Building Efficient 2nd Pillars: Market Frictions and Policy Options

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Savings play an essential role in pension systems, independently of fiscal viability and equity concerns

Risk of Loss due to:	*Likelihood / Size of Loss*	*Primary Protection*	*Risk Mitigation Instrument*
Outliving Ability to Work	Raising Prob / Large Loss	Saving	DC Pension Fund
Premature Disability or Death	Low Prob / Large Loss	Pooling	Disability Insurance
Outliving Savings in Retirement	Raising Prob / Large Loss	Pooling	Annuity
Poverty in Old Age	Declining Prob / Large Loss	Pooling	Social Safety Net

The financial system and its paradigms

- Pension reforms put the financial system at the center stage
- This implies that pension fund administration has to cope adequately with *fundamental financial market frictions and failures*

A Paradigms Approach

(De la Torre and Ize, 2010)

Agency	Collective Action	Cognition
Adverse selection	Externalities	Mood swings
Moral hazard	Free riding	Inefficient info equilibrium
Shirking	Coordination failures	
False reporting		

The Chilean 1981 reform approach

- Agency problems
  - Collateral: “skin in the game” (*encaje*)
  - Monitoring: regular (mark to market-based) disclosure
  - Exit: competition/freedom of choice of AFP
  - Specialized supervisory agency (delegated monitoring)

- Collective action problems
  - Mandatory participation in the system
  - Minimum pension guarantee (pooling)

- Cognition problems
  - Minimum return guarantee (MRG) and regulatory limits on portfolio composition – although this link was not made explicit originally
  - Implicitly a “big brother” approach, given political risks and fundamental uncertainties

Shortcomings of the 1981 Chilean model

- Agency problems
  - AFP’s incentives are not aligned with those of the contributing workers
    - AFP’s incentives dominated by next period returns and bonuses
    - Competition cum MRG exacerbate short-termism (Castañeda & Rudolph, 2010)
      - MRG becomes a wrong benchmark – invariant to lifecycle stage
    - *Encaje* is not enough to lengthen AFP investment horizons

- Collective action problems
  - Individuals do not internalize the cost to the system of excessive switching
  - Mandatory participation applies only to dependent workers
  - Competition on a hybrid product (account management & portfolio management) creates inefficient outcomes (e.g., high marketing costs)

- Cognition problems
  - Contributors’ bounded rationality
  - Mood (risk aversion) swings in asset management

Modifications to the Chilean model during 2001-08

- Agency problems
  - Multi-funds (AFPs required to offer choices through life style funds)
  - Liberalization of portfolio management
  - Risk-based supervision to ensure that pension funds operate with adequate risk management standards

- Collective action problems
  - Auctioning new entrants to lowest cost AFP
  - Restrictions on excessive switching
  - Zero pillar (tax-based pooling, as cost of recognition bonds declines)
  - Mandatory participation expanded to cover independent workers

- Cognition problems
  - Default option (although link not made explicitly)
  - Financial literacy programs

Pending issues and the unending search for balance

- Agency problems
  - Residual misalignment of principal-agent incentives is inevitable
    - AFPs are asset pure managers that do not have a formal liability to contributors
- Collective action problems
  - Industrial organization does not cleanly separate accounts management from asset management functions, thus encouraging wasteful competition
    - Competition in areas dominated by scale economies and network externalities
- Collective cognition problems
  - Need to take seriously the presence of bounded rationality and the accumulated evidence from behavioral finance research
- However, tensions and tradeoffs should be explicitly recognized
  - Solving a problem under one paradigm can exacerbate other problems under the same or another paradigm

Our proposal

- Default lifecycle strategy – to address agency & cognition problems
  - Lifecycle benchmark portfolio composition is defined by a CWP
    - Performance of portfolios is measured against the benchmark
  - Lifecycle benchmark is designed to optimize future replacement rates
  - Scheme mimics a DB pension liability without introducing formal liability
- Reforms to address collective action problems
  - Separating accounts management from portfolio management functions
    - Regulated monopoly for accounts management (to exploit scale economies)
    - Competition in asset management
  - Blind accounts to eliminate incentive to incur high marketing costs
    - Asset managers do not know the identity of the contributors
    - Entry barriers (associated with sales force, office space, etc.) disappear
  - Consumer protection
    - Minimum standards on quality of service

