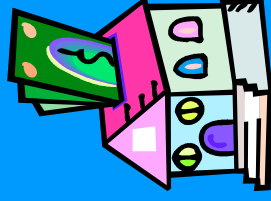


# Unlocking Housing Equity for Retirement Consumption



©Olivia S. Mitchell and John Piggott

Email: [j.piggott@unsw.edu.au](mailto:j.piggott@unsw.edu.au)

Presentation for the World Bank Contractual Saving Conference  
Washington DC  
October 2003

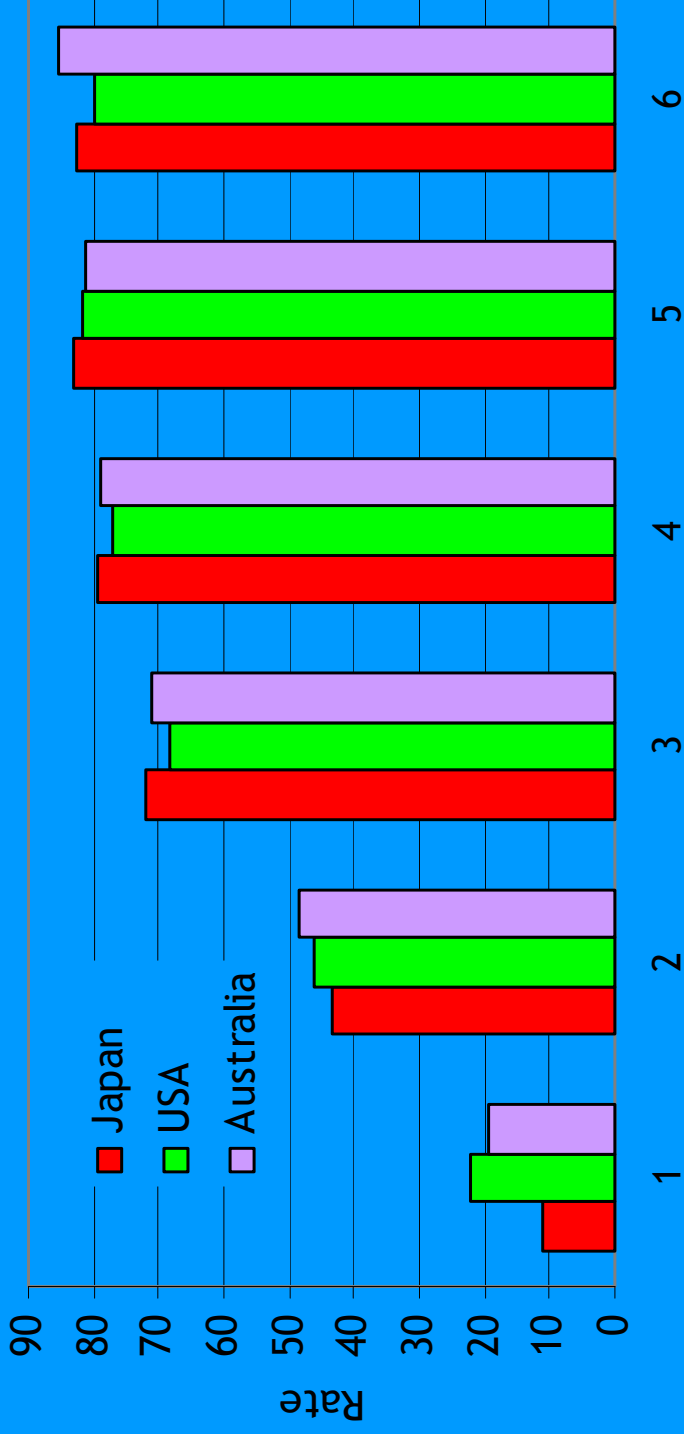
# Research project outline:

- Research question:
  - Housing important in elderly portfolios, yet not very liquid.
  - How to unlock this wealth to finance retirement?
- Two parts to the project:
  - Assess housing patterns by age
  - Explore methods of equity release for elderly

# Housing evidence

- Compare owner occupation and housing values in Japan vs other nations
- Compare mortgage patterns by age and price trends
- Identify reasons for low housing market activity in Japan

