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KEY PRINCIPLES OF PENSION REGULATION AND SUPERVISION: INSIGHTS FROM THE CHILEAN EXPERIENCE

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*Opinions are my own, and not necessarily coincide with opinions of IDB or its board of directors.

AGENDA

Why Regulation and Supervision of Pension Funds

Regulatory Structure in Chile

Supervisory Principles

Supervisory Approach

- Role of the Supervisor
- What is Risk Based Supervision (RBS)
- Benefits from RBS

Application of RBS in Chile

Future Challenges for Pension Regulation and Supervision in Chile

WHY REGULATION AND SUPERVISION OF PRIVATE PENSION PROVISION

Economic Concepts:

- Myopia and social welfare
- Asymmetric information:
  - Principal Agent Theory (Managers versus Plan members)
- Moral Hazard
  - Fiduciary responsibility
  - Conflicts of interest

COMPULSORY OR QUASI-COMPULSORY PENSION SYSTEM

Massive participation increases information asymmetry

Lack of engagement: Exacerbates potential moral hazard

Lack of financial education: Difficulty for decision making

Social Security System: Upturns its importance (Public opinion, policy makers decisions, etc.)

CHILEAN MULTI-PILLAR PENSION SYSTEM

Pillar 1: Old age poverty prevention, State financed

- Non contributory means tested benefit: basic pension (PBS)
- Subsidy to contributory benefit: pension supplement (APS)

Pillar 2: Consumption smoothing, mandatory

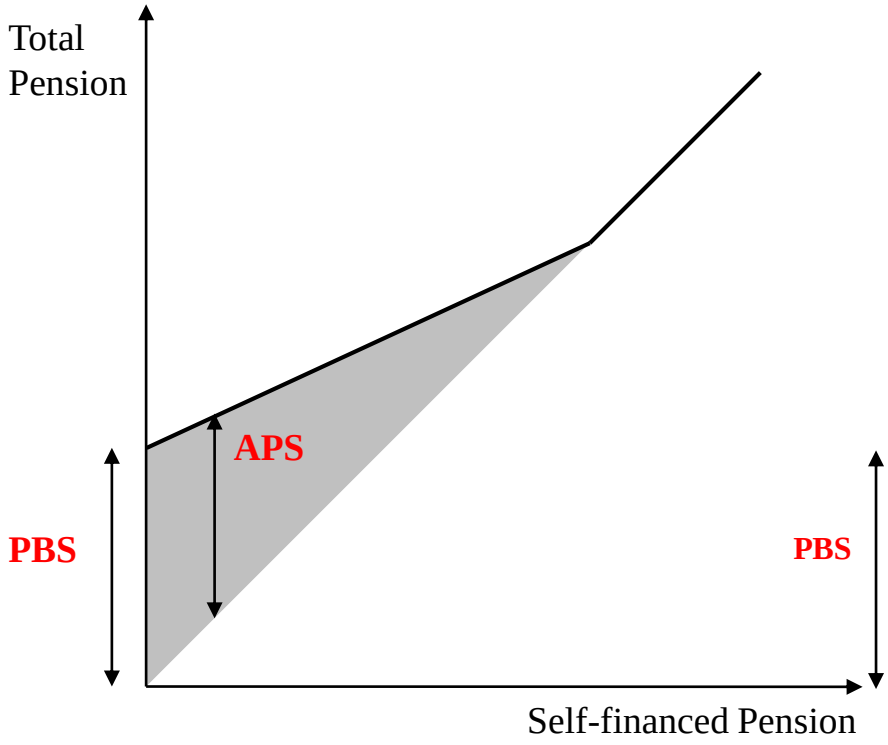
- AFP system (Pension Fund Managers)
- Transition generation remains in previous PAYG system (phasing out)

Pillar 3: Consumption smoothing, voluntary savings

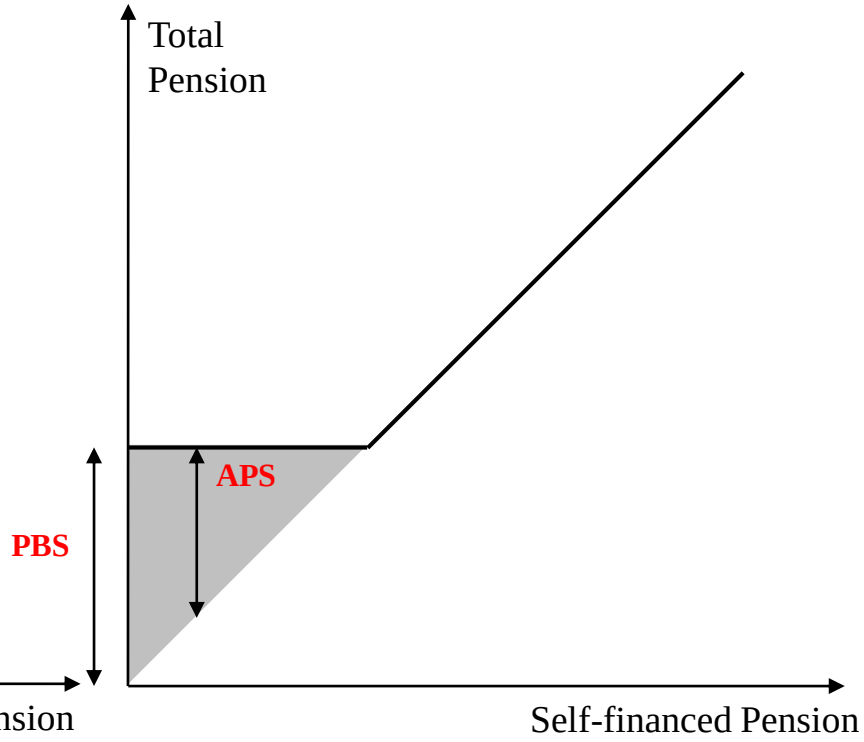
- AFPs
- Banks
- Life Insurance Companies (LIC)
- Mutual Funds, brokers