Thanks

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5th CONTRACTUAL SAVINGS CONFERENCE

Towards Sustainable 2nd Pillar Pension Systems

Experience of Lithuania

Vilius Šapoka

Outline

- Current Characteristics of Lithuanian 2nd Pillar
- Weaknesses of a Liberal System
- Why Life-Cycle is a Solution?
- Key Steps Introducing Life-Cycle
- Life Cycle Project Outcomes
- Lessons Learned from the Implementation

Characteristics of Lithuanian 2nd Pillar

- 2nd Pillar is optional, but
- Once you in you cannot escape (opt out system)
- Life style funds (from conservative to 100 % shares)
- Managers select their own benchmarks
- Risk is limited only by diversification requirements

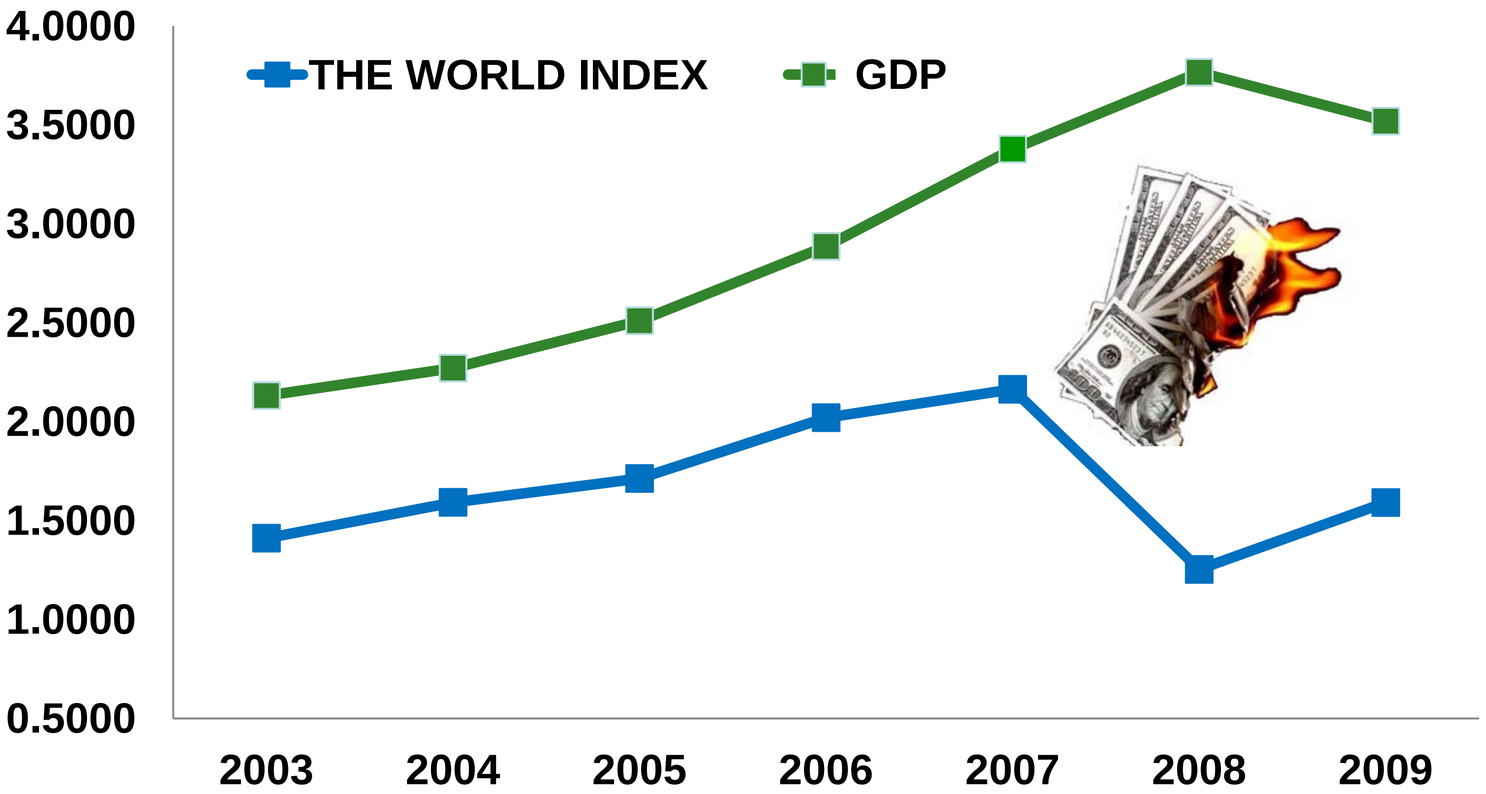
Difficulties in economic situation raised serious debates about feasibility of the 2nd pillar

