Management

PSP Investments recognises that crisis events can materialize from various sources and potentially impact PSP Investments’ ability to achieve its strategic objectives and safeguard its people, operations, assets and reputation. As such, an overall framework and approach to enterprise-wide crisis

management provides a consistent process for identifying, communicating, mitigating and managing crises across the organisation.

Operational Risk

PSP Investments recognizes that operational risk management is an integral component of its overall approach to enterprise-wide risk management. PSP Investments prudently manages its daily operations in accordance with guiding principles as defined in its Enterprise Risk Management framework.

Process, Systems and Information Management

Information technology systems and infrastructure are an integral part of our daily operations and are developed to adequately support all departments and locations in the performance of their daily activities.

Our systems and infrastructure reliability and availability are aligned with the activities they support. All information resources will be managed to meet the key needs of employees, regardless of their location, in terms of quality and availability while enforcing PSP Investments' security requirements.

Business Disruption

PSP Investments recognizes the potential financial losses and reputational risk associated with a business disruption. To this end, PSP Investments will maintain a corporate practice for the development and testing of business continuity plans and supporting recovery capabilities designed to minimize the impacts of a business disruption.

People Management and Compensation

PSP Investments and the Board support the concept of pay for performance and acknowledge that it will competitively incent its staff and investment professionals in order to remain a world-class investment manager of pension funds. PSP Investments and the Board understand the shortcomings of purely formulaic compensation systems and therefore insist on significant discretion in the administration of both short and long-term rewards. Only those compensation regimes that motivate all employees to act in the best long-term interests of PSP Investments and the Plans will be supported.

Legal and Regulatory

PSP Investments requires that all its investments are made in accordance with the *Public Sector Pension Investment Board Act*, the *Public Sector Pension Investment Board Regulations* and all other applicable laws and regulations, as well as the CFA Institute's Code of Conduct for Members of a Pension Scheme Governing Body.