**MAY 2014** 

# Risk-Based Regulatory Framework for Pension Plans in British Columbia



# Contents

INTRODUCTION	1
Regulating Pension Plans in British Columbia	1
The Purpose of this Document	1
2 THE RISK-BASED REGULATORY FRAMEWORK: OVERVIEW	2
The Framework's Three-Step Process	2
The Fundamental Risks that Pension Plans Face	3
STEP 1: RISK ASSESSMENT	4
Annual Reviews	4
In-Depth Reviews	5
Sources of Information the Superintendent Uses to Develo Tiered Risk Indicators	р 5
Documenting the Results of an In-Depth Review: The Risk Assessment Summary	6

STEP 2: REGULATORY RESPONSE	9
Weighing Probability and Impact to Decide Appropriate Response	9
Regulatory Tools Available to the Superintendent	10
Implementing this Risk-Based Regulatory Framework	10
STEP 3: RISK MONITORING	11
APPENDIX A: RISK CHARACTERISTICS (OF DEFINE BENEFIT PLANS) THAT CAN BE ASSESSED THROU "KNOWLEDGE OF PLAN"	
APPENDIX B: EXAMPLES OF RISK AND THE POTEN REGULATORY RESPONSES TO THEM	ITIAL 15
NOTES	17

Replace with BC Financial Services Authority ("BCFSA") is a regulatory agency of the Ministry of Finance. It was established in 1989 to contribute to the safety and stability of the British Columbia pension, financial services and real estate sectors.

## Introduction

About 730 employment pension plans (including public sector plans) are registered in British Columbia.

These plans cover about 966,000 members: 504,000 who are employed and accruing benefits; 253,000 former members who are receiving pension payments from the plan; and 209,000 deferred vested members, who retain an entitlement in the plan but have not started receiving payments.

Pension plans registered in British Columbia have approximately \$105.1 billion in assets.

Regulation of all these plans is done by the Office of the Superintendent of Pensions, an office within BCFSA. The Superintendent of Pensions administers and enforces the *Pension Benefits Standards Act*. The activities of the office are focused on ensuring that pension plans registered in the province operate in a manner that maximizes the probability that promised benefits will be delivered.

British Columbia members of pension plans registered in other jurisdictions in Canada are also protected by the *Pension Benefits Standards Act*. However, the Act does not apply to pension plans covering federal public sector employees or private sector employees working in federally regulated industries (such as banks, airlines, broadcasting and telecommunications) or in the territorial jurisdictions of Nunavut, the Northwest Territories and the Yukon.

#### **REGULATING PENSION PLANS IN BRITISH COLUMBIA**

Since 2014, our office has been phasing in a formalized risk-based regulatory process.

In the first phase of this process, we worked to improve the quality and timeliness of data collection by introducing a Web-based application for filing Annual Pension Reports and Actuarial Information Summaries. In the next phase, we developed the Risk-Based Regulatory Framework for identifying inappropriate or unsafe business practices and, as required, intervening with plan administrators to address the identified risks.

This regulatory framework – now in use and explained in this document – is mainly for pension plans with defined benefit components. Future expansion of the framework will include the risk assessment of defined contribution components, as well as the development of initiatives such as target benefit plans.

#### THE PURPOSE OF THIS DOCUMENT

Described here are the principles, concepts and core processes that make up our Risk-Based Regulatory Framework.

Readers who will find this overview of particular interest include pension plan administrators, pension actuaries, pension plan consultants, and designated third-party administrators of pension plans.

The primary focus of the regulatory work by the Superintendent of Pensions is to reduce the risk of loss to pension plan member benefits through timely risk assessments.

In developing this framework, we consulted the work of the Office of the Superintendent of Financial Institutions (OSFI), Financial Services Commission of Ontario (FSCO), the Australian Prudential Regulation Authority (APRA), and the International Organization of Pension Supervisors (IOPS) (developers of the Tool Kit for Risk-Based Pension Supervision). We gratefully acknowledge the assistance of these agencies.

# 2 The Risk-Based Regulatory Framework: Overview

Using the Risk-Based Regulatory Framework, we undertake risk assessments of all registered plans so that we can understand – and work with administrators to manage – the risk of loss to member benefits.

