#### Understanding Household Demand for Annuities: A Puzzle?

James Poterba MIT, NBER, and TIAA-CREF 10 October 2012

## Long-Standing Economist's Question: Why so Few Annuities?

- Yaari (1965): Stochastic life length, no bequest motive, no other sources of uncertainty: annuitisation is optimal choice
- Brown/Davidoff/Diamond (2005): optimal to obtain some annuity protection for broad class of market environments
- Private, non-compulsory annuity markets are very small. Why?

## Potential Explanations for Limited Demand for Voluntary Annuities

- Households are already heavily annuitized
- Annuities are "expensive": selection effects, administrative costs, profits for insurers
- Bequest motives
- Precautionary demand for liquid assets for health shocks, other risks
- Regret aversion & behavioral concerns

## Overall Annuitization Varies by Economic Status

- Low income/wealth households: High replacement rate from state pension / Social Security
- High income/wealth households: Larger share of non-annuitized assets: Home equity & financial assets
- Key question: how large is the "middle group," with lower replacement rate and enough wealth to purchase an annuity?

## Annuitized Wealth Share, White Married Couples, 1994-2000 (Gong & Webb 2008)

<b>Education Level</b>	Annuitized/ Financial	Annuitized/
All	10%	60%
College +	66	51
High School	77	60
< High School	84	68

### Digression: How Many Could Buy Substantial Annuities?

- Data from Health and Retirement Study
- First Wave 1992, Household heads were aged 52-61, most recent wave 2008
- "Retirement Age Households": Household head 65-69 in 2008
- Note: Some under-reporting of 401(k) wealth

## Distribution of Wealth, Age 65-69 Single Households

Asset Class	Percentile of Distribution				
	10	30	50	70	90
Social Security	\$0	\$166.2	\$230.1	\$299.2	\$387.6
<b>Financial Assets</b>	0	0.4	5.0	34.0	240.0
Home Equity	0	0	60.0	150.0	392.0
DB Pension	0	0	0	73.4	292.2
Personal Retirement Acc'ts	0	0	0	10.1	124.0
Financial Assets + PRA	0	0.8	12.5	90.0	380.0
Net Worth	157.9	266.3	414.4	695.6	1291.3

## Distribution of Wealth, Age 65-69 Married Households

Asset Class	Percentile of Distribution				
	10	30	50	70	90
Social Security	\$0	\$326.0	\$473.9	\$571.6	\$711.4
Financial Assets	0	6.0	27.8	107.0	459.2
Home Equity	12.0	90.0	170.0	300.0	725.0
DB Pension	0	0	0	163.7	622.0
Personal Retirement Acc'ts	0	0	35.0	137.0	464.0
Financial Assets + PRA	0.3	24.0	111.6	332.4	878.0
Net Worth	346.9	685.9	1015.3	1489.5	2582.3

## Distribution of "Annuitizable Assets," All Households 65-69

- 25<sup>th</sup> Percentile: \$600
- **50th Percentile: \$50,000**
- **75<sup>th</sup> Percentile: \$262,000**
- 95<sup>th</sup> Percentile: > \$1 million

### Are Annuities a "Good Deal"? EPDV Calculation for July 2011

Men at Age 65		Women at Age 65		
Population Mortality	Annuity 2000 Mortality	Population Mortality	Annuity 2000 Mortality	
0.777	0.815	0.784	0.851	

# How Important are Bequest Motives?

- Potentially significant especially at highest wealth categories
- "Residual" motive vs. "Intentional" motive
- HRS Data: 22% report leaving a bequest is "very important," 40% "somewhat important"

## Uninsured Late-Life Expenses: Particularly Medical

- Marshall, McGarry, Skinner (2010): Medical spending in last year of life
- Median \$5061, 95<sup>th</sup> percentile \$49907
- Higher wealth is associated with higher out of pocket spending
- Persistence of medical spending shock is a key issue

### Health Shocks Create More than Spending Needs

- Health at Age 60 is highly correlated with wealth & wealth accumulation
- Pathways: Labor earnings, accrual of social security and DB pension, out of pocket medical costs

## Revealed Preferences for Annuity Income vs. Lump Sum Payouts

- Warner and Pleeter (2001) study of US Army pensions: Real discount rates 18-22%
- Mottola and Utkus (2007): Choices in DB pension plans: Only 17-27% of participants choose annuity payouts
- Fitzpatrick (2011): DB plan buy-in option for teachers: Pay only \$0.18 for \$1 PDV annuity
- Brown et al (2011): Very few delay claiming Social Security benefits

### Framing and Demand for Annuities

- U.S. "experiments" with presentation of annuity options
- Framed as an investment: low demand
- Framed as insurance product: higher demand
- Annuity purchase requires high confidence in counterparty

## Conclusions

- Many households have little wealth to annuitize and have substantial annuitized wealth
- Households face multiple uninsured risks: Longevity risk is one of them
- Unpredictable late-life expenses may warrant some holdings of liquid assets
- Key challenge is identifying the households that would benefit from annuitizing a greater fraction of wealth