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 systems 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 (RPP's), which are trustee pension funds. Defined benefit (DB) plans are the most common type of voluntary occupational plan in Canada, although defined contribution (DC) is becoming more popular in the private sector. 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 December 2008 there were over 9,000 pension plans operating, with around 8.2 million members. Assets in these pension funds closed 2008 with a market value of CAD 1.8trillion, which is more than 100% of Canadian GDP.

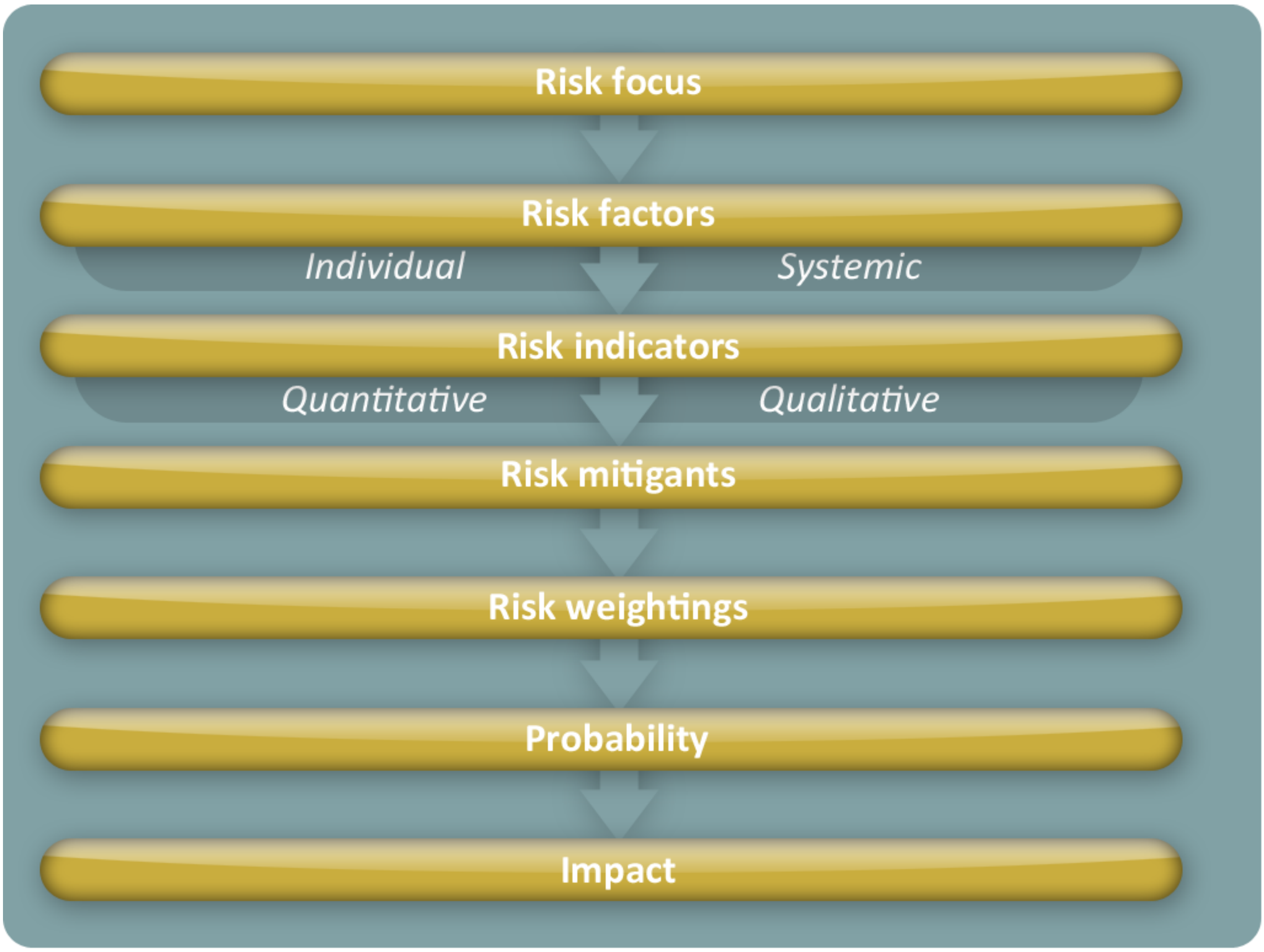
B. Risk-based Supervisory Approach

The Office of the Superintendent of Financial Institutions Canada (OSFI) applies a risk-based approach to the supervision to 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 and there is a coordinating body, CAPSA, which also plays a role, somewhat similar to NAIC in the US in regard to state supervision of insurance companies.

