



The effect of the financial crisis on older households in England

- Preliminary -

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Introduction (1)

- Recent financial crisis associated with large asset prices falls
- In the UK in 2008–09
 - FTSE All-Share Index fell by one-third
 - Nationwide House Price Index fell by one-fifth
- Those close to retirement might have been relatively exposed:
 - high rates of home ownership and relatively large stocks of nonhousing wealth
 - little time to adjust behaviour before their planned retirement date
- Those already retired will have annuitised much of their wealth
- Those further from retirement have more time to adjust their subsequent behaviour



Introduction (2)

- Overall Project: use English Longitudinal Survey of Ageing to examine 4 potential impacts of the financial crisis on those approaching and in retirement
 - 1. scale and distribution of falls in wealth
 - 2. plans and expectations for later life
 - 3. Labour supply and consumption
 - 4. health and well-being
- Today: preliminary results on 1 and 2.



Introduction (3)

- Estimates of interest in their own right
 - What happened?
 - Indication of how longer-run impacts of this crisis might play out
- Also of interest in a broader context
 - builds on literature using economic shocks to estimate various effects (especially labour supply, health)
 - increases understanding of quantitative measures of economic expectations



Outline

- UK crisis timeline and ELSA Data
- Scale and distribution of financial losses
- Effects on expectations descriptive statistics
- Effects on expectations econometric estimates
- Summary and future directions





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Regional house price indices UK Land registry data (April 2006=100)



English Longitudinal Study of Ageing

- ~12,100 respondents aged 50+ in England in 2002–03 (wave 1)
 - respondents re-interviewed biennially
 - refreshment samples in 2006–07 (wave 3) and 2008–09 (wave 4)

Distribution of interview timings: ELSA waves 3 and 4

| | W4: Before | W4: During | W4: After | W4: All |
|------------|------------|------------|-----------|---------|
| W3: Before | 1,985 | 575 | 426 | 2,986 |
| W3: During | 986 | 967 | 1,242 | 3,195 |
| W3: After | 6 | 303 | 828 | 1,137 |
| W3: All | 2,977 | 1,845 | 2,496 | 7,318 |



English Longitudinal Study of Ageing

- Detailed information on economic situation and health
 - financial wealth, debt and housing at every wave
 - full pension details at every wave
 - Subjective and objective health (physical and mental)
 - quantitative measures of expectations of the future
 - subjective measures of wellbeing and financial situation



Pension wealth

- Significant part of the project is the creation of measures of state and private pension wealth (now complete)
- Pension income:
 - pensions in payment (private and state) use self-reported income
 - current DB: use self-reported pension tenure, salary and scheme rules
 - past DB: use self-reported pension tenure, impute final salary under assumption that earnings relative to median for sex/date-of-birth/education cohort constant over time, apply typical scheme rules dependent on sector of employment
 - current and past DC: take self-reported accrued fund value, accrue at 2% real rate of return to SPA, apply market annuity rates
 - state pensions: take self-reported employment, earnings history calculated as for past DB, and apply state pension rules
- Pension wealth:
 - discounted PDV of these income streams to sex specific life expectancy (plus any survivor benefits)



Estimating exposure and effects

- Exposure of wealth to financial crisis uses pre-crisis estimates of:
 - house values
 - risky financial asset holdings
 - 'safe' financial assets
 - mortgage and non-mortgage debt
 - pension wealth (private DB, private DC and state pension wealth)
- Simulated gains or losses computed using monthly asset price indices and month of interview in both wave 3 and 4
- Actual gains or losses between wave 3 and 4 computed directly from the ELSA data



Simulated losses (cont'd)

• Relevant asset price index:





Exposure : Pre-Crisis Wealth Holdings (1)

Table 1: Average wealth holdings among the ELSA sample in wave 3

| | Mean | % gross wealth |
|------------------------|---|----------------|
| Total gross wealth | 708,160 | |
| | | |
| FTSE exposed wealth | 75,156 | 10.6 |
| of which: | | |
| Investments | 38,188 | 5.4 |
| DC pension wealth | 36,968 | 5.2 |
| | | |
| Housing wealth | 234,142 | 33.1 |
| of which: | ~ | 22.2 |
| Primary housing wealth | 211,/11 | 29.9 |
| Other housing wealth | 22,431 | 3.2 |
| 'Safe' wealth | 398,862 | 56.3 |
| of which: | | |
| State pension wealth | 137,065 | 19.4 |
| Private pension wealth | 201,769 | 28.5 |
| Savings | 31,361 | 4.4 |
| Physical wealth | 28,668 | 4.0 |
| Dahta | 11 750 | 1 7 |
| Debts | 11,750 | 1.7 |
| of which: | | |
| Mortgage debts | 9,917 | 1.4 |
| Non mortgage debts | 1,833 | 0.3 |

Total net wealth

696,505

Note: Sample is those observed in both wave 3 and wave 4.



