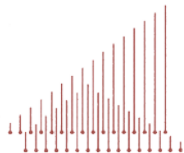


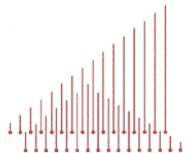
---

# The effect of allowing for bequests in NTA

David McCarthy and James Sefton  
(NIESR, Imperial, University of the  
Witwatersrand)



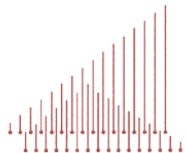
- **Bequests are a significant flow**
  - Three UK estimates – all lie between around £50 and £80bn per annum (around 5% of GDP)
  - Individuals (probably) appear to save in anticipation of giving a bequest and may save less in anticipation of receiving one
  - Risk-sharing implications are significant
- **Yet standard NTA ignores bequests**
  - In our first NTA UK profiles for 2007, we (mistakenly) included them, but removed them in subsequent estimates



## Outline

---

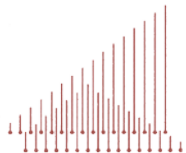
- Current calculation of savings in NTA
- Two views of NTA
  - Individual
  - Aggregate
- Using aggregate concept, difficulties with including bequests
- A possible method, with implications for NTA-reported savings
- Comparison with GWA-implied bequests



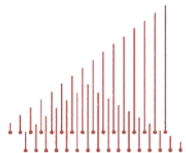
- Savings is a balancing item in NTA flow equation

$$Y_{k,t}^l - C_{k,t} = (T_{k,t}^{g,-} - T_{k,t}^{g,+}) + (T_{k,t}^{p,-} - T_{k,t}^{p,+}) - Y_{k,t}^a + R_{k,t}$$

- **Bequests NOT included in transfer estimates**
  - Since bequests sum to zero, aggregate savings macro-control balances to age profile, regardless of whether bequests are included or not
  - Consequence of omitting bequests is that, at an aggregate level, savings flows will not balance to assets (at the end of the period)
  - Inter-generational distribution of resources may be mis-stated



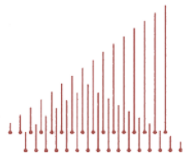
- **NTA's are an individual-level concept**
  - Flows estimated at an individual level, presented in this way for convenience
  - BUT: compositional problems as cohort changes over the flow period
  - BUT: flows actually depend heavily on individual circumstances (wage, family, benefits, etc.)
  - Ignoring bequests may be correct
- **NTA's are an aggregate concept, measured over the cohort**
  - Individual-level flows calculated and presented for purposes of convenience and understanding
  - Ignoring bequests may be incorrect



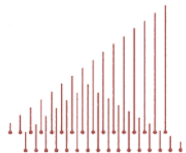
- Bequests are a predictable part of resource flows between different cohorts
  - More complete NTA flow equation is then:

$$Y_{k,t}^l - C_{k,t} = (T_{k,t}^{g,-} - T_{k,t}^{g,+}) + (T_{k,t}^{p,-} - T_{k,t}^{p,+}) - Y_{k,t}^a + (B_{k,t}^{p,-} - B_{k,t}^{p,+}) + R_{k,t}^*$$

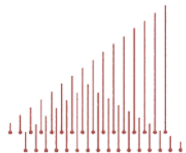
- Net outflow of bequests from the aged, net inflow to the young
- Materiality: around 5% of GDP p.a. in the UK



- **Bequests are capital in nature, other flows are income**
  - (Savings is really capital in nature, too)
- **How can per-capita flows be paid by dead people?**
- **Bequests are unplanned**
- **Not all wealth is bequeathable**
  - Annuitised wealth, by our calculations, give rise to no age-related flows (excluded from bequest estimates)



