Solange Berstein
Superintendent of Pension Fund Administrators

Seminar on Ageing, Pension Risk Management and Financial Stability
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Contents

1. Motivation
2. Current Regulation in the case of Chile
3. Lessons to be drawn
4. How should we proceed?

- In a DB pension system the main risks are concentrated on the solvency of the sponsor.

- In a DC pension system the main risks are bear by the member, through the pension that will be received.

Mitigate this risk is our challenge

Why is this so relevant?

- Unlike some other countries, the pension represents a sizeable fraction of retiree’s total income.
  - For men older than 65 years, it represents 80% of total income.
  - For women older than 60 years, it represents 84% of total income.

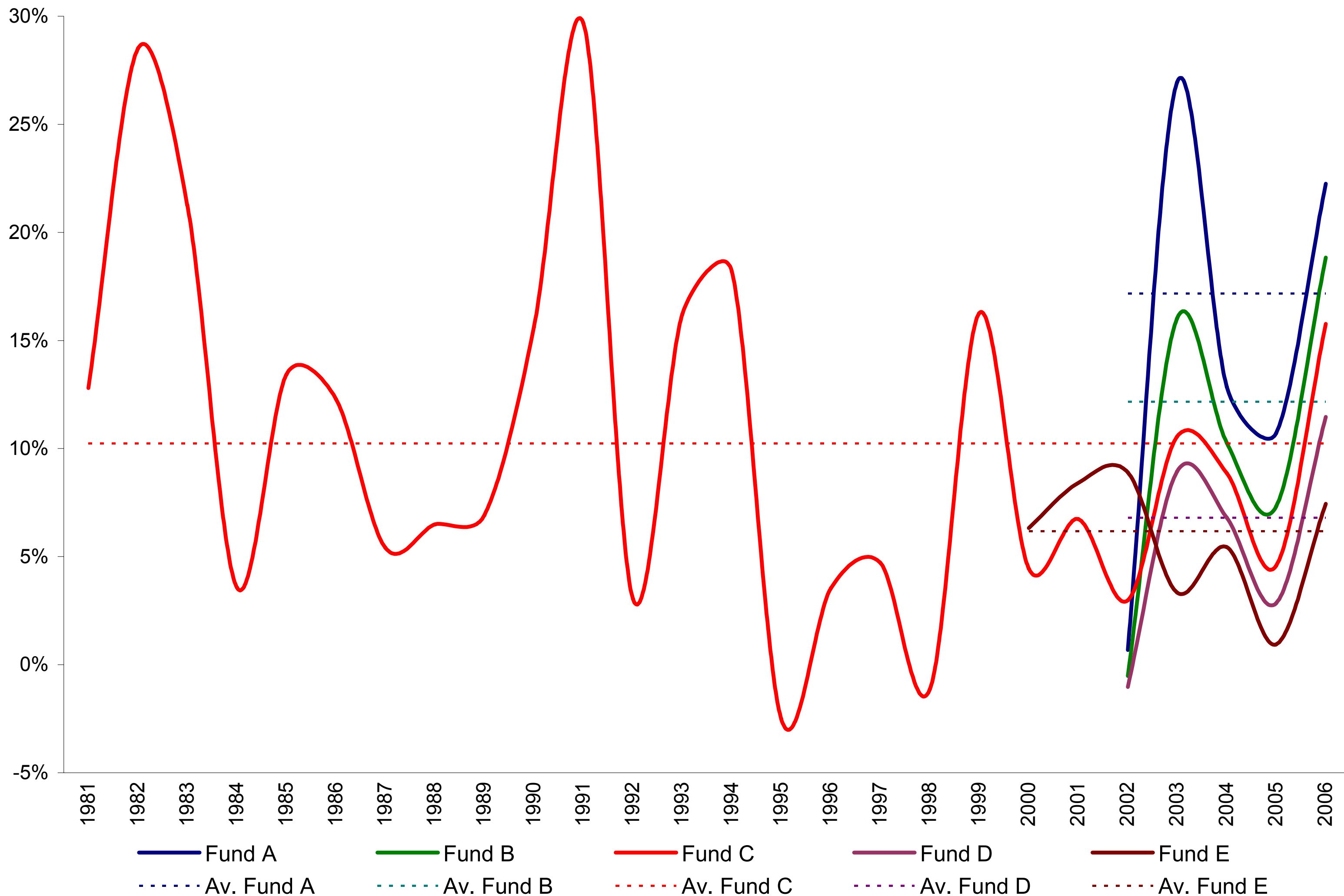
We are therefore dealing with the major source of income of our future retirees

