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Fees, Framing, and Financial Literacy in Pension Manager Choices in Chile

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Motivation

- Movement towards increased choice and privatization in traditional public-goods markets
 - Choice allows people to act on private information
 - Choice creates incentives for efficiency
 - Examples
 - Public schooling – school choice, vouchers, NCLB
 - Public healthcare – Medicare part D
 - Social security privatization
- Growing empirical evidence that consumers may not choose optimally when faced with complex decisions
 - Risk, uncertainty, delayed payoffs, long time horizons
- Instead ‘follow path of least resistance’ taking short cuts or using approximations to utility maximization
- Cause for concern – can privatization lead to increased efficiency, increased inequality?

Motivation

- Empirical evidence suggests that people may not be sufficiently adept decision makers to incentivize efficient markets
 - ***Be overly sensitive to default investment rules***
 - Madrian and Shea (2001), Cronqvist and Thaler (2004), Choi, Laibson and Madrian (2006), Beshears et al. (2008).
 - ***Influenced by advertising and irrelevant information***
 - Cronqvist (2006), Choi, Laibson and Madrian (2007), Hastings, Hortacsu and Syverson (2010).
 - ***Overly-reliant on easily-available information as proxies for utility maximization***
 - Brand name: McFadden (2006), Schleifer, Mullainathan and Schwartzstein (2008), Kling et al. (2008), Abaluck and Gruber (2009).
 - More salient/obvious/easy-to-calculate prices: Ausubel (1991), Liebman and Zechauser (2004), Chetty, Loney and Kroft (2008), Abaluck and Gruber (2009), Duarte and Hastings (2010).
 - Peer opinion: Duflo and Saez (2003).
 - ***Does competitive market lead firms to educate consumers?***
 - Gabaix and Laibson (2006), Hastings, Hortacsu and Syverson (2010), Hastings, Karlan, Zinnman (2010),

This project

- One piece of this puzzle – how sensitive are stated choices to framing?
- Inserted supplemental questions and field experiments into the Chilean Encuesta de Proteccion Social
 - ▣ Panel survey of social program use, recall labor force participation, demographics of approximately 10,000-15,000 households in Chile
- Questions about pension fund choice and information
 - ▣ Examine how fundamentals versus short-cuts factor into pension fund choice for workers of different educational and financial literacy backgrounds
- Experiments ask participants to recommend pension investments based on net return projections presented in gains versus losses (Hastings & Tajeda-Ashton (2008))
 - ▣ Examine how sensitive worker's stated choices are to framing, as a function of education and financial literacy

Chilean Privatized Social Security System

- Individual funded DC accounts managed by AFPs
 - Five funds based on age
 - Workers must contribute 10% of wages
 - Fees are deducted from wages in addition to the 10%
- At time of our study there were 5 pension fund managers

Fees as of June 2009

AFP Name	Fees (% of Monthly Salary)
Capital	2.64
Cuprum	2.69
Habitat	2.59
Planvital	3.61
Provida	2.64

Source: Superintendencia de Pensiones.

Table 1. Financial Literacy and Other Characteristics of 2009 EPS Interviewees

# Correct Financial Literacy Questions (of 6)	Age (yrs)	Male (%)	2ndry+ Educ. (%)	Avg. Mo'ly Income (CP\$)*	Any Savings (%)**	AFP Member (%)	Obs.
0	57	42	11	177,729.60	15	47	3,551
1	51	44	0	212,408.30	20	65	2,788
2	48	49	0	264,283.40	26	72	2,781
3	46	52	40	349,339.70	28	79	2,588
4	45	58	52	398,305.70	30	83	1,792
5	45	62	64	557,379.40	36	85	675
6	45	75	85	932,039.00	31	87	68
<i>Total</i>	50	49	29	287,731.00	24	68	14,243

Notes: * Average monthly income calculation excludes those with zero income. ** This statistic is built from Question D27 in the EPS. Interviewees have savings if they respond that they have any of the following: (1) Savings for a Home (at a bank), (2) AVF Savings (Housing Fund Admin.), (3) Voluntary Pension Savings, (4) Account 2 AFP Savings, (5) Bank Savings Account, (6) Term Deposits, (7) Mutual Fund Investments, (8) Company Shares or Bonds, (9) Third Party Loans, (10) Other Savings (Cash, Dollars, "Polla", etc.).

Table 2. Financial Literacy Responses and Respondent Characteristics of AFP Participants

Financial Literacy Question	Age (Yrs)	Male (%)	2ndry+ Educ (%)	Avg. Mo'ly Income (CP\$)	Any Saving (%)*
Chance of disease	43	58	48	397,895	31
Lottery	44	58	48	403,792	30
Simple Interest	44	56	46	386,233	32
Compound Interest	43	79	84	750,137	39
Inflation	45	59	50	427,395	32
Risk Diversification	44	56	43	377,870	31

Notes: * This statistic is built from Question D27 in the EPS. Interviewees have savings if they respond that they have any of the following: (1) Savings for a Home (at a bank), (2) AVF Savings (Housing Fund Admin.), (3) Voluntary Pension Savings, (4) Account 2 AFP Savings, (5) Bank Savings Account, (6) Term Deposits, (7) Mutual Fund Investments, (8) Company Shares or Bonds, (9) Third Party Loans, (10) Other Savings (Cash, Dollars, “Polla”, etc.).

