

Electronic Supplementary Material

Contains Supplementary Tables S1–S12.

Supplementary Table S1. Sample descriptives by decade age band

Composition and life satisfaction (life-satisfaction analysis sample):

Age band	N	Women	Relig	EduYr	Partnered	Employed	InEd	Unemp	Retired	Sick	Other	LS mean (SD)
20s	64,198	49.5	4.05	13.6	34.4	55.3	23.9	10.5	0.2	0.7	9.5	7.11 (2.10)
30s	77,238	50.8	4.35	13.8	73.8	76.1	1.9	7.6	0.3	1.4	12.7	7.02 (2.17)
40s	82,846	50.7	4.57	13.2	78.0	79.0	0.8	7.0	1.2	2.4	9.6	6.84 (2.26)
50s	84,007	52.0	4.77	12.5	76.3	69.8	0.4	6.9	7.9	5.0	9.9	6.72 (2.34)
60s	77,221	54.0	5.11	11.6	72.8	25.3	0.1	2.5	57.8	3.6	10.8	6.85 (2.37)

Comfort-category shares (% , weighted) and emotional well-being (emotional-well-being sample):

Age band	Very difficult	Difficult	Coping	Comfortable	EWB N	EWB mean (SD)
20s	6.3	18.0	47.1	28.6	22,542	3.26 (0.54)
30s	6.6	18.6	46.1	28.7	27,249	3.24 (0.55)
40s	7.4	19.3	45.3	28.0	29,734	3.19 (0.57)
50s	8.1	19.1	43.9	29.0	30,417	3.14 (0.59)
60s	7.9	19.3	44.9	27.9	28,273	3.15 (0.61)

Note. Upper panel: the life-satisfaction analysis sample (385,510 respondents, 39 countries; the same complete-case sample as Table 1). Women, the activity-status categories (Empl employed, InEd in education, Unemp unemployed, retired, sick or disabled, other), and Partnered (living with a partner) are weighted percentages; Relig is mean religiosity (0–10); EduYr is mean years of completed education; LS mean (SD) is the raw 0–10 life-satisfaction score. Lower panel: the weighted comfort-category shares on the same sample, and the raw emotional-well-being composite (1–4) on its own analysis sample (138,215 respondents, 35 countries). All statistics use the ESS post-stratification weights.

Supplementary Table S2. The financial-comfort gradient across the full age range, in eight bands approximating those of Cheung and Lucas (2015)

Age band	Life satisfaction		Emotional well-being	
	Uncontrolled	Controlled	Uncontrolled	Controlled
Under 20	0.195 (.005)	0.183 (.005)	0.141 (.009)	0.131 (.009)
20s	0.268 (.003)	0.249 (.003)	0.200 (.006)	0.182 (.006)
30s	0.329 (.003)	0.297 (.003)	0.264 (.006)	0.223 (.006)
40s	0.359 (.003)	0.315 (.003)	0.288 (.005)	0.231 (.005)
50s	0.375 (.003)	0.321 (.003)	0.300 (.005)	0.230 (.005)
60s	0.355 (.004)	0.319 (.004)	0.302 (.006)	0.246 (.006)
70s	0.324 (.005)	0.303 (.004)	0.315 (.008)	0.272 (.008)
80 and older	0.313 (.007)	0.299 (.007)	0.307 (.012)	0.274 (.011)
N	487,615		175,530	
Countries	39		35	

Note. The models of Table 1 refitted on the full age range the survey observes, respondents aged 15 and older, with age entered in eight decade-wide bands; outcomes and financial comfort standardised within country-round on this full sample; standard errors in parentheses. The working-life window of Table 1 sits inside a longer arc: the life-satisfaction gradient is shallowest among respondents under 20, peaks in the fifties, and declines across the sixties, seventies, and the oldest band, while the emotional well-being gradient rises into the seventies and stays at that level in the oldest band.