CHARACTERISTICS OF THE SOLIDARITY PILLAR

Old Age Solidarity Pillar



Disability Solidarity Pillar



CHARACTERISTICS OF THE AFP PILLAR

Workers' contributions are saved in individual accounts

Savings are invested in financial instruments, by specialized private fund managers (AFPs)

Workers are free to choose administrator and type of fund

The system includes a national insurance arrangement to protect workers in case of disability or death

ROLE OF THE STATE IN THE AFP SYSTEM

Guaranteed Benefits:

- Basic pension and Supplement (Minimum pension is phased out)
- Minimum Return
- Life Annuity upon bankruptcy of life insurance company
- Additional resources that might be required upon bankruptcy of AFP

Supervision and regulation: Pensions Supervisor (SP)

THE MINIMUM RETURN GUARANTEE (MRG)

- The MRG is stated in relative terms and it's related to the average rate of return of the system over a period of 36 months.
- This mechanism considers that an administrator must put in its own funds to offset the difference between its own yield and:
  - the average of the system minus 50% or 4 percentage points (whichever is the smaller) in the case of funds A and B;
  - the average of the system minus 50% or 2 percentage points in the case of funds C, D and E.

THE PENSION FUND ADMINISTRATORS (AFPS)

Segregated Patrimony between the AFP and the funds it manages

Exclusive purpose (AFP can only provide services stipulated by law)

Financing through commissions charged to contributors, set freely by each AFP.

Minimum capital requirement (US$ 125.400 aprox., increasing with the number of affiliates)

Reserves requirement to ensure minimum return.

There are 6 AFPs operating at the moment

CONTRIBUTIONS

Defined contributions:

10 % of monthly wage to individual saving account

Variable fees to cover Administration Costs set by each AFP : 1.39% of monthly wage (on average)

Survival and disability insurance: 1.15%

} 12.54% of the monthly wage (on average)

Mandatory for dependent workers (employees)

