PLACNetwork

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LATIN AMERICA AND THE CARIBBEAN

Technical Assistance Document Series 11

TECHNICAL ASSISTANCE ON THE APPLICATION OF RISK-BASED PENSION FUND SUPERVISION BY THE SUPERINTENDENCIA DE BANCA, SEGUROS Y AFP (SBS) OF PERU

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Foreword

The Labor Markets Division of the Inter-American Development Bank (IDB) supports countries in Latin America and the Caribbean in building stronger pension systems by seeking to increase their coverage (support for the vast majority of the population in old age), sufficiency (pension benefits that facilitate a dignified life in old age) and sustainability (pension benefits financed in the present and in the future). To advance these objectives, in 2015, the IDB created the Network for Pensions in Latin America and the Caribbean (PLAC Network), a regional public good that serves as a platform for dialogue and learning among pension institutions and experts. It is one of the mechanisms through which the IDB supports the efforts of countries in the region to improve the institutional and technical capacity of their pension entities.

The PLAC Network funds many activities aimed at helping the region's pension institutions learn best practices from other countries not only within Latin America and the Caribbean, but also worldwide. In this context, during the period 2016-2017, the PLAC Network held three calls for proposals on technical assistance for its members. As a result, the Network supported 13 countries through nine technical assistance projects in areas such as pension supervision and regulation, coverage, financial sustainability, and non-contributory pillars. As a result of this effort, we have created the PLAC Network Technical Assistance Document Series.

This document is the eleventh of the series entitled **"Technical assistance on the application of risk-based pension fund supervision by the *Superintendencia de Banca, Seguros y AFP (SBS) of Peru*"** and sets out the conclusions and recommendations arising from an evaluation of the implementation by SBS of risk-based supervision of pensions in February 2018. It builds on an initial evaluation undertaken on materials sent in advance. SBS is an integrated supervisor and regulator of financial services institutions in Peru, and the subject of this review was the Deputy Superintendence for the Supervision of Pension Fund Management Companies.

This document is the result of the technical assistance funds assigned to Peru in July 2017. It was prepared by John Ashcroft (external consultant), whose work was supervised by Carolina Cabrita Felix, consultant of the Labor Markets Division of the IDB and coordinator of the PLAC Network, and Waldo Tapia, lead specialist of the Labor Markets Division of the IDB and team leader of the PLAC Network. We also invite you to review the other documents in the series.

PLAC Network Team

TECHNICAL ASSISTANCE ON THE APPLICATION OF RISK-BASED PENSION FUND SUPERVISION BY THE SUPERINTENDENCIA DE BANCA, SEGUROS Y AFP (REPUBLICA DE PERU) (SBS)

Final report by John Ashcroft (Consultant)

This report sets out the conclusions and recommendations arising from an evaluation of the implementation by SBS of risk-based supervision (RBS) of pensions in February 2018. It builds on an initial evaluation undertaken on materials sent in advance. SBS is an integrated supervisor and regulator of financial services institutions, and the subject of this review is the Deputy Superintendence for the Supervision of Pension Fund Management Companies (AFPs) (hereafter, the Deputy Superintendence).

The Consultant would like to thank the management and staff of SBS for their fulsome and open cooperation and hospitality during the evaluation and the Inter-American Development Bank (IDB) for their financial support.

Please direct **any comments or inquiries about this publication** to the PLAC Network team

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Executive Summary

SBS already exhibits many of the key characteristics of risk-based pension fund supervision. There is a clear appreciation of most of the major risks to the long-run objectives of the pension system that relate to the mission of SBS to protect the benefits of affiliates, promote quality of service and ensure system stability. The supervisory, regulatory and other actions being taken with SBS are, in practice, broadly consistent with the risk landscape, although there would be value in having clearer key performance indicators (KPIs) to help assess the strength of response needed, along with clearer definitions of the risk categories used and a dashboard to illustrate the pension risk landscape. There are also several risks that need more attention, notably market, employer debt, employer non-affiliation and excessive AFP fees.

The risk mitigation strategies of the investment and decumulation supervision departments are clear, covering regulatory, supervisory and affiliate communication activities and include an impressive project to simplify the regulation and supervision of retirement product choice. The pension institutions department has a more diffuse role and hence needs to ensure that it is clear about risk definitions, measurement and mitigation strategies. There would be benefit in SBS communicating a clearer corporate and public narrative of its activities and strategies and how these are intended to serve its objectives and those of the system, so as to promote buy-in from stakeholders within and beyond SBS.

Regarding risk quantification, SBS already has a world-leading portfolio of investment risk indicators, although further work is needed to ensure that they provide KPIs attuned to specific risks, depending on their definition. Indicators for the other risk categories could be improved, and some ingenuity will be needed to produce a full set. In this regard, the intention to build service indicators into the new decumulation regulation is commendable and indicates a way forward for other risk categories.

The process for using risk matrices to provide a view on net risk and a means of selecting processes to conduct in-depth examination under each risk category is still being developed. The matrices vary between departments more than is necessary, as do definitions of the key components of the matrices, such as inherent risk and its two dimensions. A coordinated approach is needed to establishing these components in a coherent manner without excessive complexity. The matrices also need to be refined to enable defensible decisions to be taken regarding which on- and off-site processes do not need to be examined substantively each year.

One issue that has been raised in reference to this review is the scope for harmonisation of the risk evaluation approach with that being implemented for the financial and insurance systems. It would be possible to introduce an approach for investment risks with some presentational similarities, which would have the benefit of increasing the focus on individual multi-fund types. In banking and insurance terms, the risk categories of the other two supervision departments more closely resemble market conduct risks, and these are too small a component of their risk assessments to have a discrete model. Hence, the pensions institution and decumulation departments need a model that is substantially different from the corporate one.

Over the last two years or so, SBS has changed its process so that the level of detriment and risk affects the approach to sanctions and reporting, consequent upon supervisory processes, as is consistent with a risk-based approach. There would be value in codifying how such judgments are made so as to promote consistency and, if published as part of a regulation on RBS, as in Chile, help AFPs understand how SBS will respond. There must always, of course, be scope for discretion in taking such decisions.

The steps involved (value chain) in delivering RBS are all present, albeit with the scope for formalisation and refinement. The way the Deputy Superintendence is organised fits well with the risk-based approach and its staff are of a high professional calibre and experience, although maintaining a focus on risk is a challenge in any supervisor and ensuring that other departments within SBS understand pension risk even more so.

The main recommendations are presented at the end of the report and provide greater clarity of risk definitions and strategies and coordination of the risk assessment models used within the Deputy Superintendence.

1 The key characteristics of pension fund RBS

The review was commissioned by the SBS with financial support from the IDB. The terms of reference are attached at Annex A. The review involved assessment of documentation provided in advance and a visit to SBS that ran 12-20 February 2018. The review considered what SBS does in relation to the five key attributes of RBS, which can be described as follows:

- **A focus on key system-wide risks** to achievement of the outcomes expected from the system, especially to affiliates' benefits and the stability and reputation of the pension system.
- **Risk-based selection of entities and subjects for attention** with priority on identifying, checking and mitigating the biggest risks within the system rather than checking all entities and all risks with a similar frequency.
- **Promotion of pension fund governance and risk management** allowing entities to take proper responsibility for the mitigation of risks within their control.
- **Use of quantitative risk assessment tools** to enable the seriousness of less transparent risks (especially solvency and investment) to be assessed, allowing identification of the scale and nature of the risks and implementation of effective and prioritized remedial action.
- **Emphasis on prevention and remediation** rather than on punishment that adds little value, particularly for mistakes that are quickly rectified, with legal intervention and sanctions reserved for those most serious or persistent cases where preventive or deterrent measures are needed.

In each case, there is evidence that the approach of SBS reflects these characteristics. The sections of the report that follow consider the scope for becoming more risk based under these headings.

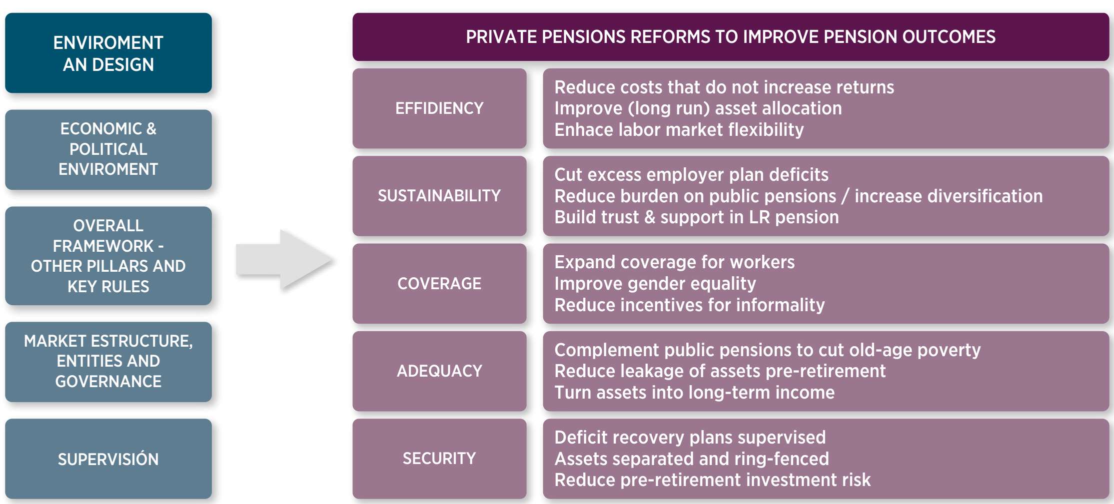
The review involved meetings with the staff, the deputy superintendent in charge of AFP supervision, managers in his department, representatives of other departments within SBS and representatives of two of the AFPs. Following is a summary of the feedback from the AFPs, which is included as Annex B:

- The AFPs are relatively positive about SBS and its supervision and appreciate changes made by SBS in the last two years to become more risk-based.
- They can see more scope for simplifying regulation (especially in relation to decumulation, alternative investment classes and quantitative investment limits) but are not convinced all supervision adds value and have seen some overreaction to issues in the market.
- They largely respect the expertise in the AFP directorate but were worried about the understanding with and obstruction from other directorates in SBS.
- They have a similar view to SBS regarding the major risks in the system and their reputational dimension and are keen to see positive changes to address these before the next presidential elections.