# Owner Occupancy Rates by Age: Japan, US, & Australia



Age Cohort Decade\*

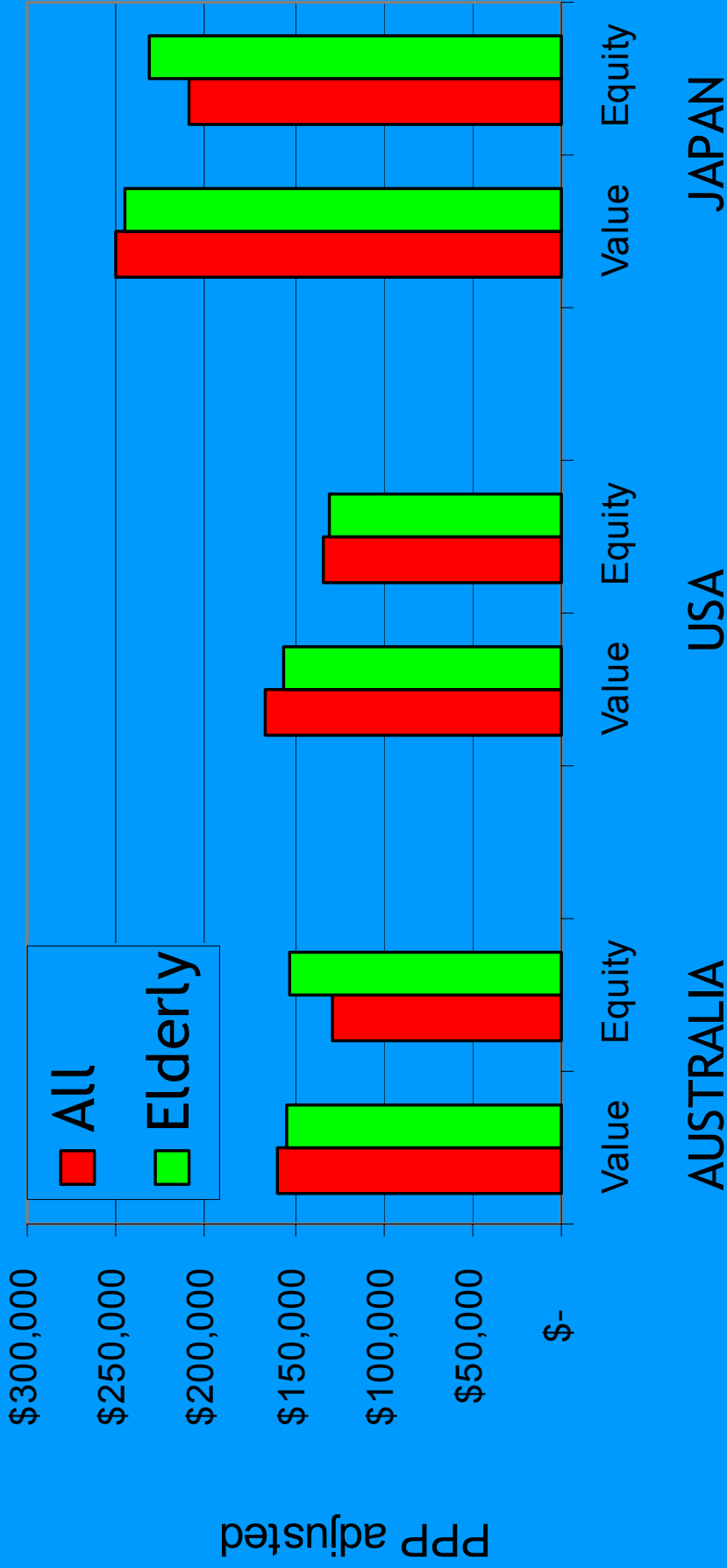
* Cohort	1	2	3	4	5	6
Japan 1999	< 30 yrs	30-39 yrs	40-49 yrs	50-59 yrs	60-69 yrs	70 yrs +
USA 2001	< 25 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65 yrs +
Australia 1998-99	< 25 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65 yrs +

