PUBLIC SECTOR PENSION INVESTMENT BOARD
(PSP INVESTMENTS)

RISK APPETITE OVERVIEW

November 13, 2014
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 (“OCA”) 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 some degree of 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 favorable investment performance. This assumption of the Government’s risk appetite, referred to as the “Risk Appetite Assumption”, is determined by reviewing, through asset-liability studies, the pension funding risk resulting from simply investing in a passive portfolio that would replicate market indices of public debt and equity markets. This passive 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 Return Objective without increasing funding risk above the level inherent in the Risk Appetite Assumption.

The Policy Portfolio represents PSP Investments’ target asset mix as approved by the Board, which is formally defined in the SIP&P. The Actual Portfolio reflects actions taken to implement the target allocations of the Policy Portfolio and includes active management activities.

Alignment with Stakeholders

PSP Investments recognizes that it is not responsible for the funding of the Plans, the measurement of contribution requirements, or the design of the pension benefits. However, PSP Investments has a responsibility to engage with the Government to ensure ongoing alignment of its investment approach, including its Risk Appetite Assumption, with the funding of the post-2000 liabilities.

Policy Portfolio Design

The Policy Portfolio is the predominant factor in determining performance relative to the Return Objective and risk over time. As such, it is reviewed annually by the Board, or more frequently if required.

The Policy Portfolio is built to leverage the characteristics of the post-2000 liabilities and the funding thereof. This is achieved by including investments in asset classes which may introduce alternate sources of risks and returns (e.g. illiquidity)\(^1\).

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\(^1\) PSP Investments approved asset classes are: Public Markets Investments, Private Equity, Infrastructure Investments, Real Estate Investments and Renewable Resources.
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 Classes
The post-2000 liabilities of the Plans are long-term with no liquidity expected to be required from PSP Investments for the purpose of pension benefit payments before 2030. Net inflows to PSP Investments are also expected to be material, exceeding $40 billion over the next 10 years. In addition, it is recognized that the post-2000 liabilities are sensitive to inflation. PSP Investments can therefore make long-term investments in assets with lower liquidity (e.g. real return, private and illiquid asset classes) than typical public market assets. PSP Investments only considers investments in these areas when the asset classes are reasonably expected to generate an illiquidity premium or provide some inflation protection while helping PSP Investments achieve the Return Objective.

Implementation of the Policy Portfolio
Management is responsible for the implementation of the Policy Portfolio (including selection of assets in consideration of the target allocations of the Policy Portfolio and active management activities) and reports on its activities to the Board on a regular basis.

Target Allocations
Selection of assets in consideration of the target allocations of the Policy Portfolio is effected in a prudent and orderly manner, subject to market conditions and investment opportunities, on favourable terms and conditions, and at acceptable prices.

Active Management Activities
In seeking additional returns above the Policy Portfolio, active management activities are designed to further increase the probability of generating the Return Objective. Active management activities are allowed within an active risk limit. The active risk limit is set annually by the Board and is budgeted by asset class.

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 responsible for getting 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 risk, reduce costs, increase cash, liquidity or diversify financing and investing alternatives.

Internal and External Management

While PSP Investments favours internal management of assets, it has established long-term relationships with selected external investment managers to provide access to specialized investment opportunities, insights and knowledge, as well as increased exposure to select markets and global investment opportunities. External managers are subject to on-going reviews of their mandates and performance.

Leverage

PSP Investments believes in the reasonable use of leverage and has set overall debt limits 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 managing and implementing the hedging, and setting 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.

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.

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.

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

Our systems and infrastructure must be reliable and be available for critical activities. All data assets will be managed to meet the needs of all stakeholders in the enterprise in terms of quality, information availability, security of data and confidential information.
PSP Investments – Risk Appetite Overview

Business Disruption
PSP Investments recognizes the potential financial and operational losses associated with a business disruption and thus maintains a robust Business Continuity Management and Disaster Recovery program.

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.