Exposure: Pre-Crisis Wealth Holdings (2)

Table 2: Average wealth holdings among the ELSA sample, by characteristics

| | | | | | low | mid | high |
|--------------------------------------|----------|----------|----------|----------|-----------|-----------|------------|
| | All | 50-59 | 60-69 | 70+ | education | education | education |
| Total gross wealth | £708,160 | £792,209 | £850,018 | £474,142 | £415,972 | £737,268 | £1,029,753 |
| Proportion of total gross wealth: | | | | | | | |
| FTSE exposed weatlh | 10.6 | 13.6 | 9.4 | 6.3 | 7.3 | 10.7 | 12.2 |
| of which: | | | | | | | |
| Investments | 5.4 | 5.2 | 5.3 | 6.2 | 3.4 | 5.5 | 6.3 |
| DC pension wealth | 5.2 | 8.4 | 4.1 | 0.1 | 3.8 | 5.2 | 5.9 |
| | | | | | | | |
| Housing wealth | 33.1 | 32.2 | 29.6 | 39.7 | 36.3 | 32.8 | 31.7 |
| of which: | | | | | | | |
| Primary housing wealth | 29.9 | 28.7 | 26.6 | 37.3 | 34.1 | 29.4 | 28.1 |
| Other housing wealth | 3.2 | 3.5 | 3.0 | 2.3 | 2.2 | 3.4 | 3.5 |
| - | | | | | | | |
| 'Safe' wealth | 56.3 | 54.2 | 61.0 | 54.1 | 56.4 | 56.5 | 56.2 |
| of which: | | | | | | | |
| State pension wealth | 19.4 | 18.9 | 21.3 | 17.3 | 27.9 | 19.5 | 15.2 |
| Private pension wealth | 28.5 | 25.4 | 32.5 | 29.4 | 22.0 | 27.2 | 32.4 |
| Savings | 4.4 | 3.7 | 4.6 | 5.8 | 4.6 | 4.2 | 4.5 |
| Physical wealth | 4.0 | 6.2 | 2.7 | 1.6 | 1.9 | 5.6 | 4.1 |
| | | | | | | | |
| Debts | 1.7 | 2.7 | 0.9 | 0.3 | 1.3 | 1.8 | 1.7 |
| of which: | | | | | | | |
| Mortgage debts | 1.4 | 2.3 | 0.7 | 0.2 | 1.1 | 1.5 | 1.5 |
| Non mortgage debts | 0.3 | 0.4 | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 |



Distribution of index changes ELSA wave 3 to Wave 4 (2006–07 to 2008–09)

Figure 3: Distribution of individual level index changes for the ELSA sample





Simulated wealth changes (1) ELSA wave 3 to wave 4 (2006–07 to 2008–09)

Figure 4: Distribution of simulated wealth changes for the ELSA sample





Simulated wealth changes (2) ELSA wave 3 to wave 4 (after group)

Figure 4b: Distribution of simulated wealth changes for the ELSA sample interviewed 'after' in wave 4





Simulated wealth changes (3) Peak to Trough (05/07 to 03/09)

Figure 4c: Distribution of simulated peak to trough wealth changes for the ELSA sample





Simulated wealth changes (4) ELSA wave 3 to wave 4 (2006–07 to 2008–09)

