Toolkit for Risk-based pensions supervision

INTERNATIONAL ORGANISATION OF PENSION SUPERVISORS

Case Study

Chile

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 **Chile Case Study.**

CHILE[1]

I. Background

A. Pension System

The Chilean system was established in 1981 by replacing the old age pension system. Employees that enter the labour market after the system was introduced must join a defined contribution (DC) pension plan funded by employee contributions. It was voluntary for workers that had contributions into the pay as you go system to switch to the individual capitalization system; if they did there was recognition of their accrued benefit under the old system by an instrument called "recognition bond".

Investment regulation has changed significantly throughout the years, starting by only fixed income instruments allowed in only one fund to a system in which employees can choose from one of five funds, with different exposure to variable income. The law allows these funds to be invested abroad up to 80% of total funds, currently foreign investment is 44%.

There is a legal retirement age of 65 years for men and 60 years for women, although members may retire early if they meet some requirement. Workers may convert their accumulated funds into a life annuity or a programmed withdrawal. There are different annuity products available and potential pensioners are required to compare between insurance company's offers and the programmed withdrawal product via an electronic quotation system called SCOMP.

The coverage of the system, measured as the proportion of contributors to total employment is around 66%. Reforms have been introduced over the years, including a major reform in 2008 (Law N° 20.255) introducing a solidarity or basic pillar providing protection for lower income groups, including those receiving low pensions.

The low level of financial understanding, particularly related to pension systems, is an important issue for supervisors, particularly for those supervising DC plans. In this regard, the pension reform also included the implementation of a Pension Education Fund. This fund has the objective of giving financial support to projects, programs, and other activities to promote education about the pension system.[2] The law also enables individuals and companies to act as "pension advisers", guiding affiliates in taking informed decisions such as the selection of funds, voluntary pension savings, the payout choice, etc.

Regarding governance of the entities supervised, each AFP has named in its board two autonomous members in the Investment committee. Also, the pension reform introduced a User's Committee, in charge of

[1] Taken from the presentation made by Solange Berstein, Superintendent of Pension, to IOPS Regional Workshop on pension supervision for CIS, Kaukas and Central Asia region, 25-26 February 2010. 2018 Update by the Superintendence of Pensions.

[2] This fund is managed by the Undersecretariat of Social Security at the Ministry of Labor. The resources of the fund are assigned by the Undersecretariat through a public tender. The Superintendence of Pensions is part of the committee that selects the projects.

monitoring the pension system as a whole and the performance of pension fund managers. The members of this committee are representatives of workers, pensioners, private and public pension providers; and the expert to chair the committee is named by the government.

To improve efficiency and competition in the AFP industry, as part of the pension reform, the government introduced a bidding process for the administration of the accounts of new members to the system, and a centralized auction mechanism to provide the disability and survivors insurance.

Given the significant changes to the pension system, Law N°20.255 reorganized the pension system institutional framework by creating new institutions such as the *Instituto de Previsión Social* (IPS), former *Instituto de Normalización Previsional*, in charge of administrating the new solidarity pillar and the benefits and contributions of members who remain in the old pay-as-you-go system; and the Superintendence of Pensions -which replaced the former Superintendence of Pension Fund Managers (SAFP)- in charge of supervising and regulating the private and public institutions participating in the pension system. In this regard, the Superintendence of Pensions (SP) has a broader supervisory role that includes the non-contributory benefits, benefits from the old pay-as-you-go system, and unemployment benefits from the unemployment insurance fund (AFC)

The Superintendence of Pensions (SP), as a public agency, is in charge of supervising AFPs, *e.g.* granting licenses, issuing directives, and levying fines for any misconduct. The agency also has primary legislative responsibilities – including applying strict licensing requirements to AFPs.[3] It has also the role of supervising and regulating the public solidarity pillar and the old pay-as-you-go system that will eventually disappear.

