



CPB Netherlands Bureau for Economic  
Policy Analysis

# Demand for annuities and LTC insurance with recursive utility: the impact of housing

Discussion

Bram Wouterse

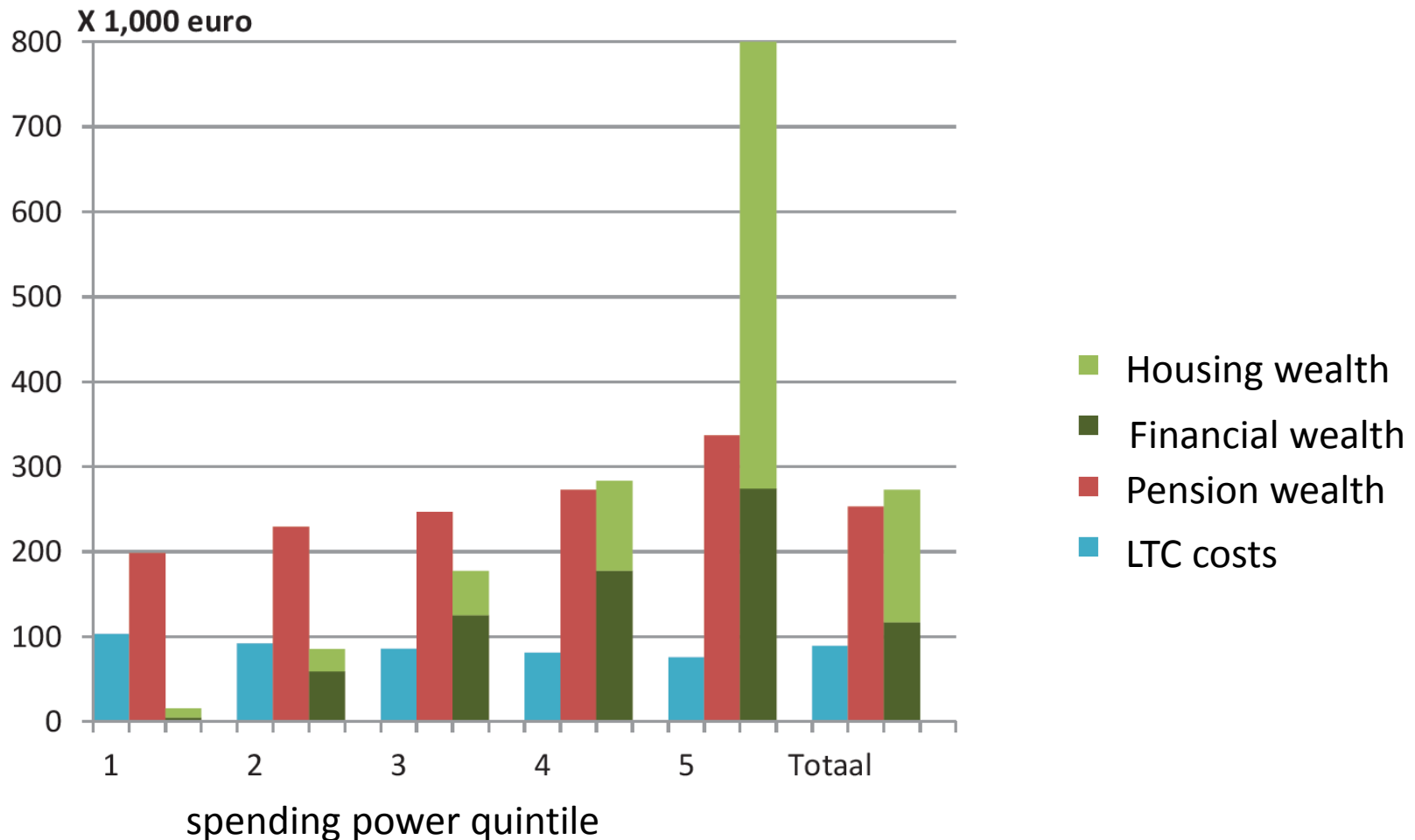
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## Relevance: household wealth at 70 in NL





## Intuition behind results?

Wealth (\$000)		Single product			Both products		
		Annuity only		LTCI	Annuity		LTCI
Liquid	House	% Liquid	% Total	only	% Liquid	% Total	LTCI
500	0	0.30	0.30	0.93	0.71	0.71	0.92
220	280	0.94	0.41	0.89	0.65	0.29	0.81



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Full annuitization of  
remaining wealth  
 $(220 - 0.81 * 95) / 220 = 0.65$