Table 3: Mean simulated wealth changes for the ELSA sample, by characteristics

| | | £ | | 9 | 6 gross we | alth |
|----------------------|----------|----------|----------|-------|------------|---------|
| | | FTSE | | | FTSE | |
| | Total | exposed | Housing | Total | exposed | Housing |
| All | -£23,290 | -£16,439 | -£6,876 | -3.3% | -2.3% | -1.0% |
| | | | | | | |
| 50-59 | -£34,121 | -£24,746 | -£9,263 | -4.3% | -3.1% | -1.2% |
| 60-69 | -£23,485 | -£16,649 | -£6,975 | -2.8% | -2.0% | -0.8% |
| 70+ | -£9,208 | -£5,867 | -£3,378 | -1.9% | -1.2% | -0.7% |
| | | | | | | |
| Low ed | -£10,249 | -£6,595 | -£3,791 | -2.5% | -1.6% | -0.9% |
| Mid ed | -£25,268 | -£18,133 | -£7,330 | -3.4% | -2.5% | -1.0% |
| High ed | -£37,165 | -£26,682 | -£10,171 | -3.6% | -2.6% | -1.0% |
| | | | | | | |
| Least wealth | -£5,027 | -£4,299 | -£1,015 | -1.7% | -1.4% | -0.3% |
| q2 | -£10,593 | -£6,473 | -£4,067 | -2.7% | -1.7% | -1.0% |
| q3 | -£14,192 | -£8,894 | -£5,219 | -2.5% | -1.5% | -0.9% |
| q4 | -£24,427 | -£14,843 | -£9,539 | -3.3% | -2.0% | -1.3% |
| Wealthiest | -£62,766 | -£47,758 | -£14,653 | -4.1% | -3.1% | -1.0% |
| | | | | | | |
| Single man | -£11,407 | -£9,318 | -£2,091 | -2.9% | -2.4% | -0.5% |
| Single woman | -£7,163 | -£4,714 | -£2,452 | -2.4% | -1.6% | -0.8% |
| Couple/extended | -£28,929 | -£20,340 | -£8,606 | -3.4% | -2.4% | -1.0% |
| | | | | | | |
| Working | -£36,764 | -£26,230 | -£10,402 | -4.5% | -3.2% | -1.3% |
| Not working, retired | -£12,532 | -£8,853 | -£3,811 | -1.9% | -1.4% | -0.6% |
| Not working, not | | | | | | |
| retired | -£17,859 | -£11,708 | -£6,313 | -3.4% | -2.2% | -1.2% |

Note: Mean £ loss is mean of individual level losses. % of gross wealth is that mean loss divided by mean wealth.



Simulated wealth changes (5) Peak to Trough

Table 4: Mean simulated 'peak to trough' wealth changes for ELSA sample, by characteristics

| | | £ | | % | gross weal | lth |
|----------------------|-----------|-----------|----------|--------|------------|---------|
| | Total | exposed | Housing | Total | exposed | Housing |
| All | -£70,180 | -£36,874 | -£33,359 | -9.9% | -5.2% | -4.7% |
| 50-59 | -£89,445 | -£52,851 | -£36,284 | -11.3% | -6.7% | -4.6% |
| 60-69 | -£74,481 | -£38,912 | -£35,805 | -8.8% | -4.6% | -4.2% |
| 70+ | -£41,386 | -£14,647 | -£26,960 | -8.7% | -3.1% | -5.7% |
| Low ed | -£36,411 | -£14,844 | -£21,778 | -8.8% | -3.6% | -5.2% |
| Mid ed | -£72,736 | -£38,710 | -£34,421 | -9.9% | -5.3% | -4.7% |
| High ed | -£108,235 | -£61,418 | -£46,257 | -10.5% | -6.0% | -4.5% |
| Least wealth | -£14,822 | -£10,367 | -£5,010 | -4.9% | -3.4% | -1.7% |
| q2 | -£32,725 | -£14,103 | -£18,500 | -8.4% | -3.6% | -4.8% |
| q3 | -£49,150 | -£20,711 | -£28,227 | -8.5% | -3.6% | -4.9% |
| q4 | -£71,680 | -£31,557 | -£40,083 | -9.6% | -4.2% | -5.3% |
| Wealthiest | -£184,141 | -£107,796 | -£75,585 | -12.1% | -7.1% | -5.0% |
| Single man | -£41,182 | -£21,572 | -£19,562 | -10.4% | -5.5% | -4.9% |
| Single woman | -£33,862 | -£13,434 | -£20,404 | -11.3% | -4.5% | -6.8% |
| Couple/extended | -£83,148 | -£44,800 | -£38,398 | -9.8% | -5.3% | -4.5% |
| Working | -£94,539 | -£54,720 | -£39,653 | -11.5% | -6.6% | -4.8% |
| Not working, retired | -£52,246 | -£22,751 | -£29,728 | -8.0% | -3.5% | -4.6% |
| retired | -£55,176 | -£29,273 | -£26,048 | -10.4% | -5.5% | -4.9% |

Note: Peak is taken as May 2007, trough is taken to be March 2009 (which corresponds to the peak and trough of the FTSE all-share index). Mean £ loss is mean of individual level losses. % of gross wealth is that mean loss divided by mean wealth.