B. Risk-based Supervisory Approach

As a specialized pension supervisor, the central mission of the SP is to monitor and oversee the Chilean pension system, and is particularly responsible for ensuring a smooth running and reliable operation of the AFPs. Generally speaking, the Chilean pension market is subject to strict regulation. In this regard the SP closely monitors the operation and performance of each AFP, in order to ensure compliance with the existing rules and regulations. For example, SP collects information and data related to AFPs on both a regular basis (including daily) and on ad-hoc basis – which typically becomes necessary when the SP notices a market irregular behaviour related to an AFP. Moreover, the SP is even directly involved with investment issues relating to each AFP, for example it is in charge of investment regulation that basically sets investment limit. This regulation is also revised by an independent committee named the Technical Investment Council[4].

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[3] Among others, such requirements include capitalization, insurance protection and fit and proper tests for management personnel. Any merger and acquisition of existing AFPs need to be approved by the SP. Meanwhile, if a SP notices any irregularities occurring in an AFP, which it believes is not of compliance with the relevant legislations, the SP is empowered to request the AFP to undertake corrective actions. If the severity of the problem is significant, the SP is also authorized to revoke the license, thus stopping further operation of this entity in the Chilean pension market.

[4] Under Law N° 20.255, many of the limits on portfolio composition are no longer defined by law itself, but contained in secondary norms, broadening the AFPs options and providing greater regulatory flexibility. This secondary regulation, known as the Investment Regime, is issued by the Superintendence of Pensions following technical analysis and approval by the Technical Investment Council, formed by members with recognised financial expertise, one appointed by the President of the Republic, one by the Board of the Central Bank, one by the AFPs and two by the deans of the Economic and Business Faculties of accredited universities. The Investment Regime also makes it possible to establish specific methodologies for the measurement and control of investment risk.

It has been argued that such level of supervision is feasible for the Chilean system, given that there are only a few supervised entities (currently six AFPs are operating in Chile). For countries where there are hundreds (even more) market participants, such intensive supervision is practically not possible, largely due to constraints on administrative and supervisory capabilities. The Chilean system is also mandatory, requiring greater protection and the less developed capital and financial markets in the country (certainly when the pension system started to operate) also imply a greater level of supervisory oversight (see Hinz et al., 2005).

Since 2006, following an initial assessment by the World Bank and the FIRST Initiative, the Superintendence of Pensions has been working to introduce a risk-based approach to supervision with risk scoring features. The main motivations include the agency's desire to be forward looking, to investigate the root as well as the consequence of problems, and to adapt to the increasing complexity of the financial markets.

At present, supervision in Chile is 100% compliance-based and the pension law (Decree Law DL 3.500) and its secondary norms are very specific as to what an AFP must do in a wide range of situations, in accordance with Chilean civil law. The focus of the supervisory authority has been driven largely by following complaints. The new risk-based approach involves a shift in the focus of supervision to the process used by AFPs for risk management and the controls they have in place.. The Risk Based Supervision (RBS) methodology was implemented during the first semester of 2010. Furthermore, in 2016, a Law was enacted establishing a legal obligation for the Superintendence of Pensions to implement an RBS methodology for supervising Pension Fund Administrators and the Unemployment Insurance Administrator. The Law also entitles the Superintendence to issue instructions for its supervisees to address the indicated weaknesses. To accomplish this, the Superintendence is allowed to require all records and data necessary to acknowledge the risk management of the supervised entities. The results of the evaluation are confidential and only provided to the corresponding supervised entity. Following the enactment of the Law, the SP updated the secondary regulation that provides the framework for based-risk supervision. The update of the secondary regulation included the following:

- The definition of the main lines of businesses of pension fund administrators and the risks affecting them
- Three new risks were included: reputational, strategic and market conduct
- The three lines of defense model set out by the IIA was adopted:
    - First line: operational management
    - Second line: risk management and compliance functions
    - Third line: internal audit

II. Risk-based Supervision Process

Under the SBR approach, the SP supervision process includes the following stages: Analysis, Planning, Action, Documentation, Communication and Monitoring.