[1] This case study comes from Office of the Superintendent of Financial Institutions Canada (OSFI) (2009a), *'Risk Assessment Framework for Federally Regulated Private Pensions Plans'*
http://www.osfi-bsif.gc.ca/app/DocRepository/1/eng/pension/framework/pppfrm_e.pdf

II. Risk-based Supervision Process

Figure 1. RBS Process



1. Risk Focus

Supervisory Objectives

OSFI's mandate includes striving to protect the rights and interests of beneficiaries of federally regulated private pension plans. OSFI achieves this by conducting risk assessment of plans with a view of understanding the risk of loss to members' benefits under its purview, and providing timely and effective intervention and feedback.

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

For superannuation funds, the most significant risks are likely to be market and investment risk (from exposure to losses from movements in share prices, real estate prices and interest rates), operational (record-keeping, management of outsourcing contracts) and trustee fitness and propriety and risk governance arrangements.

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

Table 1: OSFI 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.
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: OSFI 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 OFSI 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 approximately to give the supervisor early warning of potential problems. At any time issues identified through the ongoing monitoring process may trigger a more in-depth review or intervention

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;
- Plan Amendments.

The risk indicators are applied to all plans. These indicators are a cornerstone of the risk-based approach to supervision, as 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.

The indicators 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. 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 position of the employer(s) are assured. 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

Given OFSI is mainly overseeing DB plans, the indicators used in its risk-scoring model are largely quantitative (see above).

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. A well managed plan will have a lower Overall Net Risk than a similar plan that has a strong solvency position or is funded by a strong company but is not well managed.

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** (0.99 to 0.85), **Acceptable** (1.2 to 1.00) 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 that influence the rating include the credit ratings and financial performance of the employer(s), the outlook of the industry, and the funding structure of the plan. For Negotiated Cost Defined Benefit (NCDB) plans, 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**. Factors which influence the funding rating include the credit ratings and financial performance of the employer (including revenue, net income, cash flow, cash reserves), the outlook of the industry (such as industry lifecycle, employer performance vs. industry, industry turnover, M+A within industry), and the funding structure or the plan itself.

Figure 2. OSFI 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: OSFI 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 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 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 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 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 an 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 plans with defined benefits (DB), 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 Negotiated Contribution Defined Benefit (NCDB) plans, the Asset Management Significant Activity will generally be an important factor in the ONR assessment. For NCDB plans, where contribution levels are fixed, investment performance is often critical to funding promised benefits. For Defined Contribution (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. OFSI 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 OFSI's model. Rather the CRR represents the probability of the members' of a fund suffering a loss.

7. Impact

Impact plays no role in the OFSI model. The aggregate risk score is a result of the supervisors judgement, with no detailed guidelines or formulas used. The Final risk score is obtained by offsetting the aggregate risk score against the capital available to the institution. OFSI argue that this score should not include a measure of impact as to give substantially different supervisory oversight to firms on this basis would discriminate against the consumers of those firms which receive less oversight, which would be contrary to OFSI's legal mandate (under which all consumers should expect equal regulatory attention).

8. Quality Assurance

The operation of the Framework is supported organisationally by the role of the 'relationship manager' (RM). The RM is responsible for maintaining a current assessment of a particular institution or institutions, and is the institution's point of contact within OSFI. It is the responsibility of the RM to know the institution intimately. That person performs or supervises the risk assessment, is responsible and accountable within the organisation for everything contained within it, and is seen as the key to making the process work dynamically and effectively.

The RM for a conglomerate is responsible for only one institution and is generally supported by 4-5 individuals dedicated to the institution. At the other end of the scale, one RM may be responsible for 6-8 smaller institutions.[2]

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.