# Owner Occupation Rates in Aggregate

Japan (1999)	US (2001)	Aust (1999)
66.70%	67.10%	70%

→ International similarities

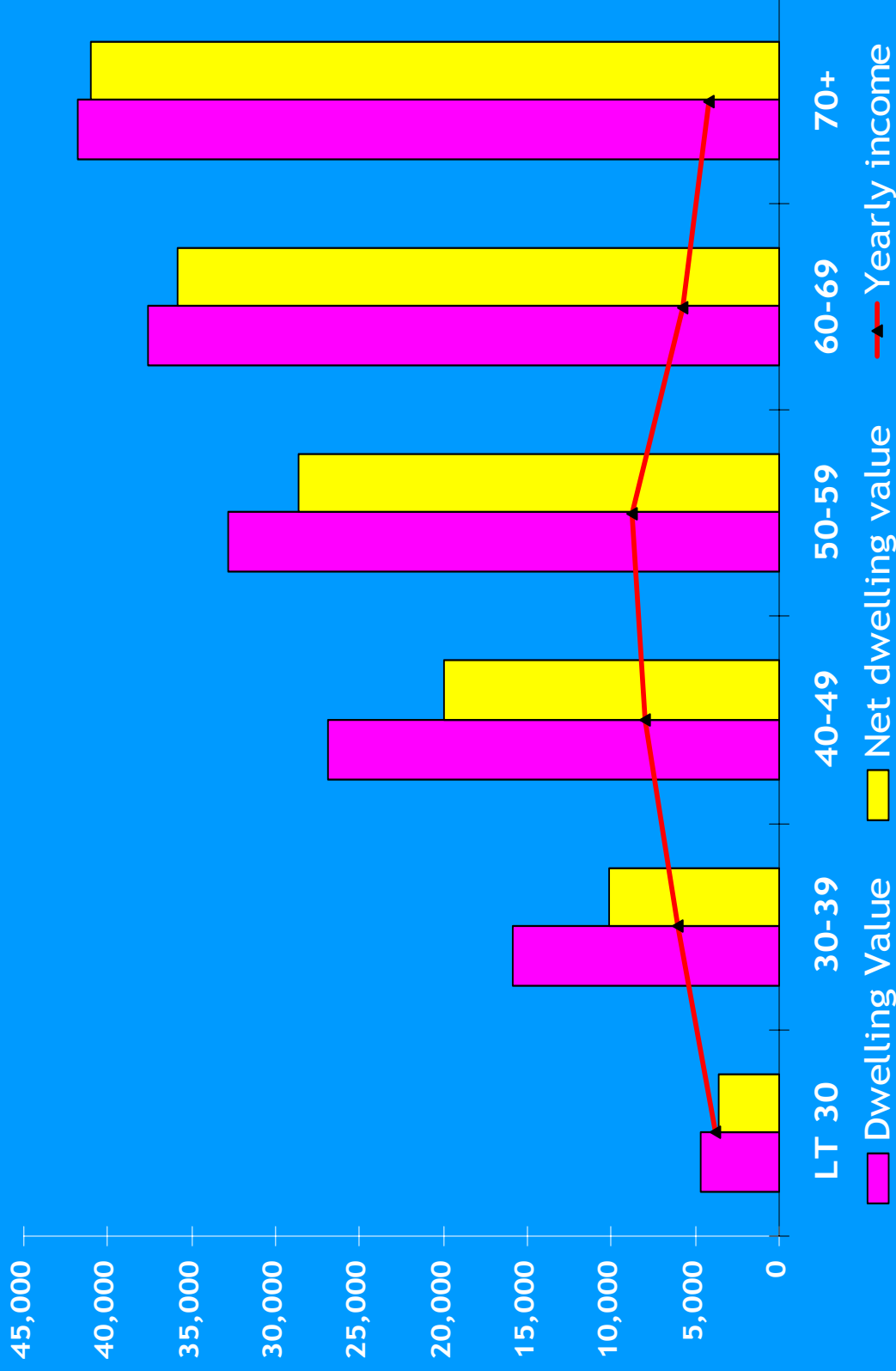
# Average Home Values, and Equity Therein: Australia, USA, and Japan (Owner-Occupiers Only)



Sources: ABS (1999), Australian Housing Survey; Rand Corporation (1998), Health and Retirement Survey, Wave 5; Econmagic (online resource); World Bank (2002), World Development Indicators, Table 5.6