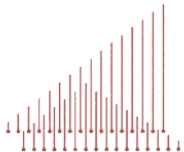
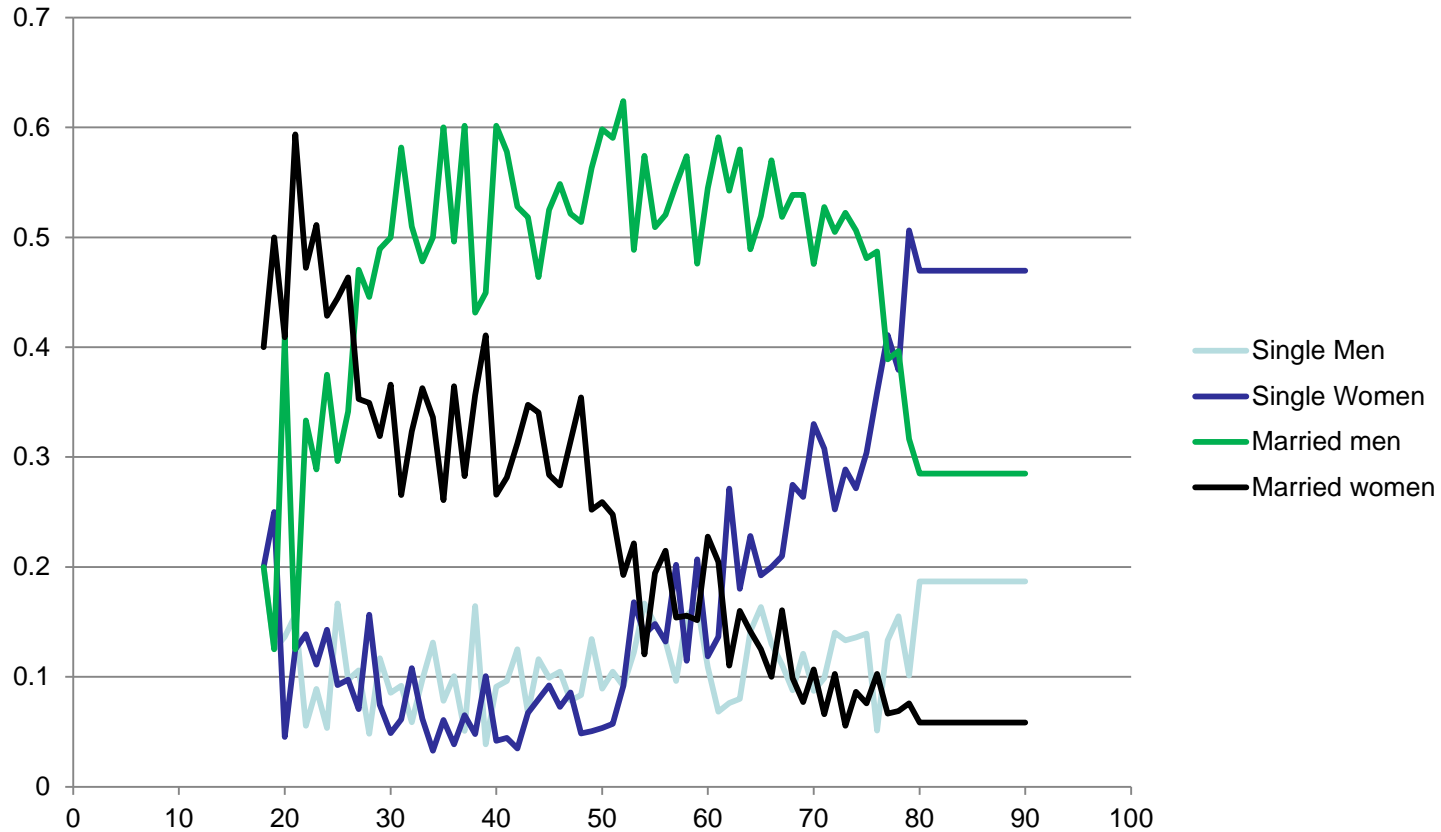
- Measure wealth for different household types
- Make an assumption about bequest behaviour
  - Spouses bequeath to surviving spouse, singles bequeath to the next generation?
- Calculate aggregate bequests in and out using mortality probabilities and household wealth
- Balance to macro control, move from aggregate to pc flows and smooth