Actual Wealth Changes (1) ELSA wave 3 to wave 4 (2006–07 to 2008–09)

Figure 5: Distribution of observed wealth changes for ELSA sample





Actual Wealth Changes (3) ELSA wave 3 to wave 4 (2006–07 to 2008–09)

| | | £ | | | % gross wealth | | | |
|--|----------|----------|----------|---------|----------------|---------|----------|--------|
| | | FTSE | | | | FTSE | | |
| | Total | exposed | Property | 'Safe' | Total | exposed | Property | 'Safe' |
| All | £4,158 | -£9,671 | -£4,376 | £18,205 | 0.7% | -1.7% | -0.7% | 3.1% |
| 50-59 | £15,515 | -£9,309 | -£2,377 | £27,201 | 2.4% | -1.4% | -0.4% | 4.1% |
| 60-69 | -£804 | -£15,184 | -£6,303 | £20,683 | -0.1% | -2.2% | -0.9% | 3.0% |
| 70+ | -£2,900 | -£4,481 | -£3,411 | £4,993 | -0.7% | -1.2% | -0.9% | 1.3% |
| Low ed | -£2,769 | -£6,604 | -£3,406 | £7,241 | -0.7% | -1.7% | -0.9% | 1.9% |
| Mid ed | £1,330 | -£10,108 | -£5,082 | £16,519 | 0.2% | -1.7% | -0.8% | 2.7% |
| High ed | £15,117 | -£13,090 | -£4,975 | £33,182 | 1.8% | -1.6% | -0.6% | 4.0% |
| Least wealth | £22,804 | -£6,169 | £16,866 | £12,107 | 10.1% | -2.7% | 7.5% | 5.4% |
| q2 | £16,500 | -£1,527 | £1,341 | £16,686 | 4.4% | -0.4% | 0.4% | 4.4% |
| q3 | £13,229 | -£4,156 | -£3,730 | £21,115 | 2.6% | -0.8% | -0.7% | 4.1% |
| q4 | £3,209 | -£7,673 | -£11,681 | £22,563 | 0.5% | -1.1% | -1.7% | 3.29 |
| Wealthiest | -£39,022 | -£30,780 | -£26,953 | £18,711 | -3.3% | -2.6% | -2.3% | 1.69 |
| Single man | -£7,334 | -£5,202 | -£5,529 | £3,397 | -2.0% | -1.4% | -1.5% | 0.99 |
| Single woman | £7,306 | -£2,059 | -£944 | £10,309 | 2.8% | -0.8% | -0.4% | 4.0% |
| Couple/extended | £4,712 | -£12,265 | -£5,159 | £22,136 | 0.7% | -1.7% | -0.7% | 3.29 |
| Working | £12,832 | -£11,635 | -£4,129 | £28,596 | 1.8% | -1.7% | -0.6% | 4.19 |
| Not working, retired Not working, not | -£2,918 | -£7,971 | -£5,041 | £10,094 | -0.6% | -1.5% | -1.0% | 1.99 |
| retired | £1,671 | -£9,444 | -£2,844 | £13,958 | 0.4% | -2.1% | -0.6% | 3.19 |

Note: Mean £ loss is mean of individual level losses. % of gross wealth is that mean loss divided by mean wealth. Excludes those who increased or decreased their total wealth by £1m or more.



Measuring subjective expectations in ELSA

"Now I have some questions about how likely you think various events might be. When I ask a question I'd like you to give me a number from 0 to 100, where 0 means that you think there is absolutely no chance an event will happen, and 100 means that you think the event is absolutely certain to happen."

"Let's try an example and start with the weather. What do you think the chances are that it will be rainy tomorrow?"