Weaknesses of a Liberal System

- For a typical contributor it is too difficult to compare funds
- More than 2/3 are passive - one fund for the whole life
- Active clients follow one indicator – short term returns
- During crisis 92 % of contributors’ decisions were wrong
- Investments are determined by agent & client emotions
- 50 % are in the wrong fund according to contributors’ age
- System pushes managers to seek *Beta* to attract clients

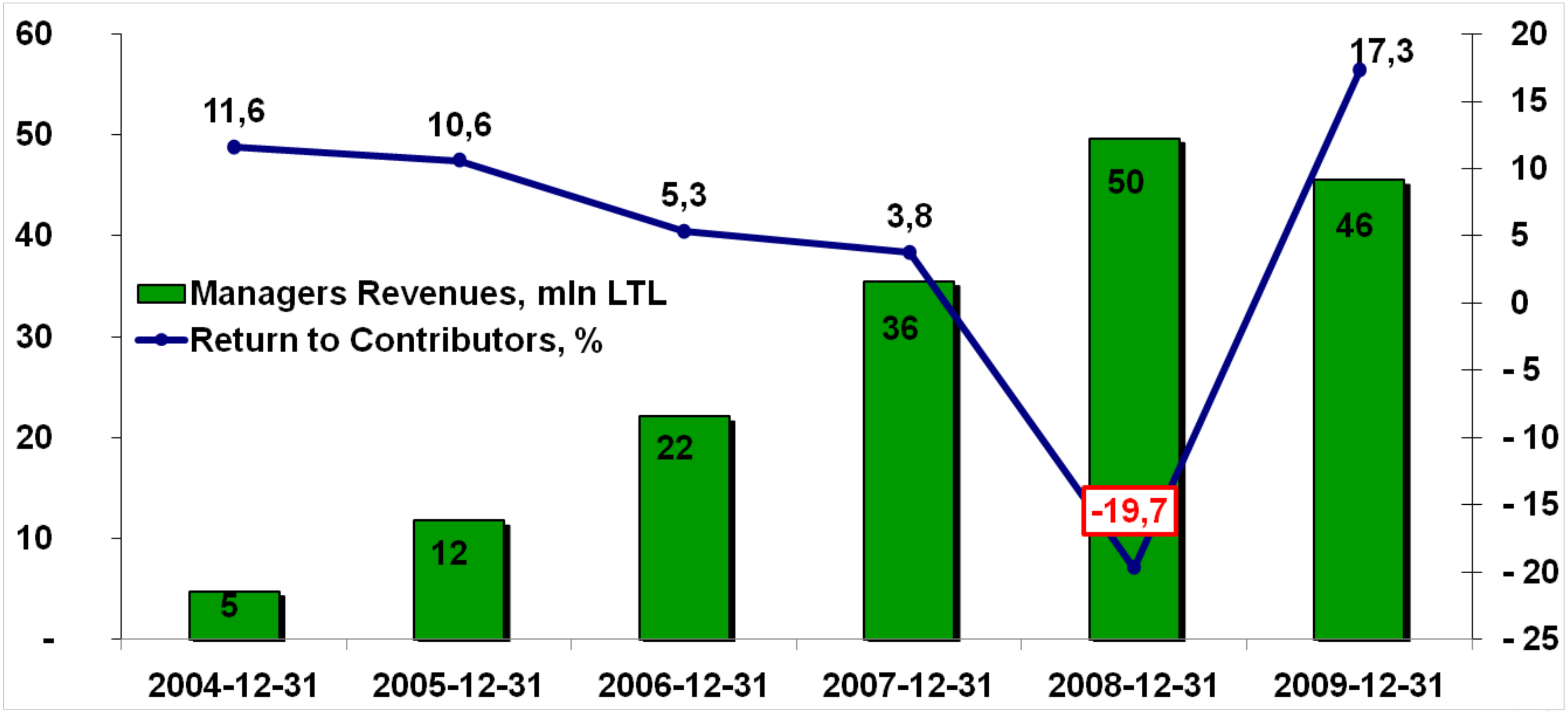
Competition for short term goals does not create value and makes the 2nd pillar unsustainable