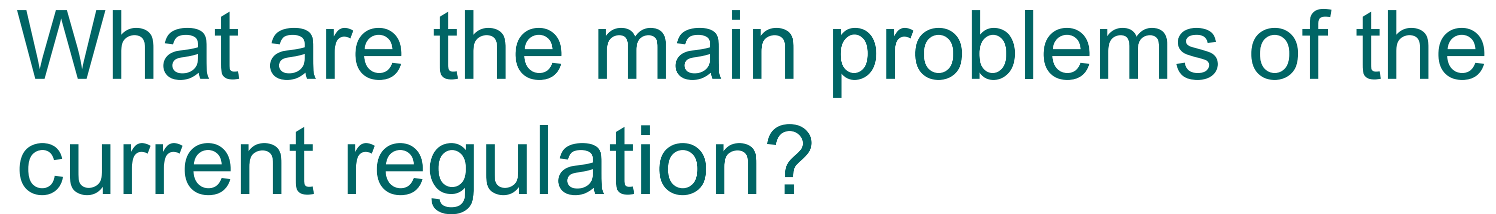
- Longevity
  - Demographics
- Pension fund's rate of return
  - AFP portfolio management, capital market, and regulation.
- Profile of contributions
  - worker's human capital, employer, and labor market.

How is the pension risk being currently controlled?

- Quantitative portfolio restrictions.
- Minimum rate of return requirement.
- Reserve (1% of the fund value -“encaje”).
- Conflicts of interest regulation.
- On line reporting of pension fund investments.
- Cross-checking of information among financial institutions (stock exchanges, custody providers, etc.).

A good rate of return… but what about risk?





What are the main problems of the current regulation?

