Toolkit for Risk-based pensions supervision

Case Study

Ontario, 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 **Case Study of Ontario, Canada.**

THE FINANCIAL SERVICES COMMISSION OF ONTARIO

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 (RPP's), which are trustee pension funds. Defined benefit (DB) plans are the most common type of voluntary occupational plan in Canada (based on either membership or assets), 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 2017 there were over 16,000 registered pension plans in Canada, with around 6.2 million members and assets totaling a market value of CAD $1.84 trillion[1]. Of those plans, approximately 7000 are registered in Ontario and regulated by the Financial Services Commission of Ontario (FSCO). As of 2017, plans registered with FSCO had over 4 million plan members and $574 billion in assets (86% of these members and 96% of these assets were in DB plans).

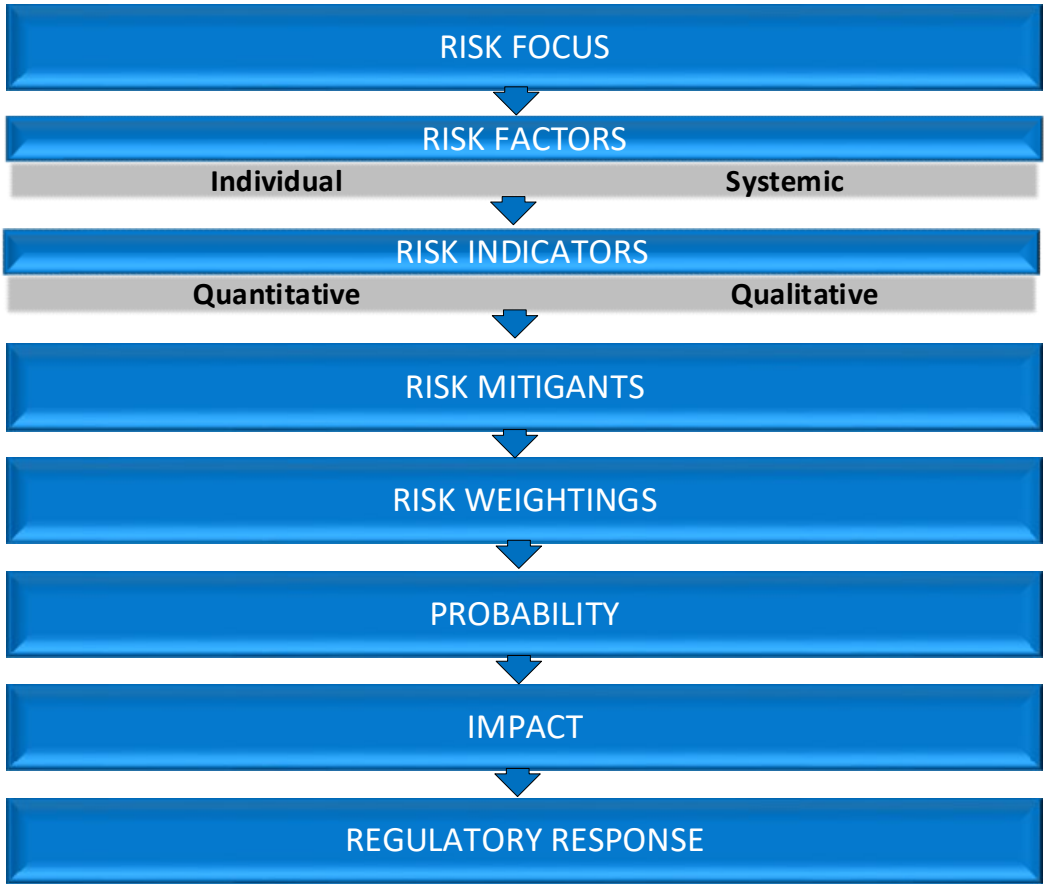
B. Risk-based Supervisory Approach

FSCO applies a risk-based approach to the supervision of Ontario registered pension plans. Canada is one of the few countries which has pension regulation primarily at a provincial level. In Canada, pension supervision is the responsibility of the provincial governments, except for organizations that fall under federal jurisdiction, whose pension plans are supervised by a federal pension supervisor. As a result of this structure, each jurisdiction has its own pension legislation and supervisor and there is not a uniform set of rules that apply across the country. Companies with employees in more than one jurisdiction will generally register their pension plans in the jurisdiction with the most plan members. Registered pension plan beneficiaries are protected by the legislation of the province that they work and live in. The provincial regulators across Canada are bound by a multi-jurisdictional agreement under which multi-jurisdictional pension plans are regulated by the province with plurality of membership. That province must ensure that registered pension plans follow to rules of the province that their members work and live in. An organization called the Canadian Association of Pension Supervisory Authorities ("CAPSA") exists to try to coordinate the activities of the various pension supervisors in Canada to achieve common goals.

[1] Taken from Statistics Canada (2018-08-09), 'Registered pension plans (RPPs), active members and market value of assets, by jurisdiction of plan registration' https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110009401

II. Risk-based Supervision (RBS) Process

Figure 1: The RBS Process



Source: IOPS Secretariat (note: 'regulatory response" box added by FSCO and is not a part of source version)

1. Risk Focus

RBS Objectives

The objectives for FSCO's RBS of pensions are set out below:

- Regulation should enhance the security of plan beneficiaries' benefits.
- Regulation should reduce the risk of situations which may lead to calls on the Pension Benefits Guarantee Fund (PBGF).[2]

[2] It should be noted, however, that FSCO does not regard the objective of reducing the risk of situations which may lead to calls on the PBGF as meaning that this risk should, or could, be reduced to zero. As the causes of calls on the PBGF are very diverse, particularly those related to employer insolvency, it is not possible for the regulator to achieve this outcome.