Focusing on the early identification of plans at risk enables us to better allocate our resources. Our objective is to reduce the risk of loss to pension plan member benefits through timely risk assessments and to promote awareness of, and transparency in, our approach to plan regulation.

#### THE FRAMEWORK'S THREE-STEP PROCESS

#### The framework involves three steps:

**Risk assessment** – We use early warning risk indicators as a first screening tool to identify which pension plans may have problems meeting the minimum funding requirements or complying with the *Pension Benefits Standards Act*. Early warning risk indicators are critical factors with the potential to significantly impact the financial health of a pension plan.

After considering the results of a review of these indicators, we determine which plans should receive an in-depth analysis. This analysis enables us to confirm or modify our initial risk assessment of each plan, and, as necessary, to assess the quality of risk management undertaken by the pension plan administrators and to assign a net risk rating to the plan. The outcome of this step is a risk profile for the plan.

**Regulatory response** – Once the risk profile for each plan is established, we then determine what regulatory activities to undertake based on those profiles. We prioritize regulatory work based on the probability (high or low) of an adverse event occurring and the potential impact (high or low) of that event.

**Risk monitoring** – We work with plan administrators to develop solutions that will improve the security of member benefits. We also monitor plans to ensure that the actions taken to mitigate the identified risks are achieving the expected results.

We view risk-based regulation as an iterative process. The more we work with the various pension plans in the province, the better we come to understand their risk profile. Our aim is to understand each plan within the business context in which it is established so that we have a stronger grasp of the plan risks that confront administrators.



### THE FUNDAMENTAL RISKS THAT PENSION PLANS FACE

The risk assessment process is based on our understanding and definition of risk, namely: risks are factors that could impact the security of the benefit that members are receiving or will receive.

We have identified three fundamental areas of pension plan risk that, if left unmanaged, could result in losses to members' pension benefits. These risks are: sponsor/industry, funding and governance (see Table 1).

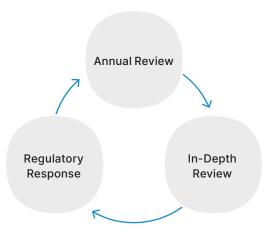
Table 1. The three fundamental risks faced by registered pension plans

Fundamental Risk	Factors That Could Raise Or Lower The Risk
Sponsor/industry risk  The risk of sponsor insolvency or potential adverse financial impact due to sponsor-specific or industry-wide events	<ul> <li>Continuity/financial strength of the pension plan sponsor</li> <li>Business outlook of industry sector</li> <li>Major events such as a merger, acquisition or downsizing</li> <li>Economic conditions</li> </ul>
Funding risk  The risk to member benefits posed by shortfalls in plan funding	<ul> <li>Funding levels reported in actuarial valuations and projected estimates</li> <li>Funding strategies and timeframe for plan recovery</li> <li>Fluctuations in interest rates and fund asset returns</li> <li>Macroeconomic events</li> </ul>
Governance risk  The risk associated with poor oversight, poor internal controls and ineffective plan management	<ul> <li>Existence of oversight, monitoring and supervision policies, and evidence (through internal controls) that policies are followed</li> <li>Use of qualified service providers and oversight by the plan administrators</li> <li>Management reporting, performance measures and risk management processes</li> <li>Degree of compliance with regulatory filing requirements</li> <li>Extent of member communication</li> </ul>

# Step 1: Risk Assessment

We assess the fundamental risks of all of the province's registered pension plans at least annually, in order to determine the appropriate regulatory response that might be needed. Integral to the risk assessment process is our exercise of professional judgement.

Each year, we conduct an annual review, screening all plans for particular risk indicators. Plans that exhibit high-risk characteristics are then subjected to an in-depth review.



#### **ANNUAL REVIEWS**

Annual reviews rely heavily on information obtained from various sources, including regulatory filings, financial records, and media alerts (see sidebar). From this information, we identify which plans have potential issues, risks or areas of non-compliance.

Key to this assessment process is the use of tiered risk indicators. These are a series of warning indicators or tests that help us detect risks. We classify these indicators into three tiers, each based on the significance of the risk and the potential impact of such risk on member benefits.

