On Competition and Asset Allocation Policies For Mandatory DC Plans

Presentation prepared by

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Motivations and WB policy research project

Motivation

- After several years since the introduction of mandatory DC pensions in many countries we still observe:
  - High concentration.
  - Indifferent, non rational and uneducated customer base most likely making mistakes in their choice of providers and/or funds.
  - Leading to market power and therefore:
    - Poor price performance.
    - Supernormal profits and return on equities.
- Risk of policy reversal? Maybe not but certainly there is heightened attention to policies aimed at increasing net rates of return for participants.

WB policy research project

- The WB policy research project aims at:
  - Learning from a rather diverse cross country experience in addressing the aforementioned concerns (mainly from Latin America);
  - Identifying key determinant of pricing behavior;
  - Identifying tradeoffs of commonly observed policy interventions, especially as these impact asset management quality;
  - Identifying potential areas for improvement in policy interventions to increase expected net rates of return.

Key reference material

- Four background papers commissioned for the final report:
  - Dayoub and Lasagabaster (2007). (in the room)
  - Valdes-Prieto (2007). (in the room)
  - Blake, Cairns and Dowd (2008). (in the room)
  - Schmuckler *et al*. (2008).
- WB report expected during Summer 2008.
  - Draft first chapter. (in the room)

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Efficiency considerations of mandatory DC pensions

Concentration

- Mandatory DC pension (quasi) markets are fairly concentrated and concentration has increased over time through mergers or exits.
- Increasing concentration trends in both Latin America and Eastern Europe.
- More diversified industry in countries like Australia, New Zealand and the UK.

Concentration

Country	Number of Plan Managers					C2 (%) /1				
	Dec '98	Dec '03	Dec '04	Dec '05	Dec '06	Dec '02	Dec '03	Dec '04	Dec '05	Dec '06
Argentina	15	12	12	11	11	53	42	40	39	38
Bolivia	2	2	2	2	2	100	100	100	100	100
Chile	9	6	6	6	6	62	56	55	55	55
Colombia	8	6	6	6	6	77	51	51	51	52
Costa Rica	9	8	8	8	8	55	66	64	61	59
El Salvador	5	2	2	2	2	79	100	100	100	100
Mexico	14	13	13	16	21	52	44	42	39	35
Peru	4	4	4	5	4	85	59	59	57	61
Dominican R.		8	8	7	7		60	61	60	60
Uruguay	6	4	4	4	4	77	75	74	74	74
Hungary	38	18	18	18	19	43	44	44	44	44

- **Source**: AIOS Bulletin No 16, Dayoub and Lasagabaster (2007), Impavido and Rocha (2006).

Is concentration of concern?

- In standard welfare analysis concentration is of concern when associated with market power.
- Distortions on the demand side:
  - Consumption takes place at distorted prices.
  - Excessive rents are extracted by firms.
    - Both problems exacerbated by low demand elasticity
- Distortions on the supply side:
  - X-inefficiencies.
  - Reduced effectiveness of yardstick competition and corporate governance mechanisms.
- Distortions may lead to social welfare losses.
    - The “may” depends on the interaction of demand and supply.

What drives demand distortions?

- In the specific case of a Cournot oligopoly with *n* different firms selling a homogeneous product:

$$LI_i = \frac{p - C_i'}{p} = -\frac{p_i'q_i}{p} = \frac{1}{e_i}$$

$$LI_i = -\frac{p'_Q}{p}\frac{q_i}{Q} = \frac{s_i}{e_Q}$$

$$LI = \sum_{i=1}^{n} s_i LI_i = \sum_{i=1}^{n} \frac{s_i^2}{e_Q} = \frac{HHI}{e_Q}$$

Are really concentration and market power related?

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
	AFP	14	13	13	13	11	12	13	16	20	21		
Mexico	HII	1318	1257	1232	1170	1424	1410	1337	1209	1110	1093	88%	
	LI	-7	26	30	37	47	49	39	25	10	16		
	AFP	17	15	13	13	12	12	12	12	11	11		
Argentina	HII	1282	1313	1298	1542	1581	1550	1490	1432	1526	1509	-51%	59%
	LI	12	27	28	17	-1	0	-17	-15	9	8		
	AFP	5	5	4	4	4	4	4	5	5	4		
Peru	HII	2293	2310	2661	2653	2647	2639	2629	2500	2667	2718	23%	94%
	LI	9	21	45	52	53	52	55	25	9	12		
	AFP	14	16	8	7	7	7	6	6	6	6		
Chile	HII	1578	1306	2066	2089	2091	2136	2140	2144	2147	2162	91%	
	LI	11	14	32	37	39	30	34	31	35	n.a.		