- Regulation should ensure compliance with the law, in particular ensuring FSCO discharges its responsibilities set out in the Pension Benefits Act.

- Regulation should encourage sponsors and plan administrators to adopt good governance, risk management and business practices.

These objectives are broadly consistent with those observed at peer regulators. The risks that are addressed on the basis of the above objectives are defined by the Risk Universe contained within the Framework.

Design Principles

In designing the Framework, a number of key principles were considered. These design principles assisted in creating a framework that is consistent with the risk-based regulation objectives and recognize FSCO's staff, activities and plans. The key principles are as follows:

- **Proactive** – The Framework should entail proactive measures to promote compliance and to reduce risks to plan beneficiaries, recognizing that prevention is better than cure.

- **Focused** – The Framework should encourage a focus on the appropriate risk areas, minimize side effects, and ensure staff is targeted towards plans and areas of higher risk.

- **Proportionate** – The Framework should enable FSCO to plan its regulatory activities proportionate to the risk involved. This includes use of high impact regulatory tools towards areas of higher risk and intervention only when necessary.

- **Consistent** – The approach applied within the Framework should be consistent and in a way that minimizes uncertainty about our likely response.

- **Informed** – Risk assessment and our regulatory response should be informed by the evidence and due attention should be paid to the plan's existing governance/risk management practices as well as emerging risks.

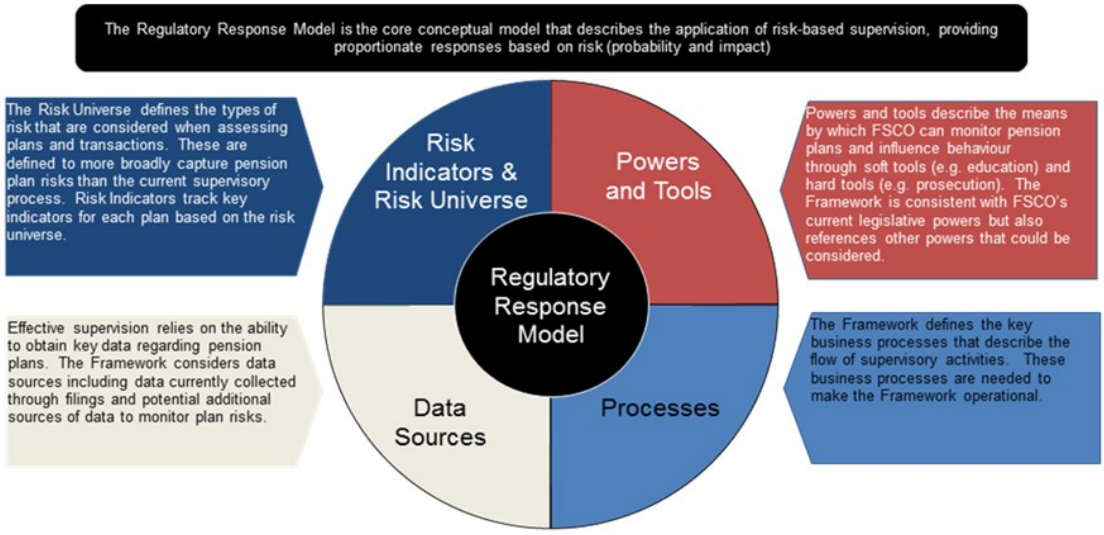
- **Transparent** – In order to enhance stakeholders' understanding of FSCO's expectations, the regulatory processes established within the Framework should be clearly communicated to all internal and external bodies that are affected by the processes.

In addition, FSCO already had some risk-based monitoring processes that had proved to be effective and those were built upon. Furthermore, in developing and implementing the framework, FSCO recognized the need to balance the extent of its regulatory activities with the administrative burdens put on the plan sponsors.

The Framework

The following chart depicts the component parts of the Framework. The key elements of the Framework are described more fully in the balance of this document.

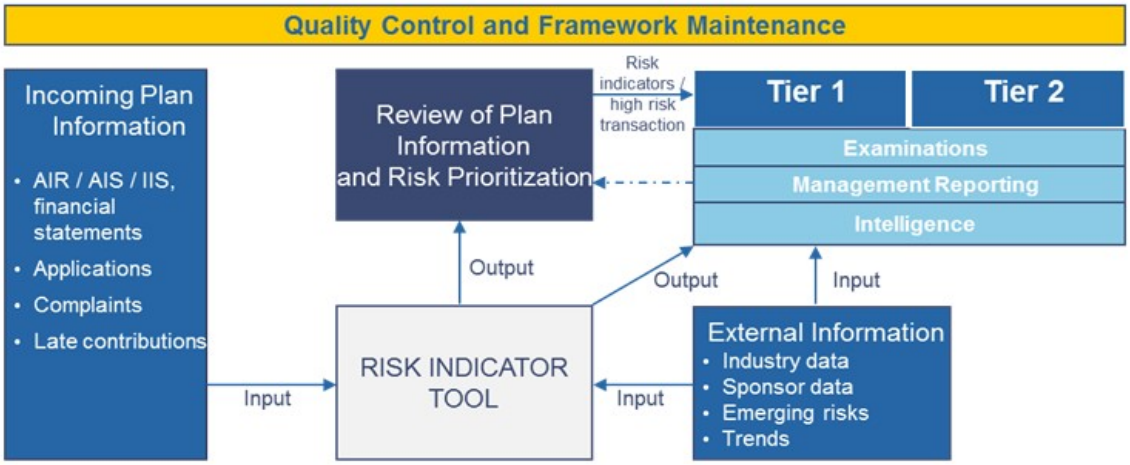
Figure 2: FSCO's Risk-based Regulation Framework