2 Focus on the biggest risks to the objectives of the pension system

From discussion, the objectives of SBS pension regulation and supervision are to protect the benefits of affiliates, promote good quality of service and sustain the stability of the pension system, especially in regards to its reputation. These objectives form the basis of a standard set of five desirable outcomes of a pension system, as illustrated in Figure 1: coverage, adequacy, sustainability, efficiency and security.[1] All of these are of concern to SBS, although supervision relates most closely to efficiency and security. Clarity regarding objectives enables the identification of key risks in the pension system, informing risk mitigation strategies.

FIGURE 1 ▪ **OUTCOMES-BASED ASSESSMENTS FOR PENSIONS: THE CONTRIBUTION OF PRIVATE PENSIONS**



There is no formal articulation of the pensions risk landscape in Peru. Indeed, the three departments responsible for supervision (investment, institutions and pensions and benefits) assess their risks separately. During the review, the following risks were identified as significant based on a risk identification exercise conducted at a staff workshop, feedback from the AFPs and other conversations:

1. Taken from "Outcome Based Assessments for Private Pensions: A Handbook", published by the World Bank, June 2016. This includes a longer list of features which contribute to these outcomes.

- Investment strategies inadequately designed to optimise portfolios to their objectives and hence optimise affiliate outcomes.
- Persistent losses in pension fund investment, effectively due to credit risks materialising and hence insufficient diversification.
- Negative impacts arising from the herd effect in AFP investment due to the use of a (relative) minimum return guarantee, most likely resulting in 'bubbles' and subsequent persistent losses, but also potentially causing AFPs to follow strategies that are less than optimal (as one AFP reported).
- Conflicts of interest affecting, or being seen to affect, investment decisions, so that they are not taken, or seen to be taken, in the interests of affiliates, with financial or reputational consequences.
- Insufficiently rewarded risks in some alternative investments, resulting in enhanced risk of affiliate losses and possible reputational damage.
- Inappropriate affiliate choices of investment funds or AFPs arising from information supplied by AFPs or their agents, resulting in overexposure to market risk, inadequate net returns or excessive churn in the system (with cost and liquidity impacts) as well as potential reputational damage.
- Reduced pension coverage because of non-affiliation of workers to the system and unwillingness and lack of incentive for informal workers to participate.
- Delays by employers in paying employees' and their own pension contributions (the latter only applying to some industries), with the consequence that affiliates may receive less pension (in the event of employer insolvency) and of serious reputational damage. Such problems may carry over into the decumulation phase.
- Errors in the calculation of payments to affiliates due to old age or death or disability, which can have significant reputational impact and affect beneficiaries financially.
- Delays in paying pensions or benefits.
- Inappropriate affiliate choice of options at retirement resulting in loss of welfare during retirement and potential fiscal burdens on the State; while affiliate understanding, coupled with inadequate AFP advice, is the underlying cause, international experience shows that this is hard to improve, and efforts to improve communication should preferably be complemented by regulatory change.
- Malpractices when offering annuities or other decumulation products.
- External fraud in achieving a conditional or preliminary retirement.
- Excessive and non-transparent fees evidenced by excessive returns on capital, and inefficiency within AFPs, resulting in reduced affiliate benefits and serious reputational damage.
- Political and media attacks on the pension system motivated by personal advantage rather than facts that jeopardise public confidence in the system and the system itself; one cause of these may be the excessive fees.

One further important risk was identified by the consultant. There appear to be insufficient funds within the multi-fund model, and insufficient age-related defaulting between the funds, to mitigate the effect of market volatility on affiliates when they retire or are required/ defaulted to switch funds. This leaves affiliates exposed to crystallisation of losses and the system exposed to reputational impacts when the market falls, as occurred with recent falls in international stock markets. SBS and AFPs have been unable to communicate a message that the system is designed to minimise the impact of such falls in terms of crystallised losses. SBS needs to either add two funds between funds 1 and 2 (or possibly just add one but make fund 3 the default) or emulate CONSAR in Mexico and explore the practicality of target date funds. It is also essential that affiliates are defaulted to lower risk funds when they reach specified ages.

The consultant was initially concerned that there appeared to be little supervisory focus on ensuring control through daily reconciliations of assets held by custodian banks and AFP records of aggregate account balances. However, key elements in this process are undertaken by SBS itself, which should rapidly detect any underlying problem such as fraud or systemic error. Hence, this risk is minimal, especially as the investment supervision department undertakes off-site checks of the custodial process. SBS is, however, assuming some operational and reputational risk by being involved in a key control process, and at some point, consideration might be given to transferring key functions to the pension custodians, recognising, however, that this would be likely to increase system cost.

2.1 ▸ Strategies

The **investment supervision department** has strategies to address investment-related risks through regulatory change and focused supervisory activity, although the latter could be more explicit. In essence, regulatory change is designed to facilitate more sophisticated and better justified investment strategies while removing distractions such as the herd effect and over-focus on compliance with limits. Supervision seeks to ensure that investment governance is sufficient to make good use of these freedoms, reflecting also the reputational aspect of credit risk. Increased focus is needed on ensuring that AFPs balance the costs of implementing strategies with the return achieved. The investment regime is already sophisticated and relatively well diversified, with multi-funds well developed[2] and appears to be delivering relatively good gross returns to affiliates, so that the investment objectives relate more to refinement of governance and process rather than to crisis management

The **pension and benefits (decumulation) supervision** department's strategy is to rewrite regulation governing the choice of product at retirement so as to eliminate excessive affiliate choice and streamline the process. This could in turn address the risk of affiliates making imprudent decisions at retirement regarding the use of their accumulated pension saving, since regulatory changes in 2016 resulted in a 63% fall in annuity purchase. AFPs are to re-design their processes to achieve principles and service indicators that will be embedded in the processes, rather than the current process of implementing detailed processes in regulation. This will enable a more RBS approach focused on AFP achievement of principles.

2. The return through August 2017 of fund 3, the most aggressive fund was, however, significantly less than that of fund 2, which suggests there may be scope to improve risk management in that fund.

Because all retirees default to a temporary pension before choosing a product, the new process will speed up pay-out. Hopefully, it will also level the playing field between lump-sum and continuing payment products, thereby improving take-up of the latter. Such a shift should be one of the KPIs for this project. The project was also innovative in its use of a quantitative and qualitative study of affiliate perceptions and behaviours. Periodically repeating this will help to measure the success of SBS strategies to improve affiliate understanding and choices. Indeed, it should be extended beyond retirement product choice to other choices that SBS seeks to influence (being owned therefore by all three pension supervision departments).

The **pension institutions supervision department** has more diffuse risks to supervise than do the other two departments, and it may need to spend more time clarifying the precise nature and the estimated severity of the risks for which it is responsible. It also needs to have proportionate strategies for verifying that risks are mitigated or increasing mitigation. This is more fundamental for this department, as the answers are much less obvious than for the other two. Otherwise, the department is likely to spend too much effort on some risks and too little on others.

The department is also responsible for coordinating supervision of governance. In common with nearly all pension supervisors worldwide, a strategic approach to raising governance standards is needed. In Peru, this can build on the resolutions SBS has issued covering risk management (2014) and governance (2017). As these are relatively recent, best practice may still be bedding in. The other main unmitigated risks this department must tackle relates to employers not paying what is owed to AFPs or not affiliating employees. In both cases, better data is needed to obtain a clear understanding of the extent of the risk, and KPIs should be developed accordingly. SBS's power to act is currently limited; it can encourage AFPs to collect debts and liaise with the Labour Ministry regarding affiliation rates. Regulatory change may be desirable at some point.

Finally, **SBS corporate** needs to develop a strategy to mitigate the substantial reputational damage cause by high AFP fees.[3] Recent regulatory changes resulted in two different ways of charging fees. The difficulties in making comparisons this change engenders reduce the likelihood that competition will reduce them significantly. A more radical solution such as economic regulation, along with a KPI regarding 'excess' return on capital should be considered. This risk may well relate to decumulation as well as accumulation.

In conclusion, SBS has a clear understanding of the pension risk landscape and is seeking to address these risks through various strategies. To improve understanding and support for SBS's mitigation of pension fund risks, there would be value in the SBS publicly articulating its view of the key risks in the system in an annual report or strategy document. In explaining the risks, SBS should, so far as appropriate, also sketch out the strategies that it has adopted to mitigate the risks. There should be KPIs for the principal risks to enable performance to be monitored.

3. Comparing fees with international benchmarks is complicated by their being charged on contributions and, for some affiliates, assets under management, but it is understood that they are significantly higher than the 75 basis points of assets under management that could expected from funds as large as those held by the AFPs.

3 Risk-based selection of entities and subjects for attention

The three supervision departments within the pensions directorate of SBS are each developing an RBS model. The risk directorate of SBS is also developing a risk model that will apply all markets SBS supervises and has begun to apply it to financial markets and insurance. The inconsistencies between these various models are one reason this review was commissioned. This paper considers some of the guiding principles that should apply regardless of the type of risk involved and the decisions needed to maximise consistency while recognising the legitimate differences that influence the approach being taken.

In order to assess these models, it is important to start with the purposes of undertaking risk assessment:

- Enable strategic prioritisation by identifying the **most serious risks** in the system (regardless of who might be able to mitigate them). A risk matrix can be used as a tool to help focus attention, with KPIs used to help support judgments that would otherwise be subjective. This does not need a sophisticated methodology, and an exercise of this nature was undertaken with supervision staff at an early stage during the review, using a simple risk matrix.
- Enable the selection of entities or activities/processes to be examined in greater detail, particularly on-site, based on an assessment of **inherent risk** obtained from structured subjective judgement and off-site analysis.
- Inform a proportionate response to problems found at AFPs through assessment of the **net risk** exposure by combining the inherent risk assessment with an assessment of mitigating or exacerbating factors during inspection. In practice, this assessment can also have some influence over the selection of entities/activities to inspect in subsequent years.

It can be helpful, although not essential, to use a consistent methodology for these three types of risk assessment, for instance regarding risk definitions. However, unlike for many jurisdictions, the selection of which entities should be inspected each year is not an important product of risk assessment for pensions in Peru. There are only four AFPs in Peru, all large and systemically important. SBS must inevitably inspect every AFP every year. That said, some overview of the AFPs is always helpful to apply a sense-test to more detailed decisions and to enable prioritisation between different financial markets across SBS, but such an overview need not be rigorous. RBS can also be used to determine which risks or activities are to be inspected at each AFP, which necessitates a much more granular assessment of processes to determine which are most important to inspect. The likelihood that choice of entities to inspect is an important factor for other markets supervised by SBS is one good reason the pensions methodology may deviate from the corporate.