Main stages of the supervision process

Stage	Result
1. Analysis Taking knowledge and understanding of the environment and entities. Risk assessment drawing upon extrapolation based on samples	1. Risk Matrix 2. Risk Assessment Summary (RES)
2. Planning Programming and planning activities for the supervision period	3. Supervision plans by entity - Specific areas under preventive monitoring - Areas under compliance monitoring
3. Enforcement Deployment of on-site and off-site monitoring activities	4. Information and inspection requirements
4. Documentation and Actions Preparation and integration of the information that supports the findings	5. Enforcement report 6. Sanction request
5. Communications Communication of findings and recommendations and instructions to the supervised entity.	7. Updated RES 8. Sanction resolution
6. Monitoring Monitoring of compliance of recommendations and instructions given on areas of greater risk	9. Updated RES

Source: Superintendence of Pensions

The Risk Matrix is a summarized report on the risk exposure profile of each entity. This is the instrument that the SP uses in the context of the SBR to guide its supervisory actions. The Risk Assessment Summary (RES) is a detailed report that provides support and consistency to the results shown in the Risk Matrix. It contains the main findings and recommendations to each supervised entity, at the level of processes and sub-processes. It also contains a cross-sectional assessment at the risk mitigation level, as outlined below.

A. Risk Assessment Model

The SBR approach considers the assessment of entities in sufficient detail to adequately focus supervision activities. The risk assessment model for audited entities is based on the risk matrices presented in the Annex. The following table shows an example of the processes carried out by an AFP and their inherent risks assessed in the risk-based model:

Processes carried out by an AFP	Inherent Risks of Business Processes of the AFP							
	Credit	Market	Liquidity	Fiduciary Risk	Operational and Technological Risk	Legal and Regulatory Risk	Strategic and Reputational Risk	Market Conduct
Account Administration								
Collection of contributions								
Update								
Collection of fees								
Fund Accountability								
Asset laundering and terrorism funding prevention								
SIS Premium Payment (collection of contributions, accreditation and collection of fees)								
Fund Investment								
Investment Decision-Making								
Investment Implementation (i.e.: negotiation, others)								
Investment improvement (Liquidity, Custody)								
Investment control (i.e.: limits, transactions, negotiation, capital events, powers, etc)								
Valuation								
Record, accountability and report submissions to the Superintendence of Pensions								
Measurement, Control, follow-up and financial risk reporting								

The net risk associated with each of the main processes carried out by the audited entity is the result of offsetting the inherent risks of the process with the risk mitigation tools implemented by the entity. It is illustrated by the following equation:

Inherent Risk – Risk Mitigator = Net Risk

B. Inherent Risks

The inherent risks are associated with the key business processes of audited entities. The key business processes for AFPs are: account management, fund investment, profits, affiliate services and sales / marketing. The key business processes for the AFC are: account management, investment of funds, benefits and services to the affiliate. Likewise, the key business processes for the IPS are: account management, benefits and services to the beneficiary.

The SP considers the following categories of inherent risk:

Credit Risk: it is the contingency that the administered pension and unemployment funds suffer economic loss due to the non-payment in due time and in proper manner of security issuers, debtors or counterparts.

Market Risk: it is the contingency that the managed pension and unemployment funds suffer economic loss due to adverse changes in market conditions, either of asset prices, interest rates or exchange rates, after risk hedging.

Liquidity Risk: it is the contingency that the pension and unemployment funds suffer economic loss due to the impossibility of selling financial instruments at current prices in the market, either because of the volume that must be settled to cover the financial commitments or due to current situations in the market.

Fiduciary Risk: it is the contingency that the administrator does not take due care in the management of the resources of the pension and unemployment funds, diverting from the interest of the affiliates with prejudice to such funds.

Operational and Technological Risk: it is the contingency that the affiliates or beneficiaries cannot access in time and in proper manner to the services, benefits or an adequate return and safety of funds, due to failures or insufficiencies of processes, people, systems or external events. It refers to both the operations carried out by the audited entity and those outsourced. It includes contingencies generated by failures in information and communication technologies.

Strategic and Reputation Risk: it is the contingency that a supervised entity suffers from the capacity to adapt its strategy (operation and business scheme) to changes in the environment or in the legislation that regulates it, causing a lack of timely access to services and benefits for affiliates and beneficiaries. It also includes the contingency of loss of confidence of members and beneficiaries in the integrity of the entity or in the operation of the pension and unemployment insurance system, due to an action, omission, transaction or investment executed by the entity.