2. Risk Factors

A. Individual

Figure 3: The Regulatory Process Flow



A key component of the risk monitoring process is a Risk Indicator Tool (RIT) that uses incoming plan information as input. The RIT uses information from existing FSCO data such as the Annual Information Return (AIR), Actuarial Information Summary (AIS), Investment Information Summary (IIS), late filing information, late or unremitted contributions, frequency and severity of complaints, etc. The RIT also uses an external data feed that quantifies plan sponsor insolvency risk.

Inputs to this tool are automated to the extent practical. Based on pre-defined algorithms, the RIT presents the outcome as a priority list that ranks the plans based on the risk scores calculated by the RIT. A Tier 1 desk review would be performed in accordance with the order set out in the priority list generated from the

RIT. The purpose of Tier 1 review is to validate the results from the RIT and to provide a preliminary assessment of the plan's exposure to risks in terms of probability and impact.

The risk universe is intended to capture broadly the risks inherent in pension plans. Risk indicators for key risks have been developed and tracked for all plans. They are used as guidance when applying the Regulatory Response Model and in performing more detailed risk assessments. While it describes the various risks that could potentially be considered, judgment is applied to determine what risks to review in specific cases and to what extent.

Tier 1 desk reviews are performed primarily on plans identified as being exposed to or exhibiting potentially higher risks.

The risk universe focuses on risks within pension plans. The following risk universe categorization is used:

Funding Risk: The risk to member benefits posed by shortfalls in plan funding
Investment Risk: The risk of exposure to changes in the value of plan assets that support the plan liabilities
Administration Risk: The risk associated with inefficient or insufficiently effective processes or organization in the administration of the plan
Governance Risk: The risk associated with lack of or poor governance practices
Sponsor Risk: The risk of sponsor insolvency.

B. Systemic

FSCO monitors the solvency funding of DB pension plans through quarterly evaluations of solvency health on a market basis. These processes monitor the systemic risk of potentially negative market events occurring by pro-actively identifying possible downturns in solvency funding across all DB plans that FSCO regulates or a subset of those plans (for example, in a particular industry). Furthermore, investment monitoring activities enable FSCO to identify possible asset/liability mismatches within pension plans and determine the potential financial consequences of a systemic risk event.

Furthermore, as indicated below in the risk indicators section, FSCO's framework contemplates a risk indicator that evaluates exposure to systemic market risks. The purpose of the indicator is to measure the risk posed to benefit security due to fluctuations of the plan's investments following a negative shock in the equity markets or in long-term bond yields. FSCO also uses an industry risk indicator that provides an evaluation of pension plan sponsor industry health in order to monitor the systemic risk of industry-wide events that might have a potential adverse financial impact on pension plans.

3. Risk Indicators

A. Quantitative

The primary purpose of the risk indicators is to provide an initial pre-screening to facilitate a preliminary assessment of a pension plan within the regulatory response model. The risk indicators are quantifiable risk-based metrics used to assess the risk of the pension plans supervised by FSCO. The risk indicators are assembled and presented through the RIT, which generate a priority list of plans to be considered for Tier 1 desk review by FSCO staff.

Overview

The RIT provides three separate composites:

a) **Financial Risks** – this composite monitors financial soundness of the pension plans. It is further segregated into Funding Risk, the risk to member benefits posed by shortfalls in plan funding and Investment Risk, the risk of exposure to changes in the value of plan assets that support the plan liabilities.

b) **Operational Risks** – this composite focuses on the operations of the pension plans. It encompasses Administration Risk, the risk associated with inefficient or ineffective processes or systems in the administration of the pension plan, and Governance Risk, the risk associated with poor or non-existent governance procedures and practices.

c) **Sponsor/Industry Risk**: The risk of sponsor insolvency or potential adverse financial impact due to industry-wide events

Presented below are the key risk indicators within the three composites.

Financial Risk Indicators – Funding Risks

The focus of the risk indicators represented below is Funding Risk, the risk to member benefits posed by shortfalls in the plan funding.

Windup Funding Position

This is a short term indicator of the immediate risk in the occurrence of a windup. The purpose of the indicator is to identify plans that may have insufficient assets to pay the accrued pension benefits in the event of a plan windup. It carries a heavy weighting, because it directly measures benefit security at the most recent date reported to FSCO.

The Transfer Ratio (TR) was chosen instead of a "Solvency Ratio = solvency assets / solvency liabilities" because it fully captures the value of accrued pension benefits on windup and the market value of assets, whereas the solvency assets and liabilities defined in the regulations under the *Pension Benefits Act* (PBA) permits some exclusions and adjustments that may not reflect the true risk to plan beneficiaries in the event of plan windup.