A plan subject to detailed review can be classified into one of the following three compliance classes, depending on the characteristics of the review findings:[3]

[2] Black, J., (2004) Development of Risk Based Regulation in Financial Services: Canada, the UK and Australia http://www.lse.ac.uk/collections/law/staff%20publications%20full%20text/black/risk%20based%20regulation%20in%20financial%20services.pdf

[3] http://www.fsco.gov.on.ca/english/PENSIONS/riskbasedsupervision.pdf

Table 4: OSFI Compliance Classes

Class	**Review Outcome**	**Characteristics**
A	***In Compliance***	Plan meets all the substantive requirements of the Act and regulations with respect to plan provisions, plan administration including investment management, funding and actuarial standards.
B	***Non-compliance with No Adverse Financial Consequences***	Plan does not meet all the substantive requirements of the Act and regulations with respect to plan provisions, plan administration including investment management, funding or actuarial standards but the non-compliance would not result in a shortfall in contributions or undue investment loss.
C	***Non-compliance with Adverse Financial Consequences***	Plan does not meet all the substantive requirements of the Act and regulation with respect to plan provisions, plan administration including investment management, funding or actuarial standards and the non-compliance would result in a shortfall in contributions or undue investment loss.

OSFI's supervisory activities or interventions may include:

- Performing an in-depth review of actuarial report;
- Conducting an on-site examination of the plan
- Requiring a revised or early filing of an actuarial report
- 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, empoloyer of 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 following supervisory response ladder is applied by OFSI to the insurance sector, but is indicative of the approach taken towards pension funds: [4]

Table 5: OSFI Supervisory Response Ladder

Stage and Circumstances	*OFSI Activity*
No problem, normal activities	
Ongoing supervisory and regulatory activities applying to all federally regulated Canadian and foreign life and property and casualty Insurance companies, pursuant to OSFI conducts research and analyzes industry-wide issues and trends	Incorporate new Canadian companies and issue orders to carry on business to Canadian and foreign companies: (a) review and assess all relevant documents and information and (b) make recommendations to minister. Review and assess a wide range of applications and requests for regulatory consent required by statute including (a) corporate reorganisations, (b) changes in ownership, (c) acquisitions of other financial institutions, (d) transfers of business, (e) changes in classes of insured risks, and (f) withdrawals from the Canadian insurance market. Monitor companies based on information obtained from statutory filings, financial reports and other sources: (a) assess financial condition and operating performance, (b) verify compliance with statutory and other regulatory requirements, (c) conduct periodic onsite examinations of companies as required by statute, (d) inform management and board of directors of findings, (e) request that management provide a copy of report to external auditors, (f) require that concerns be addressed by the company; (g) monitor remedial measures, if required, and (h) inform the minister of the status of companies.
Stage 1: Early warning	
Deficiency in policies or procedures or the existence of other practices, conditions, and circumstances that could lead to the development of problems described at stage 2; situation can be remedied before it deteriorates into a stage 2 problem.	Notify the company of concerns and request it to take measures to rectify situation. Monitor remedial actions, requesting additional information or conducting follow-up examinations, as needed. Require the company's external auditor to enlarge the scope of examination of the company's financial statements or to perform other procedures and prepare a report thereon, as needed; assign the costs of the external auditor's work to the company, as appropriate. Require an external review of the company's actuarial methods and assumptions, as needed.
Set and question	*Suggested answer or consideration*

[4] OSFI's intervention ladder is taken from the IAIS Core Curriculum – note that this ladder applies to the insurance sector

Stage 2: Risk to financial viability or solvency	
Situations or problems that although not serious enough to present an immediate threat to financial viability or solvency, could deteriorate into serious problems if not addressed promptly, as evidenced by (a) concerns over the company's ability to meet capital and surplus, or vesting, requirements on an ongoing basis, (b) poor earnings, operating losses; or deterioration in the profitability o the company's business, (c) concerns regarding appropriateness of actuarial reserves, (d) undue exposure to off balance-sheet risk, (e) low level of accessible liquidity or poor liquidity management in the context of the company's situation, (f) less than satisfactory management quality or deficiency in management procedures or controls, including material breaches of applicable standards of sound business and financial practices, and (g) other concerns arising from a financially weak or troubled owner, noncompliance with regulatory requirements, systemic issues such as exposure to major insurance catastrophes, rapid growth, credit-rating downgrades, qualified report of external auditor or appointed actuary, increased risk exposure as identified by dynamic capital adequacy testing or the business plan.	Have senior OSFI officials meet with the company's management, board of directors, and external auditor to outline concerns and discuss remedial actions. Have the company provide an acceptable business plan that reflects appropriate remedial measures that will rectify problems within a specified timeframe. Enhance monitoring of the company by requiring more frequent reporting and more detailed information. Monitor progress of remedial measures via reporting requirements, follow-up examinations, or both. Enlarge the scope and increase the frequency of onsite examination. Require the external auditor of the company to perform a particular examination relating to the adequacy of the company's procedures for the safety of its creditors, shareholders, and policyholders or any other examination that may be required in the public interest and to report the results to OSFI: assign the costs of the external auditor's work to the company, as appropriate. Require an external actuary to review the appropriateness of the company's actuarial reserves: assign the costs of the external actuary's work to the company, as appropriate. Direct the company to modify its actuarial assumptions and methods. Impose business restrictions appropriate to circumstances via undertakings provided by the company, restrictions on the company's order to carry on business, or direction of compliance covering matters such as payments of dividends or management fees, lending or investment powers, level of indebtedness, business acquisitions, yield offered on annuity products, level of premiums, and other restrictions tailored to circumstances. Place the company on a regulatory watch list and notify management and the board of directors formally. Send a watch list progress report at least monthly to the minister: discuss the report in regular meetings with the minister. Discuss the status of the company with the relevant compensation fund and with provincial insurance regulators. Discuss the company at the Financial Institutions Supervisory Committee. Commence contingency planning.
Set and question	*Suggested answer or consideration*

