INTERNATIONAL ORGANISATION OF PENSION SUPERVISORS

Toolkit for Risk-based pensions supervision

Case Study

Canada

Risk-based Pensions Supervision provides a structured approach focusing on identifying potential risks faced by pension funds and assessing the financial and operational factors in place to mitigate those risks. This process then allows the supervisory authority to direct its resources towards the issues and institutions which pose the greatest threat.

The IOPS Toolkit for Risk-based Pensions Supervisors provides a 5-module framework for pensions supervisors looking to apply a system of risk-based supervision. A web-based format allows: a flexible approach to providing updates and additions; users to download each module separately as required; and a portal offering users more detailed resources, case studies and guidance. The website is accessible at www.iopsweb.org/rbstoolkit.

This document contains the **Canadian Case Study.**

CANADA[1]

I. Background

A. Pension System

The Canadian pension system consists of old-age security – a universal flat rate pension topped up with income-tested benefits (guaranteed income support), as well as a tier of earnings-related benefits provided by the Canadian Pension Plan and Quebec Pension Plan. Occupational pensions exist in the form of registered pension plans (RPPs), which are trustee pension funds. Voluntary personal funds also exist (Personal Registered retirement Savings Plans – RRSPs). Contributions made to RRSPs, as well as investment income in these types of accounts, are tax-favoured. There are predefined limits to the amount of contributions that individuals are allowed to make to their RRSPs each year.

As of January 1, 2017, there were approximately 16,600 registered pension plans (RPPs) in Canada with just over 6.2 million active members and accounting for $1.8 trillion in assets. In aggregate, the Canadian pension system accounts for $3.6 trillion in assets. Defined benefit plans accounted for 67.3% of employees with an RPP in 2016, down from over 90% in the 1980s. Membership in defined contribution plans account for 17.9% of all RPP membership. Membership in other plan types, such as hybrid, composite and defined benefit / defined contribution plans, has increased significantly over the past decade.

B. Risk-based Supervisory Approach

The Office of the Superintendent of Financial Institutions Canada (OSFI) applies a risk-based approach to the supervision of private pension plans which are federally regulated. Canada is one of the few countries which has pension regulation primarily at a provincial level. The federal regulator does have a role to play for pension funds of enterprises coming under federal jurisdiction. These jurisdictions are a member of the Canadian Association of Pension Supervisory Authorities (CAPSA). CAPSA's mission is to facilitate an efficient and effective pension regulatory system in Canada.

[1] Taken from Office of the Superintendent of Financial Institutions Canada (OSFI) (2017), 'Risk Assessment Framework for Federally Regulated Private Pension Plans and Guidance Notes' http://www.osfi-bsif.gc.ca/Eng/pp-rr/ppa-rra/ord-drb/Pages/raf-cer.aspx

II. Risk-based Supervision Process

Figure 1: The Risk-based Supervision Process

Source: IOPS Secretariat

1. Risk Focus

Supervisory Objectives

OSFI's mandate is to protect pension plan members and other beneficiaries by: developing guidance on risk management and mitigation, assessing whether private pension plans are meeting their funding requirements and managing risks effectively, and intervening promptly when corrective actions need to be taken. OSFI holds pension plan administrators ultimately responsible for sound and prudent management of their plans.

Nature of Pension System

In assessing the possible threat of loss to members' promised benefits, OSFI's risk assessment of pension plans focuses on:

- early identification of pension plans that may have problems meeting minimum funding requirements;
- prompt communication with plan administrators advising them of material deficiencies and non-compliance issues and;
- implementation of appropriate interventions to compel administrators to take corrective measures to address the deficiencies.

Risk Appetite

OSFI mentions in its mandate that "OSFI's legislation has due regard to the need to allow institutions to compete effectively and take reasonable risks. The legislation also recognizes that management, boards of directors and plan administrators are ultimately responsible and that financial institutions and pension plans can fail."

2. Risk Factors

A. Individual

The risk assessment process begins with a review of the significant activities (*i.e.* essential operations) within a plan.