Going Concern Valuation Basis

This indicator serves as a primary measure of the pension plan's long-term funding position and whether costs assigned to accruing benefits are realistic.

The purpose of the indicator is to determine if the going concern (GC) valuation assumptions and methods comply with the PBA and Regulation, professional standards, and accepted actuarial practice. It identifies situations where assumptions or methods may be inappropriate or require further justification.

This indicator is especially important for plans that are not subject to solvency funding.

Late or Unremitted Contributions and Contribution Holidays

This indicator serves to identify situations where the sponsor has not made contributions in accordance with the filed actuarial reports or within the prescribed timelines, thus posing a risk to benefit security. The indicator also identifies plans that have taken inappropriate contribution holidays, have under-remitted special payments for going-concern or solvency deficiencies and/or normal costs. The goal is to ensure compliance with legislation with respect to minimum funding requirements.

Trend of Solvency Funding Position

The purpose of the indicator is to compare the change, over a given period of time, in the Solvency Ratio of a plan to the change in the Solvency Ratio of plans with similar solvency ratios at the beginning of the period. Essentially, the indicator compares a plan's performance over the period (as measured by changes in the Solvency Ratio) to the performance of plans that had similar Solvency Ratios at the beginning of the period. The goal of the indicator is to identify "outliers", i.e. plans whose change in Solvency Ratio differs from the average change in ratio by a significant margin without a reasonable explanation. Identification of such plans at an early stage may help FSCO better monitor emerging risks and take preventative action as necessary.

Financial Risk Indicators – Investment Risks

The focus of the risk indicators represented below is Investment Risk, the risk of exposure to changes in the value of plan assets that support the plan liabilities.

Exposure to Systemic Market Risks

The purpose of the indicator is to measure the risk posed to benefit security due to fluctuations of the plan's investments following a reduction in the broad public equity markets benchmarks.

Immunization Ratio

The purpose of the indicator is to measure the risk posed to benefit security due to an increase of the plan's solvency liabilities unmatched by a corresponding rise in interest-sensitive investments following a reduction in interest rates.

Complexity and Liquidity of Plan Assets

The purpose of the indicator is to measure the risks posed to benefit security due to a change in the method of, and basis for the valuation of investments that are not regularly traded on a public exchange.

Credit Quality of Plan Assets

The purpose of the indicator is to measure the risk posed to benefit security due to a plan's counterparty not paying an amount due or eventually defaulting on an obligation.

Currency Risk

The purpose of the indicator is to measure the risk posed to benefit security due to fluctuations of the plan's unhedged foreign investments following a rise in the Canadian dollar in comparison to other currencies.

Operational Risk Indicators

The focus of the risk indicators below relate to Administration and Governance risks. Administration risk is associated with inefficient or ineffective processes or organization in the administration of the pension plan. Governance Risk is associated with lack of or poor practices in all facets of pension plan management including: conflicts of interest, asset management, outsourcing, funding and communication.

Member Complaints

Member complaints concern issues of benefit entitlement, benefit determination, benefit calculation, timeliness of the administrator's issuance of statements and processing of benefits, and lost or missing benefits. Member complaints are often an indicator of the existence, and the severity of, administration and/or governance issues.

Examination Findings

The purpose of the risk indicator is to identify the level of governance and administration risks identified through FSCO examinations.

Remittance of Contributions

The purpose of the risk indicator is to identify and monitor the non-remittance, late remittance or under-remittance of required contributions to the pension plan fund. This indicator is not be applied to Multi-employer pension plans.

Filing Delinquency/Deficiency

The purpose of the risk indicator is to identify and monitor the delinquent or late-filed statutory filings with the Superintendent (i.e., Annual Information Return, Actuarial Information Summary, funding valuation report, Financial Statements, Investment Information Summary, Pension Benefits Guarantee Fund Assessment) or in the case of the Form-7, the delinquent or late-filing with the trustees of the pension fund, and to identify plan administrators that frequently request filing extensions in regard of statutory filings with the Superintendent.

Appropriateness of Administration Expenses

The purpose of the indicator is to identify situations where the administrative expenses may be inappropriate relative to the assumed expense allowance. The indicator also identifies situations where the administrative expenses have suddenly increased beyond "normal" levels which may result from unusual activities such as covering expenses that should not be paid from the plan.

Investment Governance

This risk indicator addresses governance risks associated with the lack of or poor investment governance practices of the plan sponsor.

Sponsor/Industry Risk Indicator

The purpose of this risk indicator is to measure the risk of a sponsor's potential inability to meet its pension funding obligations related to the plan sponsor insolvency or potential adverse financial impact due to industry-wide events.

B. Qualitative

FSCO's framework mainly relies upon quantitative risk indicators to prioritize the large number of plans it regulates for Tier 1 desk reviews. However, FSCO also considers qualitative risk indicators such as administration (e.g., possible administrative process issues in a plan based on the number of member complaints) and governance risk (for e.g., an investment governance indicator that addresses governance risks associated with the lack of or poor investment governance practices of the plan sponsor).