In a rigorous RBS methodology, it is important to have clear definitions of the risk categories being used, which should be two dimension: the potential event(s) that could present risks (evaluated in terms of probability) and the potential consequences should those risks materialise (assessed in terms of impact). Such a methodology ensures the following:

- The impacts being assessed for the purposes of inherent risk assessment are clear and relate to the objectives of the system and supervisor.
- The probability assessments undertaken relate to the probability that a particular risk materialises in a way that causes the defined impacts to occur. (In practice, the availability and nature of the data regarding probability may influence how the impacts are defined so as to be measurable in terms of probability).
- Duplications and gaps can be avoided.
- Judgments, which inevitably have subjective aspects, can be clearly related to risk and hence are more likely to be consistent.

The specification of clear definitions in terms of event and consequence allows clarity in assessing each risk. That said, it is rare in practice to find formal definitions of risks by pension supervisors, which is unfortunate and true for SBS. This may in part be because risk definitions in other financial markets are generic and well understood, needing no special definition – but risks with similar names in pensions can have very different meanings that need to be teased out.

There are three ways in which pension system risks are defined by pension supervisors globally:

- Starting with specific negative consequences that have an impact on the **outcomes** and considering how each entity activity/process contributes to or mitigates these consequences.
- Starting with underlying **risk mitigations** (e.g., types of governance or risk management) and considering the likelihood and consequences of each failing.
- Starting with the different **activities/processes** in the pension system and considering what could go wrong and with what negative consequences.

Each of these perspectives is legitimate and can be used to design a rigorous and defensible methodology for RBS. It is probably best, however, to minimise the amount they are mixed up within the methodology. The consistency of the risks used in the various supervision methodologies is considered by department in the following paragraphs.

3.1 Risk assessment by the investment supervision department

It is clear that the risks used by the investment supervision department are defined from the perspective of risk mitigation activities (following the Australian model). This makes considerable sense. SBS cannot specify what is the right investment strategy or right way of implementing it. All it can do is ensure that AFPs have robust processes for managing the risk that a strategy or its implementation is not in affiliates' interests. The department uses the following risk categories:

- Investment management (relating to inadequate choice or negotiation of instruments or strategies] – divided into three 'significant activities'.
- Management of investment risks and complex instruments – relating to management of market, credit, liquidity, alternative and concentration risks.
- Back office management – relating to the management of custody, codification, reporting and investment limit control.
- Operational risk management – relating to the management of business continuity, information security, outsourcing, legal/compliance and counter-party risks.

A total of 18 significant activities have been defined within the four risk categories explained above. These significant activities could easily be defined in terms of risk mitigation processes, without changing the overall methodology, but improving its focus. Unless the risks are carefully defined, they might be seen as incomplete for not explicitly referring to the conduct of analytical processes supporting the investment strategy, the balancing of investment costs with return, multi-fund risk/return characteristics not matching affiliate needs or controls over day to day front office decisions. Some of these might be allocated their own significant activity. In practice, it is clear from the more detailed supporting material that all these are covered, although it has been recognised that more attention should be paid to cost control. The definition of market risk should explicitly relate to the risk that the multi-fund system does not operate in accordance with the principles of life-cycling

Most of the significant activities under operational risk management might be seen as factors to be taken into account when assessing the other significant activities and not included as separate risk categories. The exception, counter-party risks, could be included within the back office risk category.

More generally, SBS's appreciation of the risks to system outcomes from investment has enabled them to develop some strategies for mitigating significant risks, comprising regulatory change and supervisory attention, as described in the previous section.

The extensive off-site risk analyses relating to identified risks are input as 'risk indicators' into the risk matrix used by the department (see Figure 2). These provide an inherent risk score for each significant activity (risk). In fact, this is just inherent probability, and some assessment of inherent impact is needed to provide a two-dimensional inherent risk score. A It might make sense for the separate weighting currently applied to net risk, to explicitly refer to inherent impact and be moved across (to become the 4th column in the matrix) and then combined with the inherent probability to give a full inherent risk score.

FIGURE 2 ▪ **RISK MATRIX USED BY THE INVESTMENT SUPERVISION DEPARTMENT**

Supervision Improvements: Risk-based pensions supervision

Matrix of significant activities for the assessment of net risk

		Types of Risks		Mitigating Factors								
Category	**Significant Activities**	**Risk Indicators**	**Inherent Risk**	**Corporate Governance**	**Internal Audit Unit**	**Quantitative Models and Methodology**	**Professional Capacity**	**Policies, Manuals and Procedures**	**Information Technology**	**Verification and Control**	**Net Risk**	**Weight**
Investment Management	Investments Eligibility and Investment Decision Analysis	...									(1-4)	...
	Investment Strategies	...									(1-4)	...
	Negotiation of Investment Instruments	...									(1-4)	...
Management of Investment Risks and Complex Instruments	Market Risk Management	...									(1-4)	...
	Credit Risk Management	...									(1-4)	...
	Liquidity Risk Management	...									(1-4)	...
	Alternative Investments Risk Management	...									(1-4)	...
	Risk Management on Concentration of Economic Groups	...									(1-4)	...
Back Office Management	Custody, Registration and Accounting of Operations	...									(1-4)	...
	Codification of Investment Instruments	...									(1-4)	...
	Processes Related to the Daily Investment Report	...									(1-4)	...
	Internal Control of Investment Limits	...									(1-4)	...
Operational Risk Management	Business Continuity										(1-4)	
	Information Security										(1-4)	
	Outsourcing Risk										(1-4)	
	Legal and Compliance Risk										(1-4)	
	Counterparty and Intermediaries Risk										(1-4)	

This matrix considers the assessment of the inherent risk and the quality of the risk management for each of the significant activities identified and of the risks considered within the process of management and control of investments of the pension funds that are under the scope of the Department of Private Pension Funds Investments (DIFP), which will allow the calculation of the net risk per private pension fund (by activity and type of risk).

After inherent risk is assessed, seven mitigating factors are applied to each significant activity to derive the net risk for each activity: corporate governance, internal audit unit, quantitative models and methodology, professional capacity, risk manuals and procedures, IT and verification and control. All but verification and control are assessed off-site or rely on assessments of governance and the internal audit framework by the pension institutions department.

The extent and nature of assessment of verification and control, as the major on-site activity, could be seen as the output from inherent risk assessment, although previous net risk assessments might also have some influence. However, there is currently no rigorous methodology for varying the extent of on-site inspection according to inherent risk assessment. This could easily be done, given that the department does not inspect every type of risk mitigation for every activity every year. In practice, it has focused on the most serious systemic risks, notably from alternative asset classes, which is a well-justified application of risk assessment. Furthermore, the extensive range of off-site analyses undertaken provides most of the evidence accumulated by this department. A more rigorous methodology might involve the colour coding of the cells in the matrix (red, orange, yellow and green, plus grey for not applicable) and orienting planning around the inherent and residual risk 'colour' of each activity. A direction of travel indicator could be added showing whether net risk is falling, rising or flat-lining. Hence the more 'red' the risk, the more often the activity is assessed on-site. Where inherent risk is low, some off-site mitigation tests could be dropped.

3.2 Risk assessment by the pensions and benefits supervision department

This department is responsible not only for AFPs but also various other entities involved in providing retirement and disability benefits. Therefore, it needs an overall view of the risk landscape that identifies the different entities involved. This is achieved to some degree by a high-level planning risk matrix (Figure 3). This matrix identifies four macro-processes which among them have 8 processes, which in turn have 11 highlighted sub-processes (referred to as 'activities of high impact'). The macro-processes are Preparation stage; Access; Election; and Payment. They are not formally defined.

FIGURE 3 ▪ **HIGH LEVEL MATRIX USED BY THE PENSIONS AND BENEFITS SUPERVISION DEPARTMENT**

Macroproceso	Proceso	Actividades de alto impacto	Entidad supervisada	Tipo de supervisión	Criticidad	Implicancia	Inicio de la supervisión
01. Pre-beneficio	Trámite de solicitudes en el marco de los convenios de seguridad social	1) Certificación de aportes al SPP, de afiliados que se acogen a los convenios de seguridad social	AFP (4)	Extra-situ	3	3	2do TRIM
02. Acceso al beneficio	Presentación de documentación (Sección I)	2) Evaluación de cobertura por exclusiones	AFP (4)	In-situ	4	2	2do-4to TRIM
		3) Evaluación de acceso a regímenes jubilatorios anticipados	AFP (4)	Extra-situ	4	3	2do TRIM
	Conformidad de solicitud de pensión (Sección II)	4) Cálculo y transferencia de aporte adicional	Empresas de Seguros (7)	Extra-situ	3	3	2do TRIM
03. Elección de Esquema y Contratación de modalidad	Elección de esquema de retiro y/o pensión	5) Elección de esquema y valorización de la cuenta sujeta a entrega	AFP (4)	Extra-situ	3	4	1er TRIM
	Producto previsional elegido (Sección V)	6) Transferencia de prima a entidad ganadora	AFP (4)	In-situ	3	2	2do-4to TRIM
04. Pago del beneficio	Entrega de hasta el 95,5% de la cuenta	7) Entrega de fondos al afiliado	AFP (4)	Extra-situ	4	4	1er TRIM
	Acreditación de afiliado y transferencia del 4,5% a Essalud	8) Acreditación en Essalud de afiliados retirantes de hasta el 95,5%	AFP (4)	Extra-situ	3	4	1er TRIM
		9) Transferencia de fondos a Essalud	AFP (4)	Extra-situ	3	4	1er TRIM
	Pago de pensiones financiadas por empresas de seguros (rentas vitalicias y seguro previsional)	10) Coordinar cuadre de planilla con empresa de seguros	AFP (4)	Extra-situ	3	3	4to TRIM
		11) Pago de pensiones de rentas vitalicias	Empresas de Seguros (3)	In-situ	3	3	1er-3er TRIM

Defining the 11 activities of high impact as risks would enable a clear perspective on risks in the system and at individual entities. By specifying the negative impact(s) concerned, greater rigour could be introduced into the detailed assessment process. The matrix indicates which types of entities are responsible for the processes. There would also be merit in identifying at least one activity of high risk for each type of entity subject to SBS supervision (in practice) to help determine the scale and nature of the focus on each type of entity, which may necessitate an increase in the number of such activities defined.