Why Politicians Reduce Contributions?



Politicians "save" burning pensioners money for other good purposes. Unfortunately - short term

2nd Argument to Destroy 2nd Pillar…



Politicians cannot invest into inefficient systems…

Why Life-Cycle is a Solution?

- It is easy to understand for contributors & politicians
- Participants are still passive but it is pro not con
- Risk becomes measurable, comparable and controlled
- Risk is not rewarded, it is penalized if beyond budget
- Fund managers compete on efficiency and *alfa* not *beta*
- Long term goals become superior to short term ones

Asset allocation is in line with long term future pensioner interests

Cut of Contributions could be against Electorate Interests… (even in crisis times)

Who cooks the goose laying golden eggs?...

(*assets of senior citizens continue to grow)*

Why not to go shopping on black Friday?...

(*young people can buy cheaper assets*)

Key Steps Introducing Life-Cycle

- Support from the main decision makers
- Discussions to disclose all stakeholder fears
- Selection of a project team involving key stakeholders
- The main work streams:

Design & regulation group	Asset allocation group	Simulation and optimization group
Bias free benchmark governance structure Cutting overall 2nd pillar management costs	Selection of Assets and relevant indices or Strategic asset allocation Risk management	Constructing income profile Implementing optimization methods Parameter Calibration

Life Cycle Project Outcomes (1)

Benchmark Governance Structure:

- Permanent Technical Group
- Committee of Independent Wise Men
- Balance of Powers (different delegators)
- Benchmark Review

Management Efficiency:

- Unique Benchmark consists of global broad indices – precondition for passive management
- Centralized Accounting Operations System (new contributions, rebalancing, migration, etc.)

Life Cycle Project Outcomes (2)

Assets, indices, risk:

- Strategic Asset Allocation: equity & inflation linkers. Tactic Asset Allocation (limited): Fixed Income & Alternatives
- Global Broad Indices
- Risk Measure – Tracking Error as a function depending on market volatility. Traffic Light System