4. Risk Mitigants

Risk mitigants are taken into consideration when FSCO conducts Tier 1 desk reviews and examinations of plans. Tier 1 desk reviews are performed for plans or transactions based on the results of the RIT, as well as other plans on a selective basis. Such risk assessments provide a full evaluation of the risks faced by a pension plan, taking into account the plan's specific circumstances (nature of liabilities, sponsor's financial strength, governance model, risk sharing arrangement, etc.) and any risk management practices the plan has in place. On-site plan examinations include review of risk mitigating controls and oversight by the Board of Trustees/Directors, Pension Committees, etc. including the day to day management of the plan and procedural controls.

It is intended that material concerns and issues arising from the detailed risk assessments would be communicated and shared with the plan administrator and, if relevant, other stakeholders as well. This provides an opportunity for the administrator to address identified concerns and issues through constructive dialogue including identifying any controls that might be in place to mitigate risk. Further regulatory action, if any, would be guided by the outcome of such a process. This approach improves the transparency of the regulatory process.

5. Risk Weightings

As described earlier in section 3a (Risk Indicators – Quantitative), the RIT generates a priority list of plans to be considered for Tier 1 desk review by FSCO staff. The RIT produces this priority list by calculating scores for a pension plan under three separate composites; financial, operational and sponsor/industry risks.

The three composites can be made up of a number of different risk indicators aimed at measuring the degree of risk associated with the pension plans. The risk indicators are allocated weightings to reflect the impact the indicator holds on the overall risk composite. Each of the three composite separate composites are assigned overall risk weightings within the final priority score for each plan. For example, the ratio of overall weightings might be 60/30/10 for financial/operational/sponsor/industry risk but within each of those composites, there are sub-weightings for each of the element metrics that make up the total composite score for the financial, operational and sponsor/industry risk indicator composites. It's important to note that the risk indicators and their weightings are subject to periodic review in the light of accumulated experience and risks emerging in the future.

Presented below are possible considerations for the ratings/weightings of the risk indicators introduced in section 3a (Risk Indicators – Quantitative). These indicators and weightings were identified when FSCO developed the framework for the risk-based regulation of pension plans based on the nature of pension plans in Canada, the governing legislation in Ontario and other provinces as well as the data that FSCO collects. FSCO's risk-based system is constantly evolving to meet the changing needs of the pension industry and broader economy as well as enhancements to FSCO's data collection and analytic capabilities. As such, the risk indicators presented in this paper might not accurately reflect all indicators used by FSCO today or in future. For the purpose of this paper, they are being presented briefly to help inform readers of possible indicators and ratings that they might consider in their jurisdictions. It's important to note that when developing a risk-based supervision system, weightings are dependent on the objectives of each individual system and it should be expected that they will change and need to be adjusted as the system evolves.

Table 1: Risk weighting considerations

Risk Indicator	Measurement
Financial – Funding	
Wind up funding position	The indicator is measured using the latest Transfer Ratio (TR) reported to FSCO. The (TR) was chosen instead of a "Solvency Ratio = solvency assets / solvency liabilities" because it fully captures the value of accrued pension benefits on windup and the market value of assets, whereas the solvency assets and liabilities defined in the regulations under the Pension Benefits Act (PBA) permits some exclusions and adjustments that may not reflect the true risk to plan beneficiaries in the event of plan windup.
Going concern valuation basis	This indicator is meant to identify situations where the long-term funding of the plan may not achieve full funding with a reasonable probability. The indicator can be composed of different metrics depending on data availability. Some possible metrics are: - Interest rate assumption - Salary growth assumption in a Final Average Earnings (FAE) plan - Mortality experience - Actuarial methods –actuarial value of assets (AVA) in relation to market value of assets (MVA) - Actuarial methods – Increase in AVA due to a change in asset valuation method - Retirement experience
Late or unremitted contributions and contribution holidays	This indicator can be composed of 2 different metrics (but not limited to) : - Contributions In Transit (CIT) included in the market value of assets of an actuarial valuation report, as compared to total Required Contributions (RC) - Under remittance of Employer RC
Trend of solvency funding position	This indicator measures the change in Solvency Ratio of a pension plan against the change of the Solvency Ratio for all plans that had similar ratios at the beginning of the period. The greater the variance between the change in the Solvency Ratio of a particular plan and the average of all similar plans, the greater the potential risk it poses and the need to understand the cause of the difference.
Financial - Investment	
Exposure to systemic market risks	Depending on data sources available some examples of how this indicator can be measured are: - Percentage of non-fixed income assets, or - Percentage of net asset value (NAV) subject to systemic market risk (SMR)
Immunization ratio	Depending on data sources available some examples of how this indicator can be measured are: - Percentage of Non Fixed Income Threshold Deviation (NFITD), - Immunization Ratio (IR) - change in assets due to potential interest rate change, and/or - Plan maturity (PM) – solvency liabilities for former members and retired members in relation to total solvency liabilities
Complexity and Liquidity of Plan Assets	Depending on data sources available some examples of how this indicator can be measured are: - Percentage of alternative assets ratio - Percentage of NAV in Level 3 of fair value hierarchy