Voluntary for Self-employed workers and Employers

BENEFITS

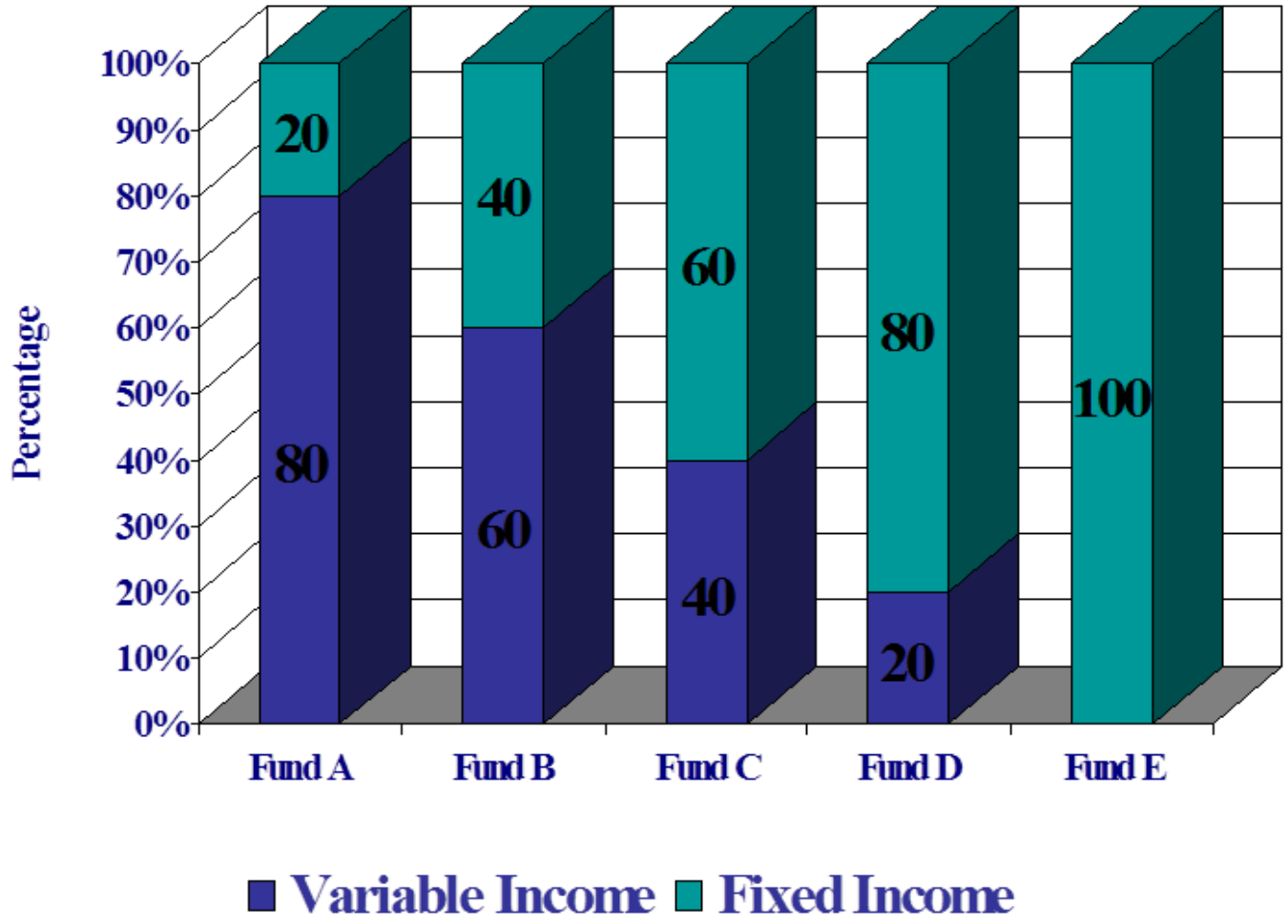
Pension Types

- Old age pension (Legal retirement ages: Men 65, Women 60)
- Early retirement
- Disability and survivor pensions (*defined benefit*)

Pension Modalities

- Programmed withdrawals
- Immediate annuity
- Temporary withdrawals with deferred annuity

INVESTMENTS



INVESTMENTS

Hombres		≤ 35 años	36 a 55 años	≥ 56 años	Pensionados
Mujeres		**≤ 35 años**	**36 a 50 años**	**≥ 51 años**	**Pensionadas**
Opciones de Inversión	**Fondo A**	√	√	X	X
	Fondo B	√ default	√	√	X
	Fondo C	√	√ default	√	√
	Fondo D	√	√	√ default	√
	Fondo E	√	√	√	√

X	No disponible para la categoría de afiliado
√	Autorizado a elegir
√ default	Asignación automática

SUPERVISORY PRINCIPLES

Principle 1 : Clearly defined objectives

Principle 2 : Independence

Principle 3 : Adequate resources

Principle 4 : Adequate powers

Principle 5 : Risk orientation

Principle 6 : Proportionality y consistency

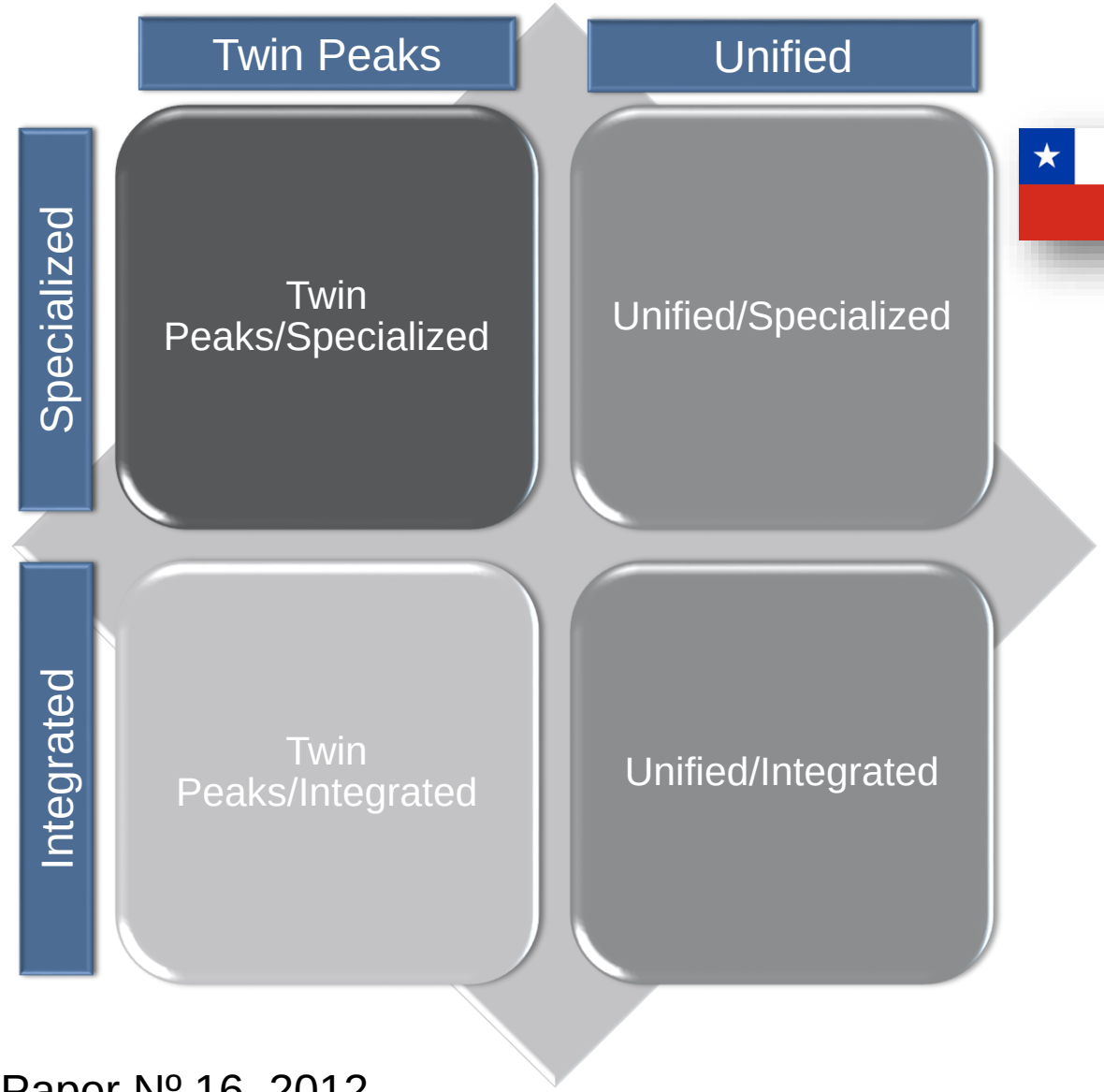
Principle 7 : Consultation and cooperation

