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Moving towards risk-based supervision

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Outline

- Motivation
- Implementation
- Challenges ahead

Motivation

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- **A supervisor will be probably willing to move towards a risk-based approach because it allows to:**
  - Anticipate problems
  - Find the root of the problem (as opposed to just the consequence of it)
  - Flexible to adapt to the fast development of financial markets
  - Allow more degrees of freedom to pension fund managers
  - Promote efficiency gains (more resources where more risks are)
  - Increase consistency of supervisory action
  - Improve risk management in the industry (compliance-based may provide an illusionary sense of security)
  - Harmonization with local and foreign supervisors
  - In line with best practice

Implementation

- **FIRST/WB assistance project**
  - Phase 1: Diagnosis and recommendations (Jan 06 – Nov 06)
  - Phase 2: Develop a risk-scoring system, a risk-based regulation, and improve the internal organization of the agency (Mar 07 – Dec 08)

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Implementation

RBS Team

- People from different divisions (supervision, legal, studies, etc.)
- With a strong support from the agency's senior staff
- Its goals are to
  i. agree on a common view and language among the agency,
  ii. develop and disseminate knowledge about RBS techniques and practices,
  iii. propose RBS model for the agency (with external assistance), and
  iv. propose a RBS implementation plan for the agency

Implementation

- **First consideration: what is the 'social good' we want to protect? (I)**
  - One of the things we have learn (or rediscovered) is about the 'social good' that we want to protect
    - In banking, insurance and DB pension systems the 'social good' is '**solvency**'
    - In DC pensions the social good is the '**fiduciary duty**' of the fund manager (e.g., act in the best interest of the client, avoid self-dealing, conflicts of interest, unauthorized profits, etc.)

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Implementation

- **First consideration: what is the 'social good' we want to protect? (II)**

  - This is very relevant as DC pensions systems do not have an explicit obligation of providing a specific replacement rate to the members, only the promise of being diligent in the asset management function
  - Pension fund managers are therefore expected to act in the best interest of their member. The challenge is to come up with an objective judgment
  - An additional layer of complexity is that 'fiduciary duty' in countries of civil-law origin is specially hard to enforce

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Implementation

- **Another consideration: what is the risk tolerance of the agency?**
  - It is a mandatory system
  - As opposed to most recent adopters of the risk-based supervision approach for pensions, the number of supervised entities in our case is small (i.e., 1 in the 1st pillar, 5 in the 2nd and 3rd pillar, and 1 in unemployment insurance)
  - In addition, 2nd pillar savings account for a huge fraction of the old-age income for most of future pensioneers

- **As result, our risk tolerance is low.**
  - We cannot tolerate a publicized fraud or something of that nature within a supervised entity, as it would affect a huge number of participants and put the whole system in danger.

Implementation

- **FIRST/WB assistance project**

  i. Defining a risk-scoring model
  ii. Reorganization of the agency
  iii. Issuing new regulation
  iv. Capacity building

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Implementation

Defining the risk-scoring model:
(Components to be evaluated)

Inherent risks	Management & controls
• Counterparty default risk	• Board & Board committees
• Fiduciary risk	• Senior management
• Market risk	• Operational management
• Liquidity risk	• Management of information systems
• Legal & regulatory	• Risk management
• Strategic risk	• Compliance
• Contagion & related party risk	• Internal control
	• Access to additional capital

Implementation

Reorganization of the agency (I)

- The current organizational design of the agency privileges a specialization-approach over a functional-approach (supervision units are divided by specialty: Collection & transfers, Investment, and Payment of benefits)
- This design responds to the challenges that the agency faced since its creation (i.e., the birth of the system 25 years ago)

Implementation

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Reorganization of the agency (II)

- In addition, the agency's organizational design was regulated by law and was difficult to change. Fortunately, the recent pension reform created an opportunity to change this
- RBS approach demands a higher level of consistency in the supervision activities (so that different areas can be compared). This naturally points into the direction of consolidating the supervisory activities under a common head