Source: own calculations on income statements from local supervisory authorities

Can we compare price distortions?

Table 1: Average first floor fees charged in LAC countries in early 2006

Country	Proportional charge on flows (% salary)	Fixed charge on flows (US$)	Charge on assets under management	Charge on nominal returns	Charge on excess returns
Argentina	1.27%	--	--	--	--
Bolivia	0.50%		0.2285% /1	--	--
Chile	1.60%	$0.90	--	--	--
Colombia	1.57%	--	--	--	--
Costa Rica	0.14%	--	--	7.50%	--
El Salvador	1.40%	--	--	--	--
México	1.20%[b]	--	0.34%	--	--
Perú	1.99%	--	--	--	--
Rep. Dominicana	0.50%	--	--	--	28.57% /2
Uruguay	2.07%	$0.26	--	--	--

Notes: / 1 Different charges apply depending on the fund size; / 2 The fee applies to the excess return paid over the interest rate of commercial banking cash deposits.

Source: Corvera *et al.* (2006).

- Not easily

Comparison through "equivalent fees"

- Corvera *et al.* (2006) develop a methodology to facilitate the comparison of different fee structures across countries by the means of "equivalent fees" on assets or on the flow. The equivalent asset fee is calculated as the annualized charge over assets which would have generated exactly the same final asset accumulation as the actual combination of charges on the flow, assets and returns applied to the individual retirement account of a representative consumer during a given period of time (say, 25 and 40 years).
- This is the methodology used by CONSAR to calculate equivalent fees.

Prices are variable within and across countries

Table 1: Latin America 25-year AUM equivalent fee summary statistics (%)

Country	Min	Max	Weighted average	Standard deviation	Coeff. Of variation
Argentina	1.20	1.45	1.35	0.09	6.89
Bolivia	0.53	0.53	0.53	0.00	0.20
Chile	0.98	1.21	1.07	0.08	7.31
Colombia	0.81	1.01	0.92	0.08	8.44
Costa Rica	0.75	1.10	1.02	0.16	15.26
El Salvador	0.86	0.86	0.86	0.00	0.00
México	0.67	1.51	0.89	0.20	22.48
Perú	0.94	1.22	1.10	0.13	11.64
Rep. Dominicana	0.81	1.01	1.01	0.09	8.95
Uruguay	0.74	1.14	0.90	0.19	20.93

Source: Corvera *et al.* (2006) with updated data as of June 2007.

Prices are variable within and across countries

Table 1: Eastern Europe 25 and 40-year AUM equivalent fee summary statistics (%)

Country	Min	Max	Weighted average	Standard deviation	Coeff. Of variation
			25-year equivalent fee		
Hungary	0.39	1.44	1.15	0.34	29.56
Poland	0.39	0.41	0.40	0.01	2.51
Slovakia /1	0.90	1.00	0.95	0.04	4.21
			40-year equivalent fee		
Hungary	0.24	1.29	1.00	0.34	34.02
Poland	0.23	0.26	0.24	0.01	4.17
Slovakia /1	0.85	0.96	0.91	0.05	5.49

Notes: / 1 Unweighted.

Source: Own calculations on Corvera *et al.* (2006) for this report.

- **Notice**: The information for these countries is less recent: Poland, December 2006; Hungary, December 2005; and Slovakia, February 2007.

Price comparisons are not so straightforward

- Cross country comparisons are hampered by several factors.
  - For instance, commission fees should ideally be compared relatively to the cost structure of plan administrators but a systemic cross country analysis of cost structures is yet to be conducted, due to the unavailability of (even simply) accounting data disaggregated by cost functions. When available, accounting standards are not consistent across countries.
  - In addition, differences in key parameters such as retirement age, density of contribution, contribution rates, commission bases and assets under management further render international comparisons problematic.
- Within country comparisons are less problematic and variability is associated with market power.

Supernormal profits?

- The difference between ROA and the rate of risk adjusted return on alternative investments provides a measure of super-normal profit rates.
- Accounting ROAs may underestimate economic ROAs as average operational margin needs dividing by assets at replacement cost:
  - Need to exclude assets non related to business (asset values and imputed income from such assets)
  - Add replacement costs of intangible assets
- An exercise where this was done for Chilean pension administrators showed a ROAs of 50% per year between 1999-2003 (Valdes-Prieto and Marinovic, 2005).
- Scattered evidence that AFPs enjoy supernormal profits but a cross country comparison with risk adjusted net-return on alternative investments is yet to be conducted.