Supplementary Table S3. Full fixed-effects coefficients and variance components, headline and joint models

Life satisfaction

	Uncontrolled	Controlled	Joint
Financial comfort (20s)	0.268 (.003)	0.250 (.003)	0.245 (.005)
Objective income (20s)	—	—	0.058 (.005)
Age band (ref. 20s)			
30s	−0.039 (.005)	−0.117 (.005)	−0.047 (.006)
40s	−0.110 (.005)	−0.199 (.005)	−0.125 (.006)
50s	−0.166 (.005)	−0.237 (.005)	−0.170 (.006)
60s	−0.096 (.005)	−0.161 (.006)	−0.078 (.007)
Comfort × age band			
× 30s	0.063 (.005)	0.048 (.005)	0.032 (.007)
× 40s	0.093 (.005)	0.067 (.005)	0.054 (.007)
× 50s	0.110 (.005)	0.074 (.005)	0.085 (.007)
× 60s	0.092 (.005)	0.073 (.005)	0.094 (.007)
Objective income × age band			
× 30s	—	—	0.058 (.007)
× 40s	—	—	0.061 (.007)
× 50s	—	—	0.047 (.007)
× 60s	—	—	−0.004 (.007)
Woman	—	0.035 (.003)	—
Religiosity	—	0.026 (.0005)	—
Years of education	—	0.007 (.0004)	—
Main activity (ref. employed)			
In education	—	0.118 (.007)	—
Unemployed	—	−0.270 (.006)	—
Retired	—	−0.045 (.006)	—
Sick or disabled	—	−0.466 (.010)	—
Other	—	−0.010 (.005)	—
Lives with partner	—	0.220 (.003)	—
Domicile (ref. big city)			
Suburbs or outskirts	—	−0.011 (.006)	—
Town or small city	—	0.008 (.004)	—
Country village	—	0.052 (.004)	—
Farm or countryside home	—	0.095 (.007)	—

	Uncontrolled	Controlled	Joint
Intercept	0.087 (.003)	−0.013 (.007)	0.085 (.005)
Country intercept variance	0.000	0.001	0.000
Residual variance	0.883	0.854	0.864
N	385,510	385,510	236,361

Emotional well-being

	Uncontrolled	Controlled	Joint
Financial comfort (20s)	0.198 (.006)	0.181 (.006)	0.170 (.009)
Objective income (20s)	—	—	0.069 (.008)
Age band (ref. 20s)			
30s	−0.043 (.008)	−0.127 (.009)	−0.046 (.011)
40s	−0.118 (.008)	−0.210 (.009)	−0.125 (.010)
50s	−0.198 (.008)	−0.259 (.009)	−0.186 (.010)
60s	−0.194 (.009)	−0.218 (.011)	−0.145 (.011)
Comfort × age band			
× 30s	0.068 (.008)	0.046 (.008)	0.048 (.012)
× 40s	0.094 (.008)	0.057 (.008)	0.064 (.012)
× 50s	0.110 (.008)	0.059 (.008)	0.085 (.012)
× 60s	0.114 (.009)	0.079 (.008)	0.106 (.012)
Objective income × age band			
× 30s	—	—	0.039 (.012)
× 40s	—	—	0.042 (.012)
× 50s	—	—	0.032 (.012)
× 60s	—	—	0.009 (.012)
Woman	—	−0.125 (.005)	—
Religiosity	—	0.006 (.0009)	—
Years of education	—	0.007 (.0007)	—
Main activity (ref. employed)			
In education	—	0.069 (.013)	—
Unemployed	—	−0.193 (.010)	—
Retired	—	−0.084 (.011)	—
Sick or disabled	—	−0.661 (.016)	—
Other	—	−0.065 (.009)	—
Lives with partner	—	0.243 (.006)	—
Domicile (ref. big city)			
Suburbs or outskirts	—	−0.004 (.009)	—

	Uncontrolled	Controlled	Joint
Town or small city	—	0.038 (.007)	—
Country village	—	0.066 (.007)	—
Farm or countryside home	—	0.136 (.012)	—
Intercept	0.115 (.006)	0.075 (.009)	0.103 (.008)
Country intercept variance	0.000	0.000	0.000
Residual variance	0.921	0.889	0.904
N	138,215	138,215	89,168

Note. Entries are fixed-effects estimates with standard errors in parentheses, from the weighted linear mixed models of Section 3.7 with a random intercept for country. Uncontrolled and Controlled are the two Table 1 specifications, fitted on the identical complete-case sample; Joint is the joint model of Section 3.7 with both income measures interacted with the age bands, with no covariates, on the subsample with both measures present. Outcomes, financial comfort, and objective income are standardised within country-round; religiosity and years of education are grand-mean-centred; the per-band gradients of Table 1 and Supplementary Table S11 are the financial-comfort (and objective-income) coefficient plus the relevant interaction term. The country intercept variance is at or near zero in several models, a boundary estimate: within-country-round standardisation removes between-country differences in level, leaving the random intercept little to absorb (compare Supplementary Table S6). Variances are on the scale of the standardised outcome.