Principle 8 : Confidentiality

Principle 9 : Transparency

Principle 10: Corporate governance

PENSION SUPERVISOR OBJECTIVE



IOPS Working Paper Nº 16, 2012

PENSION SUPERVISOR OBJECTIVE

The Pension Supervisor should oversee the system such that pensions benefits are paid are effectively and timely paid to beneficiaries. Ensuring adequate returns and security of pension funds with the long term goal of financing pensions.

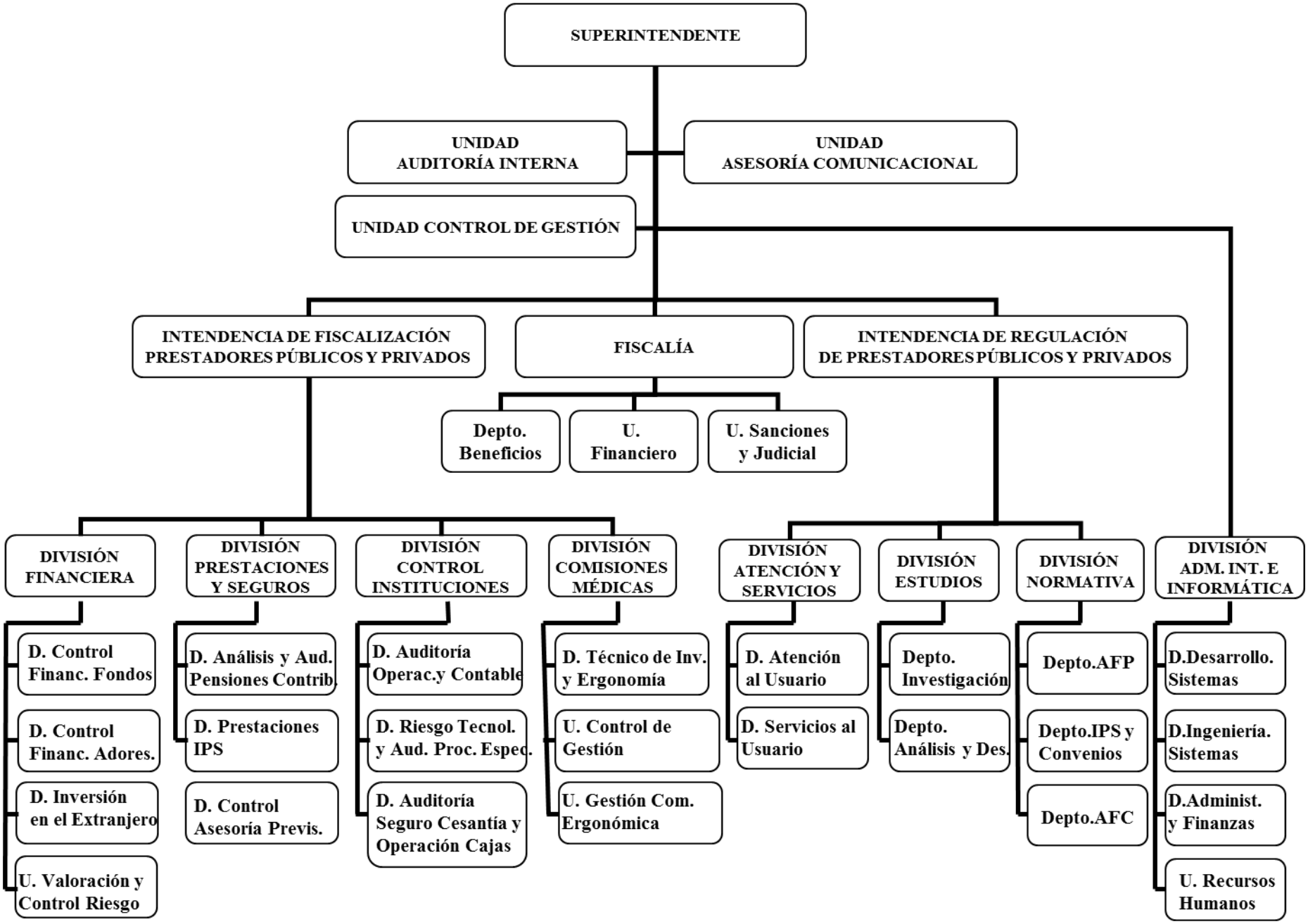
Solvency and consumer protection/market conduct under the same specialized supervisory agency