Supply side explanations

- High initial fixed costs promote concentration and reduce market contestability.
- Regulatory framework can reinforce barriers to entry
  - Specialized provider policy initially adopted essentially for political economy reasons but gradually being abandoned.
  - Bundling and tied agents simplify choice decision but increase sunk costs.
  - Uniform rate regulation together with trending commission bases encourage investing in marketing to capture high rent individuals.

Demand side explanations

- Low elasticity of demand
  - Large literature showing that demand elasticity is low.
  - Key message is that the role of agents is crucial. Demand elasticity increases with the probability of marketing message.
  - Increasing demand elasticity would reduce price distortions but not eliminate them if institutional arrangements maintain high the productivity of the sales force (trending commission bases).

Why is elasticity low?

- Financial literacy and behavioral economics literatures:
  - They often base their decisions on imperfect (wrong) information.
  - If the right information were available, individuals face high search costs.
  - As a result, individuals are misinformed about options: the Chilean Social Protection Survey of 2004 (Encuesta de Previsión Social) is a classic example.
  - If they acquire the right information, when making decisions they follow informal heuristics (either to overcome search costs or to process information) inconsistent with the implicit assumptions of rationality.
  - Even if rational, they lack the will power to implement (consistently) their decisions.
- Key results for increasing elasticity:
  - Type of information is as important as delivery mechanisms so that probably information alone does not go too far in achieving social goals.
  - Default options should be designed so as to exploit the observed key patterns (or anomalies) of individual behavior.

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Select(ive) regulatory responses to increase expected net rates of returns for participants

Light specialized regulations

- Improve quality (simplicity) of information from providers to consumers complemented by (not substituting) centralized financial education activities.
  - Simplification of cartola, better websites, financial statements, et cetera. This directly addresses the low literacy levels but the literature tells us that the way information is conveyed is critical and best mechanisms (one-on-one) are possibly too costly to be implemented on a large scale.
- Uniformity rate regulation.
  - Attempts at increasing participation (elasticity?) of low income (rent) individuals.
  - It is however inefficient as it redistributes only within the customer base of any given administrator.