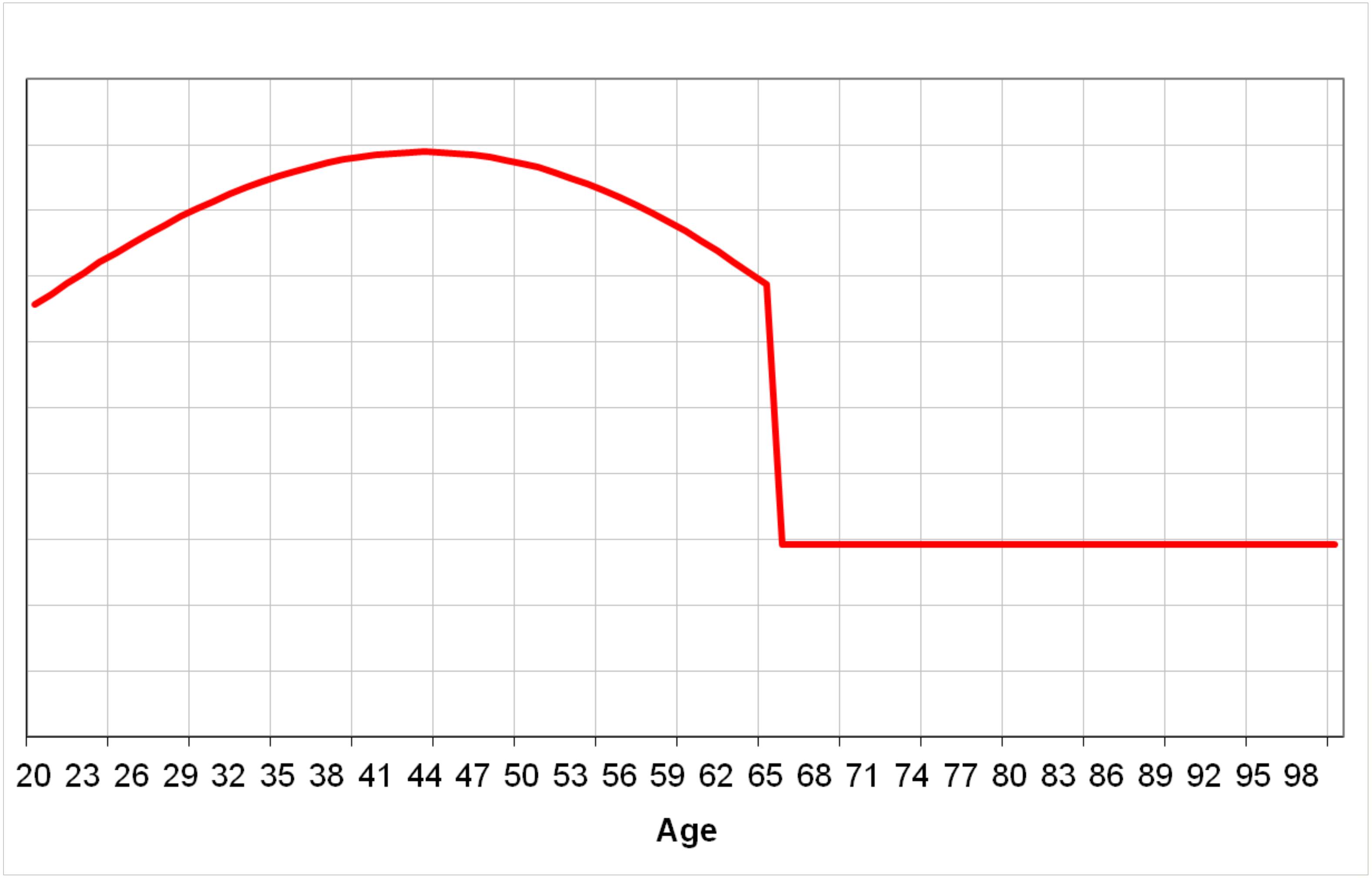
Model Optimization:

- Income profile of average individual based on labor income (1996 to 2010, 2.4 mln. individuals)
- The gliding path & Optimization within each fund are based on modified optimization model (Cocco, Gomes, Maennhout, 2005)