Expectations measures in ELSA waves 1-4

| | 02 | 04 | 06 | 08 |
|---|----|--------------|------------------------|------------------------|
| Chances of living to 75 or more (80,85,90) | ✓ | \checkmark | $\checkmark\checkmark$ | $\checkmark\checkmark$ |
| Move out of current house | | \checkmark | | |
| Move into nursing home in next five years | | \checkmark | | |
| Being in paid work at 55/60 (60/65) | ✓ | \checkmark | \checkmark | \checkmark |
| Health limit ability to work before 65 | ✓ | \checkmark | \checkmark | \checkmark |
| Not enough financial resources to meet future needs | ✓ | \checkmark | ✓ | ✓ |
| Leave bequest (>50,000; >0; >150,000) | ✓ | \checkmark | ✓ | ✓ |
| Receive inheritance (>0; >10,000; >100,000) | ✓ | \checkmark | \checkmark | \checkmark |
| House price change (<-10%, <-5%, >5%, >10%) | ✓ | \checkmark | \checkmark | \checkmark |
| Total public pension income on retirement | | () | \checkmark | |
| Total private pension income on retirement | | () | \checkmark | |
| | | <u> </u> | Ingt | ituto for |

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Expectations (1)

Figure 6: Distribution of expectation of leaving a bequest >£150k in wave3 and wave4



Note: Sample restricted to those interviewed in both wave 3 and wave 4.



Expectations (2)

Figure 7: Distribution of expectation of having inadequate resources in future in w3 and w4



Note: Sample restricted to those interviewed in both wave 3 and wave 4.



Expectations (3)

Figure 8: Distribution of individual changes in expectations





Estimating Wealth Effects(1/2)

- Basic specification: $\Delta O_{w4} = \alpha + \beta \Delta W_{w4} + u$
- But change in wealth between wave 3 and wave 4 endogenous?
 - individuals might save more to compensate for financial crisis losses
 - also measurement errorr
- Use predicted change in wealth between wave 3 and wave 4 as an instrument?
 - assumes: level and composition of wave 3 wealth, date of interview and region is random with respect to the change in outcome
 - measurement error in wave 3 wealth would invalidate this instrument
- Instead we construct an instrument combining wave 2 wealth and the change in index values between wave 2 and wave 4 interviews
 - assumes wave 2 measurement error uncorrelated with that in wave
 3,4



Econometric Methods (2/2)

- Models run for across all individuals
 - separate models for those aged under 70 and those aged 70 and over to allow for different wealth effects by age
- Alternative specification allowing for separate impact of different wealth types (net housing, pension, other):
 - predicted change in wealth types used as instruments for observed changes, again using wave 2 wealth to construct the instruments
- IV-Linear, IV-Interval Regression and IV-Ordered Probit
 - Marginal effects for IV-linear and IV-interval regression
- Minimum Detectable Effects
- Note: raw dependent variables [-100,100]



Results (1)

Table 8: Effect of changes in wealth on the expectation of leaving a bequest of greater than £150,000

| | | IV-Interval | IV-Ordered |
|------------------------------------|---------|-------------|------------|
| Change in (£10,000s): | IV-OLS | regression | probit |
| Total net wealth | 0.390* | 0.344* | 0.017*** |
| | (0.223) | (0.183) | (0.006) |
| Net housing wealth | 0.212** | 0.189** | 0.011*** |
| | (0.104) | (0.086) | (0.003) |
| Pension wealth | 0.556 | 0.486 | 0.021 |
| | (0.450) | (0.368) | (0.013) |
| Net non-pension non-housing wealth | 0.052 | 0.016 | 0.013 |
| | (0.434) | (0.355) | (0.013) |

Notes: N=4,411. Dependent variables: OLS: change in expectation [-100,100]; Interval regression: Banded change in expectation {-100--50, -50--25, -25--5, -5-5, 5-25, 25-50, 50-100}; Ordered probit: Grouped change in expectation {Decrease, no change, increase}. Instrumental variables: Changes in pension wealth and non-pension-non-housing wealth instrumented using wave 2 wealth and wave2-4 index changes. Coefficients are marginal effects for IV-OLS and IV-Interval but not IV-Ordered probit.