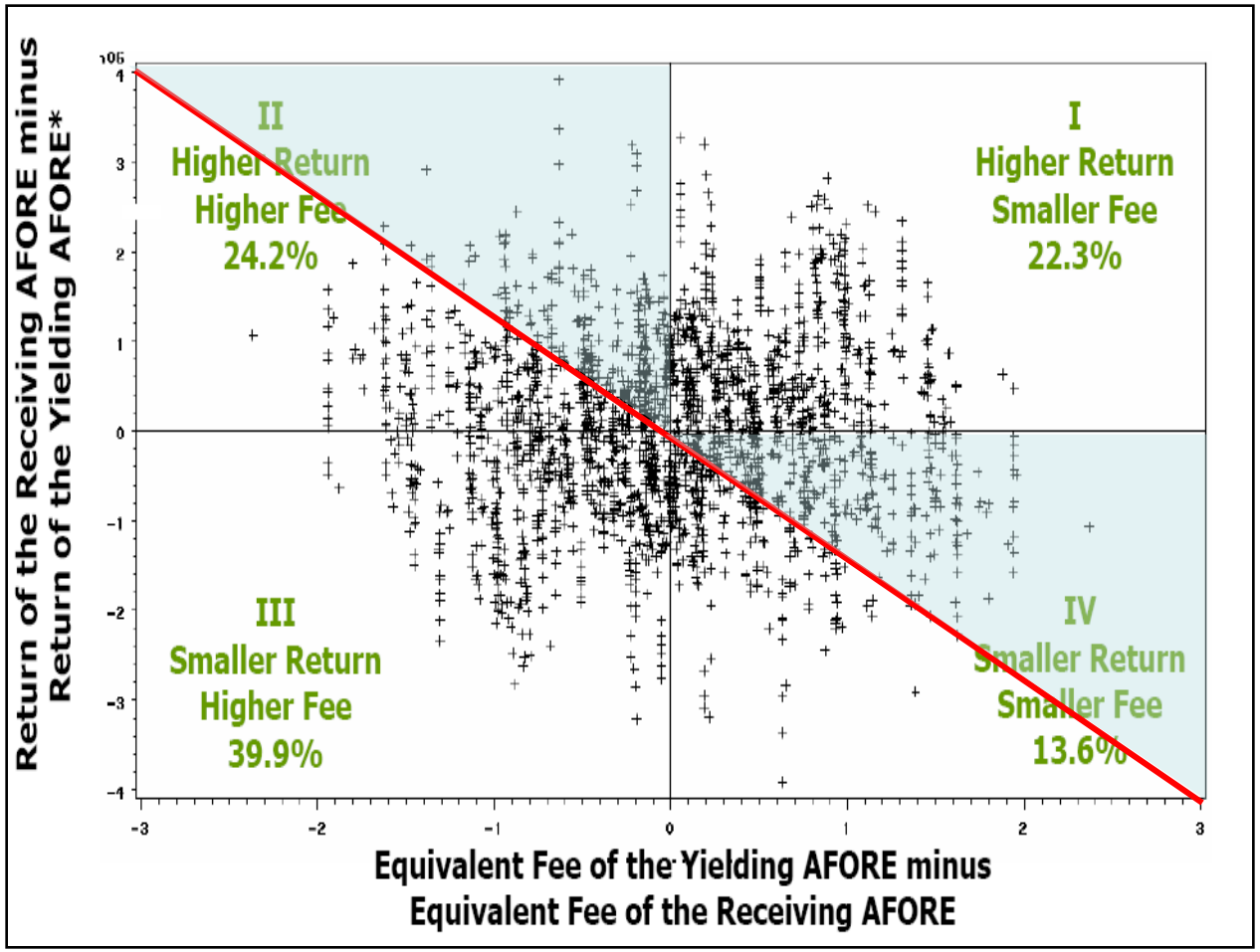
Still light specialized regulations

- Ban on multiple commission bases
  - Current bases have little relation to cost structure as they exhibit upward (convex) trends while costs are either downward sloping or exhibit very low positive marginal costs for most pension functions.
  - Ban on multiple bases attempts to increase comparability of charges but it worsens supply efficiency because it increases discrepancy between prices and marginal costs when the base is the wrong one.
  - It may facilitate the job of targeting high rent (assets versus earning) participants.
  - A system of flat fees with flat subsidies as used in New Zealand may be far more efficient as it redistributes across the whole population of contributors and eliminates the rent value stemming from high earnings and/or assets.

Possibly heavier specialized regulations

- Restriction on transfers
  - Individuals are easily convinced by agents to switch but do they make the right choice?
  - Literature finds demand elasticity increasing with number of agents (investment in marketing).
  - Agents play a positive role by educating individuals but there is evidence of noise being produced (aggressive sales tactics, frauds, …). So, repressing transfers reduces the value of both the good and bad marketing signal.
  - High political risk. Repression of transfers creates a captive customer base and the supervisor and the supervised enter an implicit contract not governed by statutory controls.

Mexico



Source: Schwartz (2007)

http://info.worldbank.org/etools/docs/library/241429/S16MoisesSchwartz.pdf

Substantially heavier specialized regulations

- Caps on fees
  - Most Eastern European countries impose price ceilings as well as few Latin American countries (Dominican Republic, Costa Rica, Colombia and El Salvador).
  - Effective but generally hardly well designed as they are not linked to long run marginal costs.
  - Price caps are either too high or to low and lack incentives to invest in asset management quality or cut costs: the incentives to build and maintain a brand with a reputation of high quality asset management are reduced.
  - Very easy to evade through second floor fees.
  - Setting and changes of price caps generate intense rent seeking activity generating high political and regulatory risk.
- Acceptance of explicit or tacit collusion tactics
  - Informal acceptance of cartel agreements not to steal each others' customers. Anecdotal evidence of this in Hungary until sponsors started braking even on initial sunk costs; Chile (1997) and Uruguay (2000) (Valdes-Prieto 2007).
  - High political risk: any acceptance of mechanisms that create a captive customer base is "negotiable" (*do ut des*) outside formal contractual relationship.