Table 1: Review of Significant Activities

Significant Activity	Description
Administration	Involves the general administration of the plan. It includes items such as benefit calculations, benefit payments, payment of expenses, regulatory filings, record keeping, and collection and remittance of contributions to the custodian.
Communication to Members	Includes member communications such as website management, notices, annual statements and member education.
Actuarial	Involves actuarial valuation of the plan assets and liabilities, as well as advice, analysis, testing and special reports provided at the request of the administrator. Only applicable to defined benefit and hybrid plans.
Asset Management	Focuses on the management of the plan's fund, asset / liability management, preparation of special financial or risk management reports and the establishment of and adherence to a Statement of Investment Policies and Procedures.

Source OSFI (Note: Actuarial category does not apply to DC plans)

Each significant activity gives rise to certain inherent risks, which are evaluated by considering the potential effects of an adverse impact on the pension assets, liabilities, and/or the plan's ability to meet minimum funding requirements.

Table 2: Inherent Risks

Inherent Risk	Description
Investment	Applies to the plan fund only. This inherent risk takes into account the following risks: *Credit:* The risk that a counterparty to a plan asset will not pay an amount due as called for in the original agreement, and may eventually default on the obligation. *Market:* Arises from changes in market rates or prices. Exposure to this risk can result from activity in markets such as interest rate, foreign exchange, equity, commodity and real estate. *Liquidity:* Arises from the plan's inability to obtain the necessary funds required to meet its pension obligations as they come due without incurring unacceptable losses.

Pension / Valuation	The risk that the methods and assumptions used to estimate the value of 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 consequences. Exposure to this risk can increase with a complex organisational 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 arises from a plan's difficulty or inability to implement appropriate policies or strategies required to address problems or challenges that may arise in the pension plan due to its design or structure

Source: OSFI

B. Systemic

Systemic risk analysis is not part of the OSFI risk assessment model, but takes place on an ad hoc basis (*e.g.* in relation to the recent financial crisis).

3. Risk Indicators

A. Quantitative

During the on-going monitoring and initial review component of the supervisory process, several tools are used to determine which plans may need to receive an in-depth review. Active monitoring of various indicators including media alerts, financial information and other applicable information permits early identification of potential issues, risks or non-compliance, and increases OSFI's Knowledge of Plan. For example, actuarial solvency assets and liabilities are projected forward to identify plans that may experience changes in their solvency position. Additionally, plans that may experience a material increase in contribution requirements are identified, giving the supervisor an early warning of potential problems. At any time issues identified through the ongoing monitoring process may trigger a more in-depth review or intervention

Supervisory tools are applied to all plans and are a cornerstone of the risk-based approach to supervision. The extent of risk identified determines whether further, more in-depth, assessment is required. OSFI focuses more supervisory resources on plans identified as having higher risks. Tiered risk indicators, actuarial report reviews and the estimated solvency ratio exercise are performed, providing information on areas of potential risk.

A series of indictors are used to detect risks based on information submitted in plan regulatory filings such as:

- Annual Information Returns (AIR);
- Certified Financial Statements and General Interrogatories (CFS);
- Actuarial Reports.

These automated indicators, driven by plan filings, are classified into three Tiers, based on the significance of the risks that the tests capture:

- ***Tier 1*** indicators detect issues that require immediate attention and may have a significant impact on both the current state and future risk within the plan. Examples include non-remittance of contributions, contribution holidays in excess of surplus, or a plan employer facing serious financial issues. Any plan where a Tier 1 test is triggered receives immediate attention and an in-depth risk assessment.

- ***Tier 2*** indicators identify potential risks with the plan that may lead to more serious issues. These include indicators such as investment returns that do not meet benchmarks, large changes in membership, and the proportion of liabilities pertaining to retired members. These are less significant than Tier 1 issues, but if a number of the Tier 2 risks arise simultaneously, an in-depth risk assessment is likely to be conducted.