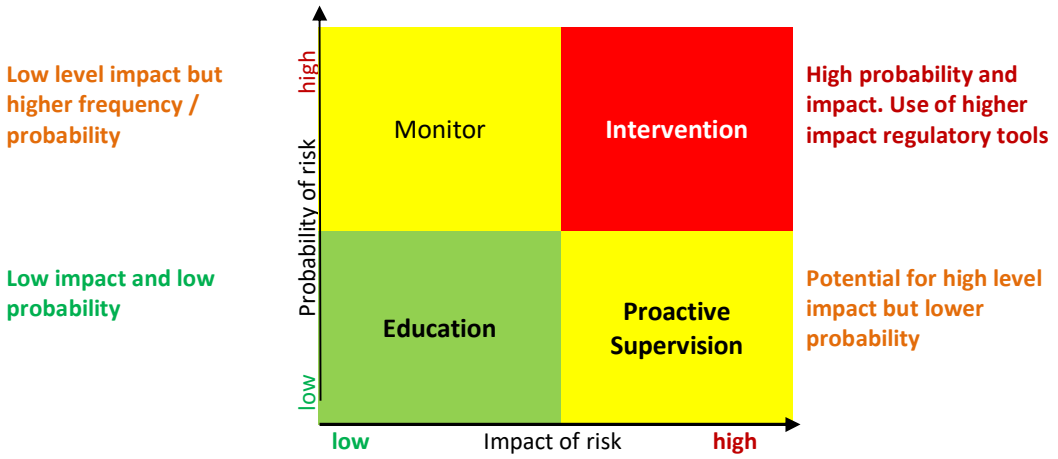
Risk Indicator	Measurement
Credit quality of plan assets	This risk indicator is based on a metric of percent of Fixed Income Assets (FIA) below Investment Grade Level (IG).
Currency risk	This risk indicator is based on a metric of % of NAV subject to Currency Risk (CR).
Operational	
Level 2 and level 3 complaints	This risk indicator can be measured by the number of closed Level 2 complaints and valid Level 3 complaints from plan beneficiaries. Considering the need to recognize the relation between the size of a pension plan and the number of complaints, different thresholds are assigned to different plan sizes.
Examination findings	This risk indicator can be measured using scores from prior on-site pension plan examinations conducted. Plans that have not been examined within the last 24 months are assigned a default "neutral value" for this risk indicator.
Remittance of contributions	The number of substantiated allegations of non-remittance, late remittance, or under remittance measures the existence and the severity of compliance issues. By counting the number of substantiated allegations of non-remittance, late remittance or under remittance within the previous 24 months, then comparing the results to threshold levels, the appropriate risk rating for the indicator is determined.
Filing delinquency/deficiency	The number of delinquent and/or late filed statutory filings plus any related filing extension requests measures the existence, and the severity of, compliance and administration issues.
Appropriateness of administration expenses	The risk indicator can be measured using two metrics. The first one is a comparison of Actual Administrative Expenses (AAE) to the Expense Allowance Assumption in the Going-Concern valuation (EA), and the second one is a comparison between AAE and Normal Cost (NC).
Investment governance	This risk indicator is measured through a number of detailed metrics. - The Investment Performance Concerns indicator is measured using the Fund's annual rate of return net of IMF minus the calculated rate of return of a passively managed portfolio invested in accordance with the plan's Statement of Investment Policies and Procedures (SIPP) (using market benchmark % returns). - The Appropriateness of IMF indicator is measured using the dollar amount of the fund's annual IMF in relation to the total NAV. - The Non-Compliance with FIR indicator is calculated based on the number of regulatory breaches as reported. - The Non-Compliance with SIPP indicator is measured by analyzing whether the asset allocation is within or outside the MIN/MAX range as per SIPP.
Sponsor/Industry	
Combined sponsor/industry risk indicator	This risk indicator utilizes a monthly data feed external to FSCO that was procured for the purpose of getting a quantitative measure of the risk in insolvency of individual plan sponsors and parent sponsor companies as well as the overall health of the industry that a sponsor is in. The combined sponsor/industry risk indicator takes both volatility and risk trends into consideration increasing the forecasting value. It is calculated by combining:

Risk Indicator	Measurement
	- the volatility trend indicator (the coefficient of variation across all plan sponsors), and - the risk trend indicator (the average of total risk by the number or ratings received to the period)

6. Probability and Impact

The Regulatory Response Model, illustrated by the diagram in this section, lies at the core of FSCO's framework. Both the probability and the impact of risk are taken into account in determining FSCO's level of response in specific cases.

Figure 4: The Regulatory Response Model



The model is used to assess plan and transaction risks on an ongoing basis. Plans and transactions are classified into one of four risk quadrants after a detailed review that involves a certain level of professional judgments. Consideration of the risk universe and related risk indicators, as well as any risk mitigation measures implemented by the plan, are made in determining the quadrant into which a plan or transaction falls.

7. Quality Assurance

A key element of effective application of the Framework is recognizing that:

- Its implementation is subject to human judgment and hence its application can vary.
- Staff training to ensure common understanding of the risk-based regulatory approach and its application is essential.
- Quality control procedures need to be put in place to ensure appropriate and consistent application.
- Update of the Framework will be needed as the industry practices change, new risks emerge and priority of existing risks changes.

FSCO's Quality Control and Framework Maintenance process includes the following activities:

- Setting benchmarks or key performance indicators to monitor and measure the effectiveness of risk indicators in identifying higher risk plans, and modifying them as appropriate.