Stage 3: Future financial viability in serious doubt	
Situations or problems described at stage 2 that pose a material threat to future financial viability or solvency unless effective corrective measures are applied promptly.	Inform the company's management, board of directors and external auditor of problems. Ensure that the business plan reflects appropriate remedial measures that will rectify problems within a set timeframe so as to avoid triggering impaired viability or impaired solvency procedures (see stage 4). Further enhance monitoring of the company by requiring more frequent reporting and more detailed information. Carry out follow up examinations, as required. Carry out enhanced examinations focusing on particular areas of concern, such as asset or loan security valuations or the determination of actuarial reserves. Such examinations may involve any of the following: (a) substantial increase in sampling of credit files, (b) more in-depth reviews of files, (c) engagement of specialists or professionals to assess certain areas, such as quality of loan security, asset values, and appropriateness of actuarial reserves. Depending on the situation, post OSFI examination staff at the company to monitor the situation on an ongoing basis. Require a special audit from an auditor other than the company's own external auditor if OSFI is of the option that it is necessary: assign the cost of the external auditor's work to the company, as appropriate. Require a special review of the company's actuarial reserves from an external or independent actuary to assess the adequacy of reserves under the circumstances: assign the cost of the actuary's work to the company, as appropriate. Direct the company to increase its capital or assets in Canada. Depending on the circumstances, enhance existing business restrictions or impose additional ones on the company. Depending on the circumstances, exert pressure on management and the board of directors to restructure the company or seek out an appropriate prospective purchaser. Develop a contingency plan for taking rapid control of the assets of the company if changes in circumstances so warrant.
Set and question	*Suggested answer or consideration*

Stage 4: Company not viable or insolvency imminent	
Severe financial difficulties resulting in one of the following: (a) failure, or imminent failure, of the company to meet capital and surplus requirements or vesting requirements in conjunction with inability to rectify the situation within a short period of time, (b) statutory conditions for taking control having been met, or (c) failure of the company to develop and implement an acceptable business plan, thus making either of the two preceding circumstances inevitable within a short period of time.	Exert pressure on management and the board of directors to rectify the situation through frequent meetings with senior OSFI officials. Notify management and the board of directors of the company of regulatory intervention measures that will be taken unless situation is rectified quickly. Impose new business restrictions on the company or expand existing restrictions. Formally notify the board of the compensation fund of the situation and of proposed regulatory intervention measures (have senior OSFI officials meet with the board of the compensation fund to discuss the situation). Notify other relevant regulatory agencies (provincial or foreign) of the proposed regulatory intervention measures to be applied to the company. If statutory conditions for taking control of assets exist and if there is an immediate threat to the safety of policyholders and creditors, take control of the assets of the company for a short period. If statutory conditions exist, such as failure to comply with a direction to increase capital or assets in Canada, and representations are made to the superintendent, maintain control of assets or take control of the company. Seek a winding-up order, pursuant to the Winding-Up Act, either voluntarily by the company or by OSFI (the minster may overrule this decision on grounds of public interest only).

IOPS Toolkit for Risk-based Pensions Supervisors
www.iopsweb.org/rbstoolkit