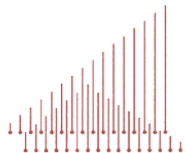
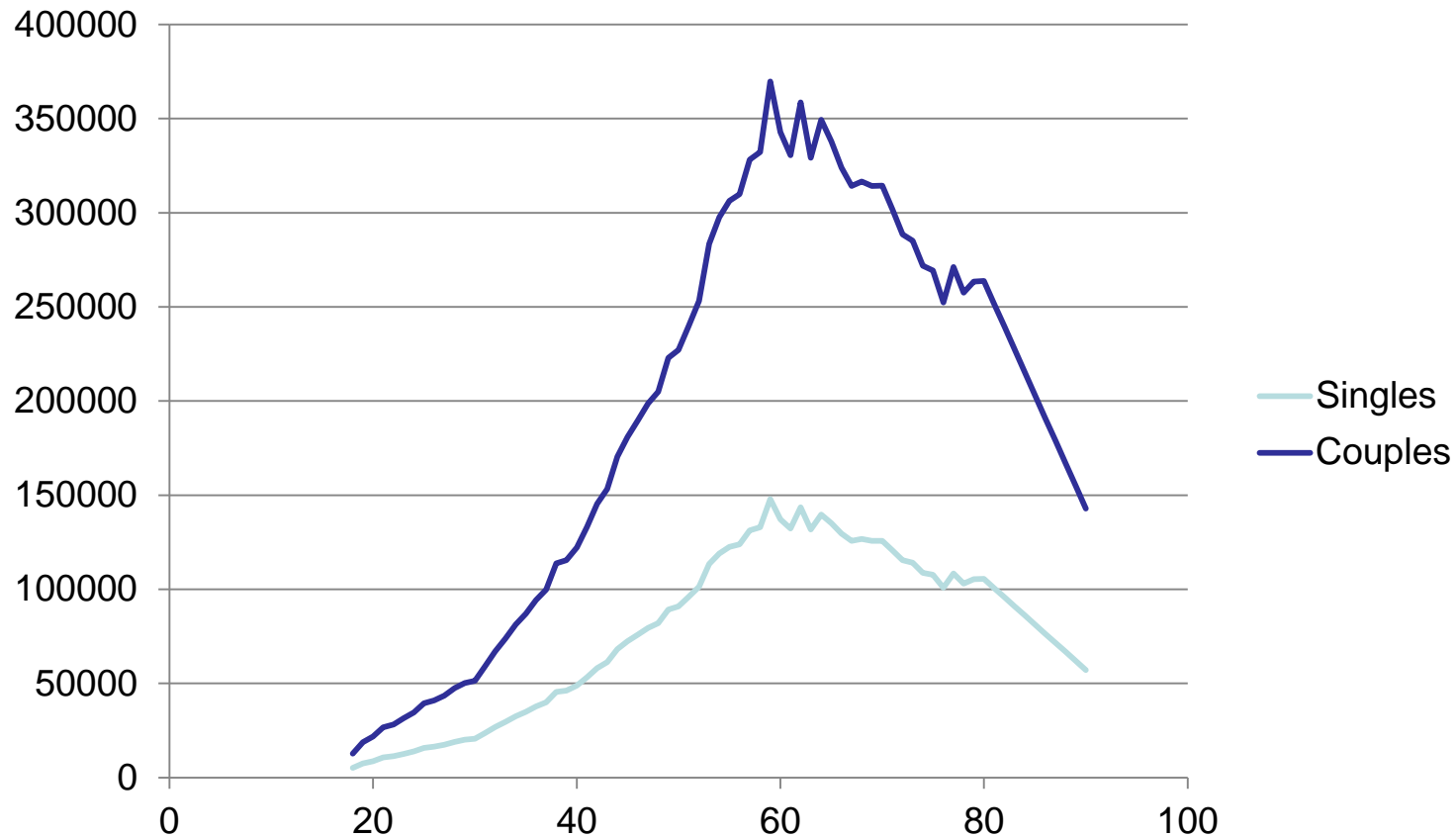
# Results