**Tier 1 Risk indicators** – The Tier 1 Risk indicators are part of our initial screening tool. They detect issues that require immediate attention and could have a significant impact on both the current state and future risk within the plan. Examples of these risks: funding levels below identified thresholds; non-remittance of contributions; or a plan employer that is facing serious financial issues. Plans for which a Tier 1 Risk indicator test is triggered receive an in-depth risk assessment.

**Tier 2 Risk indicators** – Tier 2 Risk indicators identify potential risks with the plan that could lead to serious issues. Examples of these risks: investment returns that do not meet investment expectations of the plan; large changes in membership; and a high proportion of liabilities pertaining to retired members. These issues are less significant than those identified by Tier 1 Risk indicators. However, where several Tier 2 Risk indicators arise simultaneously, an in-depth risk assessment may be conducted.

**Tier 3 Risk indicators** – Tier 3 Risk indicators identify issues that may require greater diligence or controls by the plan administrators, but which are unlikely to significantly affect risk within the plan if properly managed. Examples of these risks: whether or not the plan provisions contain certain ancillary benefits; and whether the plan has a history of late filings.

#### **IN-DEPTH REVIEWS**

Based on the results of the annual reviews, we identify plans that will receive in-depth reviews – more detailed assessments of the identified risks (or risk). The purpose in each case is to confirm the risks identified in the annual review and to assess the net risk to members' benefits after accounting for the management of the risks by the plan sponsor or trustees. In performing an in-depth review, we work with plan administrators to develop a better understanding of the identified risks.

We develop a risk profile for each plan based on an assessment of the three fundamental risks:

## SOURCES OF INFORMATION THE SUPERINTENDENT USES TO DEVELOP TIERED RISK INDICATORS

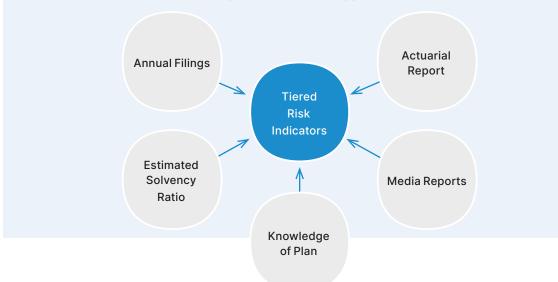
**Annual filings** – Every plan must file Annual Pension Reports, including an Annual Information Return. Plans with assets greater than \$10 million are required to file audited financial statements. Defined benefit plans that have more than 50 members and assets of more than \$2.5 million must also file a Financial Information Return. These filings provide current plan data essential for informing the tiered risk indicators.

**Actuarial report** – Pension plans that contain defined benefit provisions are required to file triennial actuarial valuation reports. We review the submitted data along with the filed valuation report to ensure that actuarial standards and requirements of the Pension Benefits Standards Act are met.

**Estimated solvency ratio** – Each year we estimate the solvency position of defined benefit plans. This allows us to monitor plans that may have experienced a significant shift in their solvency position since the previous actuarial valuation report was filed. Where there is a significant change, plan administrators will be given an opportunity to validate our assessment.

**Knowledge of plan** – It is essential to have a thorough understanding of a plan before assessing its risks. Information that contributes to this knowledge includes plan documents, recently filed plan amendments, and sponsor information. Such knowledge also enables us to rate important risks such as the complexity of the plan. See Appendix A for a full list of risk characteristics that can be assessed.

**Media alerts** – Certain tiered risk indicators are directly influenced by information gleaned from the media. For example, a plan sponsored by a company that was recently reported as filing for protection under the Companies' Creditors Arrangement Act would trigger a Tier 1 result for sponsor risk.



**Assessment of sponsor/industry risk** – If we identify serious sponsor or industry risk in our annual review, we may request a meeting with the plan administrator to discuss the ongoing funding of the plan. We may also ask to view corporate financial statements and reports on the business outlook for the industry.

**Assessment of funding risk** – If we identify a significant funding risk in our annual review, we may request scenario testing and other financial modeling. We may also review the plan's funding and investment policies with the plan administrators.

**Assessment of governance risk** – If we identify significant governance risk in our annual review, we may request a meeting with the plan administrators to ask them to explain the controls they have in place to manage governance risk. The quality of these controls enables us to assess how well the governance risk is being managed within the plan.