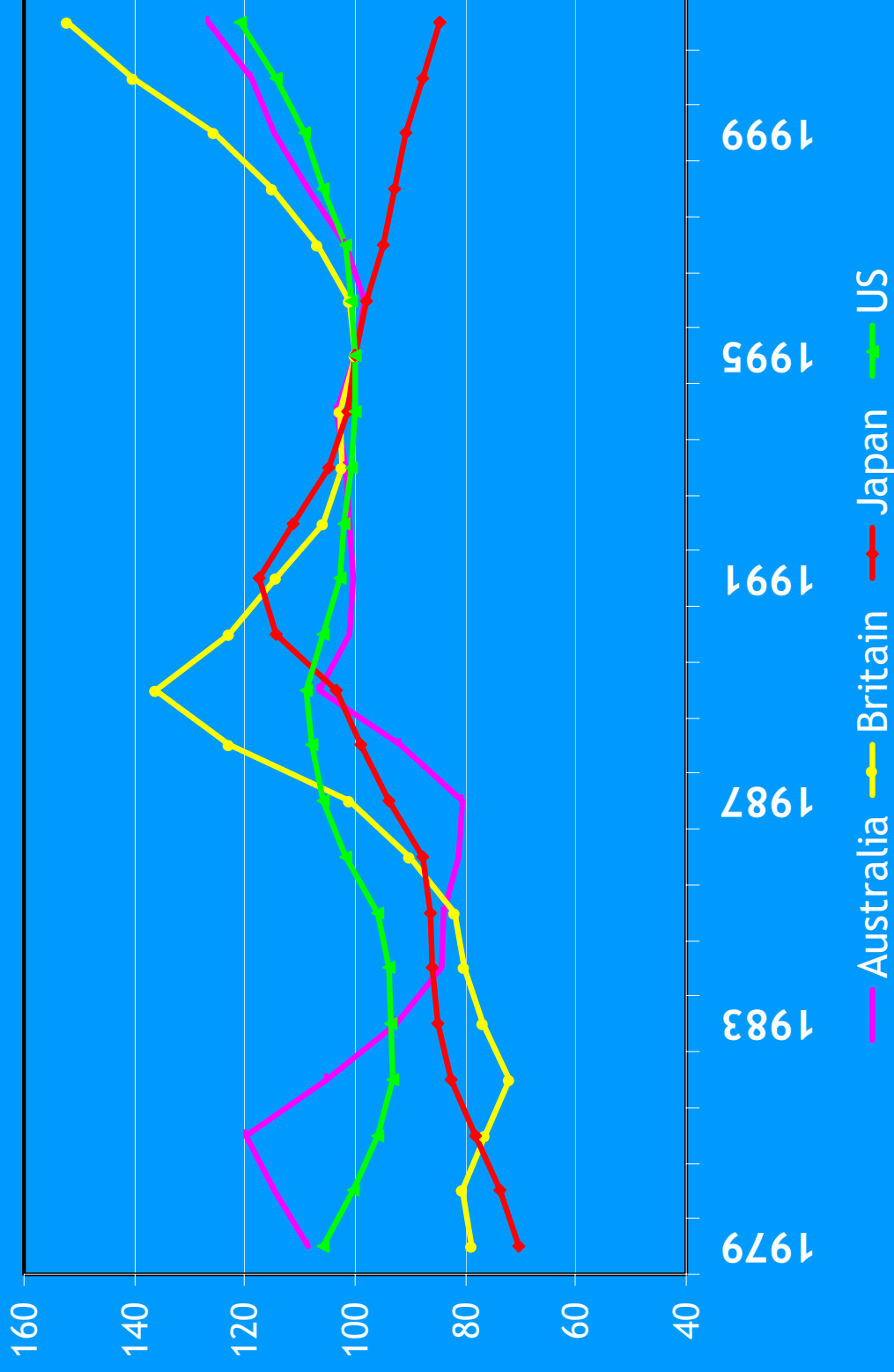
# Average housing equity and income by age

[Households Japan, '000 Yen]



Source: NSFIES 1999, Table 21, [www.stat.go.jp/data/zensho/1999/z](http://www.stat.go.jp/data/zensho/1999/z)

# Cross-Country Comparison of Real Housing Prices: National Indices (1995=100)



Source: Authors' computations using data provided by The Economist

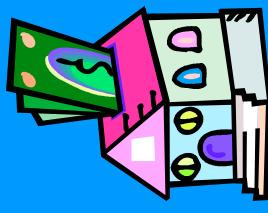
## Would Access to Housing Wealth Help?