## Household types in the UK (measured off FES)



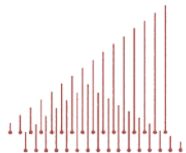
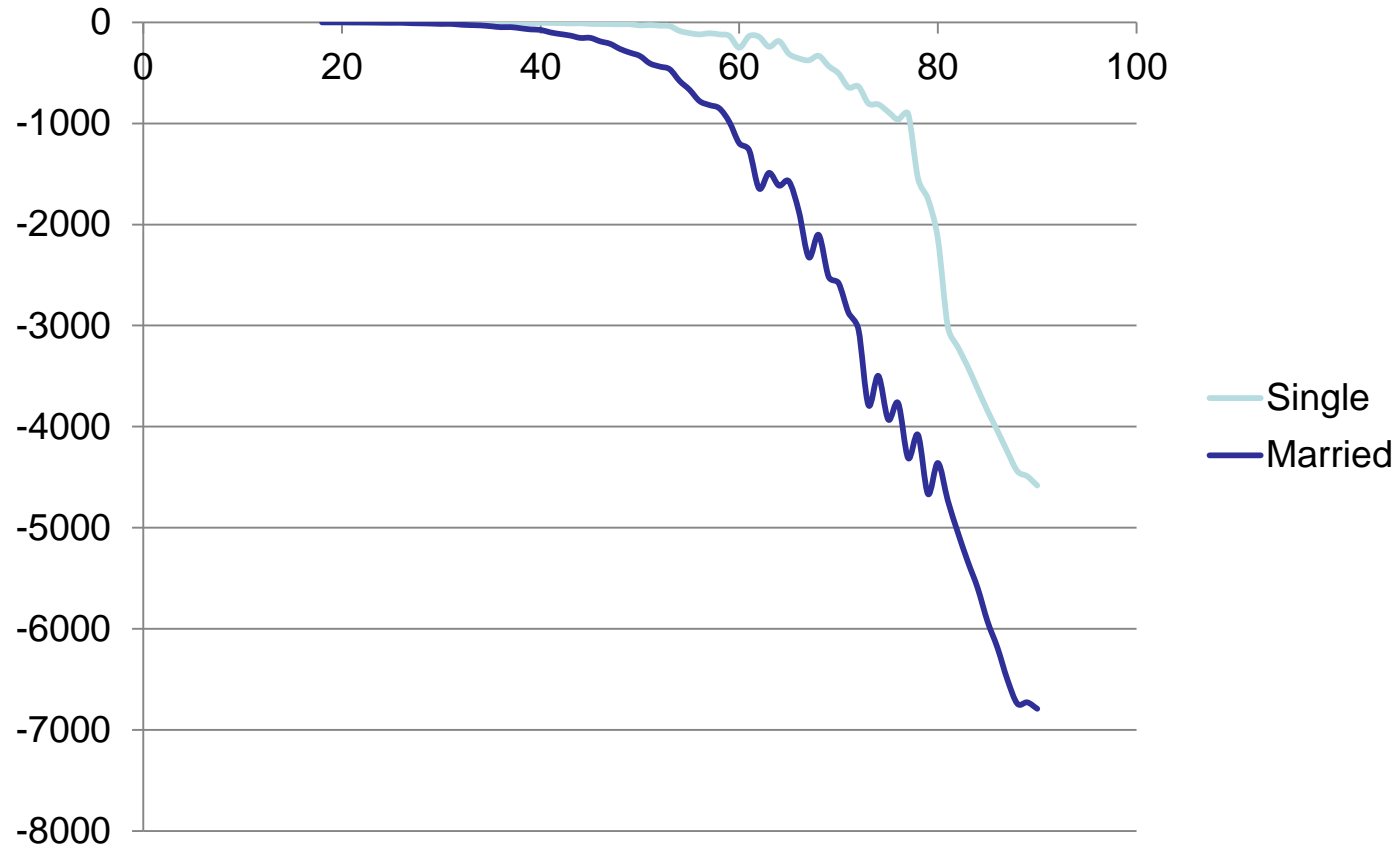
# Results