# DOCUMENTING THE RESULTS OF AN IN-DEPTH REVIEW: THE RISK ASSESSMENT SUMMARY

A Risk Assessment Summary provides a means of evaluating and documenting the risks in the management of a plan's key activities. This summary reflects our rating of a plan's management risks after accounting for the quality of risk management.

**Developing the summary** – using a matrix like that shown on page 8 enables us to focus attention on the quality of risk management and governance of the plan.

**Plan activities** – Plan activities are the essential operations that pension plan administrators undertake to administer the plan and the fund in compliance with professional standards and regulatory requirements. The key plan activities and the risks in managing those activities are summarized below.

Table 2. The four pension plan activities

Plan Activity	Description	Plan Management Risks
Actuarial	Involves actuarial valuation of the plan's assets and liabilities. Tasks include the analysis, testing and review of special reports provided at the request of the plan administrators.	<ul><li>Pension/Valuation</li><li>Operational</li><li>Legal and Regulatory</li></ul>
Asset Management	Focuses on tasks such as management of the plan's fund, assets and liabilities; preparation of special financial or risk management reports; and the establishment of and adherence to a Statement of Investment Policies and Procedures.	<ul><li>Investment</li><li>Operational</li><li>Legal and Regulatory</li><li>Strategic</li></ul>

Day-to-Day Administration	Involves the general daily administration of the plan. It includes tasks such as benefit calculations, benefit payments, expense payments, regulatory filings, record keeping and the collection and remittance of contributions to	<ul><li>Operational</li><li>Legal and Regulatory</li><li>Strategic</li></ul>
Communication to Members	Includes tasks such as website management, issuing of notices	<ul><li> Operational</li><li> Legal and Regulatory</li></ul>

and annual statements, and member education.

Strategic

Plan management risks - Each plan activity gives rise to plan management risk as a result of exposure to, or uncertainty related to, potential future events. The five types of plan management risk are summarized below.

Table 3. The five pension plan management risks.

Plan Management Risk	Description
Investment	<ul> <li>This risk applies to the plan fund only. It takes into account the following risks:</li> <li>Credit: The risk that counterparty to a plan asset will not pay an amount due as called for in the original agreement, and may eventually default on an obligation.</li> <li>Market: The risk that there will be changes in market rates or prices. Exposure to this risk can result from activity in markets such as changes in interest rates, foreign exchange, equity, commodities and real estate.</li> <li>Liquidity: The risk that the plan will be unable to obtain the necessary funds required to meet its obligations as they come due without incurring unacceptable losses.</li> </ul>
Pension/Valuation	The risk that the methods and assumptions used to estimate the plan assets and liabilities will result in values that differ from experience. This risk may increase with a complex benefit design and the appropriateness of assumptions.
Operational	The risk of deficiencies or breakdowns in internal controls or processes; technological failures; human errors; fraud; and natural catastrophes. Exposure to this risk can increase with a complex organizational structure.
Legal and Regulatory	The risk that a plan may not be administered in compliance with the rules, regulations, best practices, or fiduciary standards imposed on the plan in any jurisdiction in which the plan operates.

#### **Strategic**

The risk that a plan's design or structure may make implementation of policies or strategies to address problems or challenges difficult.

**Assessing a plan's management risks** – To evaluate plan management risks, we consider the potential effects of an adverse event on the pension assets and liabilities and on the plan's ability to meet minimum funding requirements. In our assessment, we hold discussions with plan administrators and their designated agents, and review plan governance documents.

We first assess the risks without considering the impact of any risk mitigation through the plan's risk management processes and controls. The ratings we ascribe to the plan management risks are low, moderate, above average, or high.

Next, we assess the mitigation of these risks, analyzing the risk management function in the plan. Key aspects of the quality of risk management include Oversight and Controls. The oversight and controls in place should be appropriate for the level of risk. The higher the level of risk, the more robust we expect the oversight and controls to be.

The oversight function is generally performed by the Board of Trustees or Directors or by a Pension Committee that provides stewardship and independent oversight of the plan. The tasks include ensuring that:

- administrators and agents have appropriate knowledge and skills,
- approved organizational and procedural controls are working as intended,
- · delegation of duties and accountabilities are clear and understood,
- a proper internal control process is in place and its associated risks are identified and assessed in a timely manner,
- · necessary policies and strategies are developed, and
- adequate performance reporting and review are carried out.