Supplementary Table S4. Countries in the analysis sample, by region

Region	Countries
Nordic (5)	Denmark, Finland, Iceland, Norway, Sweden
Western (9)	Austria, Belgium, France, Germany, Ireland, Luxembourg*, Netherlands, Switzerland, United Kingdom
Southern (7)	Cyprus, Greece, Israel, Italy, Portugal, Spain, Turkey*
Eastern (18)	Albania, Bulgaria, Croatia, Czechia, Estonia, Hungary, Kosovo, Latvia, Lithuania, Montenegro, North Macedonia, <i>Poland</i> , <i>Romania</i> , Russia, Serbia, Slovakia, Slovenia, Ukraine

Note. The 39 countries of the life-satisfaction sample, grouped into the four regions of Supplementary Table S9. Countries marked * did not participate in any of the four rounds that fielded the affect items (rounds 3, 6, 7, and 11) and so are absent from the 35-country emotional-well-being sample.

Supplementary Table S5. The within-cohort financial-comfort gradient over a decade, net of objective income (Figure 3)

Cohort (age band at start)	Slope at cohort start (SE)	Slope ten years later (SE)	Δ over decade	<i>t</i>	<i>p</i>
Twenties	0.243 (.011)	0.278 (.012)	0.034	2.12	.034
Thirties	0.288 (.011)	0.290 (.011)	0.002	0.15	.878
Forties	0.312 (.011)	0.332 (.011)	0.020	1.32	.188
Fifties	0.335 (.011)	0.343 (.012)	0.008	0.52	.600
Pooled decade step			0.016	2.07	.038

Note. Estimates underlying Figure 3, from the pooled joint model of Section 3.7: the subjective financial-comfort gradient on life satisfaction with objective income held constant at every point, both standardised within country-round, with a country random intercept and survey weights. Four cohorts (those in their twenties, thirties, forties, and fifties at the start) are each followed across the two ten-year ESS pairs that field the objective-income item, 2008 to 2018 and 2010 to 2020, the two origins pooled into one model (73,751 respondents from 25 countries; per cohort and stage, 7,290 and 8,282 in the twenties, 9,363 and 9,242 in the thirties, 9,973 and 9,970 in the forties, 9,670 and 9,961 in the fifties). The cohort-start slopes rise with the age band, the same ordering as the cross-sectional joint per-band slopes of Supplementary Table S11. Δ over decade is the within-cohort change (ten-years-later minus start). The single-cohort steps fall below their standard errors except in the twenties; the pooled decade step is one common decade change estimated with each cohort on its own baseline and the objective slope free to move, and is significant at 0.016 standard deviations per decade, about the size of the per-band step the cross-section implies. The affect items were not fielded in these rounds, so the analysis is limited to life satisfaction.

Supplementary Table S6. Robustness of the financial-comfort gradient across random-effects structures, both outcomes

Panel A. Life satisfaction

Model	Financial-comfort slope by decade band					Old–young gap	Comfort-slope SD
	20s	30s	40s	50s	60s		
M0 Random intercept: country	0.266	0.329	0.360	0.376	0.358	0.091	—
M1 Random intercept: country-round	0.266	0.329	0.360	0.376	0.358	0.091	—
M2 M1 + random income slope by country-round	0.266	0.328	0.359	0.373	0.355	0.090	0.069
M3 M2 + random old–young contrast by country-round	0.266	0.328	0.359	0.373	0.356	0.090	0.071

Panel B. Emotional well-being

Model	Financial-comfort slope by decade band					Old–young gap	Comfort-slope SD
	20s	30s	40s	50s	60s		
M0 Random intercept: country	0.197	0.265	0.291	0.309	0.314	0.117	—
M1 Random intercept: country-round	0.197	0.265	0.291	0.309	0.314	0.117	—
M2 M1 + random income slope by country-round	0.196	0.264	0.289	0.306	0.313	0.117	0.055
M3 M2 + random old–young contrast by country-round	0.196	0.264	0.289	0.306	0.314	0.118	0.055