- ***Tier 3*** indicators capture situations that may require greater diligence or controls on the part of the administrator, but may not have significant impact on risk within the plan if properly managed. Examples include whether the plan provisions contain certain ancillary benefits, or if there has been a history of late filings for the plan

Pension plans that contain defined benefit provisions must submit an actuarial report triennially, or annually when the solvency ratio is less than 1.2. The estimated solvency ratio (ESR) exercise monitors the solvency situation of a defined benefit or combo plan between the filing of actuarial reports – with the goal of identifying plans that may have experienced a significant shift in their solvency position since their last filing. Intervention stemming from the ESR is risk-based, focusing on pension plans that have an ESR of 1.05 or less.

When the initial review establishes that a plan merits an in-depth review, the inherent risks facing the plan, the quality of risk management, financial indicators and the financial position of the employer(s) are reviewed. The assessment is documented in the **Risk Assessment Summary (RAS).** The RAS reflects the assessor’s judgement of the risks. As a result of this assessment, action plans are developed to address specific risks and concerns. Additionally this stage could include on-site examination of the plan.

B. Qualitative

Qualitative monitoring on individual industries and plan sponsors is also conducted, providing a proactive warning where issues are identified.

4. Risk Mitigants

Mitigation of risks is assessed through an analysis of the risk management function within the plan. Key aspects of the quality of risk management include controls and oversight. These Controls and Oversight should be appropriate for the level of inherent risk.

- ***Controls:*** involve the processes and procedures in place to mitigate the inherent risk. They encompass planning, direction and controlling the day-to-day operations of a plan, as well as management’s 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;

- ***Oversight:*** this function – generally performed by the Board of Directors/ Trustees or by a Pension Committee - provides stewardship and independent oversight for the plan. This includes ensuring that: management is qualified and competent; reviews and approving organisational and procedural controls and ensuring that these controls are working as intended; accountabilities are clear and understood; risks are identified and assessed in a timely manner; development of policies and strategies receives appropriate consideration; adequate performance reporting and review.

The **Net Risk** associated with each significant activity is based on an assessment of how effectively the inherent risks are mitigated by the quality of the risk management. The **Overall Net Risk** (ONR) is an indication of the aggregate residual risk of the significant activities, taking into account whether risk mitigants implemented by the administrator are sufficient based on the overall level of inherent risk.

The Overall Net Risk is rated as **Low, Moderate, Above Average** or **High**. The individual significant activities break down this rating into further detail to help the supervisor arrive at a conclusion about the inherent risks and the risk mitigants in place. In addition to the Overall Net Risk, there are three key rating which are used for defined benefit plans to assess the Composite Risk Rating:

- The **Solvency** rating represents the risk to member benefits if the plan were to terminate immediately. **Solvency** is not rated for defined contribution plans. For defined benefit or combination plans, the factors that are considered when rating **Solvency** include the solvency ratio based on the market value of plan assets and any current or future estimated solvency ratios provided by the plan administrator or calculated by OSFI. Solvency is rated as **Weak** (<0.85), **Needs Improvement** (0.85 to 0.99), **Acceptable** (1.0 to 1.2) and **Strong** (>1.2).

- The **Ongoing Performance** rating reflects the safety of members' benefits based on a long term horizon. For plans with defined benefits (DB plans), it represents an estimate of the viability of the plan assuming it continues and funding requirements continue to be met. The ongoing performance rating may take into account items such as the funding ratios, trends and investment performance. For defined contribution (DC) plans, the Ongoing Performance rating focuses on the investment performance of the fund and its possible impact on members' benefits. Ongoing Performance is rated as **Weak, Needs Improvement, Acceptable** and **Strong**.