Controls refer to the processes and procedures in place to mitigate the risks. This function includes planning, directing and controlling the day-to-day operations of a plan, as well as administrators' responsibility for planning and directing activities and general operations of the plan in order to achieve the strategic direction defined by the Board of Trustees/Directors or Pension Committee.

The ratings we use to describe the quality of risk management are weak, needs improvement, acceptable, and strong.

The net risk associated with each plan activity is based on our assessment of how effectively the risks are mitigated by the risk management processes. The overall net risk indicates the aggregate residual risk of the plan activities, taking into account whether risk mitigations implemented by the administrators are sufficient given the overall level of risk.

	PLAN MANAGEMENT RISKS QUALITY OF RISK MANAGEMENT							
PLAN ACTIVITIES	Investment	Pension / Valuation	Operational	Legal and Regulatory	Strategic	Oversight	Controls	NET RISK
Actuarial								
Asset Management								
Day-to-Day Administration								
Communication to Members								
	Overall Net Risk							

# Step 2: Regulatory Response

The Regulatory Response model (see Table 4) provides a visual representation of the results of the risk assessment of the plan. We use it as the basis for prioritizing regulatory activity according to the intensity of the risk.

#### WEIGHING PROBABILITY AND IMPACT TO DECIDE APPROPRIATE RESPONSE

In making our regulatory response decision, we consider the probability and the impact of an adverse risk event resulting in a loss to members' benefits. Our objective is to effectively manage the risk of loss as well as optimize the use of regulatory resources. With our limited resources, we pay more attention to larger plans than smaller ones, because financial weakness in a large plan will affect the benefits of more members than will weaknesses in a small plan. This approach is consistent with our risk-based approach to pension regulation.

We assign each plan to a quadrant based on its risk profile and on our professional judgement of what regulatory activity is required. Appendix B provides examples of risks and possible regulatory responses for each quadrant.

**Probability** refers to the chance that the plan will not meet its obligations to members because of an adverse event.

**Impact** is a measure of the magnitude of an adverse event on the largest number of members.

Table 4. The Regulatory Response model

Low impact but high probability	<b>Risk</b> High	MONITORING	INTERVENTION	High impact and high probability
Low impact and low probability	Probability of R	EDUCATION	PROACTIVE SUPERVISION	Potential high impact but low probability
	Low Pre	Low <b>Impact</b>	<b>of Risk</b> High	

#### REGULATORY TOOLS AVAILABLE TO THE SUPERINTENDENT

Our office has a range of regulatory options (tools and actions) to address the risks identified in the risk assessment step. The options we choose in dealing with each case are based on the risk profile we have developed for the plan in question.

The regulatory options include:

- Issuing specific instructions and notices
- Requiring that the plan use assumptions acceptable to the Superintendent
- Ordering that a new valuation be done
- Ordering increased reporting by the plan administrators
- Requiring additional disclosure and communication by the plan administrators to plan members
- Requiring risk scenario testing
- Meeting with the plan administrators or trustees to discuss concerns and identify solutions
- Issuing regulatory orders
- Conducting on-site examinations
- Requiring that an external audit be done
- Requiring a governance or risk management review by an auditor
- Terminating a plan
- Initiating prosecution or litigation proceedings

The regulatory process is designed to be transparent and dynamic. We share material concerns with plan administrators and, where high net risks are identified, we give administrators an opportunity to confirm our assessment. Always our intention is to engage administrators in constructive dialogue so that the concerns we raise can be addressed swiftly.

# IMPLEMENTING THIS RISK-BASED REGULATORY FRAMEWORK

This Regulatory process will be fully implemented not later than April 1, 2018.

- enhancing existing risk-based processes, such as the development and use of early warning risk indicators;
- strengthening on-site examinations with a focus on administration and governance;
- promoting strong governance practices;
- informing stakeholders, through education and communication, about the change in regulatory approach;
- providing stakeholders with clear expectations about what their monitoring, reporting and other obligations are;
- enhancing the risk analysis and assessment capabilities of staff; and
- wherever practical to do so, improving efficiencies by automating the risk assessment process.