PENSION SUPERVISOR OBJECTIVE

- **Strategic goals of unified pension supervisor**
  - Permanent oversight of the pension system.
  - Safeguard members interests by supervising investment with special focus on the fiduciary responsibility of managers
  - Ensure the effective and timely payment of benefits
  - Generate and adequate regulatory framework
  - Inform the general public of their rights and obligations in the pension system
  - Provide information about characteristic and operation of the pension system

MECHANISMS TO ACHIEVE THESE GOALS

- **Strategic alignment**
  - Ensure that performance is consistent with long, medium and short term priorities.
- **Organizational structure that facilitates communications and accountability**
  - Segregation of functions to prevent conflicts interest
  - Promote economies of scope within specialized areas.


SUPERINTENDENTE
UNIDAD AUDITORÍA INTERNA
UNIDAD ASESORÍA COMUNICACIONAL
UNIDAD CONTROL DE GESTIÓN
INTENDENCIA DE FISCALIZACIÓN PRESTADORES PÚBLICOS Y PRIVADOS
FISCALÍA
INTENDENCIA DE REGULACIÓN DE PRESTADORES PÚBLICOS Y PRIVADOS
Depto. Beneficios
U. Financiero
U. Sanciones y Judicial
DIVISIÓN FINANCIERA
D. Control Financ. Fondos
D. Control Financ. Adores.
D. Inversión en el Extranjero
U. Valoración y Control Riesgo
DIVISIÓN PRESTACIONES Y SEGUROS
D. Análisis y Aud. Pensiones Contrib.
D. Prestaciones IPS
D. Control Asesoría Previs.
DIVISIÓN CONTROL INSTITUCIONES
D. Auditoría Operac.y Contable
D. Riesgo Tecnol. y Aud. Proc. Espec.
D. Auditoría Seguro Cesantía y Operación Cajas
DIVISIÓN COMISIONES MÉDICAS
D. Técnico de Inv. y Ergonomía
U. Control de Gestión
U. Gestión Com. Ergonómica
DIVISIÓN ATENCIÓN Y SERVICIOS
D. Atención al Usuario
D. Servicios al Usuario
DIVISIÓN ESTUDIOS
Depto. Investigación
Depto. Análisis y Des.
DIVISIÓN NORMATIVA
Depto.AFP
Depto.IPS y Convenios
Depto.AFC
DIVISIÓN ADM. INT. E INFORMÁTICA
D.Desarrollo. Sistemas
D.Ingeniería. Sistemas
D.Administ. y Finanzas
U. Recursos Humanos

MECHANISMS TO ACHIEVE THESE GOALS

- **Personnel with the necessary abilities and competences.**
- **Information systems that would support and simplify supervisory activities.**
- **Management tools that would allow the institution to learn from its own experience.**
- **Consistent supervisory methodology that would ensure stable and fair conditions to the supervised entities.**

Risk Based Supervision: RBS

¿WHAT IS RISK BASED SUPERVISION (RBS)?

Definition

- **Structured processes to identify, monitor, control and mitigate risks, by evaluating corporate governance and management practices.**

Context

- **The supervisory authorities have adopted this approach around the world seeking efficiency in the use of resources, ensuring proportionality, consistency and flexibility for adequate risk control.**

¿WHAT IS RISK BASED SUPERVISION (RBS)?

¿What is Evaluated?

- **Each pension fund manager is evaluated under a comprehensive approach. Special attention is dedicated to how the company is organized, the decision taking processes and risk management.**

Consequences

- **Minimize risk exposure.**
- **Adequate risk monitoring..**
- **Flexibility to managers to improve efficiency.**

¿DOES RBS IMPLY NO RULES?