- In US: housing ~\$150K for people near retirement.
  - Housing worth \$100K in US, \$300K in Japan
- Need for reverse mortgages:
  - Homeowner borrows on home equity
  - At death, lender recovers minimum of loan balance or home equity.



# Diversification rationale for RM's:

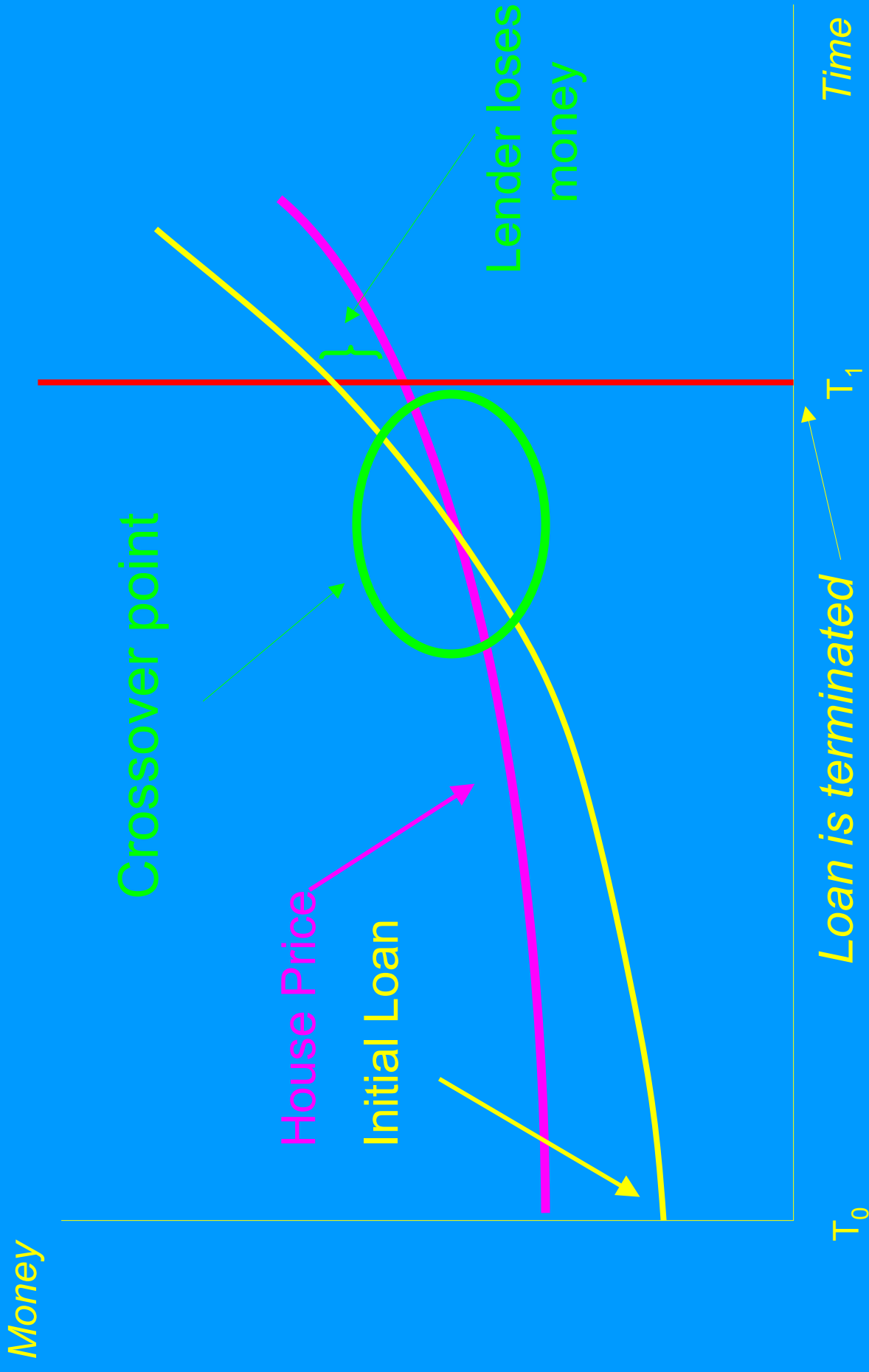
- Elderly households may hold *undiversified* portfolios:
  - housing
  - publicly financed social security
- Unlocking housing equity can also better asset diversification individually & socially