- The **Funding** rating addresses the plan's access to future or increased funding from the employer(s). This rating is forward looking, assessing the ability of the plan to meet minimum funding requirements over the short and long term. Factors which influence the funding rating include the credit ratings and financial performance of the employer to the extent that it is possible (including revenue, net income, cash flow, cash reserves), the outlook of the industry (such as industry lifecycle, employer performance vs. industry, industry turnover, mergers and acqisitions within industry), and the funding structure of the plan itself. For Negotiated Cost Defined Benefit (NCDB) plans, which have fixed contributions and a defined benefit, this rating is also used to assess the adequacy of negotiated contributions. Instances where this may be a concern will have a heavy impact on the final risk rating of the plan. It is important to stress that OSFI is focusing on the ability of the plan to meet its future funding requirements. Funding is also rated as **Weak, Needs Improvement, Acceptable** and **Strong**.

Figure 2: Risk Matrix

Significant Activities	Inherent Risks					Quality of Risk Management		Net Risk
	Investment	Pension / Valuation	Operational	Legal and Regulatory	Strategic	Controls	Oversight	
Actuarial								
Administration								
Asset Management								
Communication to Members								
							Overall Net Risk	

Solvency		Ongoing Performance		Funding	

CRR:	
Direction:	

Source: OSFI

5. Risk Weightings

Examples of criteria used to determine the impact (or weight) of a significant activity on the Overall Net Risk include:

- impact on the solvency of the plan;
- impact on the assets;
- size of the plan;
- impact on the plan of an adverse shock to the activity;
- net risk rating of the activity.

Table 3: Determining the weight of activities

Significant Activity	Weighting Considerations
Administration	This significant activity encompasses many risk mitigants, and in most cases this activity will play a significant role in determining the Overall Net Risk (ONR). Due to the breadth of controls required to adequately mitigate risks within the administration activity, the quality of these mitigants are usually an indicator of the overall quality of risk mitigation within the plan. For instance, if a plan has poor risk mitigation in the administration function, it likely has problems with the other three significant activities. The relationship manager (RM) should consider the past performance of the administration function, as well as the impact of a breakdown in controls. Typically, larger plans with a large membership would see a larger impact than

	smaller plans if the data verification process fails. Demographics could also be seen as a consideration of the importance of the administration activity to the ONR determination. For example, if the membership of the plan is spread across a number of locations, it may present more challenges to the administrator.
Communication to Members	For this activity, the impact on ONR depends on several factors such as the importance and frequency of the communication to plan membership. These factors should be considered in addition to the net risk rating. For example: • If the only communication requirements that a plan has are the regulatory requirements such as the annual statements, then the impact on the ONR of an above average net risk rating would likely be low. • If a Plan's inability to meet meeting minimum funding requirements results in a benefit reduction, disclosure to members will become very important. In this situation, if the controls and oversight are poor, the communications activity will have a higher net risk, which could have a higher impact on the ONR. • DC plans would generally see the net risk of the Communication to Members Significant Activity as being a fairly significant component in the ONR assessment. One of the key communication functions for a defined contribution (DC) plan involves educating members about investment choices. Poor processes in this area would lead to significant risk in the plan as a whole.
Actuarial	This activity does not apply to DC plans. Due to the importance of the Actuarial Significant Activity for defined benefit (DB) plans, or for any plan that has a defined benefit component, the net risk rating will generally be a key driver of the ONR. Additionally, the plan structure could play a role in determining the weighting. For example, a plan with complicated benefits or a Negotiated Contribution Defined Benefit (NCDB) plan may increase the importance of the actuarial activity. Similarly, the closed DB component in a combination plan may become less significant over time as membership in the DC component increases and membership in the DB component decreases, reducing the impact of the actuarial significant activity on ONR. As a result it is important to consider factors such as the plan structure, size of the liabilities and the maturity of the plan when determining the weight of the Actuarial Significant Activity in the ONR.
Asset Management	For most DB plans), the Asset Management Significant Activity will have a high impact on ONR, as the risks relating to the assets of the plan are directly captured within this activity. For DB plans, factors in the relative importance of the Asset Management activity in the ONR assessment include the demographic profile and/or liability profile, which will indicate the appropriate investment risk level. For NCDB plans, the Asset Management Significant Activity will generally be an important factor in the ONR assessment. Given that contribution levels are fixed, investment performance is often critical to funding promised benefits. For DC plans, the Asset Management Significant Activity will generally be less of a factor in the ONR rating than for DB plans, provided the plan is giving adequate investment options. The process of informing members of available investment options and encouraging active participation in the management of their DC assets would fall under the Communications to Members activity.