Results (2)

Table 9: Effect of changes in wealth on the expectation of leaving a bequest of greater than £150,000, split by age

| | | Aged <70 | | | Aged 70+ | |
|-----------------------|---------|-------------|------------|---------|-------------|------------|
| | | IV-Interval | IV-Ordered | | IV-Interval | IV-Ordered |
| Change in (£10,000s): | IV-OLS | regression | probit | IV-OLS | regression | probit |
| Total net wealth | 0.241 | 0.216 | 0.013** | 1.010 | 0.716*** | 0.032** |
| | (0.221) | (0.183) | (0.007) | (0.665) | (0.301) | (0.014) |
| | | | | | | |
| Net housing wealth | 0.099 | 0.095 | 0.007** | 0.707** | 0.716** | 0.024** |
| | (0.101) | (0.083) | (0.003) | (0.329) | (0.301) | (0.010) |
| Pension wealth | 0.436 | 0.363 | 0.017 | 0.737 | 1.676 | 0.066 |
| | (0.416) | (0.343) | (0.012) | (3.407) | (3.072) | (0.087) |
| Net non-pension non- | | | | 1.139 | 0.999 | 0.041 |
| housing wealth | -0.036 | -0.043 | 0.009 | | | |
| | (0.426) | (0.351) | (0.014) | (1.471) | (1.316) | (0.051) |

Notes: As Table 8 but with N=2,605 for aged<70 and N=1,806 for those aged 70+.



Results (3)

Table 10: Effect of changes in wealth on the expectation of having inadequate resources at some point in future

| | | IV-Interval | IV-Ordered |
|------------------------------------|---------|-------------|------------|
| Change in (£10,000s): | IV-OLS | regression | probit |
| Total net wealth | -0.152 | -0.181 | -0.016** |
| | (0.240) | (0.210) | (0.008) |
| Net housing wealth | 0.023 | 0.012 | -0.002 |
| | (0.084) | (0.074) | (0.003) |
| Pension wealth | -0.378 | -0.404 | -0.028** |
| | (0.415) | (0.364) | (0.013) |
| Net non-pension non-housing wealth | 0.243 | 0.219 | 0.000 |
| | (0.386) | (0.339) | (0.014) |

Notes: N=5,457. Dependent variables: OLS: change in expectation [-100,100]; Interval regression: Banded change in expectation {-100--50, -50--25, -25--5, -5-5, 5-25, 25-50, 50-100}; Ordered probit: Grouped change in expectation {Decrease, no change, increase}. Instrumental variables: Changes in pension wealth and non-pension-non-housing wealth instrumented using wave 2 wealth and wave2-4 index changes. Coefficients are marginal effects for IV-OLS and IV-Interval but not IV-Ordered probit.



Results (4)

Table 11: Regression results for inadequacy, split by age

| | | Aged <70 | | | Aged 70+ | |
|-----------------------|---------|-------------|------------|---------|-------------|------------|
| | | IV-Interval | IV-Ordered | | IV-Interval | IV-Ordered |
| Change in (£10,000s): | IV-OLS | regression | probit | IV-OLS | regression | probit |
| Total net wealth | -0.076 | -0.15 | -0.016** | -0.277 | -0.11 | -0.01 |
| | (0.228) | (0.205) | (0.008) | (0.662) | (0.574) | (0.021) |
| | | | | | | |
| Net housing wealth | 0.07 | 0.039 | -0.001 | -0.199 | -0.089 | -0.002 |
| | (0.078) | (0.070) | (0.003) | (0.411) | (0.354) | (0.014) |
| Pension wealth | -0.253 | -0.295 | -0.025** | -0.925 | -0.565 | 0.037 |
| | (0.363) | (0.326) | (0.013) | (2.953) | (2.541) | (0.092) |
| Net non-pension non- | | | | | | |
| housing wealth | 0.244 | 0.182 | 0.004 | -0.169 | 0.092 | -0.017 |
| | (0.376) | (0.337) | (0.015) | (1.255) | (1.080) | (0.041) |

Notes: As Table 8 but with N=3,076 for aged<70 and N=2,381 for those aged 70+.



Minimum Detectable Effects

Table 12: Minimum detectable effects: effect of wealth changes on the expectation of leaving a bequest of greater than £150,000

| | IV - OLS | | | IV – Interval regression | | | |
|------------------------------------|----------|-------|-------|--------------------------|-------|-------|--|
| Change in (£10,000s): | All | Young | Old | All | Young | Old | |
| Total net wealth | 0.179 | 0.178 | 0.534 | 0.147 | 0.147 | 0.440 | |
| Net housing wealth | 0.084 | 0.081 | 0.264 | 0.069 | 0.067 | 0.242 | |
| Pension wealth | 0.361 | 0.334 | 2.737 | 0.296 | 0.276 | 2.468 | |
| Net non-pension non-housing wealth | 0.349 | 0.342 | 1.182 | 0.285 | 0.282 | 1.057 | |

Notes: Power 80%, 5% significance level, 1-tailed test.