The high-level matrix indicates also whether assessment is performed off site or on site. It seems unlikely that none of the risks require both, as the matrix presented appears to show. The common model for RBS is that off-site tests enable an assessment of the inherent risk, which is further refined through on-site inspection to define the net risk. The assessment of inherent risk indicates whether, or how often, on-site inspection is needed. The previous year's risk assessment is also taken into account to determine whether all off-site processes are needed. In practice, much of what the department refers to as off-site is really on-site inspection undertaken off site because there is insufficient time during the formal on-site inspections to examine all of the pension and benefit processes requiring examination.

It would be better if all assessment of processes and controls were shown as on-site, leaving the definition of off-site to encompass off-site analysis of data and performance. This would place this work within the well-ordered framework of a formal inspection and reduce, or at least concentrate, the supervisory burden on AFPs. Moving to this norm might be achieved by simultaneously expanding the amount of time that staff from this department are involved in formal, on-site inspection and reducing the number of detailed processes examined each year, allowing a more intense focus on what is examined. Such a reduction could be made on the basis of inherent risk assessment. As it is, the high-level matrix envisages that all 11 high-risk activities will be examined, which may be a fair reflection of their importance, but presumably, not every sub-process need to be examined unless the activity is proving particularly problematic.

Each process is covered by a more detailed risk assessment matrix for each of the activities of high impact (Figure 4), with around 140 risks identified overall. These constitute the basic level of assessment. While these are not formally defined as risks, a generic definition for their categorisation is "processes at risk of failing with the consequence of damage to affiliate outcomes or system reputation". Defining risks in this very granular way facilitates prioritisation of off-site analysis and on-site inspection, as suggested above. The assessments of the individual process risks within each category are then aggregated to produce a combined score for each activity of high impact (preferably to be re-defined as risks).

FIGURE 4 ▪ **DETAILED MATRIX DEVELOPED BY THE PENSIONS AND BENEFITS SUPERVISION DEPARTMENT**

				Política y procedimientos		Capacidad profesional		Infraestructura		Sistemas		
Actividad Significativa	N°	Riesgo del proceso	Importancia (ponderación)	Calificación	Importancia ponderada	Calificación	Importancia ponderada	Calificación	Importancia ponderada	Calificación	Importancia ponderada	Resultado preliminar por cada riesgo
Evaluación de acceso a regímenes jubilatorios anticipados	1	Capacidad insuficiente para atender las solicitudes de los afiliados	7%	2	20%	0	0%	2	50%	4	30%	2.60
	2	Falta de orientación y evaluación respecto de los beneficios posibles de acceso	5%	2	80%	3	10%	0	0%	2	10%	2.10
	3	Registrar información errada del afiliado (nombres de afiliado, dni, boletas presentadas)	7%	3	30%	2	50%	0	0%	3	20%	2.50
	4	Incorrecta revisión de los documentos del para la jubilación (titular, beneficiarios y/o apoderados)	7%	3	50%	2	40%	0	0%	2	10%	2.50
	5	Falta de firma del afiliado y del representante de la AFP de la solicitud de pensión y otros documentos del proceso	7%	2	50%	2	50%	0	0%	0	0%	2.00
	6	Determinar el acceso al beneficio sin el cumplimiento de la edad que corresponda	8%	2	35%	3	35%	0	0%	2	30%	2.35
	7	No calcular la pensión objetivo bajo los parametros legales	8%	2	30%	2	35%	0	0%	1	35%	1.65
	8	No calcular la densidad de cotización correctamente	8%	2	30%	1	35%	0	0%	2	35%	1.65
	9	No realizar la evaluación de aportes independientes de acuerdo a los parámetros legales	5%	3	40%	2	40%	0	0%	2	20%	2.40
	10	No evaluar correctamente el periodo de doce (12) meses de desempleo en casos REJA	8%	2	40%	1	40%	0	0%	3	20%	1.80
	11	No evaluar correctamente el cálculo del promedio de 120 remuneraciones (JAO)	8%	1	30%	1	35%	0	0%	2	35%	1.35
	12	No considerar la RMV vigente a la fecha de presentación en	5%	3	40%	2	40%	0	0%	1	20%	2.20
	13	No evaluar el periodo de anticipo de la edad de jubilación de acuerdo a la proporcionalidad	6%	3	40%	1	30%	0	0%	2	30%	2.10
	14	Constancia de evaluación de acceso con información errada o incompleta (Conformidad - Sección II)	3%	2	50%	2	20%	0	0%	3	30%	2.30
	15	No evidenciar la conformidad del acceso dentro del plazo	3%	1	60%	1	30%	0	0%	3	10%	1.20
	16	Error en el registro del acceso al beneficio	3%	2	40%	3	40%	0	0%	2	20%	2.40
	17	No registrar o actualizar en el padrón de afiliados las solicitudes de acceso e información del afiliado (dirección)	2%	1	50%	2	20%	0	0%	3	30%	1.80
												2.05

Turning to the assessment process itself, every activity of high impact is weighted, using a four-point scale, in two dimensions: the **severity**, from the affiliates' point of view, in relation to access, pensions and insurance and the **magnitude** of the impact to the affiliates. This is completely appropriate in a context where reputational impacts are at least as important as financial impacts and where some level of error is probably unavoidable. This provides a two-dimensional methodology for assessing inherent risk. Currently, however, this combination of factors is not called 'inherent risk'. That term is reserved for the level of risk assigned after the assessment of mitigation, a designation that is usually (including in the investment department) called 'net risk'. In the pension department, the term 'Net risk' is reserved for the assessment after SBS recommendations have been implemented, which in most supervisors is not formally assessed until the following inspection.

The assessment of each detailed process/risk starts with an evaluation of the importance of the process/risk for the activity of high impact. This could be re-orientated to reflect inherent risk in two dimensions, as for the higher level assessment. To derive the inherent risk (which should be called net risk, as previously discussed) value shown at the right end of the matrix, the inherent risk weighting is modified according to three types of mitigation: those relating to policies and procedures, professional capacity, and infrastructure (this last heading is rarely used and will likely be folded into policies and procedures). Although manuals and professional qualifications can be checked off-site, an effective evaluation requires on-site testing to ensure policies and procedures are applied in practice and to assess the staff applying them. Each of these mitigation assessment factors is also weighted, which might be seen as over-engineering, as the assessments will be ultimately judgmental. On the other hand, it is curious that there is no factor for corporate governance and internal audit, as there is in the investment supervision matrix. Maybe the former is less relevant to mechanistic decumulation processes.

The streamlining of processes referred to in the previous section will require the detailed risk/process matrices to be revised. This may provide an opportunity to reduce the number of detailed processes and consider other suggestions made here for re-drawing the matrices. The fact that the new regulation is purposive should facilitate this reduction and the re-defining of processes as risks (to the purposes underlying the regulation).

Some key performance measures relating to the high-risk categories would also be valuable to give an overall view of performance in risk mitigation and delivery of good affiliate outcomes. SBS has already surveyed affiliate experience as part of the project to streamline the decumulation process, and given the importance of these processes for affiliate outcomes and system reputation, this type of survey should be repeated periodically. Other indicators might relate to the choices made and timeliness of the key processes, especially as the regulatory changes are intended to accelerate them. Indeed, SBS is seeking to have performance measures embedded into the design of the revised processes.

3.3 Risk assessment by the pension institutions supervision department

As already stated, this department has the most diffuse set of responsibilities, covering eight processes plus the corporate governance, strategic risk and reputational risk at AFPs. Its risk matrix was developed most recently and is, to some extent, still a work in progress. The risks covered are not defined, although a generic risk definition was presented by the department: *"The possibility of adverse events occurring that negatively affect the services an AFP provides to its affiliates in order to comply with SBS standards throughout the accumulation stage"*. These are potentially relevant to all the services that the department covers except corporate governance and related risks, which should be separately assessed (see section on governance below). This definition should be made specific to each risk identified. It does, however, encompass the message that the primary focus of this department is on service quality, with other impacts on affiliates being indirect. For instance, poor data quality may affect the accuracy of timeliness of pay-out downstream.

The department's risk matrix (Figure 5) includes five areas of service as risk categories:

- Administration of private account capitalisation
- Affiliation and disaffiliation
- Communication with affiliates
- Employer debt collection
- Administration of affiliate documents

FIGURE 5 ▪ **PENSION INSTITUTIONS SUPERVISION DEPARTMENT RISK ASSESSMENT MATRIX**

	RISKS ON THE ESSENTIAL ACTIVITIES/OPERATIONS (PROCESSES' RISKS)						QUALITY OF RISK MANAGEMENT (RISK MITIGATORS)		
SERVICES PROVIDED BY THE AFP	OPERATIONAL	LEGAL	STRATEGIC	LOST/OUT OF DATE OF THE AFFILIATES CONTACT DATA	OTHER RISKS	INHERENT RISK	OVERSIGHT	CONTROLS	NET RISK
1. Administration of the Private Account Capitalization									
Collection of contributions									
Accreditation									
Transfered accounts									
Fund type change									
25% fund withdrawal									
2. Affiliation and disaffiliation									
Affiliations									
Transfer of affiliates between AFPs									
Disaffiliations									
3. Communication with the affiliates									
Sending off statements									
Managing the web page									
Managing the social networks									
4. Employers' debt collector									
Administrative collection									
Judicial collection									
5. Administration of the affiliates' documents									
								OVERALL NET RISK	

All but the last of these has assessment sub-headings within the matrix, resulting in 14 headings for assessment. For the assessment of inherent risk, these are then cross-cut by five generic outcome-perspective risk categories: operational; legal; strategic; data out-dated/lost; and other. This has some similarities to the corporate model (next section); however, it is not two-dimensional, and most of these risk categories do not apply to most services. Indeed, they do not align well with the overall risk relating to service quality.

It might be better to assess inherent risk the way risk is assessed in the other pension supervision departments, by combining an assessment of impact/severity and likelihood/magnitude. The latter dimension may prove more challenging as the department is not as data-rich as the others, but some data should be gathered on whether the key service risks are materialising through the AFPs' own service indicators or through complaints data. The inspection process may also identify errors for this purpose. Indeed, the department's presentation showed that they are developing such risk indicators. For instance, the key indicator lost/out of date of the affiliates contact data could be the percentage of affiliates for which the AFP has a valid e-mail address. These could effectively double-up as KPIs for relevant aspects of system performance and risk mitigation.