- Maintaining the Framework including periodically revisiting and updating the methodology, risk definitions and assessment criteria.
- Coordinating the identification of emerging or increasing risks and developing approaches to address those risks (e.g. identifying areas for thematic reviews, providing guidance / training / updates to colleagues, recommending changes to the application of the Framework).
- Ensuring, through leading initiatives or coordination / participation with others, appropriate communication and education to the industry regarding the risk-based approach and regulatory expectations.
- Liaison with relevant IT groups to ensure that the system of risk-based regulation is appropriately supported by technology.
- Maintaining network of strategic relationships within FSCO, the industry, national and international regulatory bodies.
- Reporting to senior management on the status and effectiveness of risk-based regulation.

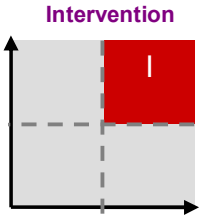
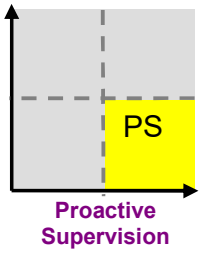
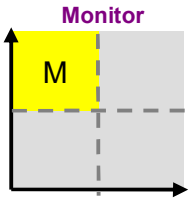
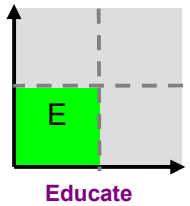
8. Supervisory Response

The Regulatory Response Model, illustrated by the diagrams in this section, lies at the core of the Framework. The diagrams summarize FSCO's approach to prioritizing regulatory work according to risk. Both the probability and the impact of risk are taken into account in determining FSCO's level of response in specific cases.

The model is used to assess plan and transaction risks on an ongoing basis. Plans and transactions are classified into one of four risk quadrants after a detailed review that involves a certain level of professional judgments. Consideration of the risk universe and related risk indicators, as well as any risk mitigation measures implemented by the plan, are made in determining the quadrant into which a plan or transaction falls.

The Regulatory Response Model, described in section 6, "Probability and Impact" of this document, provides for a base level of regulation across all pension plans including a focus on industry education, promotion of best practices and monitoring of risk indicators. Assignment of a plan or transaction to a quadrant is an internal means used to guide the effective allocation of staff resources and the regulatory actions taken by FSCO. The model directs staff to those plans that are exposed to or exhibit greater risks. This approach helps FSCO more effectively manage the risk of pension plan failure and optimize the use of regulatory resources. The table below summarizes FSCO's approach to prioritizing regulatory work according to risk.

Table 2: Supervisory Response

	Examples of Plans / Issues	Potential Regulatory Responses
	**Intervention: High Impact, High Probability** High risk events/transactions (e.g. failure to remit contributions over extended period of time, major corporate restructurings affecting large number of plan members) Chronic significant underfunding, especially in collective bargained plans with periodic benefit improvements Significant member complaints about plan administration or benefit entitlements Significantly underfunded plans carrying excessive investment risks Plans with significant sponsor risk (e.g. CCAA)	**Intervention: High Impact, High Probability** Regular interactions and/or meetings with plan administrator, sponsor, plan advisors, etc.) Take proactive measures to mitigate risks Keep FSCO Management abreast of the issues and corresponding regulatory actions taken Site examinations Action or legal proceedings pursuant to PBA
	**Proactive Supervision: High Impact, Low Probability** Very large plans may fall into this category due to the potential for adverse impact on a large number of members, or very high impact on the PBGF in the event of employer insolvency Plans where there are early signs of high impact events occurring	**Proactive Supervision: High Impact, Low Probability** Ongoing monitoring Included in periodic management reporting, particularly if impact can be very large Ongoing media monitoring of plan and sponsor Possible interactions with plan Consider for site examinations
	**Monitor: Low Impact, High Probability** Smaller plans with clear risk indicators (e.g. small plan but significant solvency issue, contribution issues etc.). Issues can be either significant individually or in combination. Larger plan but issue itself is not a large impact, e.g. consistently late filings, although consideration should be given to whether issue relates to other larger risk, especially in combination with other indicators (e.g. late filings plus large number of member complaints).	**Monitor: Low Impact, High Probability** Continue to monitor and flag if identified risks persist or additional risk indicators present Enhanced review may be appropriate Communication with plan administrator may be warranted, e.g. to bring awareness of the issue, request explanation
	**Educate: Low Impact, Low Probability** Plans other than very large plans with little or no risk indicators present Many IPPs and DC plans will fall in this category (although IPPs and DC plans with significant risks or issues may fall into other categories)	**Educate: Low Impact, Low Probability** No specific communications to individual plans required Provide general education/communications to plan administrators and advisors, with a view to enhancing understanding of pension administration, governance principles and PBA requirements, e.g.: FSCO reports and industry sessions Guidance notes / best practices

9. Lessons Learned

Development and implementation of a RBS framework is a large endeavour that requires well developed project and change management practices. RBS is an evolution not a revolution and must be developed and implemented carefully over time in an agile and adaptable manner.

Project planning and management

Setting understandable and acceptable objectives upfront is important to guide decisions during challenges or suggested changes that might arise during development and leads to better support of the change overall. Strong and sound project management practices ensures that all the moving pieces of a project this size are monitored and supported to keep within budget, scope and timelines. Take the time to develop a detailed plan including detailed scope, timelines and milestones, critical path and budget constraints. Strong project management support ensures that the project stays on track while the project leader focuses on technical matters and decisions.

Like all projects, success depends on the make-up of the team members. Not only should the right people be selected but also you must ensure that they are able to dedicate enough time to the project. It is important to realistically assess the capacity of team members to work on the project. Do not underestimate the time or effort required and build in flexibility. Lastly, be aware of concurrent projects that may be affected or that may affect yours.