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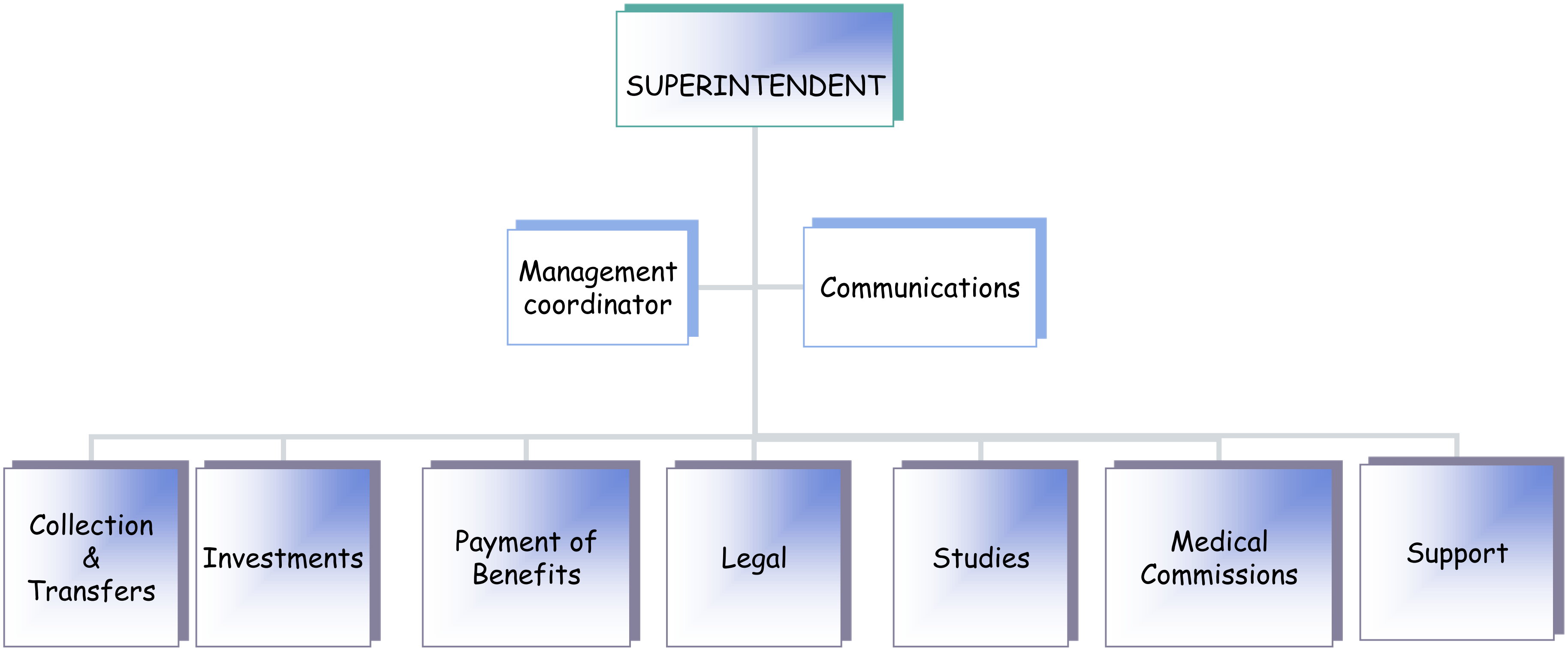
Implementation

Current organizational design



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Implementation

Reorganization of the agency (I)

- **Our analysis** considered the following aspects:
  - **Key functions** → *central* : Supervision & Regulation; *non-central* : Strategic planning, specific services stipulated by law (e.g., price vector, etc.), communicate and inform; & **Supporting functions** → Legal, IT, resources (human, financial & physical), and follow-up of goals
  - Currently, there is scope for potential conflicts of interest in putting together regulation and supervision
  - Superintendent deals directly with 7 reporting lines of businesses and 2 supporting functions
  - The agency does not have a board structure → function of internal advisory is missing

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Implementation

Reorganization of the agency (II)

- The new design should take into account the following elements:
  - Avoid conflict of interest between functions (supervision & regulation)
  - Reduce the reporting lines of businesses (currently 7)
  - Facilitate the consistency of supervisory action (i.e., all supervision activities should use a common methodology)
  - Include new high level positions (e.g., intendancies) to partially make up for the missing internal advisory function

Implementation

Issuing new regulation

- The recent pension reform
  - Creates the figure of the 'investment regime'
  - Creates an 'Investment Advisory Board'
  - Allows a broader use of derivatives
  - Allows the use of risk measures beyond quantitative limits
- These new degrees of freedom go hand-by-hand with risk management requirements
- We have been considering several alternatives.
  - 2 focal points: Mexico (detailed regulation) and Australia (general regulation)
  - Domestic banking, securities and insurance regulators
  - Basle committee, etc.

Implementation

- **Capacity building**
  - Training on risk management standards (with the help of banking and insurance supervisors, public seminars, audit firms, etc.)
  - Systems (interviews with different IT providers)
  - Study tour to Australia

Implementation

- **Summary of our experience**
  - We have focus on
    - Learning about
      - Level of awareness in the industry
      - Methods and practices of other financial supervisors
      - international standards in risk management
    - Generating a common view inside the agency

Challenges ahead

How to measure long term financial risk? (I)

- To measure risk we need a riskless reference point. How to find that point?
  - Probably, it is related to the portfolio that finances the deferred annuity that an insurance company would be willing to sell.
  - What if long deferred annuities do not exist, or really long term bonds are not available? Well, we could try to come up with the closest 'replicating portfolio' (following the option pricing theory).

Challenges ahead

How to measure long term financial risk? (II)

- After finding the riskless point, how will we measure the distance to it?
  - We could use a short-term risk measure like VaR, relative to the riskless reference point, or
  - We could try to evaluate the impact of the pension fund portfolio in final pensions. In this case, we would probably need stronger assumptions (investment strategy of the fund manager, DGP of asset returns for longer horizons, etc.), but we should be able to find stronger results
  - Which way to go? **We are in the process of analyzing this**; although both exercises are necessary to carry on (i.e., the estimates 1st one will certainly be more precise, but the estimates of the 2nd are needed to calibrate the actual 'pension risk')

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