Table 13: Minimum detectable effects: effect of wealth changes on the expectation of having inadequate resources at some point in future

| | IV - OLS | | IV – Inte | on | | |
|------------------------------------|----------|-------|-----------|-------|-------|-------|
| Change in (£10,000s): | All | Young | Old | All | Young | Old |
| Total net wealth | 0.193 | 0.183 | 0.532 | 0.169 | 0.165 | 0.461 |
| | | | | | | |
| Net housing wealth | 0.067 | 0.063 | 0.330 | 0.059 | 0.056 | 0.284 |
| Pension wealth | 0.333 | 0.292 | 2.372 | 0.292 | 0.262 | 2.041 |
| Net non-pension non-housing wealth | 0.310 | 0.302 | 1.008 | 0.272 | 0.271 | 0.868 |

Notes: Power 80%, 5% significance level, 1-tailed test.

Main findings (1/2)

- Pre-crisis portfolios suggest that the crisis will have significantly reduced the wealth of many
 - Simulations suggest almost 10% lost more than 10% of their total wealth W3 to W4; 20% of the "after" group lost more than 10% of total wealth.
 - Simulations suggest 40% lost more than 10% of their total wealth peak to trough.
- Actual wealth changes W3 to W4 more disperse than simulations
 - Behaviour (eg. active saving), return heterogeneity, measurement error
- As the crisis unfolded aggregate trends in reported chances of future events:
 - Small reduction in in chance of leaving bequests greater than £150K
 - Small increase in chance of not having adequate resources



Main findings (2/2)

- Small impacts of wealth on expectations:
 - wealth increases boost chances of expecting to leave a large bequest,
 - Primarily housing wealth
 - larger point estimates found for those 70 and over than those aged under 70
 - wealth increases may reduce chances of expecting not to have adequate resources
 - Only for under 70s, primarily pension wealth
 - Only statistically significant in some specifications
 - Effects are small but precisely estimated (MDEs).



Further Work

- Further analysis of effects on expectations and plans for later life
- Consumption and labour supply
- Health and wellbeing outcomes outcomes:
 - Focus on psychosocial health measures and on "high frequency" physical health measures (sleep, blood pressure).
 - Hypothesized link from income/wealth to neuroendocrine and cortisol responses which are risk factors for subsequent health (particularly cardiovascular health)
 - Prior evidence on wealth effects on health is mixed but passed studies have largely relied on small shocks and focussed on "endpoint" health measures
 - General wellbeing and quality of life



Extra Slides



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Consumer sentiment indices Nationwide consumer confidence survey (April 2006=100)



Simulated wealth changes (6) ELSA wave 3 to wave 4 (2006–07 to 2008–09)

Table 5: Regression of simulated wealth changes for ELSA sample on various characteristics

