



# Evaluating the Financial Performance of Pension Funds

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# Motivation

- The provision of retirement income - pensions have moved from PAYG DB arrangements to where the provision is backed by assets.
- This links pensions to performance of these assets, resulting in participants retirement income level being exposed to investment uncertainties
- Current crisis has highlighted the danger of this exposure
- Large losses during the financial crisis

# Excessive emphasis on short rates of return

- Monthly or annual returns of pension are not totally meaningful
  - DC pension funds are designed to maximize the value of pensions at retirement age, and not the day-to-day return on assets
  - Returns do not tell anything meaningful about long-term empirical findings
    - Equity premium; mean reversion; volatility of equity returns in medium and long term
- International comparisons of returns or other measures of performance such as the Sharpe ratios might not be totally meaningful either

# Excessive emphasis on short rates of return

- Competition is unlikely to bring pension portfolios towards their optimal long term levels
- Regulation typically provide incentives for pension fund managers to focus their efforts on maximizing short-term returns.
- It creates the impression that by focusing on short-term returns, contributors will maximize their portfolios
  - Mutual fund model

# Short- versus Long-Term Strategies

- The market does not have the incentives to find the long-term equilibrium

	Short-term strategy	Long-term strategy
<b>Risk free asset</b>	T bills	Long-term inflation index bonds
<b>Currency hedging</b>	Hedge	No hedge
<b>Equity Investments</b>	home bias & traps	international diversification
<b>Liquidity</b>	performance for liquidity	Investment in growth instruments and alternative assets



# Traditional DC scheme

- Competition is unlikely to bring pension portfolios towards their long-term optimal levels
- Pension systems with minimum return guarantees (MRG) may bring pension portfolios towards suboptimal levels
  - Multiple equilibrium



# Traditional DC scheme

- Regulation provide incentives for focusing on short-term performance
  - MRG are measured monthly or quarterly
  - Managers are evaluated according to returns
  - Contributors do not know how to use the information on returns



# The (un)promising future of life-style funds (multifunds)

- Some governments have opened up the number of investment opportunities through the creation of life-style pension funds (multifunds)
- These systems fail to recognize the complexity of the portfolio decision for the contributors
  - What is the optimal level of equity allocation for a 20 year old?
    - 30 % (Mexico)?; 80% (Chile)?; 75 % (Estonia)? Up to 100% (Lithuania)?
  - Investments in financial education are not likely to see results in the next decade



# The (un)promising future of life-style funds (multifunds)

- The inability to choose properly is likely to result in suboptimal portfolio allocations and ultimately low pensions



# Rebalancing the equilibrium between the government and the market in DC pension systems

- The design of benchmarks is essential for optimizing the value of the benefits received at retirement.
  - Benchmarks should be set by an independent body (i.e. commission of wise persons)
  - Role of the Governments in sponsoring these commissions
- Although each individual may want to follow a different benchmark, grouping is a viable alternative
  - Limited welfare losses associated to grouping



# Measuring Financial Performance of Pension Funds

- Pension funds need to measure performance against optimal long-term benchmarks
  - The pension fund management industry may not have the right incentives in designing long-term portfolios (competition in US target date funds)
- Performance need to be measured in terms of welfare
  - Tracking error is an alternative, but with multiple limitations
  - Traffic light system is a better alternative, but require a sophisticated risk based supervision system



# Measuring Financial Performance of Pension Funds

- Competition among pension fund managers should focus in finding the “alpha”



# Parameters for defining long term benchmarks

- The presence of other sources of retirement income, including the income from public retirement schemes.
- The age of individuals.
- The rate of contributions.
- The target replacement rate and its downside tolerance.
- A matrix of correlations between labor income and equity returns

# Parameters for defining long term benchmarks

- The expected density of contributions for different categories of workers.
- Type of retirement income in the payout phase
- A parameter that reflect the risk aversion of policymakers

# Thank You

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