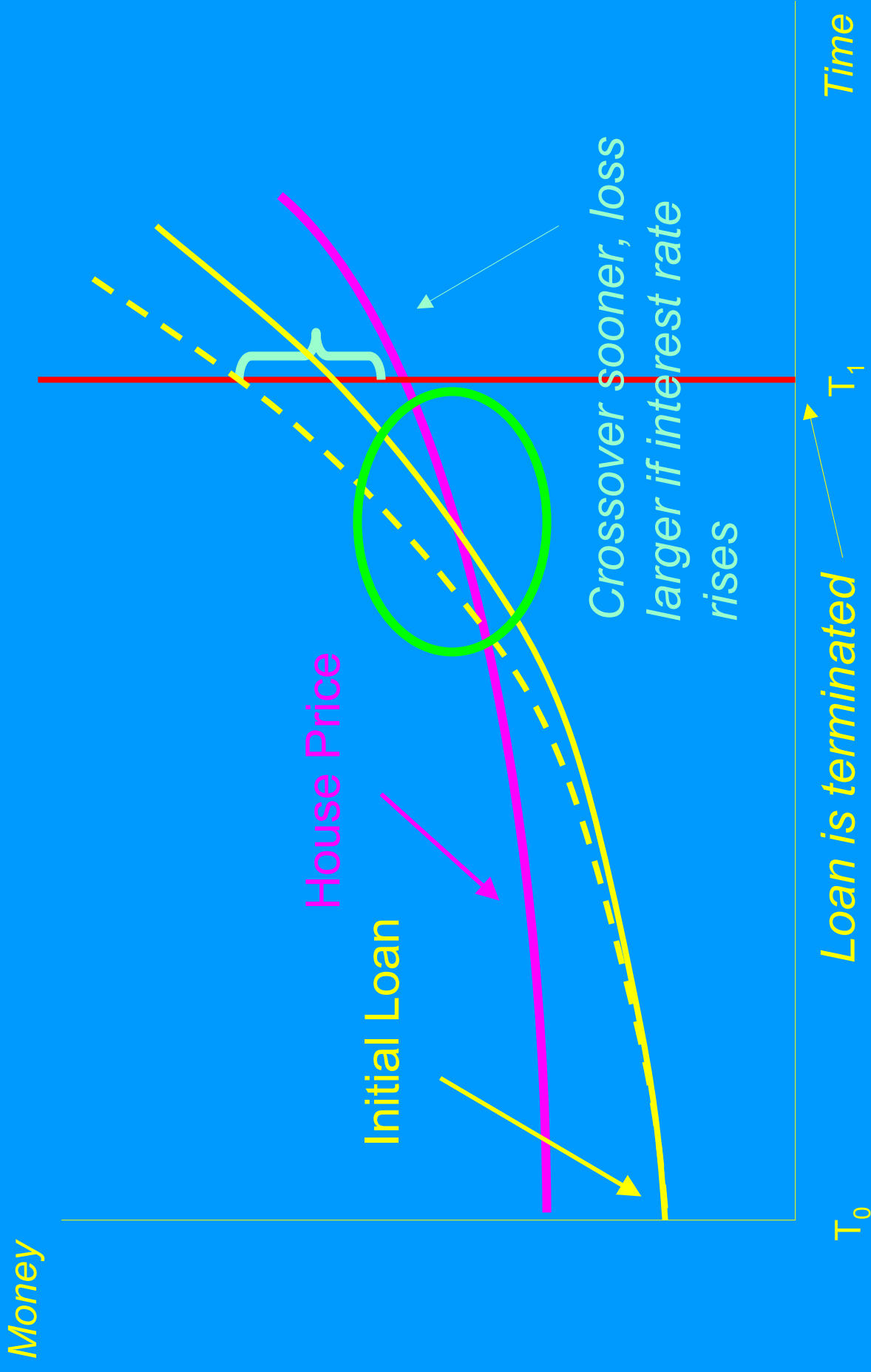
# Key elements of RM product

- Non recourse loan: the lender gets back only Min(loop balance, home equity)
- Costs: Loan origination, inspection to set home equity value
- Reinsurance: due to lender's liquidity crunch and risk of slow growth in equity