## Bequeathable assets by household type



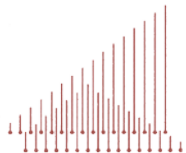
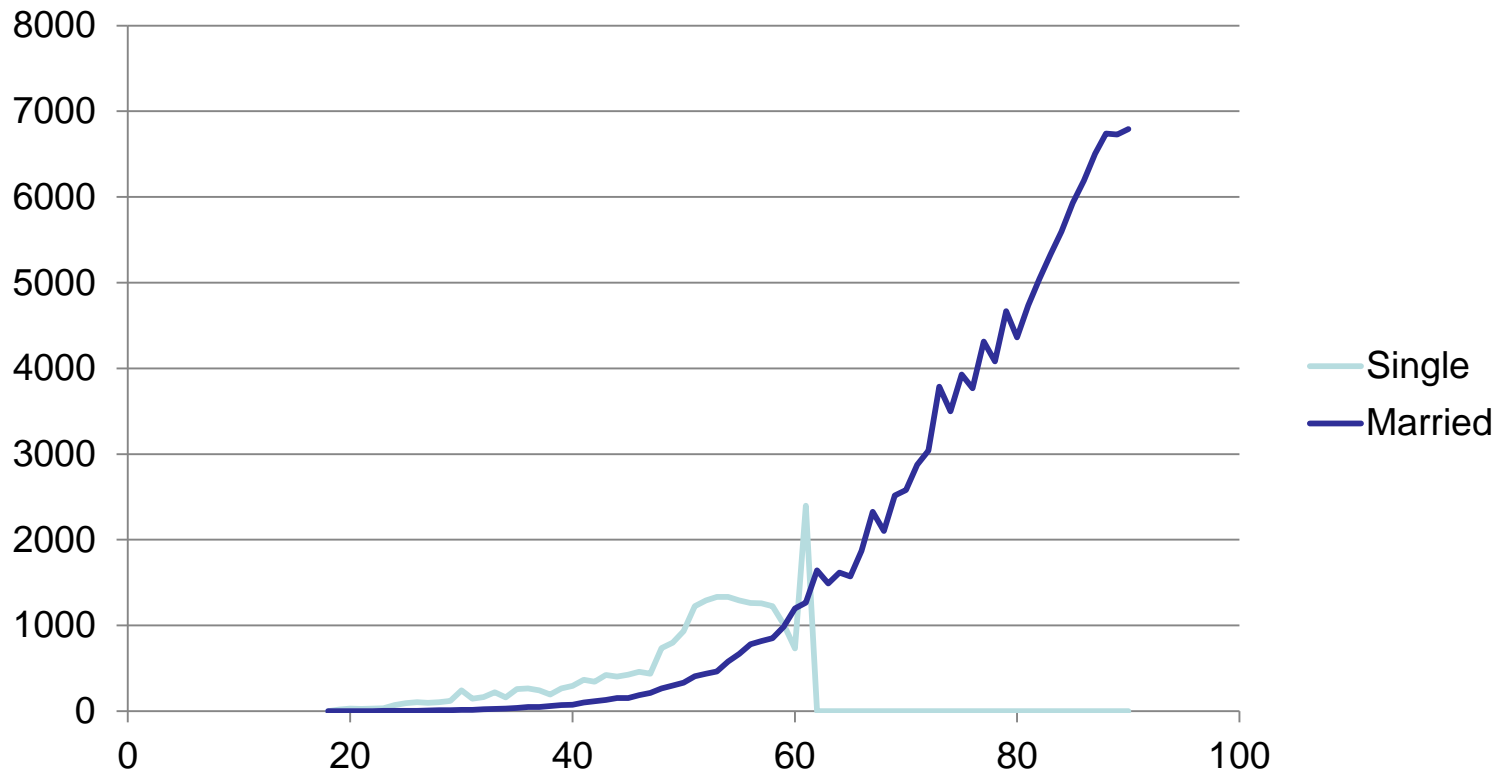
# Results