Note. Uncontrolled models, each outcome fitted on its unrestricted sample (life satisfaction $N = 394,036$, 39 countries, 278 country-rounds; emotional well-being $N = 140,866$, 35 countries, 103 country-rounds). How between-context heterogeneity is modelled is a question separate from which covariates enter, so these models use the uncontrolled specification of Table 1. M2 lets the gradient itself vary across country-rounds; on both outcomes it is a boundary (singular) fit, because within-country-round standardisation leaves little between-context variance for the random terms to absorb, but the old–young gap on the gradient is unaffected by it. Country-rounds differ by roughly $\pm 20\%$ in the steepness of the gradient while the old–young gap is essentially unchanged. M3 additionally lets the old–young contrast itself vary across country-rounds, so the gap’s standard error no longer assumes a homogeneous moderation; the gap stands at 0.090 (standard error 0.006, against 0.005 in M0) for life satisfaction and at 0.118 (0.010, against 0.008) for emotional well-being, and neither fit is singular. The contrast varies across country-rounds with

a standard deviation of 0.065 against a fixed gap of 0.090 for life satisfaction, and of 0.054 against 0.118 for emotional well-being.

Supplementary Table S7. The old–young gap under added control sets, including household composition

Old–young gap (sixties – twenties)	Uncontrolled	+ gender, religiosity	+ education, activity, partnership, domicile	+ household composition
Life satisfaction	0.092	0.096	0.073	0.073
<i>t</i>	18.2	19.0	14.6	14.6
Emotional well- being	0.114	0.113	0.078	0.080
<i>t</i>	13.3	13.2	9.2	9.4

Note. The four control sets are nested and fitted on one complete-case sample (385,208 respondents from 39 countries for life satisfaction, 138,014 from 35 countries for emotional well-being; aged 20 to 69), so the movement across columns reflects the controls and not a change of sample. The third column is the controlled specification of Table 1; it differs from Table 1 by at most 0.001 because the few respondents without complete household-grid data are dropped here. Household composition is the household’s size, the number of co-resident children (members coded son or daughter in the household grid), and an indicator for any co-resident child under 18. These terms are themselves associated with well-being (the presence of a child under 18, 0.049 for life satisfaction and 0.047 for emotional well-being; household size positive on both outcomes), but they leave the financial-comfort $\times$ age-band interaction in place: the gap moves by 0.000 for life satisfaction and 0.002 for emotional well-being, and the per-band slopes move by at most 0.002.

Supplementary Table S8. Ordinal robustness: the comfort item as categorical indicators

Life-satisfaction effect of each comfort category, against finding it very difficult on present income, by age band (uncontrolled specification):

Age band	Difficult	Coping	Comfortable
20s	0.396 (.016)	0.744 (.015)	0.970 (.015)
30s	0.481 (.015)	0.928 (.014)	1.251 (.015)
40s	0.529 (.014)	1.009 (.013)	1.373 (.013)
50s	0.494 (.014)	0.998 (.013)	1.418 (.013)
60s	0.425 (.015)	0.944 (.014)	1.400 (.015)

Old–young gap (60s – 20s) on the comfortable-vs-very-difficult span:

Specification	Life satisfaction	Emotional well-being
Uncontrolled	0.430 (.021), $t = 20.4$	0.604 (.036), $t = 16.8$
Controlled	0.387 (.021), $t = 18.5$	0.509 (.035), $t = 14.3$

Note. H1 refitted on the Table 1 samples with the comfort item entering as three category indicators (reference: finding it very difficult) interacted with the age bands, in place of the standardised linear score; outcomes remain standardised within country-round, so effects are in outcome standard deviations across the raw category span. Standard errors in parentheses; all span gaps $p < .001$. Category effects are monotone within every band on both outcomes and under both specifications, and the widening of the span with age concentrates in the upper half of the scale, so the age moderation of Table 1 is not an artefact of treating the four-point item as linear.

Refitting the same uncontrolled model on the unstandardised 0–10 life-satisfaction scale gives the comfortable-versus-very-difficult span in raw points:

Age band	20s	30s	40s	50s	60s
Comfortable vs. very difficult (0–10 points)	2.2	2.8	3.1	3.1	3.1

Note. Standard errors are about 0.03. The raw span widens from 2.2 points among adults in their twenties to 3.1 points among those in their sixties, the figures reported in Section 4.1.