NO

Depending basically on the characteristics of the system, the industry and the legal country framework how restrictive it would be the regulatory structure.

By implementing RBS in Chile it was planned to move towards a more flexible regulation, without abandoning a strict control environment.

Supervisión
Regulation

MAIN EXPECTED BENEFITS OR RBS

- Preventive an comprehensive approach
- Promotes prudent management
- It facilitates focus on important matters without being dragged by urgencies
- “Learning by doing” from supervisory activity
- Identify properly risk areas.
- Generate control measures and more efficient and effective supervision
- Reduce the number of complains from members
- In line with international standards
- Promotes transparency
- Provides space for improve efficiency in the industry

RISK MATRIX IN CHILE

Qualitative Risk Indicators: The Model Includes 5 Areas:

- AREA /SUBAREA
- Board
- General Management
- Risk Management
- Operational Risk
- Financial Risk

Individual Risk Factors: Oversight tool

Área	Criticidad	Evaluación
Directorio		
Aptitudes e idoneidad del Directorio	A,B,C	1...6
Definición y seguimiento de la política global de gestión de riesgos	A,B,C	1...6
Funcionamiento del Directorio y de los Comités de Directorio	A,B,C	1...6
Definición de la Estrategia	A,B,C	1...6
Gestión del Riesgo Reputacional	A,B,C	1...6
Política de Divulgación y Transparencia	A,B,C	1...6
Administración		
Composición y Estructura de la Administración.	A,B,C	1...6
Proceso de planificación, administración, divulgación y transparencia.	A,B,C	1...6
Sistemas de Información de Gestión	A,B,C	1...6
Gestión de Riesgos		
Cultura de gestión de riesgos	A,B,C	1...6
Gestión del Riesgo de Cumplimiento	A,B,C	1...6
Gestión de Riesgo Fiduciario	A,B,C	1...6
Riesgo Operacional		
Riesgo en la Relación con los Afiliados	A,B,C	1...6
Riesgo de Gestión de Cuentas	A,B,C	1...6
Riesgo de Beneficios	A,B,C	1...6
Riesgo Tecnológico	A,B,C	1...6
Continuidad de Negocio y Recuperación de Desastres	A,B,C	1...6
Riesgo de Subcontratación	A,B,C	1...6
Riesgo Financiero		
Gestión del Riesgo de Mercado	A,B,C	1...6
Gestión de Riesgo de Crédito o Contraparte	A,B,C	1...6
Gestión del Riesgo de Liquidez	A,B,C	1...6
Gestión del Riesgo de Solvencia de la Entidad	A,B,C	1...6

RISK ASSESSMENT

Inherent Risk Relevance

A: Critic

B: Very important

C: Important

Controls Quality: The supervisor evaluates controls in six levels 1 a 6 comparing practice with best standards

1= Solid	**4= Vulnerable**
2= Sound	**5= Weak**
3= Adequate	**6= Extremely Weak/NI**

ELEMENTS CONSIDERED IN EVALUATION

Evaluation of Individual Risk Factors:

Best Practices Supervisory Guides

Knowledge and experience of supervisor

Documents provided by entity

IT Systems for information collection

History of sanctions

Information from complains of members

Findings from previous inspections

“Whistle blowing”

EVALUATION OF SYSTEMIC RISK

Sources of Information:

- Macroeconomic and financial reports from Central Bank of Chile
- Meetings of the Financial Stability Committee
- Meetings from the Financial Sector Supervisors Committee
- Macroeconomic and financial market signals and information from the market;
- Identified trends from complaints

These risks are considered for the final evaluation and could affect all or some of the entities.

Sometimes this could drive regulatory changes

QUANTITATIVE RISK INDICATORS

- **Minimum yield is controlled on a daily basis and projected including periodic “stress test” to evaluate the probability of falling below the band**
- **The authority also monitors traditional risk measures of volatility and it is a elaborating a long term risk measure that considers the final outcome (pensions)**

IT TOOL FOR RBS

“Business Intelligence” tool:

- Allows managing large data sets
  - Centralized storage
  - Eliminates the use of multiple spread sheets
  - Automatically generates risk matrix
- Contributes to confidentiality
- Increases information security
- Ensures consistency and integrity
- Improves information management
- Includes tools for analysis for a general view and real time follow up.