Table 3. Logit Analysis of Reasons for AFP Choice and Other Controls (Odds Ratios Reported)

	Friend Recommended	Profitability	To Help Salesman	Good Service	Advertising	Gift Offered	Low-Fixed Commission	Low-Variable Commission	Employer
Dependent Variable Mean	0.17	0.18	0.06	0.04	0.05	0.01	0.03	0.00	0.32
Age	0.96**	1.03	1.11**	1.03	1.04	1.00	1.03	0.96	0.96**
Age-Squared	1.00*	1.00	1.00**	1.00	1.00	1.00	1.00	1.00	1.00**
Above Median Income (1/0)	1.08	1.62**	1.32*	1.04	0.88	1.33	1.02	2.55	0.58**
Male (1/0)	0.88	1.21**	0.81	1.21	0.94	1.04	0.78	1.89	1.03
Married (1/0)	0.89	1.02	0.93	1.22	1.04	1.18	1.04	2.09	0.92
> 2ndry+ Educ. (1/0)	1.04	1.37**	1.49**	1.08	1.24	1.46	0.94	1.35	0.61**
# Financial Lit. Questions (0 - 6)	0.98	1.12**	1.01	0.97	1.04	1.04	0.97	1.07	0.91**
1+ Type of savings (1/0)†	1.04	0.95	1.19	1.19	0.78	0.91	1.34	1.06	0.93
Obs.††	6,884	6,884	6,884	6,884	6,884	6,884	6,884	6,884	6,884

Notes: Standard errors omitted due to save space. Please see text for original table with standard errors. * significant at 5%; ** significant at 1%. † Indicator is defined as previously described in Tables 1 and 2. †† Observations are only for individuals who have all demographic responses non-missing and are AFP members. Thus, sample is fewer than the 9,671 self-identified AFP holders.

Gains Example Sheet



¿Conoce la rentabilidad de su AFP?



Suponga que su mejor amigo, Juan, está considerando cuál AFP elegir. Juan le ha pedido su consejo sobre cómo hacer su elección. Usted tiene un cuadro con información oficial que indica el monto en pesos que una persona como usted obtendría después de 1 año de cotizaciones en cada AFP. Este cuadro es útil para elegir una AFP que probablemente le dará la mayor cantidad de dinero para su pensión.

De acuerdo a la información presentada en el siguiente cuadro y a su conocimiento actual sobre las AFP, indique, en orden de importancia, las TRES MEJORES AFP que le recomendaría a su amigo Juan. En la casilla en blanco a la izquierda del nombre de la AFP, escriba el número 1 para la mejor opción, el número 2 para la segunda mejor opción, y el número 3 para la tercera mejor opción.

Escriba 1, 2 o 3	AFP	Monto* en pesos
	CAPITAL	\$5.199.730
	CUPRUM	\$5.247.133
	HABITAT	\$5.296.548
	PLANVITAL	\$4.770.546
	PROVIDA	\$5.132.005

*El monto en pesos en la última columna es una proyección para un afiliado con edad y salario similares a los sujetos, pero que realiza cotizaciones durante todo el período de medición, por lo que este monto no necesariamente lo representa a usted. En esta proyección se utilizó la rentabilidad obtenida una vez descontadas las comisiones pagadas. La rentabilidad es variable, por lo que no se garantiza que las rentabilidades pasadas se repitan en el futuro.

¿Cómo se puede contactar con una AFP? Es fácil.

Usted sólo tiene que llamar a la AFP que le gustaría contactar y ellos lo pueden ayudar con la información que necesite. A continuación se presentan los números de teléfono y las páginas web de las AFPs.



AFP Capital (Bansander/Santa Maria)	http://www.ingcapital.cl/	600 252 04 64
AFP Cuprum	http://www.cuprum.cl/webcuprum/	600 228 77 86
AFP Habitat	http://www.afphabitat.cl/Afiliados/Default.asp	600 220 20 00
AFP Planvital	http://www.planvital.cl/webplanvital/	600 485 44 44
AFP Provida	http://www.bbvaprovida.cl/Website/default.asp	600 201 01 50

Losses Example Sheet



¿Conoce la rentabilidad de su AFP?