Supplementary Table S9. The old–young gap within each European region, uncontrolled and controlled

Region	Life satisfaction			Emotional well-being		
	N	Uncontrolled	Controlled	N	Uncontrolled	Controlled
Nordic	56,313	0.114 (.013)	0.075 (.013)	20,539	0.090 (.023)	0.048 (.023)
Western	127,943	0.096 (.009)	0.069 (.009)	48,008	0.091 (.015)	0.047 (.015)
Southern	67,690	0.094 (.012)	0.079 (.012)	21,711	0.146 (.022)	0.113 (.021)
Eastern	133,564	0.072 (.008)	0.067 (.008)	47,957	0.122 (.014)	0.095 (.014)

Note. Each region fitted on its own, both specifications as in Table 1, on the within-country-round standardised scale and the complete-case sample, pooling all rounds. Old–young gap = sixties – twenties; standard errors in parentheses. Israel and Turkey are grouped with Southern Europe per ESS practice (Supplementary Table S4 lists the countries in each region). All life-satisfaction gaps $p < .001$; emotional-well-being gaps $p < .001$ except the controlled Western gap ($p = .001$) and the controlled Nordic gap ($p = .037$).

Supplementary Table S10. The old–young gap within each ESS round, uncontrolled and controlled (Figure 1)

Round	Year	Life satisfaction			Emotional well-being		
		N	Uncontrolled	Controlled	N	Uncontrolled	Controlled
1	2002	30,819	0.089 (.019)	0.078 (.019)			
2	2004	34,929	0.060 (.017)	0.054 (.017)			
3	2006	32,431	0.075 (.018)	0.059 (.018)	31,615	0.132 (.018)	0.089 (.018)
4	2008	43,247	0.063 (.015)	0.048 (.015)			
5	2010	38,487	0.117 (.016)	0.100 (.016)			
6	2012	41,405	0.099 (.015)	0.086 (.015)	40,704	0.130 (.016)	0.097 (.016)
7	2014	30,411	0.093 (.018)	0.066 (.017)	30,097	0.103 (.018)	0.060 (.018)
8	2016	33,901	0.117 (.017)	0.088 (.017)			
9	2018	36,229	0.097 (.016)	0.071 (.016)			
10	2020	27,575	0.083 (.019)	0.055 (.019)			
11	2023	36,076	0.119 (.017)	0.103 (.017)	35,799	0.092 (.017)	0.062 (.017)

Note. Each round fitted on its own, both specifications as in Table 1, on the within-country-round standardised scale and the complete-case sample. Old–young gap = sixties – twenties; standard errors in parentheses. Affect items were fielded in rounds 3, 6, 7, and 11. All gaps $p < .01$: uncontrolled gaps all $p < .001$; controlled gaps $p < .001$ except life satisfaction in rounds 2, 4, and 10 ($p = .002$, $.001$, and $.004$).

Supplementary Table S11. Income slope by decade band in the joint model (Figure 2)

Age band	Life satisfaction		Emotional well-being	
	Comfort	Objective	Comfort	Objective
20s	0.245 (.005)	0.058 (.005)	0.170 (.009)	0.069 (.008)
30s	0.277 (.005)	0.117 (.005)	0.218 (.008)	0.108 (.009)
40s	0.299 (.005)	0.120 (.005)	0.234 (.008)	0.110 (.008)
50s	0.330 (.005)	0.105 (.005)	0.256 (.008)	0.100 (.008)
60s	0.339 (.005)	0.054 (.005)	0.276 (.009)	0.078 (.009)
N	236,361		89,168	
Countries	38		35	

Note. Per-band income slopes from the joint model of Section 3.7 (rounds 4–11, respondents with both income measures present; both incomes standardised within country-round, with no covariates); standard errors in parentheses. Each entry is the income coefficient plus the relevant income $\times$ age-band interaction. Figure 2 plots these estimates.

Supplementary Table S12. Attenuation of the old–young gap by each resource, as a moderated moderation (controlled specification)

Resource	Life satisfaction % attenuation	Emotional well-being % attenuation
Optimism	29.0	27.5
Positive self-regard	12.9	17.2
Autonomy	8.2	7.3
Accomplishment	7.8	9.5
Purpose	5.2	6.2
A hopeful view of world	6.3	3.4
Felt competence	−2.3	−1.5
All seven jointly	26.9	26.1

Note. Each resource enters the controlled model as a main effect and as an interaction with financial comfort (financial comfort $\times$ resource); the attenuation is the proportional drop in the sixties-minus-twenties income $\times$ age-band contrast. Per-resource rows are each fitted on that resource’s complete-case sample (rounds 3 and 6; 30 countries; baseline gaps 0.073–0.077 for life satisfaction and 0.089–0.093 for emotional well-being); the all-seven row is on the sample complete on all seven resources (71,138 and 70,097 respondents; baseline gaps 0.075 for life satisfaction and 0.084 for emotional well-being), with the seven entering jointly.