# Step 3: Risk Monitoring

The third step in the application of the Risk-Based Regulatory Framework is risk monitoring. This occurs at several levels.

- After completing the risk assessment (step 1) and identifying the appropriate regulatory response (step 2), we present our findings to the plan administrators.
- They have the opportunity to review and respond to our findings, and then must develop a strategy to mitigate the identified sources of risk. We analyze the strategy and offer advice before it is put into action, and then we monitor its implementation.
- With the plan administrators, we regularly review the results achieved, to determine whether risks have been successfully mitigated.
- We re-assess the plan's risk profile, based on the implementation of the risk mitigation strategy and results achieved. Successful implementation shown by a reduction in the risk profile means that the plan will then be returned to the annual review process described above.

The continuum of regulatory options (tools and actions) available to our office enables us to escalate regulatory actions when required.

Implementation and improvement of BCFSA's Regulatory Risk-Based Framework will be an iterative process.

We will work with our stakeholders to enhance and refine the process and to ensure that the results of our review are valid and provide relevant direction to plan administrators.

We look forward to working with all stakeholders in reviewing and improving this document.

# Appendix A: Risk characteristics (of defined benefit plans) that can be assessed through "Knowledge of Plan"

Risk Characteristic	Description
Type of plan	Certain classifications of pension plans may warrant a higher risk rating due to the complexity of the organization and funding arrangements of the plan. Examples include multi-employer or negotiated cost plans.
Complexity of benefit formula	A complex benefit formula in a defined benefit pension plan presents an increased risk to the general administration of the plan because it can result in administrative errors. Examples include: formulas that are offset by CPP; formulas that are a combination of defined costs and defined benefits; and accrued past service benefits that differ from the current service benefits. Additionally, complex formulas may be harder for plan members to understand, leading to potential communication problems and member complaints, and reducing the likelihood that members themselves could detect errors.
Complexity of plan design	Similar to the above, the more complex a plan is (e.g., with multiple membership classes, flexible or discretionary benefits), the more the potential for administrative errors.
Ancillary benefits	Plans with ancillary benefits may be subject to increased administrative risk. This benefit requires additional calculations to determine a member's benefit entitlement. The administrative risk may increase where a pension plan offers more than one type of ancillary benefit. Also, ancillary benefits can expose the plan to a greater funding deficiency if they are not adequately funded.
Multi- jurisdictional plans	The administration of plans that are subject to pension legislation of two or more jurisdictions presents an increased administration risk due to the challenge of applying multiple jurisdictional requirements to the administration of the plan.
Late filing of annual reports	Consistent late filing of annual pension reports, or errors in completing these reports, may indicate administrative or governance problems.
Late and/or inaccurate filings of actuarial reports	Actuarial valuations are critical for determining the funded level and contribution requirements of a defined benefit pension plan. Consistent late filing of actuarial reports may indicate administrative or governance problems.

Risk Characteristic	Description
Late remittance of contributions	Late remittance of contributions to the fund holder may indicate an administrative or governance problem and can be a warning sign about the financial health of the plan sponsor.
Superintendent directions issued	The Superintendent has the authority to issue a direction for compliance to a plan's administrators where a plan sponsor has refused or failed to comply with provisions of the Act or regulations. Plans where directives have been issued will always be given increased scrutiny.
Significant plan or employer events	Significant events such as corporate mergers, splits and acquisitions can affect the assumption of responsibility for plan liability and the operation of the pension plan. Such events may also impact the administration of the plan and the maintenance of plan records.
Membership turnover	Rapid or significant change in the membership of a plan can create increased administrative risk. It can also be a measure of the stability of the plan and sponsor. Significant decreases in plan membership may be an indicator that the financial health of the plan sponsor is deteriorating.
Member complaints	Member complaints indicate a lack of understanding of the plan or lack of confidence in the pension plan and may point to more serious administrative problems.
Maturity of plan	Mature pension plans face an increased funding risk because a significant amount of the liability is attributable to members who no longer provide service to the plan sponsor and members for whom current service contributions are no longer being made (i.e., deferred and retired members). Pension legislation permits reduction of benefits only for future accruals for non-negotiated cost plans. This can increase the funding risk of mature plans since their options to deal promptly with an emerging funding crisis are limited.
Unfunded liabilities	The persistent creation of unfunded liabilities in a pension plan may indicate inadequate going-concern actuarial assumptions, or benefit improvements that cannot be adequately funded over the long term.
Funded ratio	The degree to which a plan is underfunded on a going-concern basis indicates the level of funding risk to the plan. The lower the funded ratio, the greater the risk to the long-term viability of the plan.
Gain/loss experience	A persistence of gains or losses based on the same assumptions in a valuation may indicate that the assumptions being used are not appropriate for the plan, and this may create additional risk to the plan.