## Bequests made by household type giving bequest



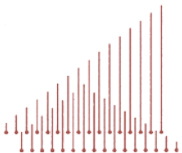
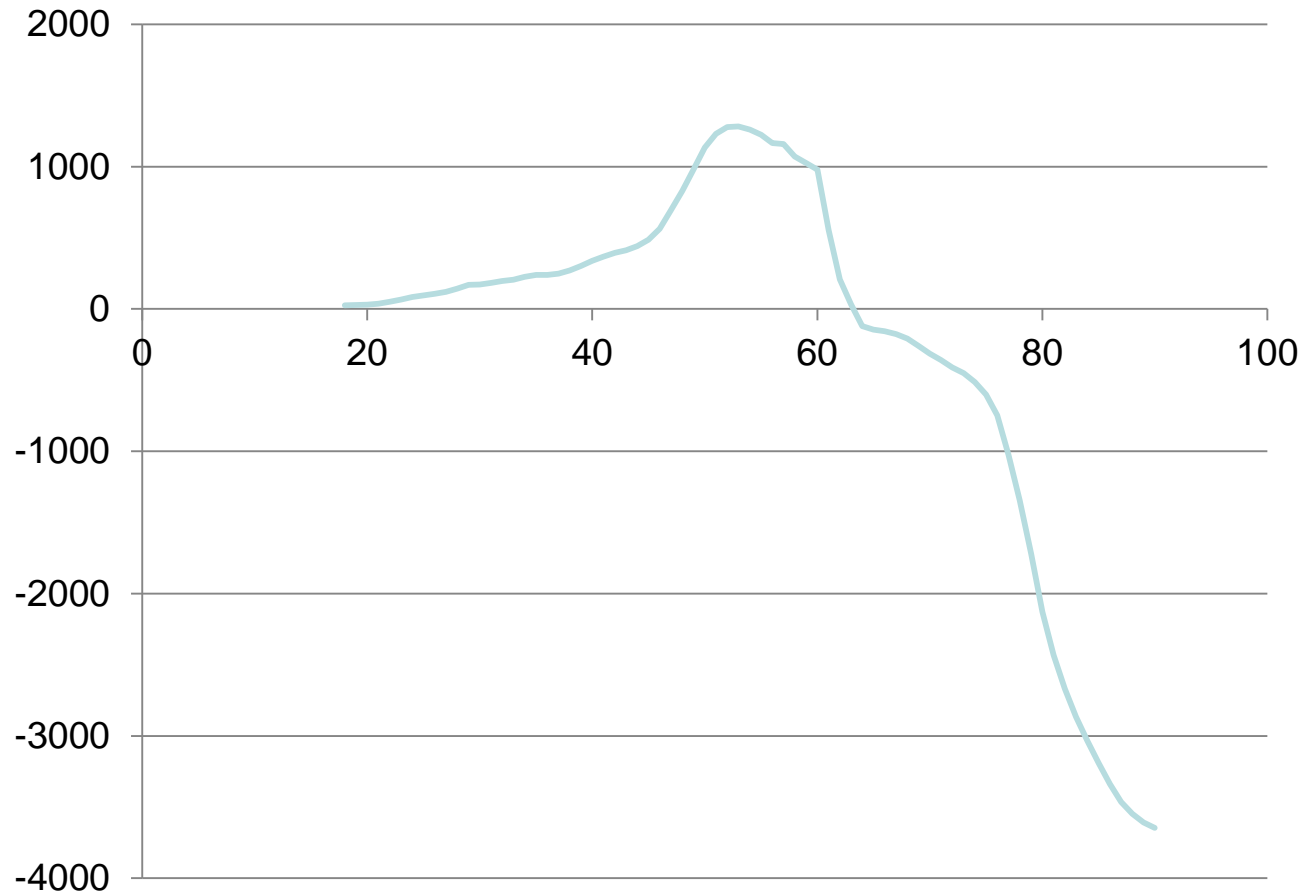
# Results

## Bequests received by household type *making* bequest



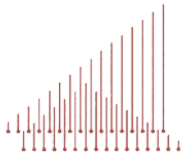
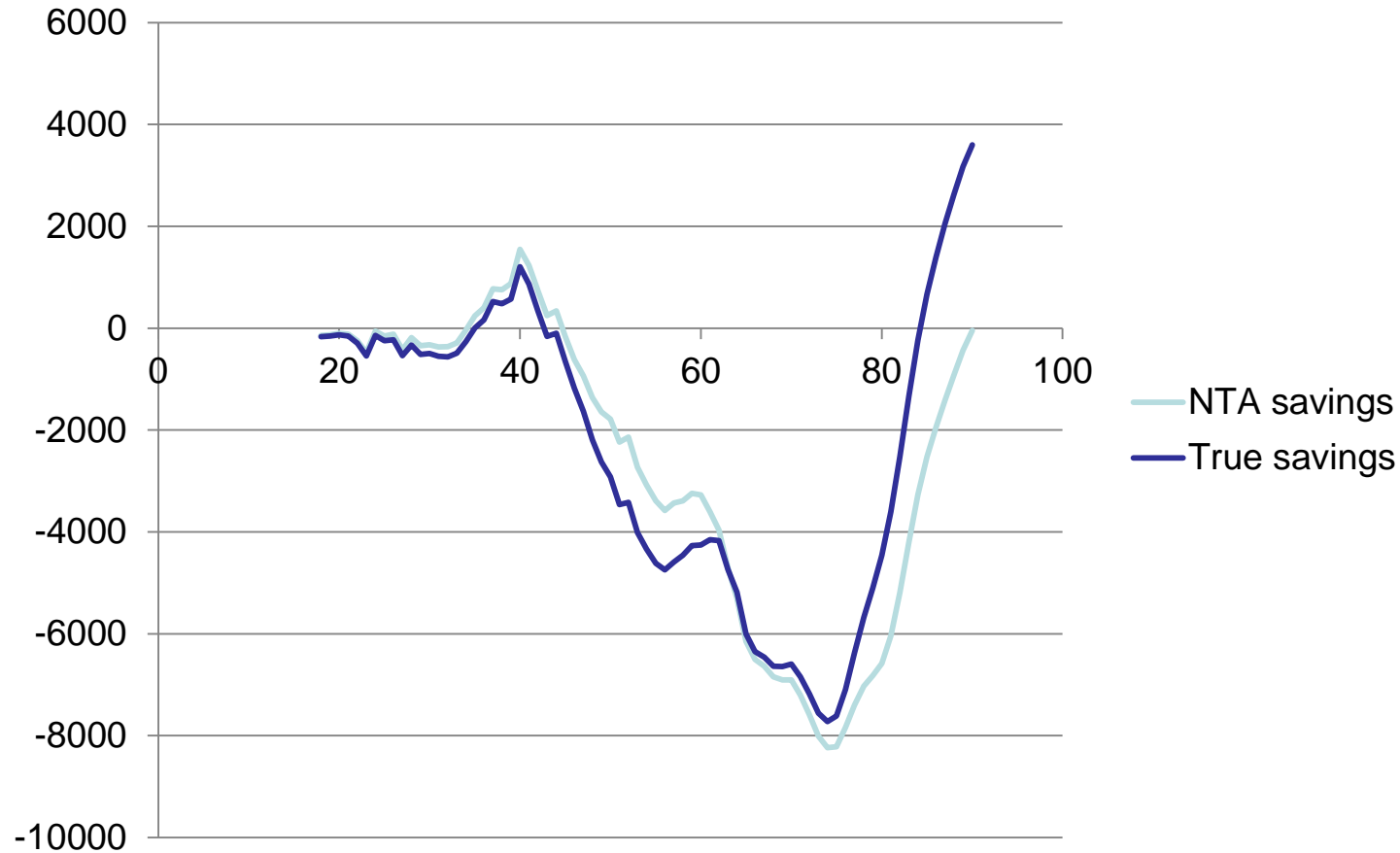
# Results