Legal and Regulatory Risk: it is the contingency of a lack of timely access to services or benefits by affiliates and beneficiaries due to non-compliance with laws, regulations or standards.

Market Conduct Risk: it is the contingency that occurs when affiliates and beneficiaries make decisions misaligned with their interests due to partial, erroneous or inopportune (untimely) information. It includes poor business practices of the audited entity and lack of transparency in the delivery of information on savings and forecast products.

The risk rating inherent to the processes and sub-processes shall be made by combining qualitative and quantitative aspects to determine the probability and impact of the materialization of a given risk. For these purposes, the following levels of probability and impact are defined:

a. Probability: Low, Medium, High and Very High
b. Impact: Low, Medium, High and Very High

The probability and impact will be determined on the basis of criteria such as:

a. Impact:

i. Number or proportion of affiliates or beneficiaries who will be affected in case of risk materialization.

ii. Possibility of repairing the consequences of the materialization of the risk, for example, by redoing the process.

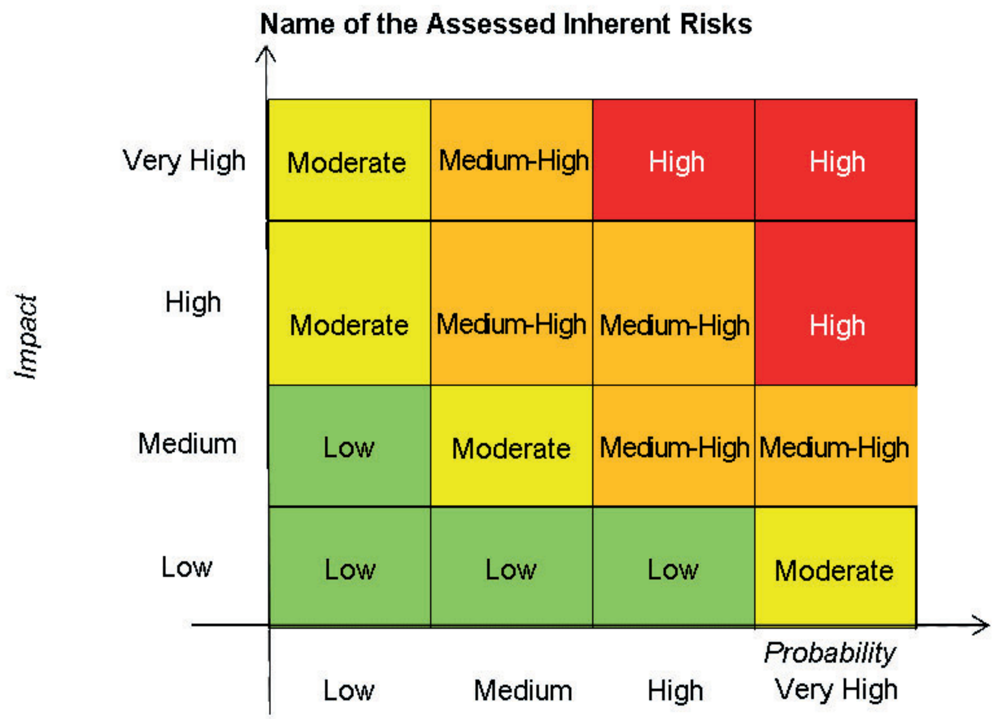
iii. The damage caused by the materialization of the risk occurs only once or it accumulates over time.

iv. Relevant evidence of the magnitude of impact in cases where the risk has materialized.

b. Probability:

i. The probability will be evaluated according to the frequency observed in the materialization of the assessed risk

Combining both criteria, we obtain a double entry table that allows us to evaluate each inherent risk, classifying it as: Low, Moderate, Medium-High and High



These levels of inherent risk are assigned by the supervisor and may vary over time. Each of the processes and sub-processes evaluated are exposed to different types of risk as indicated in the matrixes in number 17 above.