The mitigating factors that enable net risk to be derived from inherent risk relate to the quality of risk management, in terms of oversight and controls. 'Oversight' presumably encompasses corporate governance and internal audits, while 'controls' is specific to each service. This is elegantly succinct, although several factors probably need to be combined for oversight. While the services, or sub-services, identified in the matrix are at the right level to provide a strategic overview of net risk, it is not clear that they are detailed enough to enable decisions as to which processes can be omitted from each AFP's inspection programme.[4] The department

4. While the investment supervision department has a similar number of risk factors for assessment, on-site inspection is a much less significant part of its methodology.

should consider emulating the pensions and benefits supervision department by identifying a larger number of activities that contribute to the services being risk-assessed, but not as many as 140.

3.4 The central SBS risk assessment matrix

Separately from the development of methodologies within the pensions Deputy Superintendence, the risk management directorate of SBS has been developing a corporate risk assessment tool which is being piloted by the financial institutions and insurance directorates. This methodology is a modified version of that developed for insurance companies by OSFI, the integrated Canadian financial services supervisor, which it has adjusted to apply to pension funds, particularly defined benefit funds.[5] A question has arisen as to the scope for applying this to the pensions deputy superintendence. The directorate's matrix (Figure 6) has some similarities to the pension institutions supervision department's matrix (Figure 5), although it is much more complex.

FIGURE 6 ▪ **SBS CORPORATE RISK MATRIX**

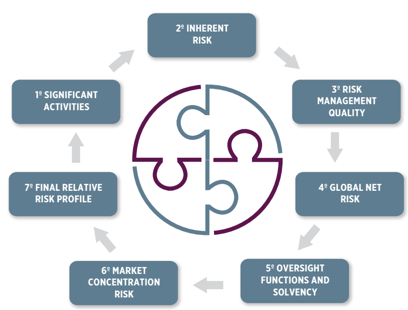
		TIPOS DE RIESGO														
		Risk 1					Risk 2					Risk 3				
Significant Activities	Weight	Inherent Risk	Risk Managment			Net Risk	Inherent Risk	Risk Managment			Net Risk	Inherent Risk	Risk Managment			Net Risk
			Glob C.	Spec. C	Mgmnt			Glob C.	Spec. C	Mgmnt			Glob C.	Spec. C	Mgmnt	
Activity (1)																
Activity (2)																
Activity (3)																
....	....	....		....	....	....	....		....	....	....	....		....	....	....
Activity (k)																
Risk aggregation and Controls																

Global Net Risk

Evaluation oversight functions and solvency

Evaluation of Market Risk Concentration

Final Relative Risk Profile



5. OSFI informally recognise that their methodology is not so advanced for defined contribution funds.

This matrix uses an outcome-based approach. The risks of certain negative outcomes are assessed for each significant activity. For instance, for financial institutions, these risk factors are the following: credit risk; market risk, liquidity risk; operational risk; and money laundering and terrorist financing risk. The factors differ slightly for insurance. This structure results in a matrix which, for financial institutions, has 27 columns. These risks are applied to significant activities, effectively product lines, which are weighted to give an overall entity score. In the Canadian model from which this is derived, the inherent risk assessment for each risk factor combines a judgmental assessment of impact with evidence of failure from off-site analyses. SBS decided not to include the impact dimension. In the SBS matrix, the inherent risk score can be increased under the oversight and control headings, based on risk arising from inadequate risk management. The oversight assessment is generic to each risk factor and encompasses aspects of governance and other oversight functions. The control assessment is specific to each significant activity. The COSO ERM risk model is used to support these assessments.

This model is unusual in that absence of mitigation is added to inherent risk to produce a net risk score rather than assurance from mitigation being subtracted. In fact, quality of risk management is combined with inherent risk, as shown in the matrix in Figure 7. Combining factors using a matrix such as this one is good practice, although the OSFI matrix is the reverse of all the others.

FIGURE 7 ▪ **GENERIC MATRIX FOR COMBINING INHERENT RISK WITH QUALITY OF RISK MANAGEMENT**

		Inherent Risk			
		1	2	3	4
Quality of Risk Management	1	1	2	3	3
	2	1	2	3	4
	3	2	3	3	4
	4	3	4	4	4

After an entity risk score is derived, presumably by combining aggregate scores for each risk factor, although this combination does not feature on the matrix,[6] other factors are added to reflect overall risk in the entity such as market conduct and solvency. This is undertaken off-matrix. One issue with this model is that detailed risk assessment also has to be documented off-matrix, because the matrix includes only two columns, oversight and control, which are populated by assessing against the COSO ERM headings. SBS banking supervisors have retained their much more sophisticated model for assessing credit risk as a single factor, the results of which must then be translated into oversight and control scores.

The primary purpose of risk assessment in financial institutions and insurance markets is to assess risk of entity failure. Every aspect of risk assessment is designed to disclose such risk exposure. In that context, the corporate model makes considerable sense. This is fundamentally different from defined contribution pensions, where

6. As is argued at several points in this paper, there may be no particular reason why scores for risk categories/factors should be combined, so the absence of combination in the matrix would not be an oversight were it not for these factors being combined with entity-specific factors to give an overall risk assessment.

the supervisory objective is to protect the interests of affiliates and the reputation of the system within the wider context of achieving or improving coverage, adequacy, sustainability, efficiency and security.

Much of what SBS is trying to achieve with pension funds would fall within the label of market conduct in the language of the other markets, which receives limited attention in the corporate model. Therefore, the model does not appear to be appropriate for the pensions and benefits and pension institutions departments whose focus is on market conduct. Furthermore, for these two departments, basing the measure of significant activities on some proxy such as percentage of turnover or assets makes little sense. Pension funds have just one significant activity, delivering pensions, although it might be possible to split the decumulation activities between benefit types. However, it is not clear what value this would add. Whereas combining the risk from different product lines is necessary to fully assess a supervised entity such as an insurance company, individual affiliates of pension companies receive only one benefit type. Furthermore, the risk categories that need to be assessed vary substantially between pension supervision departments and bear limited relation to those used in insurance and financial institutions.

Investment supervision is closer to supervision of the other markets in that the SBS expectation that affiliate accounts are managed prudently is similar to expectations that other entities manage their business prudently. Hence, some of the risk categories have the same labels, such as credit and market risk. But, the risks are defined very differently in the pensions context. For instance, SBS wishes to see the market risk exposure of financial or insurance institutions minimised or provided for, while the market risk of pension funds needs to be optimised to the cohorts of affiliates concerned.

The corporate model could be adapted for pension investment supervision by defining each of the multi-funds as a significant activity,[7] recognising that the way risk and return should be managed varies considerably between fund types. An AFP could be excellent at managing fund 1 but poor at managing fund 2. The first two risk categories could be the significant activities, with a blanket 'operational risk' measure covering the rest. For each risk category, the matrix could look something like the one shown in Figure 8, with inherent risk and the combined risk management components combined, using the matrix shown in Figure 6.

7. While this approach could be challenged on the basis that each affiliate is only in one fund at any given time, they transfer between funds during their carer, and combining conclusions regarding how the risks in each fund are managed would give an overview of the overall performance of an AFP's investment department.

FIGURE 8 ▪ **POSSIBLE APPLICATION OF THE CORPORATE RISK MATRIX TO PENSION INVESTMENT SUPERVISION**

Risk category 1: Investment Strategy						
Significant activity	Weight	Inh't Risk	Global component (Oversight)	Especific Component (Control)	Combined Components	Net Risk
Fund 0	X%					
Fund 1	X%					
Fund 2	X%					
Fund 3	X%					
Overall	100%					

3.5 Conclusions regarding risk assessment

There are significant differences between the three pension supervision departments which need to be reflected in the way the risk assessment methodology is developed:

- **Investment:** Globally, the general experience is that without intensive supervision, AFPs in defined contribution (DC) systems will seek a quiet life rather than optimising affiliate outcomes. Hence inherent risk is high, and the supervisor must work to improve investment governance. A methodology is needed to justify where most focus and pressure is placed at each AFP.
- **Pensions and benefits:** The focus is on quality of service and detailed processes to deliver a variety of benefits and pay-out types. Their current focus on detailed processes can be move up a level with the regulatory streamlining project.
- **Pension institutions:** Assessment address a variety of risks with different actors, some of which relate to other departments' risk assessment.

The three departments, however, have risk assessment models which differ more than is necessitated by the differences in their roles. They also differ also from the corporate methodology for more justifiable reasons. As explained in paragraph 60, the methodology of the investment supervision could be modified to have presentational similarities to the corporate model. The department are not convinced, however, that assessing each fund separately would add value. In addition, the matrix shown in Figure 7 could be replicated using different decumulation product types as significant activities and applying that department's standard risk categories along the horizontal axis. Again, it is not clear how much value this would add. The work of the pension institutions department would be difficult to re-orient around significant activities defined as product lines.

Assuming that presentational alignment is not seen as an overriding goal, a better focus would be on aligning the methodologies of the three pension departments, using the terminology of the corporate model so far as is practical. Commonality could be improved by the following approaches:

- Using a common definition of inherent risk that is derived in two dimensions from a subjective assessment of impact/severity and an objective measure of likelihood/ magnitude, both using four-point scales. These could be combined using the corporate matrix shown in Figure 8, with the axes labelled impact/ severity and likelihood/ magnitude. Some effort would be needed to identify the off-site analyses used to assess likelihood/magnitude in the systematic way already adopted by the investment supervision department, and for some risks, there may need to be new analyses/indicators.
- Formally defining risks for assessment from a common perspective, perhaps in terms of the failure of mitigation of controls over key activities, with 9-15 per department. They could be used to populate the y axis of a matrix for each department, which could be aggregated into a smaller number of macro risk categories. For the pensions and benefits and pension institutions departments, at least, these risks could be segregated further into detailed processes with significant impact on effective risk management. To align with SBS corporate language, these risks and processes might be re-named principles and criteria. Examples of risk definitions are included in Appendix 2.
- Developing a matrix for each department that resembles the one shown in Figure 9. For departments with a large number of separate processes to evaluate, each risk/principle could have its own matrix with just the aggregate scores taken to the primary matrix.
- Assessing processes/risks at a sufficiently granular level to enable identification of the processes that need to be examined in detail each year. The extent of examination and resources applied to the entity inspection programme should be iterated until there is alignment between workload and work programme. (In Chile this is facilitated by including an additional column in the detailed matrix that shows an estimate of the resources required to examine each process/risk).
- Adopting a common set of criteria for the assessment of risk management to derive a net risk score from the inherent risk score. These could be brigaded as an oversight score generic to each risk category at each AFP plus a control score specific to each risk, in line with the corporate and pension institutions department approach, with the other criteria used within the pensions directorate incorporated within those assessments. Or an approach more closely aligned to COSO ERM might be adopted.
- Adopting a common approach to risk mitigation assessments for all departments that is either additive, as with the corporate model, or subtractive, as is more typical.[8]

8. An additive approach would be appropriate where the starting assumption is that inherent risk is low, with evidence regarding impact and quantified indicators contributing the inherent risk level and with failures in risk management adding further to the level of risk. In a subtractive approach, inherent risk is set at the highest level consistent with the supervisory judgment and off-site evidence, with evidence regarding risk mitigation being used to reduce that level to the net risk. Hence, the approaches to risk mitigation and inherent risk assessment need to be defined in tandem.