Procurement

- Pure procurement
  - Need for high governance standards to avoid risk of capture: think only about the problem related to public pension fund management in national provident funds in East Asia or Africa.
  - Board needs establishing incentives for and monitoring asset management quality and the result can be excessive use of passive asset management (TSP) since there is no market benchmark.
  - Difficulty in designing the auctions
    - With flow design repeated interaction facilitates collusion (the board is “cornered”), uneconomic bidders sell clients through the merger market (Bolivia? Mexico?), et cetera.
- Hybrid I/O models
  - Pure procurement for low elasticity individuals coexists with current arrangements for high elasticity individuals.
  - Examples of hybrids:
    - Stock design: New Zealand since 2007 achieved low fees from branded asset managers in its auction for default providers;
    - Flow design: automatic assignation rule in Mexico since 2002; similar rule in Argentina until 2007; Chile (possibly from rule to auction under current reform); Hungary (from regional to cost based allocation).

Incentives for asset management quality

- Exogenous peer benchmarks plus prizes and penalties.
- Few countries allow for the use of incentive fees.
  - Poland, Costa Rica, Mexico (until 2007), Hungary, Dominican Republic.
  - Incentive fees encourage the choice of benchmarks that gradually move towards the efficient frontier.
  - Incentive fees are convex in the base and need adjusting (downward) periodically. Same problems of commonly used commission bases.
- More countries have penalties.
  - Poland, Chile, Peru, Uruguay, Argentina, Colombia, the Dominican Republic and El Salvador apply legislated penalties to pension firms when the pension fund exhibits an excess return below a floor.
- Where the floor lies is important.
  - Too high and the incentive mechanism collapses while the penalty becomes too onerous. Too low and the performance fee becomes an asset management fee in disguise (Dominicana) and the penalty is ineffective. For these reasons, both too high and to low a floor would discourage investing in asset management quality.
- Empirical evidence of effectiveness of prizes and penalties?

Life cycle funds

- Countries that have introduced life cycle funds: Mexico, Chile, Peru, Hungary, Colombia (under proposal)…
- Directly attempt to improve risk adjusted expected returns by exploiting intertemporal risk diversification.
- Lack of unequivocal theoretical/empirical support for critical issuees like equity mean reversion.
- Sudies on intertemporal diversification provide ambiguous results depending on the time sample chosen.
- Problems related to measuring the net impact over time of changes in human capital volatility and intertemporal risk diversification on risk aversion.
- Problems with identifying the representative consumer.
- Irrespectively of these concerns there is a generalized acceptance of benefits from intertemporal diversification.

Life cycle funds - front to back or front to back?

- The design of lifecycle funds has typically involved:
  - Defining the restricted efficient frontiers for given universe of admissible investments in each fund
  - Defining socially accepted expected losses for each (now efficient) fund, typically some VaR measure.
  - Simulating alternative portfolios to produce expected returns and volatility measures over the life cycle.
- A front to back strategy has no relationship with target replacement rates.
- It requires investors to make difficult choices (fund/portfolio selections) that accordingly to Benartzi and Thaler (JEP, 2007) heavily depends on where you buy your meat.

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Conclusions and plan for the day

Specialized regulations are likely to stay

- Mandatory participation creates government implicit support to providers' activity reinforced through licencing. Hence, the government has a moral obligation to intervene to require higher performance standards. The providers cannot claim equal treatment (less regulatory intervention) to similar industries where consumption is not mandatory.
- However, there appears to be ample scope for improving efficiency in various areas. Select examples follow and more will be discussed during the day.

Improving efficiency

- Commission bases do not reflect long term marginal costs allowing providers to charge more over time for the same services.
  - Flat fees with subsidies may be more efficient and reduce marketing incentives.
- Caps on fees
  - Need to move from “price-caps” to “cost-based tariffs” which, in turns, requires changing the commission base of pension administrators. Earnings and assets have little relation with cost structure.
- Presentations by Salvador Valdés-Prieto in the morning and Peter Martin and Mihaly Erdos in the afternoon.

Improving efficiency

- Pure procurement and hybrid I/O models
  - Public procurement addresses the inertia of individuals but sacrifies market signals. Hybrid models could be the best of both world if well designed.
- Presentations by Salvador Valdés-Prieto in the morning and Solange Berstein and Ed Palmer in the afternoon.

Improving efficiency

- Individuals are inert and make mistakes
  - Inertia can be explained by lack of information and/or will power and/or use of heuristics.
  - Individuals either they make mistakes on their own or they are easily induced by unorthodox sales people to make mistakes.
  - In addition to improving the quality of information received and the means this is conveyed it is important to improve on the default options for inert individuals so as to exploit their heuristics towards the social optimum. In particular, this applies to the design of life cycle funds.
- Presentations by David Blake in the morning and Moisés Schwartz in the afternoon.

End

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