C. Risk Management Assessment

Risk management assessment of processes and sub-processes will be achieved by combining transversal mitigation assessment with process-specific management and consistency between the two. The evaluation of the management will be carried out in two dimensions: transversal and by processes.

a) Transversal to the processes that the entity develops and the risks to which it is exposed. This evaluation will be carried out with a high-level strategic view of the organization. The transversal evaluation comprises:

i. **Board of Directors and Senior Management:** The Board of Directors is responsible for the overall conduct of the entity, the determination of the appetite or risk tolerance and control of the entity's risk management. Likewise, the High Administration of the entity is responsible for the execution of the policies and strategic orientation defined by the Board and the person in charge of making decisions that affect the overall performance of the supervised entity

ii. **Risk Management:** considers the policies and practices of identifying and measuring the risks associated with each process developed by the entity, establishing adequate controls to such risks, together with adequate independence in the exercise of the function. The objective of this function is to minimize exposure to the entity's risk.

iii. **Internal Audit:** An entity must have an adequate internal audit process to verify that policies and procedures are effectively applied. The objective of the audit function is to provide an independent look, allowing the Board to have first-hand knowledge to evaluate the entity's risk management processes.

iv. Management of information technologies, security, continuity and outsourcing of services.

The outcome of the transversal evaluation will be a measure of the effectiveness of the structure arranged by the entity to manage its risks and will serve as input for the process evaluation.

b) The evaluation of the processes will be carried out considering:
i. Its design;
ii. The identified risks;
iii. The control activities; and
iv. The elements defined and executed by the owner of the processes or first line of defense.

D. Net Risk

As a result of the evaluation of the entity's risk management, the net risk will be obtained for each process, which will be classified into four levels: Low, Moderate, Medium-High and High. The net risk for each relevant activity is a function of the aggregate level of inherent risk offset by the added quality of risk management. Aggregate levels are based on judgments that consider all classifications of inherent risk and quality of risk management for the activity.

E. Supervision Attitude and Response

The conclusions derived from the assessment of the net risk of each process carried out by the audited entities will be used to drive supervision activities towards those with greater global exposure to risk and to examine in detail the components that require higher priority in their revision and improvement. The risk assessment of each process and sub-process will not be public and the conclusions of the Superintendence regarding such evaluation will be communicated to the audited entity, which will have the possibility to refute them according to the procedure established in the law. The Superintendence will adopt a Supervision Attitude towards each component of the structure as well as on the overall situation of the entity, complementing the current analysis with the revision of its evolution over time. According to the attitude, a supervision response is defined, which translates into the planning of the supervision cycle towards the entity, the frequency, breadth, depth and nature of the interventions. Both the supervisory process and the supervisory attitude will be reviewed on a regular basis by the Superintendence.

Annex: Risk matrices

Table 1: Risk matrix for a Pension Fund Administrator (AFP)

Processes carried out by an AFP	Inherent Risks of Business Processes of the AFP		Risk Mitigation					Net Risk
	risk 1	risk 2 …	Board and High Administration	Risk Management		IT Information Security Operational Continuity Outsourcing	Internal Audit	
Account Administration					IA and C			
Collection of contributions					IA and C			
Update					IA and C			
Collection of fees					IA and C			
Fund Accountability					IA and C			
Asset laundering and terrorism funding prevention					IA and C			
SIS Premium Payment (collection of contributions, accreditation and collection of fees)					IA and C			
Fund Investment					IA and C			
Investment Decision-Making					IA and C			
Investment Implementation (i.e.: negotiation, others)					IA and C			
Investment improvement (Liquidity, Custody)					IA and C			
Investment control (i.e.: limits, transactions, negotiation, capital events, powers, etc)					IA and C			
Valuation					IA and C			
Record, accountability and report submissions to the Superintendence of Pensions					IA and C			
Measurement, Control, follow-up and financial risk reporting					IA and C			
Benefits					IA and C			
Contributory benefits granting and procedure (requirements, calculation, construction of balance, balance certificate issuance or programmed withdrawal sheet calculation, etc.)					IA and C			
Non-contributory benefits and procedure (reception of requests, PAFE and actuarially fair factor calculation, generation and submission of information to the IPS for granting)					IA and C			
Contributory pensions claiming and payment (pay-out choice, transfer of capital for annuities, determination of amount and payment of programmed withdrawals)					IA and C			
Non-contributory pensions claiming and payment (reception and refund of: transfer of funds for the solidarity complement, health grants, grants per child and payment of complementary pensions)					IA and C			
Other Benefits (Tax-Free Available Surplus, Funeral Expenses and bequests)					IA and C			
SIS premium payment (determination of the amount and universe by contract, sex, rate, income limit and Insurance Company payment)					IA and C			
Members Services					IA and C			
Account information (including balance notes, movements, certificates)					IA and C			
Consultancy for the construction of pensions (fund choice, saving plans, tax benefits, simulations)					IA and C			
Complaint Client Support					IA and C			
Customer Services (web, address, phone an social networks)					IA and C			
Sales/Marketing					IA and C			
Sales					IA and C			
Advertisement					IA and C			
				Second Line	First Line		Third Line	