FIGURE 9 ▪ **POSSIBLE GENERIC MATRIX FOR PENSION SUPERVISION DEPARTMENTS**

Risk category 1	Weight	Inherent Risk	Global component	Especific Component	Combined Components	Net Risk
Risk category 1	-					
Processes/ Criteria 1-9	By criterion					
Risk principle 1 total	100%					
Principle 2						
Criteria 1-x						
Etc						
Overall						

Given the number of decisions needed to align the detailed methodology across the pensions directorate and the importance of enabling the methodology to evolve with changing circumstances, there would be considerable value in establishing a cross-directorate risk committee to take decisions, supported by a small secretariat or risk unit.

While the methodology should combine the detailed assessment of risk into the assessment of discrete macro risk categories, several methodologies currently used in the Deputy Superintendence go further and produce an overall entity score. It is questionable whether this can be rigorous, given the differences between the key characteristics of risk categories. A better strategy might be adopt a dashboard approach, such as is shown in Figure 10, in which colours/scores for each risk category and AFP are plotted on a matrix. This provides an overview of where risk lies in terms of entities and systemic risk. Some particular features worth noting are the following:

- The inclusion of transversal evaluation enables an overview of how well each AFP is governed. It could also allow inclusion of the risk management directorate's assessment of IT security and business continuity at each entity and the pension institutions supervision department's assessment of how well AFPs manage strategic and reputational risk.
- The other risk categories would probably need to be augmented, and the distinction between those of the investment supervision department (prudential) and other departments (market conduct) might be relevant only if they use a different methodology.

FIGURE 10 ▪ **EXEMPLAR RISK DASHBOARD FOR PENSIONS SUPERVISION**

RISK CATEGORY	AFP1	AFP2	AFP3	AFP4	SYSTEM
Transversals					
Corp governance					
IT & bus continuity					
AFP strategic					
Prudential					
Inv. Strategy (inc. costs)					
Market 6 Liquid risk management (split?)					
Credit etc risk management					
Alternatives RM					
Trading risk management					

RISK CATEGORY	AFP1	AFP2	AFP3	AFP4	SYSTEM
Back office (Op'nl risk)	V				
Market conduct					
Affilation & disaffilation					
Accounts administration					
Comunicaction with affiliates					
Employer debt collection					
Comunication reclaiming of benefits					
Eligibility chacking					

However it is arranged, the key purpose of the risk dashboard is to enable a higher level focus on risk, which is central to RBS. Within the overall risk assessment methodology, the Deputy Superintendence needs to recognise that some risks are not assessed at AFPs, and the systemic component to a few risks may be greater than the risks at individual AFPs.

4 Using quantitative risk assessment tools

Globally, the most common use of quantitative tools in pension supervision is to assess pension fund solvency. This is not directly relevant to the pension funds that SBS currently supervises. Such tools might have some relevance to assessing AFP viability as a component of strategic risk, but only to the extent that the resource-cost of their use is justified by the assessed inherent risk. In practice, the requirement for AFPs to hold own capital should substantially mitigate the risk, so long as the requirement is not set too low, while the topical issue is that of excessive return on capital rather than its obverse. As SBS presumably expects AFPs to undertake financial analysis as part of business planning and for their boards to owns business strategies that secure future viability, there should be sufficient mitigation without any sophistication in methodology.

The use of quantitative tools to assess investment risk in DC funds is much more relevant to the role of SBS but is less common internationally, with best practice to be found mainly in Latin America. The investment supervision department has developed a suite of sophisticated measures relevant to the risks identified in its model, which enable it to assess the level of inherent risk at each AFP. These can, in turn, influence what is done on site as well as enable conclusions to be drawn on the quality of investment management across the system. The level of sophistication and detail of specification is world-leading.

To refine the process, the department could identify which of its many quantified indicators provide KPIs for the risk categories being used, which would give an overview of performance, supplementing the risk dashboard that incorporates all off-site analyses within inherent risk. More thought is, however, needed to accomplish the following:

- Refine the indicator(s) that demonstrate whether the gradation of risk/return between multi-funds is achieving the policy objective of minimising crystallisation for affiliates of market risk exposure. Currently, the indicator would probably show a worryingly high level of exposure, hence the need for more multi-funds with more direction in moving affiliates between them or for the development of target date funds.
- Develop analyses of the more substantial costs incurred in the investment process to assess whether these are justified by the additional return.

For the other two pension supervision departments, most quantified measures relate to the level of error and quality of service. They are still developing indicators, a process which will require a clearer focus on precisely which risks need indicators. Some may arise from substantiated complaints data and internal audit/RMU reports. The pensions institutions department analyses quality of service off site, which could be used to generate quantified metrics for risk assessment and as a tool to influence AFP behaviour. Problems with affiliate data disclosed by the decumulation process may be a risk indicator for the pension institutions supervision department. Periodic affiliate surveys are, as mentioned earlier, needed to provide KPIs regarding this type of risk.

During the review, the risk management directorate of SBS presented its work as it is relevant to pension funds. SBS relies on the directorate to review the quality of IT security and business continuity at every supervised entity, and the form in which the assessment of each AFP is provided needs to be clarified. The directorate also assesses the risk management framework at each entity but has not yet shared the results of these assessments with the pension supervision directorate, and some modality for doing so should be developed. The Pensions Deputy Superintendence then needs to incorporate the scores provided into its methodology. Assuming it uses the four-point scoring methodology common across SBS, this should be a fairly straightforward process.

4.1 Supervision guides

The risk assessment methodologies used by all three departments require defensible quantified assessments of the quality of the mitigation of various risks. This necessitates detailed supervision guides for supervisory staff identifying what constitutes acceptable and unacceptable risk mitigation for each process or risk assessed along with the types of tests involved. To improve efficiency, these should be incorporated within the software (Teammate) used for document inspections. Many such guides have been developed; however, there are gaps in the investment supervision department, at least, and the guides will need to be rewritten for pensions and benefits.

Other jurisdictions have found it valuable to adapt these guides for publication as circulars or codes of practice to ensure that supervised entities understand what is expected of them.[9] For those risks where understanding may be deficient, for instance in relation to investment governance and the new processes for decumulation, SBS should consider such an initiative.

9. Obviously, details regarding the tests and assessment of practice should be removed.

5 Promoting governance and risk management

Governance assessment is intended to do the following:

- Drive improvement in the quality of AFP governance by providing feedback where the AFPs do not meet expectations.
- Influence planning of the balance of effort applied to different AFPs, for instance through the scoring of net risk.
- Help provide an overview of the reliability of each AFP through the risk dashboard.

A focus on raising standards of entity governance and taking reliance from good governance is an essential element in RBS. In practice, the assessment of governance has to be holistic for each AFP, and such assessments should be an input to AFP risk assessments across all departments as a standard part of the assessment of oversight. Within SBS, the pensions institution department has the responsibility for evaluating corporate governance at each AFP. It also co-ordinates the assessment of internal audits. As noted in paragraph 70, responsibility for assessing the risk management framework is divided between the pension institutions department and the risk management directorate – a division that needs some clarification.

The assessment of governance by SBS focuses on the examination of documentary evidence. The amount of assurance that can be derived from such a source is limited and needs to be augmented by structured interviews of directors and senior managers. In this way, the supervisor can ascertain how decisions are made in practice and whether the board and senior managers have an appropriate focus on risks and are not being swayed by conflicting interests. Such interviews should also assist the assessment of the key risks that are the subject of questioning, notably investment governance. For this reason, corporate governance assessment should include representatives from all three supervision departments, albeit co-ordinated by the pension institutions department.

No supervision guide for governance assessment has been developed to set out what is expected of board members and senior managers in terms of behaviours and attitudes. To concentrate minds and focus assessment, the guide should have a two-level structure, covering high-level principles and lower-level criteria. The latter primarily serve as prompts to assist assessment and not as a tick-list. For this purpose, SBS could use COSO, modified for the particular fiduciary role of pension funds, the IAIS core principles, the CAPSA[10] principles or something similar. There should be between 5 and 11 principles. The SBS corporate governance resolution provides a reasonable framework in its section heading:

10. CAPSA is the Canadian Association of Pension Supervisory Authorities, and their principles come with criteria and a self-assessment checklist, although, as would be the case for any set of principles chosen, some terminological modification would be needed for use in Peru.

- Composition and responsibilities of the board
- Board committees (role, reporting and composition)
- Qualifications and responsibilities of senior management
- Conflicts of interest and dubious practices (including ethics code)
- Remuneration system
- Risk management framework and unit
- Normative compliance officer framework and responsibilities
- Control over outsourcing

These make appropriate principle, although the first principle would be better expressed as 'tone at the top' or 'fiduciary responsibility', as this should inform all aspects of governance. A strategic and decision-making dimension relevant to more strategic/discretionary activities should be added, as well as a principle that encompasses the control framework and a principle associated with the internal audit function.

While the resolution on governance would provide a good basis for a supervision guide on the subject, the guide could also be made more comprehensive, to cover issues of dynamics and good practice that cannot be easily legislated. As supervised entities need to have a good understanding of what the supervisor expects of them regarding governance and risk management, SBS should share some of the content of the corporate governance supervision guide.

6 Proportionality of supervisory response

Supervisory response should be connected to assessment of risk, including actions taken to mitigate risk, with a sufficiently graduated range of responses from gentle advice to robust intervention. In particular, what should happen when an AFP is run is run in a way that is unacceptable to SBS should be clearly defined. The emphasis should be on actions to promote positive change rather than penalisation for its own sake, although sanctions may be appropriate to reinforce messages or act as a deterrent.