## Net p.c. bequests, smoothed, annual flows

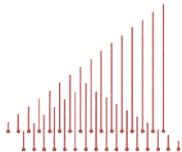
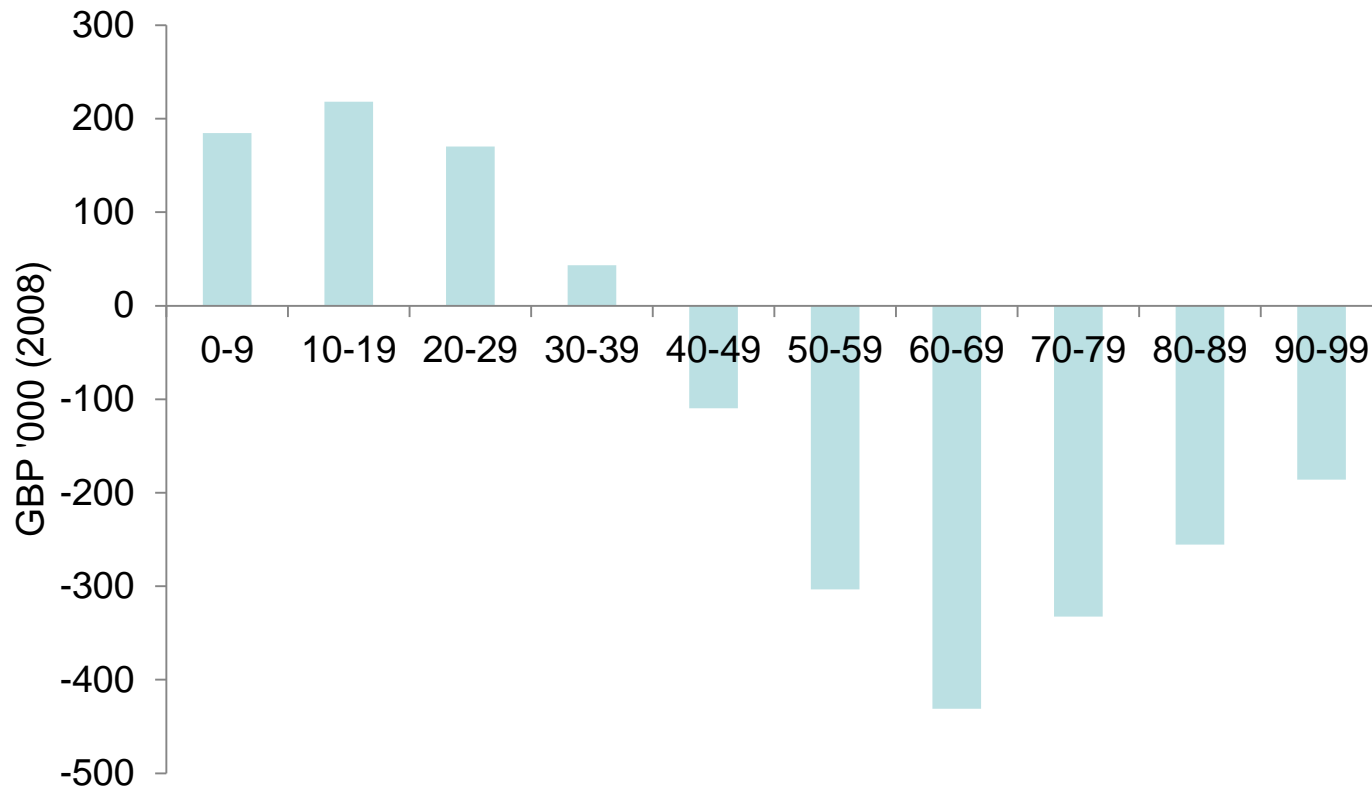