# Crossover Risk in RMs



# RM lenders and interest rate risk



# US Reverse Mortgage Lump Sum or Monthly Payment by Age (for \$100K net equity)

	<i>LS Amount</i>		<i>Monthly Payment</i>	
	<u>HECM</u>	<u>Homekeeper</u>	<u>HECM</u>	<u>Homekeeper</u>
65	\$55,082	\$15,511	\$317	\$127
75	64,121	36,409	420	316

→ HECM limited to low-equity & federally insured, Homekeeper privately sold and available for higher value homes

## RM market developing in the US...



- US case: So far ~80,000 RMs sold...
  - Institutional issues: costs
  - Legal questions: Foreclosure? Tax status?
- Adverse selection: buyers may expect to live long (tho some suggestion to contrary)
- Moral hazard: upkeep inadequate
- Securitization slow in coming
- Need more transparent, cheaper program to meet retiree needs

# Illustrative Reverse Mortgage Payout Comparisons for US and Japan (\$100K home equity)

	<u>US</u>	<u>Japan</u>
<i>Value of lump sum</i>		
65	\$53,635	39,800
75	66,623	79,280
<i>Value of yearly real annuity</i>		
65	\$3,713	1,807
75	6,489	3,711

Note: Computations assume initial home equity of \$100,000 and female borrower surviving according to (respectively) Japanese or US population tables. US economic assumptions: Risk-free real rate ( $r$ ) = 2.0%; Real home equity growth rate ( $r+g$ ) = 1.0%; Real mortgage rate ( $r+m$ ) = 4.5%; Real AIR for annuity ( $r+a$ ) = 3.0%. Japan economic assumptions: Risk-free real rate ( $r$ ) = -0.6%; Real home equity growth rate ( $r+g$ ) = -2.4%; Real mortgage rate ( $r+m$ ) = 1.9%; Real AIR for annuity ( $r+a$ ) = 0.4%.

## Core Supply side risks

- Longevity risk. This is present whether an annuity or lump sum is offered - timing of closure is contingent on death.
- House price appreciation risk. Get this wrong, and cross over can come much earlier
- Interest rate risk. Very important when the transaction is fixed interest

# Some say RMs impossible in Japan:

- Real estate market not transparent
- Inheritance patterns:
  - Eldest son gets house; others get cash.
- High real estate transaction costs
  - Commission, closing fees
  - Declining values
- Capital gains tax
  - Buyers wait for bottom; sellers wait for pickup
- Transactions taxes
  - More trading in 90's

# Existing Home Markets in Japan & US ('000)\*

	Japan (1998)	US (1998)
Total dwellings	26,468	117,282
Existing home purchases as a proportion of dwelling stock	0.4%	4.8%
Existing home purchases as a proportion of housing starts	0.16%	3.46%

\*Source: Tatsuya Ishikawa, "Savings and Assets of Elderly Households in Japan"  
NLI Research Institute, July 2001

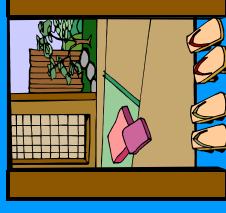
Yet some factors are favorable:

- Low fertility
  - Fewer children to support parents
  - Less need to maintain assets for bequests
- Declining multiple generation occupancy
  - Surveys indicate 55% in Japan (more than US)
  - And persons per dwelling much higher in Japan

# Mushashino City (Tokyo suburb)

launched RMs in 1981

- Govt provided services in exchange for a mo'ly fee or an amt paid later from homeowner equity (at sale of property).
- Funds + 5% annual fixed interest rate <+ 80% of land value (no value to building).
- Small effort (42 people signed up !)
- Yet indicates demand by elderly
- And willingness of govt to provide RM products.



# Institutional support important: RM's require

- ✓ Forecasts of future mortality with adverse selection.
- ✓ Home equity growth forecasts (and/or moral hazard).
- ✓ Better data on housing value and turnover patterns by age.
- ✓ Models of expected returns, mortgage rates, annuity returns.

## Also...roles for government?

- ✓ Clarify/eliminate regulatory/tax barriers limiting the products' development.
- ✓ Have “at least one investor” provide liquidity for banks to take on the reverse mortgages.
- ✓ Perhaps need reinsurance for lenders and enhance securitization.

# Conclusions and Future Research

- ✓ Policy regarding maintaining retiree consumption.
- ✓ Products to help unlock housing wealth.
- ✓ Role of LTC