Development and implementation

Do not try to reinvent the wheel! Leverage off others' experience but be cautious and understand important differences in identifying applicable comparisons to customize to your situation. FSCO researched leading edge peer regulators from around the globe including each peer regulator's environment (# of plans they regulate, how many staff, legislative powers, etc.) prior to developing the risk-based regulation framework.

Collection of data for risk analysis may be difficult but it is necessary. It's important to clearly identify a data "wish list" but some data might be challenging to acquire. You might not have to legislative authority to request it and you must be conscious of the burden new data reporting requirements might have on the entities you are regulating (balance between regulation and promotion of pension plan sponsorship). Electronic data is much more powerful than paper because it opens huge opportunities for analysis and reporting.

An Information Technology (IT) strategy is essential and it's important to engage your IT team early. IT system development projects are very large projects on their own and might not be implemented at an ideal time for the RBS project launch. It's important to ensure that both project teams are integrated and have open lines of communication. To mitigate any concurrent timing issues with IT system development build your RBS in a way that can be launched without IT system improvements and then enhanced as system development comes on line. This might not work in every situation, however, and temporary solutions may be needed. Where possible implementation of RBS should be not be dependent on IT system development.

Change Management

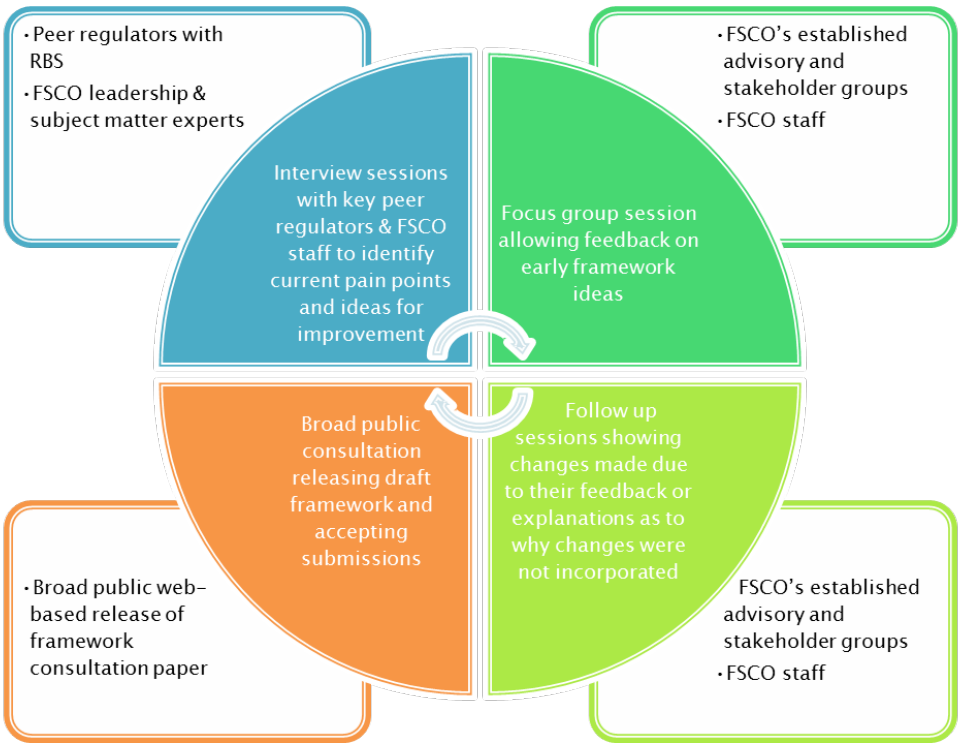
Many projects fail due to a lack of desire from staff and stakeholders. A well thought out change management strategy is essential to project success and should be integrated with the overall project plan from the start of the project. Do not underestimate the effort that needs to go into change management.

Moving from a pure compliance model to risk-based is a significant culture change. Staff will be empowered to make judgment calls and oversee pension plans as a whole, not just individual work items. Some staff will embrace this empowerment, others might be fearful of the new expectations. A proper change management strategy can alleviate most of these fears and provide staff with the tools they need to be successful by guiding staff through the phases of change and creating awareness, desire, knowledge and ability.

Building about a risk management culture and skill set will not happen overnight. For the most part, FSCO worked with the skill set already in house. By piloting certain aspects of the RBS framework (funding risks pilot, governance risks pilot), pilot group staff were able to build up skills through bite size chunks. Success of these pilots improved the framework, allowed opportunities to celebrate milestones during the broader implementation and built momentum.

Similarly, it is essential to have extensive communication and consultation with stakeholders to promote understanding and acceptance both internally and externally. By listening and incorporating feedback from staff and stakeholders FSCO was able to develop a better RBS while at the same time, involving and getting buy in from staff and stakeholders. FSCO engaged its pension stakeholders early and often. This was vital in getting sustained buy in from industry. In fact, many of those consulted became the biggest champions of FSCO's RBS in the industry. Stakeholder input was also very beneficial in developing the final framework since their expertise was leveraged in the final product. Not all suggestions were incorporated from stakeholders but, when they weren't, they were explained as to why not. Stakeholders felt heard, respected and appreciated.

Figure 5: FSCO's RBS Consultation Strategy



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