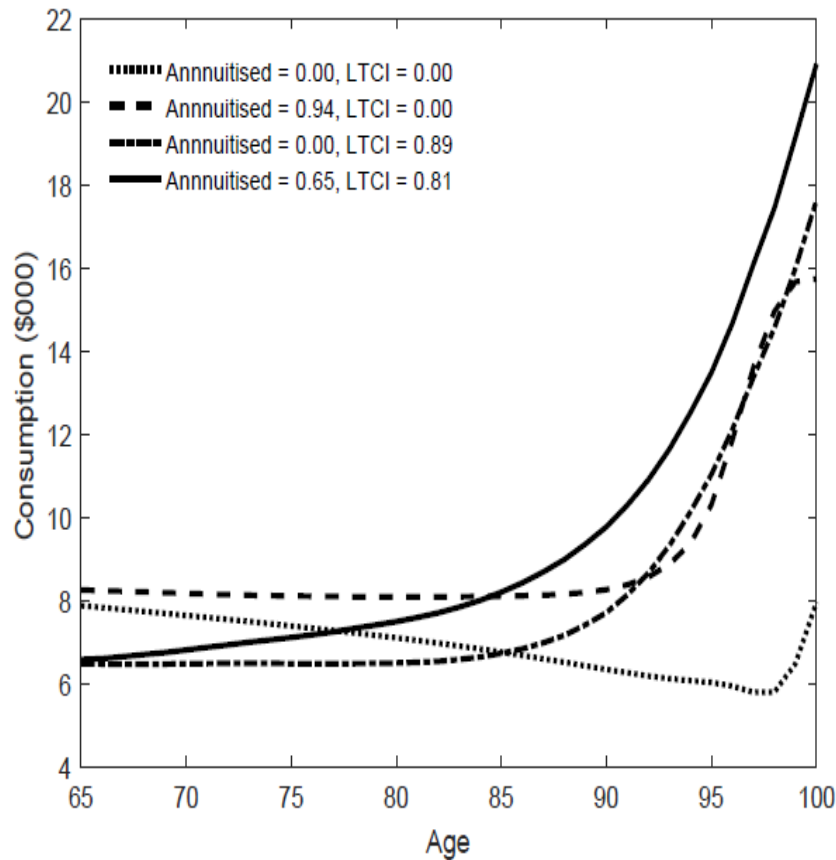


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## Optimal policy?



- Straight line is optimal, but doesn't really look optimal:
  - highest consumption at oldest ages
- Most successful in utilizing housing wealth for consumption?
- Housing is really just a strange asset you can only use when you get ill or die



## Some remarks

- Reduce complexity
  - improve intuitive explanation
  - stochastics in housing prices, bequest motive, price increases in LTC, low uninsurable costs in mild disability
- Increase complexity
  - macro risk in LTC costs
  - health dynamics
- Base case has relatively little liquid (pension) wealth



## Policy implications

- Relationship housing, pensions, LTC more complicated than we think
  - LTCI coverage remains high even with house
  - optimal mix depends on many factors
- Different insurance product
  - only insure LTC costs  $>$  housing wealth





## Pensions and LTCI

- *Abstracting from house prices and bequests*
- No LTC costs
  - fully annuitize
- LTC costs, no insurance
  - need liquid wealth to pay LTC costs -> not fully annuitize
- LTC costs, insurance
  - smooth evenly across all states:
  - fully insure
  - fully annuitize remaining wealth



## Pensions and housing wealth I

- Housing wealth in the model
  - wealth you cannot touch unless you become very sick or die
- No (private) LTC costs
  - poor health releases additional wealth to be fully used for consumption
  - smoothing: increase consumption in healthy state by consuming more in beginning of life: no full annuitization



## Pensions and housing wealth II

- LTC costs
  - housing wealth is partly insurance against LTC costs
  - instead of shock in LTC costs we have shock (LTC costs - housing wealth)
    - > can be positive or negative
- Comparison to no housing
  - protection against LTC costs is more important than positive wealth shock
  - annuitization share will be higher



## Pensions, LTCI, and housing

- Complicated (at least for me..)
- My guess would be that
  - optimal LTC coverage will depend on housing/LTC costs
  - full annuitization of remaining wealth (because else lower or higher LTCI coverage)



## Some intuition

- Housing wealth in the model
  - wealth you cannot touch unless you become very sick or die
  - instead of negative wealth shock when ill, you can have either a positive or negative shock
- Pensions & LTCI
  - full insurance against both risks
- Pensions & housing
  - housing insures against LTC risk, so higher annuitization
- LTCI & housing
  - lower LTCI coverage
- Pensions, housing & LTCI
  - ??
  - guess: LTCI coverage depends on house, annuitize remaining wealth



# The role of housing wealth

- Housing in the model is just some strange form of wealth
  - leads to some peculiar results
- Housing and LTC use are interrelated
  - house owners are more likely to use home care
  - house owners are more likely to use informal care?