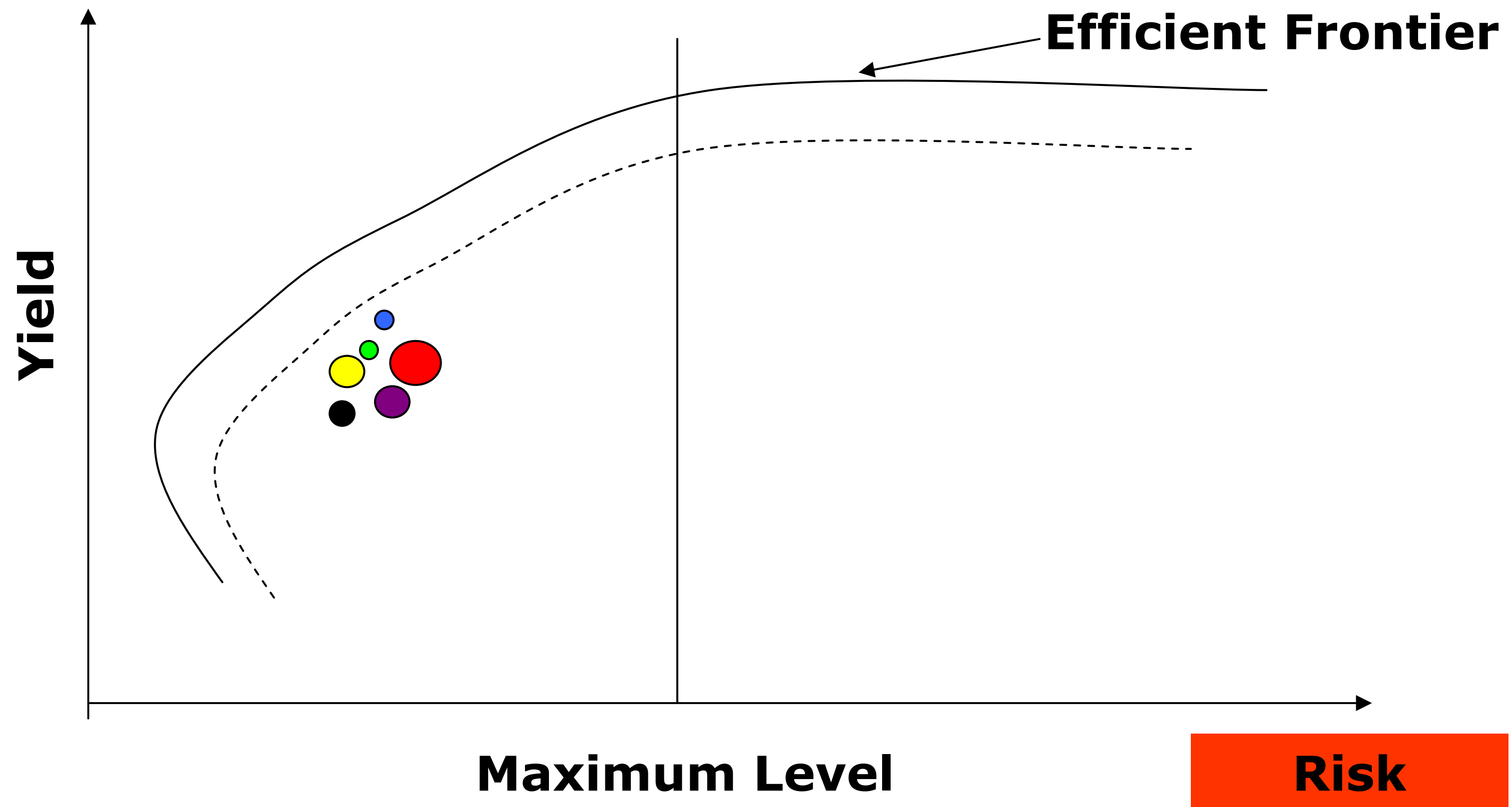
- The focus of the regulation has been put on portfolio restrictions aimed at the diversification of the portfolios
- The measurement of portfolio risk is not included in the regulation
- In general, fund managers worry about relative risk and not absolute risk, not only because of the minimum yield but also because of commercial implications

Pension Funds could be assuming excessive risk, which could affect future pensions

Portfolio restriction costs

- The complex regulation is not free of costs
  - Costs in diversification and therefore maximization of yields:
    - Berstein and Chumacero (2004) estimate that the costs in terms of diversification would be in average a 10% of the fund's value.
  - Other issues
    - Set of portfolio restrictions presents inconsistencies
    - There are some limits which are not applicable, or not binding.

What do limits and minimum yield imply?



Risk measurement: What would we like to do?

- What are the events of interest?
  - Receiving less than the “sufficient” source of income (thought of as a “notional” liability for the system).
- How can they be measured?
  - The likelihood of its occurrence.
  - The monetary loss of its occurrence.
- Once the occurrence and consequences of the events of interest have been assessed, the next step is to provide incentives for the fund manager to act in accordance with some pre-specified “risk limits.”

How could we do it? Possible mechanisms

1. To measure the “portfolio risk” of the pension fund and subsequently set a limit to the risk level

2. To delimit the set of “appropriate portfolio strategies” periodically considering an appropriate risk measure

3. To impose reserve requirements based on the mismatch between the assets and the “notional” liabilities of the system

What are we doing in the case of Chile?

- The complex set of quantitative restrictions is costly. We are now moving towards making it more simple and dynamic.
  - New reform keeps only structural limits
  - It provides the basis for establishing 'risk-based limits'
  - Those should be focused on long-term risk
  - Affiliates should be informed about risk measures

- Technical Investment Council approves investment plan designed by the regulator (SAFP)

- Each AFP should elaborate its own plan which is submitted to its board's approval and controlled by the regulator

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