Gliding Path Parameters

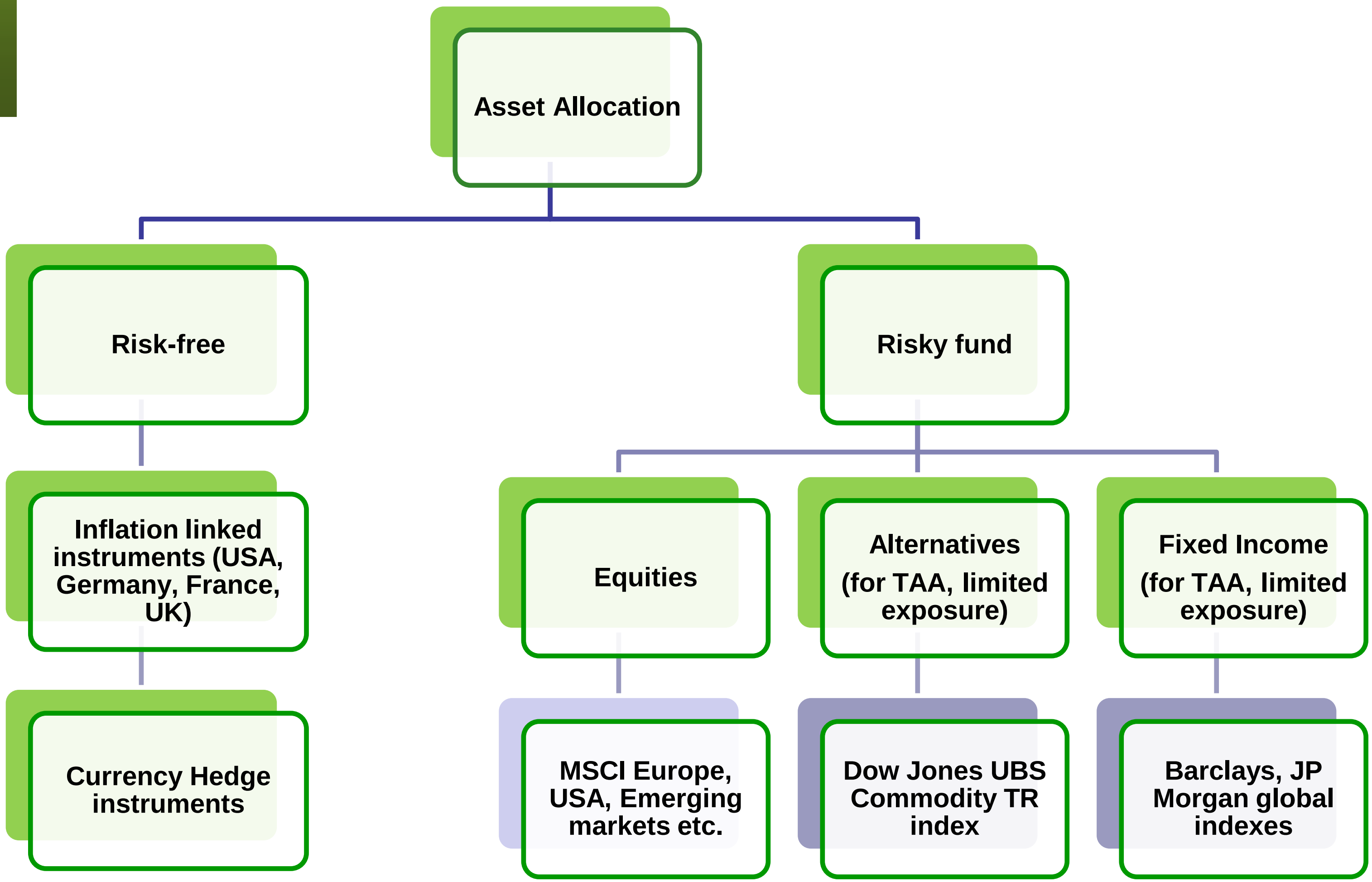
Starting Age	20
Age at Retirement	65
Replacement Rate	60%
Mortality rates (Eurostat)	2011
Risk-Free Rate	2 %
Discount multiplier	2 %
Equity Access Return	2,5 %
Temporary Income Shock	9,7 %
Permanent income Shock	4,18 %
Equity Volatility	15,7 %
Correlation between income and Equity	0.323
Risk Aversion	8

Income Profile



Gliding Path

Asset Allocation of Pension funds



Lessons Learned

- Clear goals – from the very beginning
- Political support is crucial considering GO / NOT GO
- Changing existing system requires compromises
  (e.g. complex legal issues do not allow blind accounts)
- There is no universal model – country adaptation is needed
- Building consensus with stakeholders is vital for credibility
- Involvement of wise men at an early stage is a must
- World Bank is the best consultant for Life Cycle

Prepare Convincing Answers in Advance...