SBS has, in recent years, commendably moved away from issuing sanctions for minor breaches of law. The preliminary response to problems found is to request the AFP design and implement actions or mitigating measures to strengthen the supervised process. This is followed up by re-evaluation of how well mitigating actions have been implemented, which may result in a revised residual risk score. Formal sanctioning is restricted to cases where there is a serious breach, such as an unqualified risk manager, or actual detriment to affiliates. The addressee of inspection reports also depends on the gravity of what has been found; the AFP board receives reports only where there are significant failings to report. SBS also employs reasonable graduation of responses.

Hence, supervisory response appears to be reasonably proportionate. The supervision departments do not, however, have a formal methodology for converting net risk scores into levels of supervisory response, and their methodology could benefit from some codification, recognising that subjective factors, such as willingness to accept the conclusions or recommendations, must also be taken into account. The development of an enforcement pyramid or supervisory ladder could provide this structure and indicate how the response would be escalated if the AFP fails to correct identified problems.

Publishing an outline of the risk assessment methodology and how it feeds into potential supervisory response and the frequency with which risks are inspected, as Chile has done, may help reinforce the signals that SBS communicates through its various levels of response.

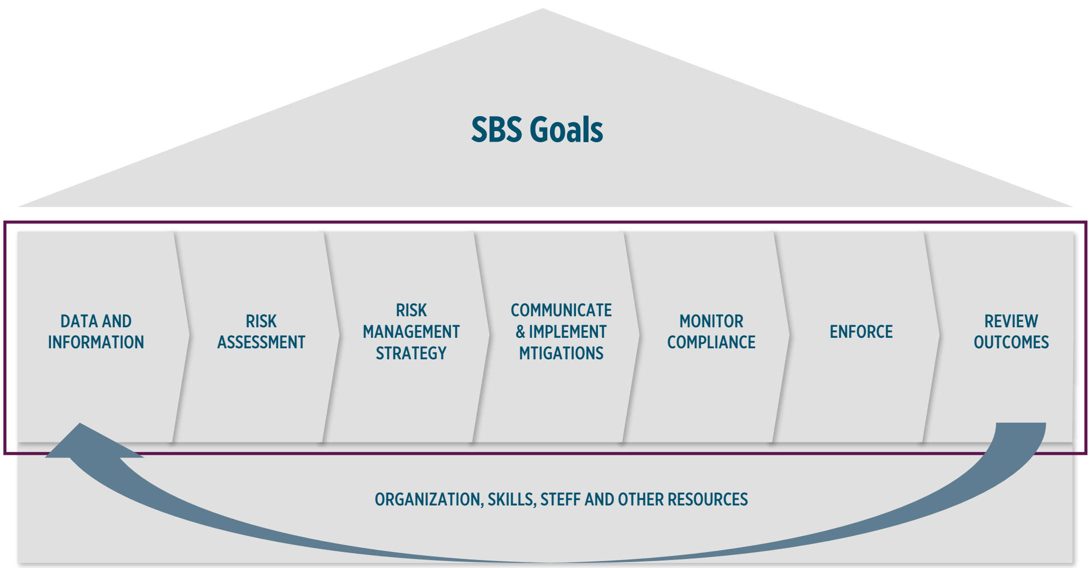
Rapid response is particularly important where a serious issue is uncovered that puts affiliate benefits at immediate risk. The response to such a circumstance should be clearly defined and would probably involve replacing management, at least temporarily, either through a legal process or by applying pressure to the AFP's parent company.

Regulation that is drafted in a purposive, principle-based manner can facilitate proportionate response to risk. Moving to such a style of regulation is a natural response to the increasing maturity of the sector, which no longer needs detailed regulation to tell entities what they should do, at least in many areas. The Deputy Superintendence has started to move in this direction with the project to revise decumulation regulation, and other initiatives might usefully follow. Because the organisational structure of SBS may present other obstacles, the Directorate needs to make a strong and compelling case for change as part of its strategic vision for mitigating risks and improving outcomes in the pension system.

7 The value chain for pensions supervision

Having reviewed what SBS does through the lens of the five attributes of RBS, covered above, there is also value in reviewing RBS using the concept of the value chain of supervision (Figure 11) to assess whether there is an integrated process for supervision that contributes to the achievement of SBS's goals and reflects the risks to their achievement at each stage.

FIGURE 11 ▪ **THE VALUE CHAIN OF SUPERVISION**



The stages in the value chain can be described as follows:

1. **Data and information** obtained from supervised entities and derived from SBS's own analysis should be sufficient, in terms of quantity, quality and periodicity, to enable the assessment of risk but no more so. Obtaining and retaining unused data is inefficient and exposes the supervisor to risk.
2. **Risk assessment** evaluates available data and information from a sufficiently wide range of sources to identify where resources need to be prioritised, in particular where the assessed risk is greater than SBS's risk tolerance. The assessment should define the risks in the pension system and consider both probability and impact of the risks. The risk assessment methodology has already been considered above.

3. A **risk management** strategy for reducing or maintaining risks at a tolerable level that deploys the various supervisory and regulatory tools available should be defined for each risk area that poses a serious threat to the achievement of SBS's objectives. It should also indicate how success is measured (through KPIs, where possible). The extent to which each strategy is formally articulated depends on the seriousness and extent of the risk. The strategies could combine to form an overall strategy for supervision as a component of the organisation's budgetary and planning cycle.
4. **Communication and implementation of mitigations** required by SBS and supervised entities to achieve SBS's strategy should include actions such as changes to regulation or public communication campaigns that are directly within the entity's control. Entities should be clear about what is expected of them and in agreement, at least as far as their objectives are aligned with those of SBS.
5. **Monitoring compliance** encompasses off-site and on-site processes to assess the extent to which the entities comply with SBS's expectations. The governance and risk management processes of supervised entities, including their compliance officer, can hopefully act as first-line supervision in this regard. Hence, a key supervisory focus should be on those processes. Where inherent risk is high, such as for investment, direct verification is prudent, especially where the incentives in the system are insufficient to align entity objectives with those of SBS, most notably regarding fees and mis-selling.
6. **Enforcement** refers to the proportionate response to identified risk and compliance failure.
7. A **review of outcomes** completes the cycle and provides important input for the risk assessment and strategy process. It tends to be a neglected area at many supervisory authorities, not least because it can be methodologically challenging.
8. The essential underpinning for all activities within RBS the development of sufficient **organisation, skills, staff and other resources** to enable efficient and effective supervision. Supervisory authorities can be organised in various ways, but crucially the different functions should be able to readily communicate what they need to each other, enabling seamless hand-offs between the different stages in the value chain. Requirements for staff and skills in each part of the organisation should be clearly specified and incorporated into recruitment, training and appraisal. Staff should be allocated according to supervisory priorities.

The Deputy Superintendence's status relative to step of the value chain that has not already explicitly covered in this report is outlined below:

- **Data and information:** Sufficient investment data is obtained to enable a wide range of analyses. Data is also collected to enable quality of service to be measured. There may be scope for obtaining more information so as to provide sufficient indicators of performance for the pensions and benefits and pension institutions departments, including affiliate survey data. It is good that the project to streamline the decumulation processes includes the embedding of service quality measures which can be reported to SBS.
- **Risk assessment:** This has been covered in detail already. In essence, the superintendence has good methodologies for risk assessment that need to be made more coherent. In particular, KPIs are needed

to obtain a clearer view of systemic risk exposure and performance, and a risk dashboard should be implemented.

- **Risk management strategy:** As mentioned earlier in this report, existing strategies address most of the more serious risks in the system, but these could be made more overt and public.
- **Communication and implementation of mitigations:** The Deputy Superintendence has greatly improved communication by instituting twice-yearly meetings with senior managers of each AFP. Strategies could be communicated more clearly, as discussed previously, and certain aspects of supervision guides could be shared with AFPs to clarify what SBS expects of them, for instance in relation to investment strategy and governance.
- **Monitoring compliance:** The Deputy Superintendence generally uses strong methodologies to assess AFP compliance with SBS expectations – the principal exception being for governance. As already mentioned, the formal assessment methodology could be made more coherent.
- **Enforcement:** This factor is covered in paragraphs 76-81.
- **Review of outcomes:** Formalised, defined KPIs are needed.

The organisation structure of the Pensions Directorate fits well with the risk landscape and might be seen as optimal. Whatever the structure, however, overlaps of responsibility are inevitable. This is particularly case for corporate governance, including internal audit, risk management and other oversight functions. The pensions institutions supervision department has a co-ordination role, a more formal structure for making and disseminating governance assessments across all three departments would be beneficial.

The Deputy Superintendence should consider establishing a small risk co-ordination unit supporting a risk committee. Experience in other jurisdictions has shown that such functions are essential for ensuring RBS is coherent and properly focused on the highest risks. The unit and committee would take ownership of the methodology and overview of the risk landscape for the whole directorate, taking decisions on the parameters and calibration of risk assessment tools. It would also establish responses to new or serious issues arising in the pensions system or at individual AFPs.

SBS appears to be fortunate in the skills and dedication of the staff of the Pensions Directorate. Ensuring that staff appreciate the wider picture and sustain a focus on risk rather than detailed process is always an ongoing challenge. Involving staff in the development of RBS methodology, supervision guides, etc., will help reinforce the right attitudes.

8 Key recommendations

The approach taken to RBS by the Pensions Deputy Superintendence is fundamentally sound but has plenty of scope for refinement, as discussed at relevant points in the report. Following are key recommendations derived from the report:

- As part of a corporate narrative, develop more explicit strategies to address major risks including market risk, employer debt and excessive commissions, that build on the valuable project to simplify the decumulation process for better outcomes.
- In particular, work with the industry to address the serious reputational issues, not least through promoting a more effective regulatory grip on the level of commissions, ideally through some form of economic price regulation; develop the multi-fund system to more effectively protect affiliates from crystallisation of market risk.
- Establish and promulgate definitions and approaches for the various components of the risk assessment model that are as consistent with corporate definitions as is sensible so as to establish a common corporate methodology for all three supervision departments, or for the other two departments if the investment risk supervision department decides its matrix should be aligned with the corporate matrix.
- Establish definitions for all risk categories and risks that are assessed in the risk model.
- Establish a risk dashboard to replace entity-level risk scoring), and define KPIs for each risk category.
- Prepare supervision guidelines based on a principle plus criteria model, particularly for corporate governance, and consider whether publication of some aspects of the guidelines would help clarify and clearly communicate to AFPs what is expected of them.
- More generally, re-orientate the methodology for assessing corporate governance to incorporate structured interviews and involve all three supervision departments.
- Clarify how different levels of net risk will influence the way supervisory findings are reported and the level of action that will be taken against AFPs when problems are more serious; clearly define the circumstances under which immediate intervention would be required and how such intervention would be implemented.
- Establish a risk unit and committee to oversee and steer RBS methodology within the Pensions Directorate.