Risk Characteristic	Description
Going-concern interest rate assumptions	An aggressive interest rate assumption can significantly reduce the actuarial liability and the normal cost required to fund current service benefits. What is considered an aggressive assumption depends on the economic conditions, as well as the risk tolerance, of the plan. Specified Multi-Employer Pension Plans (SMEPPs), because of the limited liability of participating employers, may be expected to employ more conservative interest rate assumptions.
Interest/salary assumption spread	The going-concern interest rate assumption is typically a nominal rate of return. The salary increase assumption is a summation of inflation, merit and promotion, and productivity assumptions. A significant differential between the going-concern interest rate assumption and the salary increase assumption may be due to an over-estimation of the nominal rate of return on assets, an under-estimation of the increasing salaries of plan members, or a combination of both. This may lead to the actuarial liability and normal cost of the plan being understated, thereby creating additional funding risks for the plan.
Solvency deficiency	The Superintendent recognizes that the plan's solvency position may fluctuate and, as such, plan sponsors are normally required to amortize solvency deficits over five years. However, a significant increase in the solvency deficit can create significant funding challenges to the plan as well as to the employer. Therefore, plans with significant solvency deficits will be placed on a heightened risk alert.
Solvency ratio	The solvency ratio of a plan indicates the financial health of the plan at a particular point in time. The lower the solvency ratio of the plan, the greater the risk that the plan will not be able to pay benefits in full. There is a further increase in administrative risk where the solvency ratio is less than 1, because administrators may not be able to make full transfer payments.

# Appendix B: Examples of risk and the potential regulatory responses to them

Quadrant Of The Regulatory Response Model	Examples Of Risks/Issues	Potential Regulatory Response
	Intervention: High Impact/High Probability	Intervention: High Impact/High Probability
	<ul> <li>Failure to remit contributions</li> <li>Major corporate restructuring affecting a large number of members</li> <li>Significant underfunding with periodic benefit improvements</li> <li>Underfunded plans carrying excessive investment risk</li> <li>Sponsor/industry risk (e.g., CCAA [Companies' Creditors Arrangement Act] filing)</li> </ul>	<ul> <li>Arrange for regular meetings with plan administrators, sponsor and plan advisors.</li> <li>Order proactive measures to mitigate risk.</li> <li>Consider for on-site examinations.</li> <li>Require increased reporting.</li> <li>Terminate plan.</li> <li>Initiate legal proceedings</li> </ul>
	Proactive Supervision: High Impact/Low Probability  Large plans where adverse impact may affect a large number of members  High ratio of special payments to current service cost  Plans already showing high-impact situations (e.g., poor governance practices)	Proactive Supervision: High Impact/Low Probability  Conduct ongoing monitoring.  Require periodic management reporting  Consider for on-site examination.
	<ul> <li>Monitoring:</li> <li>Low Impact/High Probability</li> <li>Small plans with significant funding shortfall</li> <li>Large plans with consistent late filings</li> </ul>	<ul> <li>Monitoring: Low Impact/High Probability</li> <li>Enhance review.</li> <li>Monitor to ensure improvement in identified risk.</li> <li>Ensure ongoing</li> </ul>

Quadrant Of The Regulatory Response Model	Examples Of Risks/Issues	Potential Regulatory Response
	Education: Low Impact/Low Probability	Education: Low Impact/Low Probability
	<ul> <li>Newly registered plans</li> <li>Large plans without governance documents</li> <li>Plans with effective quality</li> </ul>	<ul><li>Provide general education and support.</li><li>Provide guidance notes and bulletins.</li></ul>
	risk management	Share best practices.

Votes	



600-750 West Pender Street Vancouver, BC V6C 2T8 604 660 3555 Toll free 866 206 3030 pensions@bcfsa.ca