IA and C: Internal Administration and Control

Table 2: Risk matrix for the Unemployment Insurance Administrator (AFC)

Processes carried out by the Unemployment Funds Administrator	Inherent Risks of Business Processes of the AFC		Risk Mitigation					Net Risk
	risk 1	risk 2 …	Board and High Administration	Risk Management		IT Information Security Operational Continuity Outsourcing	Internal Audit	
Account Administration					IA and C			
Collection of contributions					IA and C			
Update					IA and C			
Collection of fees					IA and C			
Fund Accountability					IA and C			
Fund Investment					IA and C			
Investment Decision-Making					IA and C			
Investment implementation (i.e.: negotiation, others)					IA and C			
Investment improvement (Liquidity, custody)					IA and C			
Investment Control Process (i.e.: limits, transactions, negotiation, capital events, powers, etc)					IA and C			
Valuation					IA and C			
Record, accountability and report submission to the Superintendence of Pensions					IA and C			
Measurement, Control, follow-up and financial risk reporting					IA and C			
Benefits					IA and C			
CIC benefits granting and procedure (Submission request, requirement checks, calculation, balance certificate issuance, etc.)					IA and C			
FCS benefits granting and procedure (Submission request, requirement checks, calculation, etc.)					IA and C			
Payment of CIC benefits for unemployment (Checking of: unemployment condition, 30 days expiration of monthly payment)					IA and C			
Payment of FCS benefits for unemployment (Checking of: unemployment condition, 30 days expiration of monthly payment, BNE certification)					IA and C			
Other benefits (one-time withdrawal of capital for pensioners, deceased members, balance transfer to AFP for pension , pension contribution under article 25 ter, payment of household allowances)					IA and C			
Members Services					IA and C			
Account information (including balance notes, movements, certificates)					IA and C			
Consultancy for the choice of CIC or FCS benefits (simulations, BNE enrollment information)					IA and C			
Complaint Client Support					IA and C			
Customer Services (web, address, phone an social networks)					IA and C			
				Second Line	First Line		Third Line	

IA and C: Internal Administration and Control

Table 3: Risk matrix for the Social Security Institute (IPS)

Processes carried out by the IPS	Inherent Risks of Business Processes of the IPS		Risk Mitigation					Net Risk
	risk 1	risk 2 …						
Account Administration			Board and High Administration	Risk Management	IA and C	IT Information Security Operational Continuity Outsourcing	Internal Audit	
Collection of contributions					IA and C			
Update					IA and C			
Collection of fees					IA and C			
Accountability management of accounts and benefits					IA and C			
Benefits					IA and C			
Granting and procedure of contributory benefits					IA and C			
Granting and procedure of non-contributory benefits					IA and C			
Payment of contributory pensions					IA and C			
Payment of non-contributory pensions					IA and C			
Other Benefits (Granting, maintenance and payment of grants per child; Submissions, complaints, approvals and liquidation of the Recognition Bond; Death grants)					IA and C			
Beneficiary Services					IA and C			
Consultancy for the Solidarity Pillar					IA and C			
Complaint Client Support					IA and C			
Customer Services (web, address, phone an social networks)					IA and C			
				Second Line	First Line		Third Line	

IA and C: Internal Administration and Control

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