Suponga que su mejor amigo, Juan, está considerando cuál AFP elegir. Juan le ha pedido su consejo sobre cómo hacer su elección. Usted tiene un cuadro con información oficial que indica la diferencia entre los montos en pesos entre cada AFP y la AFP que obtuvo la mayor rentabilidad para una persona como usted después de 1 año de cotizaciones. Este cuadro es útil para elegir una AFP que probablemente le dará la mayor cantidad de dinero

De acuerdo a la información presentada en el siguiente cuadro y a su conocimiento actual sobre las AFP, indique, en orden de importancia, las TRES MEJORES AFP que le recomendaría a su amigo Juan. En la casilla en blanco a la izquierda del nombre de la AFP, escriba el número 1 para la mejor opción, el número 2 para la segunda mejor opción, y el número 3 para la tercera mejor opción.

Escriba 1, 2 o 3	AFP	Diferencia* en pesos
	CAPITAL	-\$246.099
	CUPRUM	-\$125.606
	HABITAT	\$0
	PLANVITAL	-\$1.337.026
	PROVIDA	-\$418.246

*El monto en pesos en la última columna es una proyección para un afiliado con edad y salario similares a los suyos, pero que realiza cotizaciones durante todo el periodo de medición, por lo que este monto no necesariamente lo representará a usted. En esta proyección se utilizó la rentabilidad obtenida una vez descontadas las comisiones pagadas. La rentabilidad es variable, por lo que no se garantiza que las rentabilidades pasadas se repitan en el futuro.

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AFP Planvital	http://www.planvital.cl/webplanvital/	600 485 44 44
AFP Provida	http://www.bbvaprovida.cl/Website/default.asp	600 201 01 50

Table 4. Factors Associated with Respondent Ranking the Highest net-retrun AFP the Best (AFP Participants)

Ranked Lowest-Cost AFP Best	Saw Gains Sheet ()	Age (yrs)	Male (%)	2ndry+ Educ. (%)	Avg. Mo'ly Income (CPS)*	Any Savings (%)**	Obs.***
No	48	45	54	32	\$297,491	28	4,923
Yes	53	46	54	41	\$371,975	29	3,691
Total	50	45	54	36	\$329,873	28	8,614

Notes: * Average monthly income calculation excludes those with zero income. ** This statistic is built from question D27 in the EPS. Interviewees have savings if they respond that they have any of the following: (1) Savings for a Home (at a bank), (2) AVF Savings (Housing Fund Admin.), (3) Voluntary Pension Savings, (4) Account 2 AFP Savings, (5) Bank Savings Account, (6) Term Deposits, (7) Mutual Fund Investments, (8) Company Shares or Bonds, (9) Third Party Loans, (10) Other Savings (Cash, Dollars, “Polla”, etc.). *** Total is less than 9,671 (all self-identified AFP holders) because some interviewees do not receive the experiment.



Table 5. Logit Analysis of Factors Associated with Respondent Ranking the Lowest-Cost AFP the Best (Odds Ratios Reported)

	Dep. Var: Respondent Ranked Highest net-return AFP Best			
Saw Gains Sheet (1/0)	1.26**	1.57**	1.65**	1.66**
Age	1.06**	1.06**	1.06**	1.06**
Age-squared	1.00**	1.00**	1.00**	1.00**
Above Median Income (1/0)	1.13*	1.13*	1.13*	1.15
Male (1/0)	0.92	0.92	0.92	0.92
Married (1/0)	0.98	0.98	0.98	0.98
> 2ndry+ Educ. (1/0)	1.26**	1.26**	1.47**	1.47**
# Correct Financial Lit. Questions	1.22**	1.28**	1.26**	1.26**
# Correct Financial Lit. Questions * Saw Gains Sheet		0.91**	0.94	0.94
> 2ndry Schooling * Saw Gains Sheet			0.73**	0.74**
> Median Income * Saw Gains Sheet				0.98
Obs.††	6,132	6,132	6,132	6,132

Notes: Standard errors omitted due to save space. Please see text for original table with standard errors. * significant at 5%; ** significant at 1%. † This indicator is built from Question D27 in the EPS. Interviewees have savings if they respond that they have any of the following: (1) Savings for a Home (at a bank), (2) AVF Savings (Housing Fund Admin.), (3) Voluntary Pension Savings, (4) Account 2 AFP Savings, (5) Bank Savings Account, (6) Term Deposits, (7) Mutual Fund Investments, (8) Company Shares or Bonds, (9) Third Party Loans, (10) Other Savings (Cash, Dollars, “Polla”, etc.). †† Observations are only for individuals who have all demographic responses non-missing and are AFP members that received the experiment. Thus, the sample is fewer than the 9,671 self-identified AFP holders.

Conclusion

- Adds to evidence that lower educated are more susceptible to framing, more likely to rely on short-cuts when choosing
- Implies privatization may not lead to competitive benefits (advertising, HHS (2010))
- Implies room for government regulation, market and information design (HKZ (2010))
 - Has to be strategy proof (Duarte and Hastings (2010))