Finally, this report has, as requested, placed considerable emphasis on risk assessment methodologies, but these are just tools designed to facilitate consistent and defensible judgments regarding risk. What is most important is that SBS remains alert for serious risks and takes timely and decisive action where they are identified.

Annex A: Terms of reference

Peru - Labor Markets Division (SCL/LMK) - Pensions in Latin America and the Caribbean (PLAC) Network Technical Assistance: Risk-Based Supervision at the Peruvian Pensions Supervisor (SBS)

Background

Established in 1959, the Inter-American Development Bank (IDB) is the main source of financing for economic, social and institutional development in Latin America and the Caribbean. It provides loans, grants, guarantees, policy advice and technical assistance to the public and private sectors of its borrowing countries.

The PLAC Network's main objective is to improve the institutional and technical capacity of pension institutions in the Latin America and Caribbean region. This Network provides technical support for member countries with the following specific activities: (i) supporting the areas of regulation and supervision of pension systems; (ii) providing technical support to pension policies with emphasis on coverage, sustainability, adequacy, equity and efficiency of pension systems; and (iii) fostering experience exchanges between countries in and outside the region. The PLAC Network provides technical support for policies and regulations with a long-term horizon, focusing on strengthening human capital and governance.

Peru's defined contribution pension system was created in 1992. It currently has 6.4 million savers including 2.7 million regular contributors, four pension providers and $43 billion in assets under management. Over the last few years, SBS has been evaluating migrating its approach to regulation and supervision from a norm-based to a risk-based framework. Indeed, SBS needs to build its own methodology, considering internal and external factors. This migration process is being carried out in different ways inside the organization by human resources and information systems.

Consultancy objectives

The main objective of this consultancy is to establish strong foundations for RBS regulation, methodology and implementation process with the purpose of strengthening the RBS framework.

The specific objectives of this consultancy are the following:

- Evaluate SBS's overall RBS regulation and its supervision methodology in accordance with international best practices, and provide recommendations on both areas.

- Evaluate the consistency of SBS's risk measurement methodology, considering there are different approaches within SBS, according to the processes involved: accumulation, investment and decumulation.
- Provide SBS with the requested specific recommendations regarding this evaluation, including how to achieve a global rating of supervised companies.

Main activities

- Review available materials, provided in advance by SBS, with translations where possible. These should include any RBS regulations, manuals, risk analyses, matrices and assessment criteria, the latest supervision plan for SBS and information about any guidance materials provided to supervised entities, including regulations.
- Perform an initial expert presentation to management and another to relevant staff on the methodology used in the evaluation and the information needed, in the latter case focusing on the approach adopted to risk assessment.
- Conduct expert interviews with SBS's management team, supervisors and regulatory department.
- Conduct an expert-led workshop with SBS front-line supervisory staff and their management on the activities involved in on-site supervision and results achieved.
- Conduct an expert-led workshop with SBS staff and management involved in financial and operative analysis of supervised entities, particularly related to affiliate investments.
- Conduct an expert-led workshop on the application in practice of the risk assessment methodology.
- Conduct expert interviews with the management of pension managers.
- Conduct an expert meeting with senior management at the end of the visit to discuss emerging findings.
- Prepare a draft report with diagnosis and recommendations in accordance to the specific objectives mentioned above.
- Present and explain the emerging findings from the technical visit to SBS supervisors.

Annex B: Meetings with AFP representatives

Meetings were held with the CEO of Integra and the CIO and CRO of Prima. They focused on the risks in the system and the value added by SBS.

Risks in the system

AFP representative identified legal changes enabling affiliates to take up to 95.5% of their accumulated fund in cash at retirement, coupled with several loopholes that enable them to take the balance earlier as biggest risk in the system. This risk is exacerbated by the absence of other old-age provision, which means that these actions could lead to serious poverty. The representatives expressed hope that there would be serious research into the decline in retirement outcomes following this legal change – but this would take several years. It does not help that this change in law has not been reflected in changes to the regulatory regime for investment and operations.

The reputational impact caused by this change is the result of a system where public ignorance is exploited by politicians and the media who use AFPs for political capital or to sell newspapers. AFPs therefore see the management of reputational risk as their biggest challenge. One dimension of this is the negative publicity that can arise from mistakes that affect the elderly or infirm. Another dimension is the negative publicity when unit values fall, as frequently occurs for fund 3 and can be reputationally damaging even though only 14% of affiliates are in that fund. Prima (or was it the AFPs generally?) is using a consultancy to assist with reputational risk management and talking to stakeholders to identify the main risks in each relationships, using an opinion survey. The AFPs view SBS and Congress as very important, and the representatives stated that influencing their views is a priority. They also identified the annual statement to affiliates as an instrument that, with improvement, could serve as a good communication tool.

The representatives denied that fees are all too high. The representative from Integra stated that the salary fee alone is equivalent to under 70 basis points (bps) on assets under management (AUM) and said that although the combined salary and AUM fee is significantly higher (125 bps), some affiliates would be better off with this fee. Over time, the proportion of AFP costs attributable to the sales force has gone from around two thirds to closer to a third. The political issue, however, is the return on capital, which is perceived as excessive, especially during negative market movements. The representative said that in Integra's experience setting fees below those of the competition does not increase market share; for some years they charged 1.8% of salary compared with the competition's 2.5%. They have proposed suggestions such as a 70 bps AUM fee augmented with a performance-related fee, but Congress has not run with this. The representatives did not express interest in economic regulation.

More generally, the representative pointed to the issue of low participation, which they said is causing the system to fail to achieve its social welfare objective. For established workers in the formal sector, the system works fine, but initiatives to involve informal and self-employed workers have made little headway. One issue is the ineffectiveness of tax incentives given the fact that 70% of the workforce do not pay income tax because their income is below of the relatively high threshold of 40,000 soles. Mobile banking could potentially be harnessed by providing incentives through reduced VAT, but in the current fiscal situation, reducing tax revenues is not attractive to the government.

The representatives recognised that the large number of affiliates over 55 in fund 2 exposed the system to market risk, which could be addressed by changing the fund structure and having the courage to introduce more default changes of fund. There affiliates are also staying longer in fund 0 than was intended. It is unfortunate that the regulation is not explicit about the purposes of each fund.

According to the representatives, the limitation on foreign investment, effectively 46-47%, is problematic given the limited local opportunities and market liquidity. There are few alternatives in Peru that can add value and considerable concentration risk.

Prima now views its governance as strong, having significantly improved since a consultancy three years ago. There is strong board interest, including from two independent directors. They take the monthly risk reports seriously at their bi-monthly board meetings. Respective roles between management, committees and the board are clear, and the board approves the annual review of investment strategy.

The CEO of Integra saw a window of opportunity for the system to be improved before the 2021 election when politics would likely become more intense again. In this time, regulation and affiliate-facing processes could be simplified, matching contributions for voluntary saving explored, the fees issue addressed, etc. He describe how it is easy for an affiliate to take cash upon retirement because of political pressure at the time the process was defined. It is much more complicated to take an annuity, which he said was the wrong way around if the policy objective is to promote retirement income.

Supervision and regulation

Overall, the representatives expressed appreciation that SBS has made great advances in the last two years or so. They are more consultative and are focusing much more on adding value. They have enabled a more sophisticated investment approach, although too many detailed limits remain, the management of which causes unnecessary work. They suggested a system based on tracking error would be better.

They had little complaint about the routine work of SBS being over-intrusive, except that some audits are too frequent and supervisors could trust the AFPs more to do a good job. The felt the intensity of scrutiny is not cost-justified. Reports are more timely than in the past. But, they noted that when there is a public or political issue, SBS can over-react by demanding more information than it needs to cover is back and be seen to being tough. This distracts the AFP from doing important things. The representatives felt that some of the requirements of SBS relating to investment in new asset classes add little value and are over-restrictive. For instance, there may be ten ways of undertaking due diligence but only two are allowed by law, and some, e.g., private equity, investments may be impossible because the instrument does not tick all the right boxes.

The investment regime the representative saw as being overly rigid, with the minimum return guarantee preventing significant deviation from market average behaviour, as Prima found, to their cost, when they set an independent benchmark several years ago, even though they beat their own benchmark. Hence the SAA is now used just as a tool without supplying a benchmark portfolio. Fund analysis is of net investment costs. Foreign investment is generally in ETFs, or mutual funds where efficient ETFs are not available.

In the representatives' view, most, though not all, AFP supervisors within SBS have a good understanding of the bigger picture and what needs to be done to sustain and improve the system. They recognise many of the issues with over-detailed regulation that works against affiliate interests but cannot always obtain agreement from elsewhere within the organisation, especially the legal department, which, rather than being a service department, has equal status with the AFP supervision directorate. This has prevented or delayed valuable regulatory change. The requirement for regulatory change to be approved by Congress is also a limitation as there is always a risk that changed regulation could be worse than the existing. More generally, they felt the complexity within the SBS structure makes it harder to lobby effectively.

The appreciated that SBS has moved away from issuing sanctions for trivial infractions.

Annex C: Exemplar risk definitions

- **Investment strategy risk:** that the strategy formulation and first-level implementation process does not optimise return (vs risk) for a fund relative to the objectives of the fund's affiliates, with the consequence of reduced long-run net return and reputational damage
- **Market risk management:** that the management of the definitions and volatility levels within a multi-fund are ineffective to prevent excessive losses to affiliates when an affiliate changes funds (involuntarily) or retires

Note that there is some overlap between these two

- **Liquidity management risk:** that an AFP fails to manage liquidity so as to minimise the likelihood that it has to sell volatile or illiquid instruments at a loss in the event of a net out-flow from a fund, with the result that affiliate accounts perform less well than they should (no reputational dimension?)
- **Affiliate communication risk:** that an AFP does not manage the process of providing all new and ongoing affiliates with legally required communications in a way affiliates are likely to understand and potentially act on positively, with reputational or 'regret' risk consequences
- **Affiliate election risk:** that an AFP applies insufficient effective effort to ensuring that affiliates make the right choices at retirement, resulting in loss of social welfare and 'regret' risk. Note that systemic assessment of this risk is probably more important than AFP-level assessment

IDB

Inter-American
Development Bank