The **Composite Risk Rating (CRR)** is an assessment of the overall safety and soundness of the pension plan and the risk that the rights and interests of members may not be met. The CRR takes into account the Overall Net Risk, Solvency (for DB plans), Ongoing performance and Funding ratings. The weighting given to each of these ratings will depend on the level of risk they represent. The CRR will be steered by those factors which represent a greater threat to the loss to members' promised benefits. OSFI considers these ratings to be a measure of the risk of a material failure of the pension plan to deliver promised benefits or fulfil its responsibilities to plan members. CRR is rated as **Low, Moderate, Above Average, High** or **Permanent Insolvency**. The CRR provides an indication of the intervention level OSFI will consider implementing.

The Direction of Risk represents the expected trend in the CRR, taking into consideration whether there are significant issues that may not have been resolved or are likely to arise. Direction of risk is assessed as Decreasing, Stable or Increasing. A plan with increasing direction of risk would be expected to reach the next CRR level after a time. Similarly if the direction of risk were decreasing, the plan would be expected to eventually drop to a lower CRR.

6. Probability

Probability is not measured separately in OSFI's model. Rather the CRR loosely represents the probability plan members suffering a loss.

7. Impact

Impact plays no role in the OSFI model. OSFI supervises pension plans in a manner which seeks to mitigate risk of loss to member benefits.

8. Quality Assurance

The operation of the Framework is supported organizationally by the role of the 'relationship manager' (RM). The RM generally holds a portfolio of approximately 100 pension plans, and focusses their attention based on identified risks. Risk analysis based on Tiered Risk Indicators, actuarial report reviews and RASs is reviewed by managers. Additionally, plans that are identified as having a higher risk are reported on to upper management through regular reporting.

9. Supervisory Response

Consistent with a risk-based approach to supervision, OSFI considers the size of a plan's deficits and the employer's capacity to fund it. Pension plans that give rise to serious concerns, due to their financial condition or for other reasons, are placed on a watch list and are monitored with greater focus. These plans are generally the target of further intervention.

OSFI's supervisory activities or interventions may include:

- Performing an in-depth review of actuarial report;
- Conducting a desk review or an on-site examination of the plan
- Requiring a revised or early filing of an actuarial report
- Replacing an actuary
- Requiring additional disclosure of information to plan members
- Requiring a plan administrator to meet with OSFI, plan members or other parties
- Requiring freezing of portability for transfer of benefits from the plan

- Requiring a plan administrator to conduct scenario testing

- Exercising OSFI's right to bring an action against a plan administrator, employer or any other person

- Issuing a Direction of Compliance

- Removing a plan administrator and appointing a replacement administrator

- Revoking a plan's registration

- Terminating a plan

In terms of when these different tools are used, the Guide to Intervention is applied by OSFI: [2]

10. Guide to Intervention

Stage Ratings identify the applicable interventions that may be initiated by OSFI depending on the particular circumstances of the plan, the CRR, and the direction of risk.

Stage 0 – No significant problems/Ongoing monitoring

If OSFI determines that a plan's financial position is sound and that the plan's practices, controls, oversight and specific circumstances do not present significant problems or deficiencies, then such a plan would typically be subject to normal ongoing monitoring. The activities performed in the ongoing monitoring process are done for all plans supervised by OSFI and include information gathering and risk analysis. Additional interventions would tend to be ad-hoc in response to a specific issue and OSFI's concerns would be within the administrator's ability to address in a routine manner. Stage 0 plans would generally have a CRR of *Low* or *Moderate* and would not likely appear on OSFI's watchlist. Normal ongoing monitoring generally includes:

- Reviewing required filings;
- Conducting in-depth risk assessments;
- Corresponding with plan administrators and custodians;
- Conducting periodic examinations;
- For defined benefit plans only:
    - Reviewing actuarial reports; and
    - Proactively calculating the estimated solvency ratio and contributions.

