# Discussion of: Competition, Asymmetric Information, and the Annuity Puzzle

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- Key differences relative to the US:
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  - Public option: Individuals choose between private options and a governmental plan (PW) [≠ social security]
  - ► High take-up rate of the private option: over 60%

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  - ▶ Public option: Individuals choose between private options and a governmental plan (PW) [ $\neq$  social security]
  - ► High take-up rate of the private option: over 60%
- Research question: What would the Chilean market look like if it adopted a US-like Social Security system?

Markup: (W - NPV(z))/NPV(z)

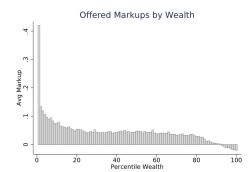
#### MODALIDAD RENTA VITALICIA INMEDIATA

| N° Oferta | Compañía de Seguros de Vida<br>Brand Name | Pension final<br>Mensual sin<br>Retiro de<br>Excedente<br>UF | Pensión final Mensual en UF<br>Considerando un retro de<br>excedente de 0,00 UF | Pensión con retiro de<br>Excedente Máximo |                 | Clasificación de<br>riesgo de la |
|-----------|---|--|---|---|-----------------|----------------------------------|
|           |   |  |   | Pensión final<br>Mensual UF               | Excedente<br>UF | Compañía de<br>Seguros<br>(2)    |
| 43872093  | CRUZ DEL SUR                              | 26,61  | < Monthly payment   |   | Risk rating ->  | AA-                              |
| 43872099  | RENTA NACIONAL                            | 26,58  |   |   |                 | 888-                             |
| 43872083  | METLIFE                                   | 26,52  |   |   |                 | AA.                              |
| 43872100  | CORPSEGUROS                               | 26,34  |   |   |                 | AA-                              |
| 43872094  | PRINCIPAL                                 | 26,28  |   |   |                 | AA.                              |
| 43872097  | CORPVIDA                                  | 26,26  |   |   |                 | AA-                              |
| 43872084  | EUROAMERICA VIDA                          | 26,25  |   |   |                 | AA-                              |
| 43872090  | PENTA VIDA                                | 26,25  |   |   |                 | AA-                              |
| 43872091  | OHIO NATIONAL                             | 26,24  |   |   |                 | M                                |
| 43872098  | SURA                                      | 26,21  |   |   |                 | - AA                             |
| 43872095  | CN LIFE                                   | 25,90  |   |   |                 | AA.                              |
| 43872092  | BICE VIDA                                 | 25,86  |   |   |                 | AA+                              |
| 43872085  | CHILENA CONSOLIDADA                       | 25,59  |   |   |                 | AA.                              |
| 43872086  | CONSORCIO VIDA                            | 25.36  |   |   |                 | AA+                              |

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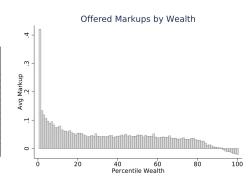
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|--|-----------------------------|--|---|---|----------------|---|
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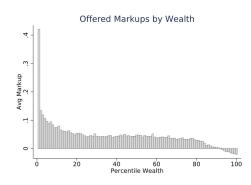
| ENTA VITALICIA INMEDIATA SIMPLE Annuitize full wealth, 0 guarantee, 0 deferral |   |  |   |   |                 |   |  |
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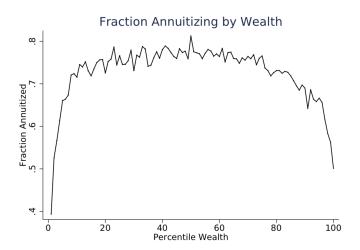
- Price discrimination? Probably not... unless less-wealthy individuals have low price elasticity.
- Markup differences more likely explained by: (i) binding reserve price, and/or
   (ii) lack of competition.

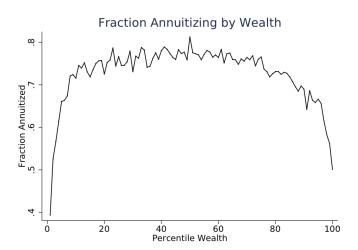
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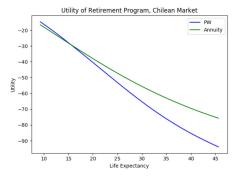
- Price discrimination? Probably not... unless less-wealthy individuals have low price elasticity.
- Markup differences more likely explained by: (i) binding reserve price, and/or
  (ii) lack of competition.
- What is the role of agents? Offers are "renegotiated" by 2% on average. More likely for agent-based transactions?



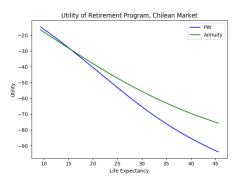


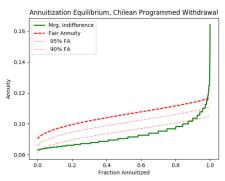
• Why do we see a decline for wealthy individuals?

Average cost (fair annuity):  $W = \sum_t \frac{h(t)}{(1+r)^t} \bar{z}$ 

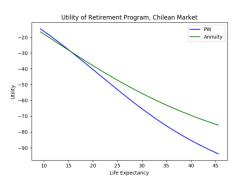


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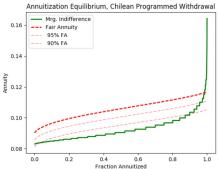
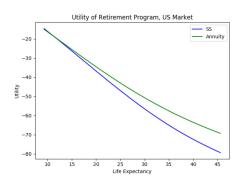
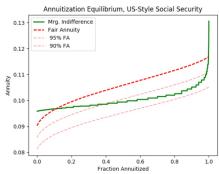


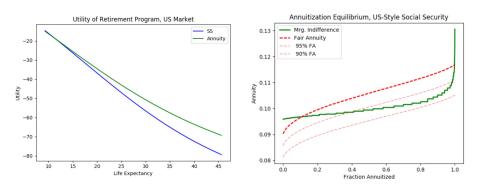
 Illustration question: Is it possible to draw downward sloping demand and average cost curves?

US Social Security: Mandatory annuitization \$\psi\$ WTP for private annuities





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- Shouldn't the indifference point move right? (not left)
- How would advantageous selection change this intuition?

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- **Identification:** Loosely speaking, this [rank condition] requires that different types make different choices when faced with the same annuity contract offers.
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#### Suggestion:

- Contrast finite-mixture results with parametric models.
- Example: Joint normal, or two dimension of heterogeneity as in Cohen and Einav.

- If (some) prices are renegotiated ex-post, the fact that 19% of consumers accept dominated options might imply that prices are measured with error.
- ► Two observationally identical individuals accept different prices: Unobserved heterogeneity in taste preference or mis-measured prices?
- ▶ If renegotiation is correlated with how people shop (e.g. agents or not), this could be correlated with types.

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- **Suggestion:** Provide more details+intuition on the identification of the relative importance of adverse/advantageous selection
  - Better summarize the correlations across types and implications for WTP and Average Cost
  - ► Connect identification of unobserved heterogeneity with reduced-form tests for adverse/advantageous selection (e.g. Chiappori and Salanié test + Fan et al.)