# Results

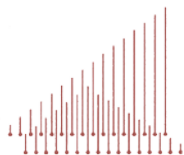
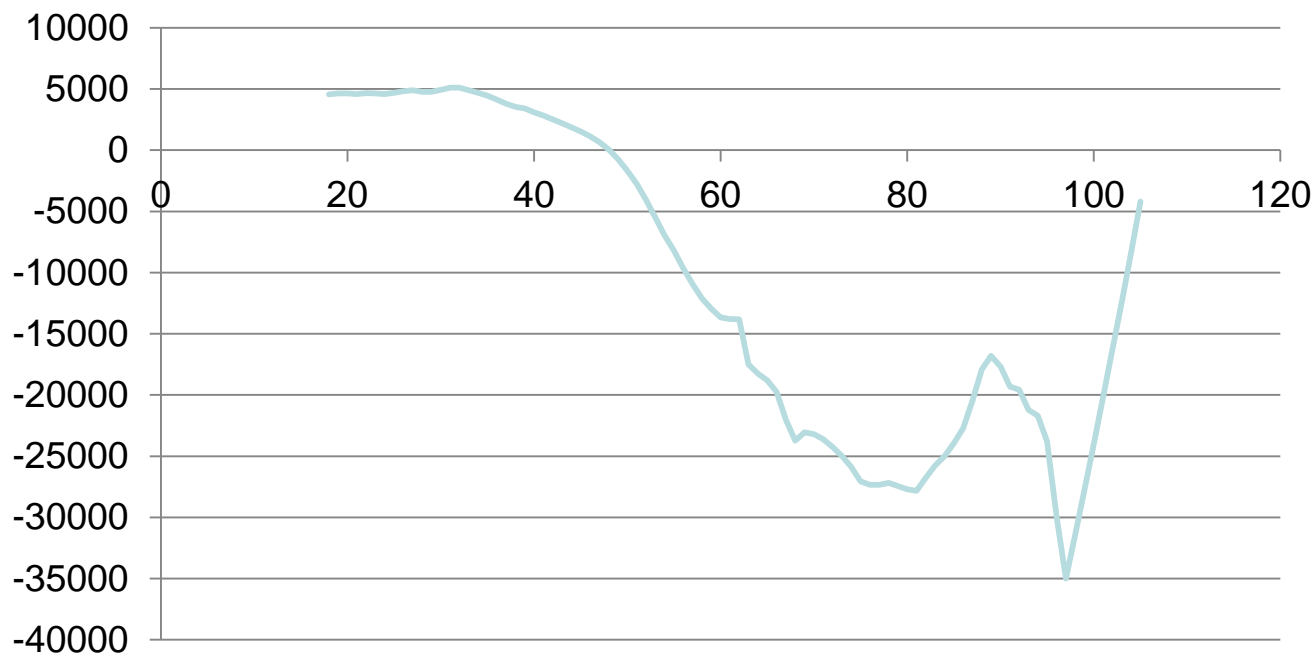
## Effect on reported p.c. cohort savings



# GWA estimates the EDPV of future bequests as a balancing item



Interesting to compare these EDPV calculations with the p.c. bequest flows implied by our method above





- **Not favourable**

- We are out by a factor of 10 for the old, and a factor of 40 for the young

- **Possible reasons:**

- GWA assumes all consumption paths are sustainable, but does not measure actual bequests
- Treatment of bequests between spouses crucial
- Consumption/asset accumulation paths not in steady state