OVERALL ASSESSMENT

Considering the evaluation by area and its relative relevance, an overall assessment qualification is provided to the entities

This overall assessment is used to decide the supervision plan for each entity

The overall assessment combines the relevance level with controls quality for each area: Net Risk

Calificación Global	Perfil de Criticidad y Evaluación Áreas / Subáreas
1	Bueno
2	Suficiente
3	Regular
4	Débil
5	Muy Débil

SUPERVISOR RESPONSE

SUPERVISOR RESPONSE

NIVEL DE CRITICIDAD (Riesgo Inherente)	CALIDAD DE LOS CONTROLES					
	1= Sólido	2= Sano	3= Adecuado	4= Vulnerable	5= Débil	6= Extremadamente débil
A: Crítico	Monitoreo en base a información regular	Fiscalización preventiva	Fiscalización preventiva	Fiscalización de cumplimiento	Fiscalización de cumplimiento	Fiscalización de cumplimiento
B: Muy Importante	Monitoreo en base a información regular	Monitoreo en base a información regular	Fiscalización preventiva	Fiscalización preventiva	Fiscalización de cumplimiento	Fiscalización de cumplimiento
C: Importante	Monitoreo en base a información regular	Monitoreo en base a información regular	Monitoreo en base a información regular	Fiscalización preventiva	Fiscalización preventiva	Fiscalización de cumplimiento

Illustrative example of supervisory response.

SUPERVISORY CYCLE

SUPERVISORY CYCLE

Oversight Planning and Matrix Update

Risk Matrix

Directorio			
Aptitudes e idoneidad del Directorio	3	3	3
Funcionamiento del Directorio y de los Comités de Directorio	3	3	3
Definición y seguimiento de la política global de gestión de rie	5	5	4
Definición de la Estrategia	3	3	3
Política de Divulgación y Transparencia	6	6	4
Gestión del Riesgo Reputacional	2	2	2
Administración			
Composición y Estructura de la Administración.	3	3	3
Proceso de Planificación y Administración. Divulgación y Trans	4	4	4
Sistemas de Información de Gestión	2	2	2
Gestión de Riesgos			
Cultura de Gestión de Riesgos	5	3	3
Gestión del Riesgo de Cumplimiento	3	3	3
Gestión de Riesgo Fiduciario	3	3	3
Riesgo Financiero			
Riesgo del Proceso de Inversiones	5	3	5
Riesgo de Crédito	3	3	3
Riesgo de Liquidez	2	2	2
Riesgo de Mercado	2	2	2
Riesgo de Solvencia de la Entidad	2	2	2
Riesgo Operacional			
Riesgo en la Relación con los Afiliados	3	3	3
Riesgo de Gestión de Cuentas	3	2	3
Riesgo de Beneficios	2	2	2
Continuidad de Negocio y Recuperación de Desastres	3	3	3
Riesgo de Subcontratación	4	4	3
Riesgo Tecnológico	3	3	3

Regular oversight

Preventive oversight

Compliance oversight

ROLE OF OVERSIGHT COMMITTEE

- Members are the Superintendent, Head of the Legal Division, Intendent of supervision and all head of Divisions of the Intendence
- Monthly meetings for decision making, with the possibility of extraordinary meetings if required
- Committee decides if a specific situation merits to press charges
- All sessions are documented with minutes
- There is a pre-stablished procedure for sanctions and a classification of severity and type of sanction

SANCTIONS PROCEDURE

Stages of administrate process

- Press charges
- Response to charges
- Probationary period request
- Sanctions resolution

Types of sanction

- Administrative reprimand
- Censure
- Fine
- License revocation

Fees and license revocations can be reconsidered through a judicial process in the appeal court

INTERVENTIONS

The Pension Supervisor can nominate a delegated inspector which requires a well-founded resolution:

- Inspector characteristics: Employee of the superintendence that can be nominated for 6 months and extended for other 6 months
- Examples of reasons: Repeated sanctions, Non-compliance of instructions, Vacancy of the majority the board, bankrupt declaration of manager or reserve deficit
- Inspector powers: Authorize all operations and suspend all decisions from the board that under his judgement puts at risk the pension funds.

TRANSPARENCY

- RBS Relevant information is in the PS Website
- There are meetings with management to inform of important findings and stablish actions to overcome potential risks
- Summary of Risk Evaluation (RER) is shared with the administration and board for comments and complementary information
- Fines and censures are published no the SP Website

FUTURE CHALLENGES

Continues improvements in procedures and building the capacity of judgment capacity

Constructive communication with the industry in building a better outcome for the whole system

Raise awareness of the importance of the long term impact of decision making

Quantitative measure of relevant financial risk for the pension industry

RISK MEASURES IN DC PLANS

Having a reliable measurement of pension risk is not an easy task.

- A short term approach might not appropriate to measure long term investment strategies as in the case of pension funds.
- The Financial literature suggest various quantitative tools for measuring risk, but these generally focus on short term risk.
- Pension risk must be measured and evaluated from the point of view of the contributor's life-cycle → Target variable: Replacement Rate (Distribution Density Function)
- A Pension Risk measure is work in progress at the Superintendence of Pensions (SP) in Chile
- The SP computes and analyzes traditional risk measures and stress testing tools for risk assessment of pension funds, which will be complemented by a Pension Risk measure

STRESS-TESTING IN DC PLANS

- The Superintendence of Pensions undertakes various types of stress exercises.
- These tools (e.g. value at risk exercises) are short-term oriented.
- Nevertheless, these exercises can be useful to detect the main sources of potential losses for pension funds, and by doing this, helping to target supervisory efforts on key asset classes and/or fund Administrators.
- This measures might imply actions of supervision or changes on regulation in cases in which risk exposure is considered unsuitable for pension funds or solvency is compromised