- Why does not always Competition of fund managers create value?
- Why to finance the 2nd pillar even facing fiscal constraints?
- Why 1 benchmark is better than many?
- Why the 2nd pillar is still feasible?
(difficult to avoid political debates…)

Probably the only one argument that works:

Sooner or later countries not bothering about aging society will not have to bother about borrowing…

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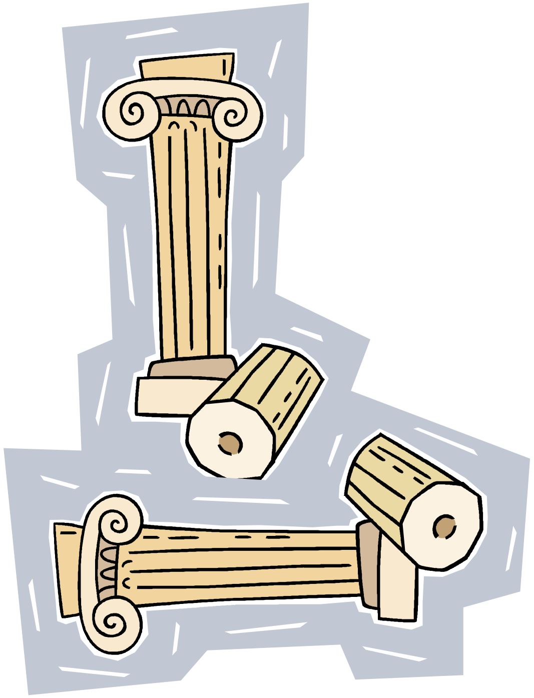

Towards Sustainable Second Pillar Pension Systems

5th Contractual Savings Conference – January 2012

Arun Muralidhar
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Key Observation: Asset Allocation Is Critical

- Many countries are reversing reforms in last 2 decades
  - Hungary, Argentina etc.
- Some (Azerbaijan) are about to embark on reforms
- Increasing recognition that pension guarantees are valuable, but expensive in DC plans
- Investment policies/processes/products are flawed
- <u>Asset allocation is probably most important decision</u>
- Best managed by a small group than delegated to broad market participants or individuals

Background: Leverage IBRD's Pension Experience

- With late Prof. Modigliani, argued as far back at 1997, that privatization would lead to trouble
- Problem was not with DB, but funding method (PAYGO)
- Asset markets not sufficiently developed, even in US
  - Poor investment experience and product development
- With privatization, the state would still provide basic retirement security (implicit guarantee)
- Cheapest way was a funded DB: e.g., World Bank pension
- Small group to decide asset allocation; risk sharing
- Can privatize physical investing of assets (alpha)

Some Experiences From the Last Decade

- Most DB funds = declining solvency because of static asset allocations (too much equity)
- US: Target Date Funds for DC Market
  - Department of Labor provided safe harbor
  - Asset Allocation changed automatically as you aged
  - Increasing allocation to fixed income (not "safe" asset)
  - Disastrous results in 2008 – many investors will not recover with a decent pension
  - Costs are high – detract from final pension
  - Managers do not offer "optimal portfolios"

Key Take-Aways on Sustaining Second Pillars

- Every decision is market timing – <u>even doing nothing</u>
- Markets are dynamic so asset allocation has to be dynamic
- <u>Fixed income/bonds may not be the safe asset – rising debts</u>
- Passing responsibility to individuals will lead to new crises
- If DB, easy to have Governance Board set Asset Allocation, but has to be intelligent (wrote a new book about this)
- If DC, maybe set Asset Allocation based on cohort, but has to reflect market (and not just naïve factors like age)
- Have to educate participants about making better decisions

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Arun Muralidhar - Bio

- Co-authored "Rethinking Pension Reform," *Cambridge University Press, 2004,* with the late Prof. Franco Modigliani (Nobel Prize Winner)
- Author of "SMART Approach to Portfolio Management," *Royal Fern Publishing, 2011* and "Innovations in Pension Fund Management," *Stanford University Press, 2001*
- Currently work with pension funds to help make intelligent asset allocation decisions to achieve pension objectives
- Managing Director and Head of Currency Research, JPMIM, 1999-2001
- Head of Investment Research and Member of Investment Management Committee, World Bank Investment Department, 1995-1999
- BA, Wabash College (1988); PhD, MIT Sloan (1992)

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Comments - Session2
Towards Sustainable Second Pillar Pension Systems

David Tuesta

The World Bank 5th Contractual Savings Conference | January 9th, 2012

Towards 2nd pillar pension system

Three urgent aspects to take into account:

- **Coverage** (more participation and better replacement rates)
- **Asset allocation and financial returns**
- **Competition** (fees)