| | mean simulated wealth change (£10,000s) | | | median simulated wealth change (£10,000s) | | | |
|------------------|--|-----------|-----------|--|-----------|-----------|--|
| | Total | FTSE | Housing | Total | FTSE | Housing | |
| 60-69 | 0.496** | 0.449** | 0.056 | 0.297*** | 0.063*** | 0.026*** | |
| | (0.227) | (0.175) | (0.094) | 0 | 0 | 0 | |
| 70+ | 0.922*** | 0.820*** | 0.126 | 0.310*** | 0.083*** | 0.026*** | |
| | (0.271) | (0.209) | (0.112) | 0 | 0 | 0 | |
| | | | | | | | |
| low education | 0.133 | 0.14 | -0.006 | 0 | 0.002*** | -0.000*** | |
| | (0.208) | (0.16) | (0.086) | 0 | 0 | 0 | |
| high education | -0.278 | -0.171 | -0.076 | -0.250*** | -0.046*** | -0.019*** | |
| | (0.209) | (0.161) | (0.087) | 0 | 0 | 0 | |
| | | | | | | | |
| Lowest wealth | 0.735*** | 0.313 | 0.394*** | 0.533*** | 0.062*** | 0.233*** | |
| | (0.255) | (0.197) | (0.106) | 0 | 0 | 0 | |
| q2 | 0.274 | 0.172 | 0.101 | 0.180*** | 0.038*** | 0.138*** | |
| | (0.252) | (0.194) | (0.104) | 0 | 0 | 0 | |
| q4 | -1.044*** | -0.609*** | -0.441*** | -1.082*** | -0.239*** | -0.690*** | |
| | (0.252) | (0.194) | (0.104) | 0 | 0 | 0 | |
| Highest wealth | -4.764*** | -3.819*** | -0.930*** | -2.278*** | -1.233*** | -0.756*** | |
| | (0.257) | (0.198) | (0.106) | 0 | 0 | 0 | |
| | | | | | | | |
| Single woman | 0.046 | 0.166 | -0.111 | -0.013*** | 0 | -0.000*** | |
| | (0.327) | (0.253) | (0.136) | 0 | 0 | 0 | |
| Couple/extended | -1.410*** | -0.851*** | -0.559*** | -0.366*** | -0.062*** | -0.094*** | |
| | (0.288) | (0.223) | (0.12) | 0 | 0 | 0 | |
| | | | | | | | |
| Retired | 1.343*** | 0.878*** | 0.438*** | 0.524*** | 0.176*** | 0.173*** | |
| | (0.241) | (0.185) | (0.1) | 0 | 0 | 0 | |
| Not working, not | | | | | | | |
| retired | 0.811*** | 0.672*** | 0.122 | 0.481*** | 0.197*** | 0.173*** | |
| | (0.265) | (0.205) | (0.11) | 0 | 0 | 0 | |
| Constant | -1.477*** | -1.143*** | -0.332** | -1.001*** | -0.261*** | -0.337*** | |

Note: Basline group is single working men, aged 50-59, with medium education and who are in the middle wealth quintile.



Actual Wealth Changes (4) ELSA wave 3 to wave 4 (2006–07 to 2008–09)

Table 7: Regression of observed wealth changes for the ELSA sample

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| | mean observed wealth change (£10,000s) | | | | |
|--------------------------|--|-----------|-----------|------------|--|
| | Total | FTSE | Housing | 'Safe' | |
| 60-69 | 8.93 | -0.031 | -0.323 | 9.285 | |
| | 9.417 | 0.819 | 0.628 | 9.354 | |
| 70+ | -1.812 | 0.99 | -0.46 | -2.343 | |
| | 11.246 | 0.978 | 0.75 | 11.171 | |
| | | | | | |
| low education | 11.000 | -0.309 | -0.893 | 12.202 | |
| | 8.640 | 0.751 | 0.576 | 8.582 | |
| high education | 14.903* | 0.642 | 0.149 | 14.112 | |
| | 8.662 | 0.753 | 0.578 | 8.604 | |
| | | | | | |
| Lowest wealth | -25.917** | -0.177 | 2.502*** | -28.241*** | |
| | 10.602 | 0.922 | 0.707 | 10.532 | |
| q2 | -17.203 | 1.153 | 0.811 | -19.167* | |
| | 10.483 | 0.911 | 0.699 | 10.413 | |
| q4 | -14.2 | -0.306 | -0.692 | -13.202 | |
| | 10.477 | 0.911 | 0.699 | 10.407 | |
| Highest wealth | -37.875*** | -5.420*** | -3.175*** | -29.280*** | |
| | 10.658 | 0.927 | 0.711 | 10.587 | |
| | | | | | |
| Single woman | -3.411 | -0.691 | 0.685 | -3.405 | |
| | 13.622 | 1.184 | 0.908 | 13.531 | |
| Couple/extended | 3.063 | -1.075 | -0.438 | 4.576 | |
| | 12.021 | 1.045 | 0.802 | 11.941 | |
| | | | | | |
| Retired | 4.809 | 0.378 | 0.029 | 4.402 | |
| | 9.981 | 0.868 | 0.665 | 9.914 | |
| Not working, not retired | 22.808** | -0.323 | -0.657 | 23.788** | |
| | 11.045 | 0.96 | 0.736 | 10.971 | |
| | | | | | |
| Constant | 4.517 | 0.206 | 0.368 | 3.943 | |



Actual Wealth Changes (2) ELSA wave 3 to wave 4 (after group)

Figure 4b: Distribution of simulated wealth changes for the ELSA sample interviewed 'after' in wave 4