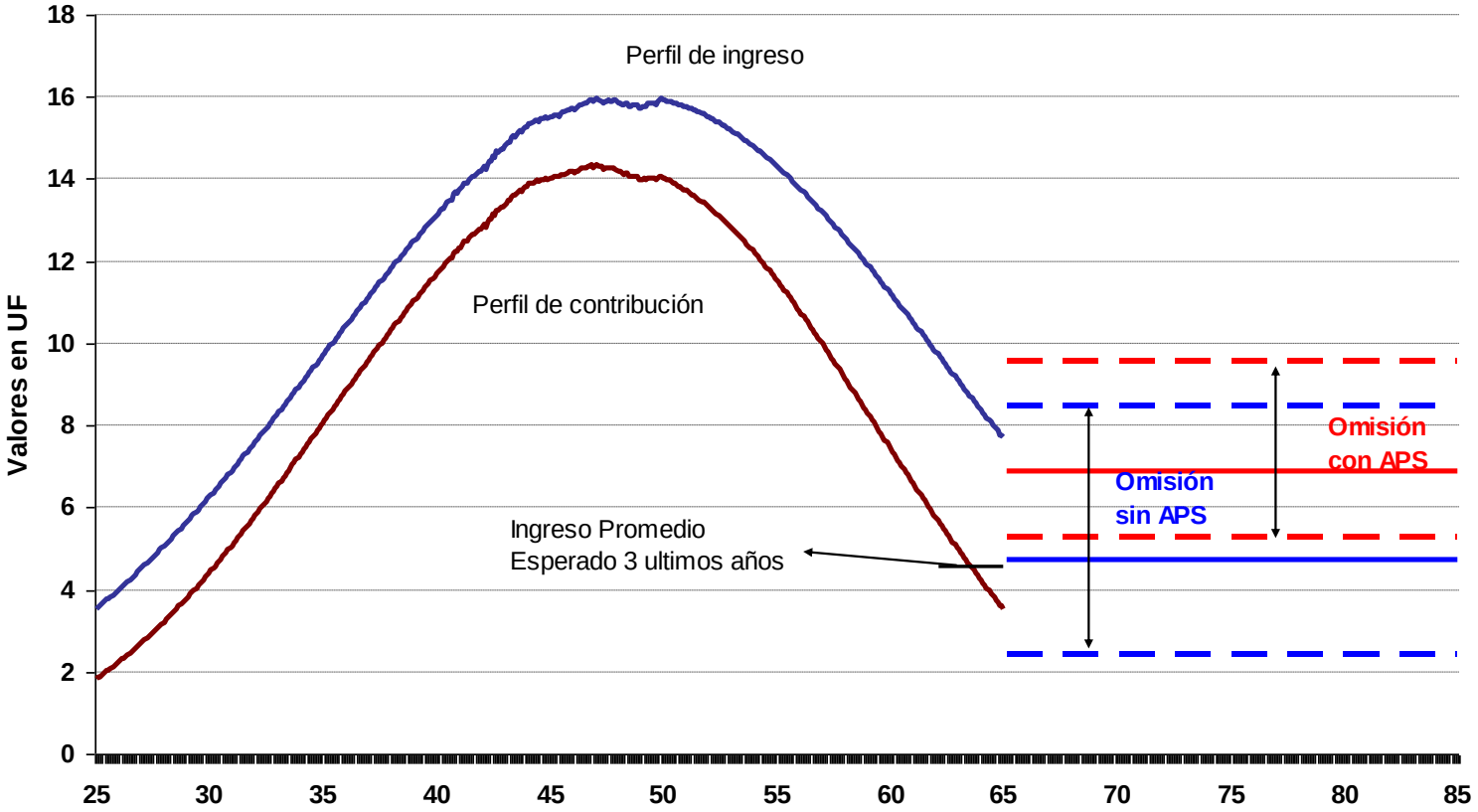
ROLE OF THE MRG

- The MRG covers relative risk (with respect to other participants). It does not cover against absolute risk. However if it is assumed that in average the managers are acting in the best interest of affiliate and therefore performing well, if this is true then absolute risk is also tackled.
- The MRG may induce Pension fund managers, as a group, to choose high-risk assets with the potential for high short term gains.
- Moreover, the MRG may produce herding of funds managers, which is reinforced by the short period over which the rates of returns are assessed.

ALTERNATIVE RISK MEASURES

- There are multiple risk measures and stress exercises that could be used for DC plans.
- However, some of these tools (e.g. value at risk exercises) are short-term oriented.
- Ideally, the exercises should also consider the effect of negative shocks on a key variable: pensions..
- Ideally, pension risk models and/or stress exercises for pension risk could be used to guide not only supervisory efforts, but also to improve current regulation of elements such as investment limits.

PENSION RISK



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