Coverage

- Some countries have **low per capita income and very high informal economies** (especially in LAC). **Difficult to count on exclusively on mandatory DC scheme** to extend participation in the second pillar.
- The other face of coverage lies on workers, who **actively participating in a DC scheme, face the risk of not having enough savings** (replacement rates) for the old age stage.
- **Difficulties to extend participation** imply a real challenge for policy makers. **Reduce structural problems** (sustainable/inclusive growth and informal economy's reduction) is the long term exit. **In the short term, it is necessary to strengthen solidarity pillars although trying to build incentives to save** at the same time based on this structure (Levy 2008; Bachelet´s reform in Chile 2008; experiences with MDC schemes in New Zealand-Kiwi Savers).
- To increase pension sufficiency: more contributions; to extend working years (labor market reform); annuitize other assets; provide support during financial down turns (watch out with disincentives to save); **financial returns**.

Asset allocation and financial returns

- **From a historical perspective, 2nd pillar assets have increased enormously during the last decades in Emerging Countries (around 7-8% in real terms by year in LAC)**
- **Financial crisis** has recently imposed strong **volatility to DC portfolios**, getting **concern from general public**.
- Difficult to explain **short term volatility** versus **long term performance**.
- The **underperformance of some pension managers** could be one reason of low returns, **but what have been really key are regulatory requirements** (e.g. quantitative requirements to invest a high proportion of PF in domestic treasury bonds; required composition of portfolios).
- **Benchmarking is necessary but needs careful study**: what is the ideal structure; who defines the benchmark (regulator, wise men committee, the industry)?; how to explain it and make it understandable to workers?
- **Life cycle investment (LCI)** makes sense, but needs to be combined with adequate **regulation for asset** allocation, **portfolio differentiation** (equities/bonds) in each stage and **worker's characteristics** besides age (e.g. wage slope, likely frequency of contribution, gender, etc).
- With respect of LCI, **idiosyncratic factors also needs to be considered**. In some countries people wants to chose (although finally they do not do that).

Competition

- **Fees** in pension industry is a **concern**, especially in **Emerging Countries**.
- **Structural problems are relevant**. The presence of **high informal economies** (e.g. around 15%- 20 % of active participation in pensions for Mexico, Colombia and Peru), reduces the power of demand forces.
- Important to recognize that **competition and coverage have a strong interrelationship**.
- Fees also are **affected by particular circumstances**: excessive administrative requirements by law; capital markets fees; supervisory fees.
- Regulation on asset allocation: (1) **fees is the same for portfolios concentrated on bonds and for those concentrated on equities**, when the latter are more expensive to manage (at least 100 bp). It could be advisible to charge different fees; (2) **minimum-return-regulation** introduces a "not desirable" short term activism in PF asset allocation.
- How to provide information?. In many countries, **fees differ on 100 bp between the most expensive and the cheapest pension fund manager**. How do we introduce incentives to make contributors move to the cheapest PF company? (assuming fees is the most relevant factor).
- **Sales costs** in PF industry needs a serious debate.

Starting all over again? Beware

- Does 2nd pillar need to strengthen its sustainability?. Yes. **The mix of negative returns during crisis, low coverage and fees, is not good.**
- But, **every case is different** (interaction between private and 2nd pillars, maturity of the system, geographical exposure, financial depth, institutional development).
- **Try to extrapolate other pension models** (e.g. the Swedish experience) towards emerging countries **could be a mistake, specially if there are other pension models working for decades**. It is better to build on the institutional structures developed (especially if there has been positive outcomes achieved). Watch out with experiments.
- **In LAC, the Chilean Model, with all their pros and cons, has allowed to develop specialized supervisory and regulatory frameworks during the last three decades and their results in terms of financial prudence has been remarkable. "<u>Start all over again –proposals" could impose serious risks.</u>**
- Something that is perceived in **recent reports from multilateral organizations** is a **lack of recognition** of the positive outcomes achieved by DC pensions reforms. It seems that has been forgotten the **chaotic situation of pension systems before reforms**.
- **"New Reforms" that not underline the importance of the first steps undertaken during the nineties, could finish with regretful results specially when politicians used to interpret things the way they want.**

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