Stage 1 – Early warning

OSFI may have identified deficiencies in the plan's financial position, policies or procedures that could potentially evolve into more serious issues. These potential issues may include non-compliance with the PBSA, the plan documents, best practices or established guidelines. The deficiencies are within the administrator's abilities to address. Stage 1 plans would generally have a CRR of *Moderate* or *Above-Average*, and would appear on OSFI's watchlist.

[2] http://www.osfi-bsif.gc.ca/Eng/pp-rr/ppa-rra/ord-drb/Pages/gdppp.aspx

At this Stage, OSFI increases its monitoring of the plan and obtains more information about the plan and sponsor. Specifically, in addition to the normal ongoing monitoring listed in Stage 0, the following regulatory actions may be pursued:

- Recommend filing a revised actuarial report;
- Recommend the early filing of an actuarial report;
- Recommend the plan administrator to provide appropriate disclosure to plan members;
- Recommend scenario/stress testing be conducted;
- Confirm statutory requirements are being followed, OSFI best practices and guidelines are respected, and ensure variations are explained;
- Confirm with the custodian that required contributions have been remitted to the pension fund;
- Confirm contribution holidays are in accordance with the terms of the plan and the actuarial report;
- Obtain and review the plan's Statement of Investment Policies and Procedures;
- Obtain and review the plan's financial information (e.g. list of pension assets, fund's market returns);
- Obtain and review the employer's financial statements;
- Inform the plan administrator/advisors in writing of concerns; and
- Obtain an action plan from the plan administrator to address issues.

Stage 2 – Risk to members' benefits or rights

OSFI has identified problems that pose a threat to the security of members' benefits, which could deteriorate into a serious situation if not addressed promptly. Problems may include non-compliance with the PBSA or the plan documents, the employer is demonstrating signs of financial distress (such as when the employer has obtained protection from their creditors under the *Companies' Creditors Arrangement Act*), as well as not meeting minimum funding requirements. At this Stage, OSFI would intensify its supervisory interventions and may require the plan administrator to take certain actions. Stage 2 plans would generally have a CRR of *Above-Average* or *High*, and would be on OSFI's watchlist.

In addition to the interventions listed in the preceding stages, the following regulatory actions may be pursued:

- Require filing a revised actuarial report;
- Require the early filing of an actuarial report;
- Require the plan administrator to provide appropriate disclosure to plan members;
- Require the plan administrator to hold a meeting with plan members or other relevant parties;
- Require freezing/restricting portability for transfer of benefits from the plan or annuity purchases that would impair the solvency of the plan; and
- Issue a notice of intent to issue a Direction of Compliance.

Stage 3 – Future members' benefits or rights in serious doubt

OSFI has identified material and immediate threats to members' benefits. Previous supervisory actions have been unable to address these threats and OSFI would escalate its interventions. OSFI would be working with or directing the plan administrator to prevent loss or further loss to members' benefits and to protect member's rights. Plan termination is a strong possibility. Stage 3 plans would generally have a CRR of *Above-Average* or *High*, and would be on OSFI's watchlist.

In addition to the interventions listed in the preceding stages, the following regulatory actions may be pursued:

- Issue a temporary Direction of Compliance;
- Issue a Direction of Compliance;
- Revoke the registration of the plan where a Direction of Compliance has not been complied with;
- Remove the plan administrator and appoint a replacement administrator;
- Designate an actuary to prepare an actuarial report for funding purposes;
- Terminate the plan;
- Apply to the Federal Court for an order requiring the administrator to cease contravention of the PBSA; and
- Bring action against the administrator, employer or any other person as per s. 33.2 of the PBSA.

Stage 4 – Permanent insolvency

At this stage, there is no possibility of the employer(s) fully funding the plan and the plan is in the process of wind-up or has been wound up with a loss to members' benefits. In order to facilitate the wind-up of the plan, OSFI may pursue the interventions listed in the previous stages.

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