

Supplementary Materials for the paper

Do Japanese and Italian women live longer than women in Scandinavia?

In the paper, we present results on longevity for women in Italy, Japan, Norway and Sweden. In particular, Figure 1 in the paper gives the period life expectancies for the four countries for one-year periods from 1950 to 2014, while Figures 2 and 3 show the expected number of years lost before age a for the cohort born in year c , for selected values of a and c . Here we present similar results for five other European countries, namely France, Iceland, Portugal, Spain, and Switzerland. Data for these countries were downloaded from the Human Mortality Database (January 4th, 2018).

Period life expectancy

Figure A shows how period life expectancies for women in the five countries have increased from 1950 and until 2013 (which is the last year with data for Iceland in The Human Mortality Database). In 1950, women in Iceland had a period life expectancy of 73.5 years, which was the highest among the five countries. Also Switzerland (71.1 years) had a period life expectancy above 70 years. French women had period life expectancy of 69.2 years, while women in Spain and Portugal had a period life-expectancy below 65 years (Spain: 64.2 years, Portugal: 61.0 years). In 2013, the situation was quite different. Now Iceland (83.5 years) had the lowest period life expectancy of the five countries, and Spain (85.5 years) had the highest. The period life expectancy for France was 85.4 years, for Switzerland it was 84.8 years in 2013, and for Portugal it was 83.8 years.

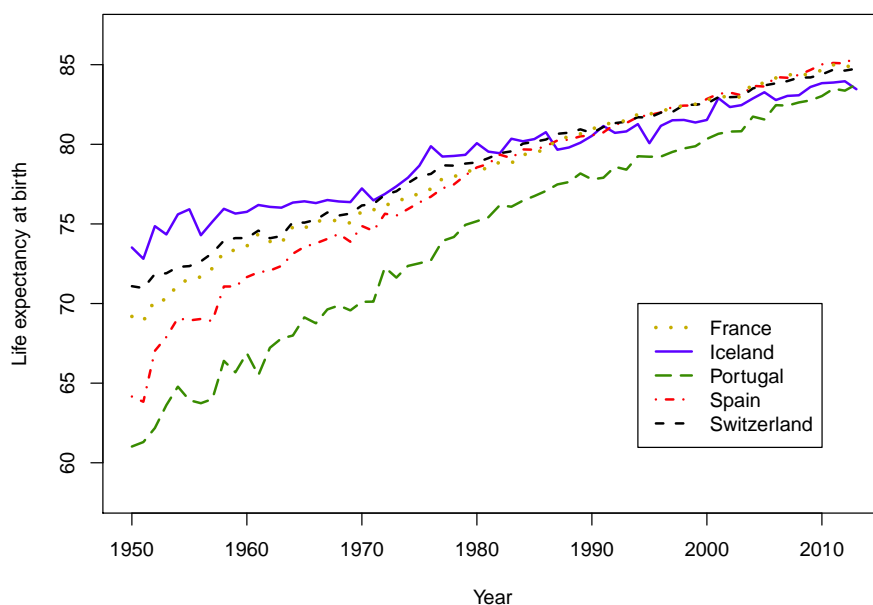


Figure A: *Life expectancy at birth for females in five European countries for the periods from 1950 to 2013. (Source: The Human Mortality Database.)*

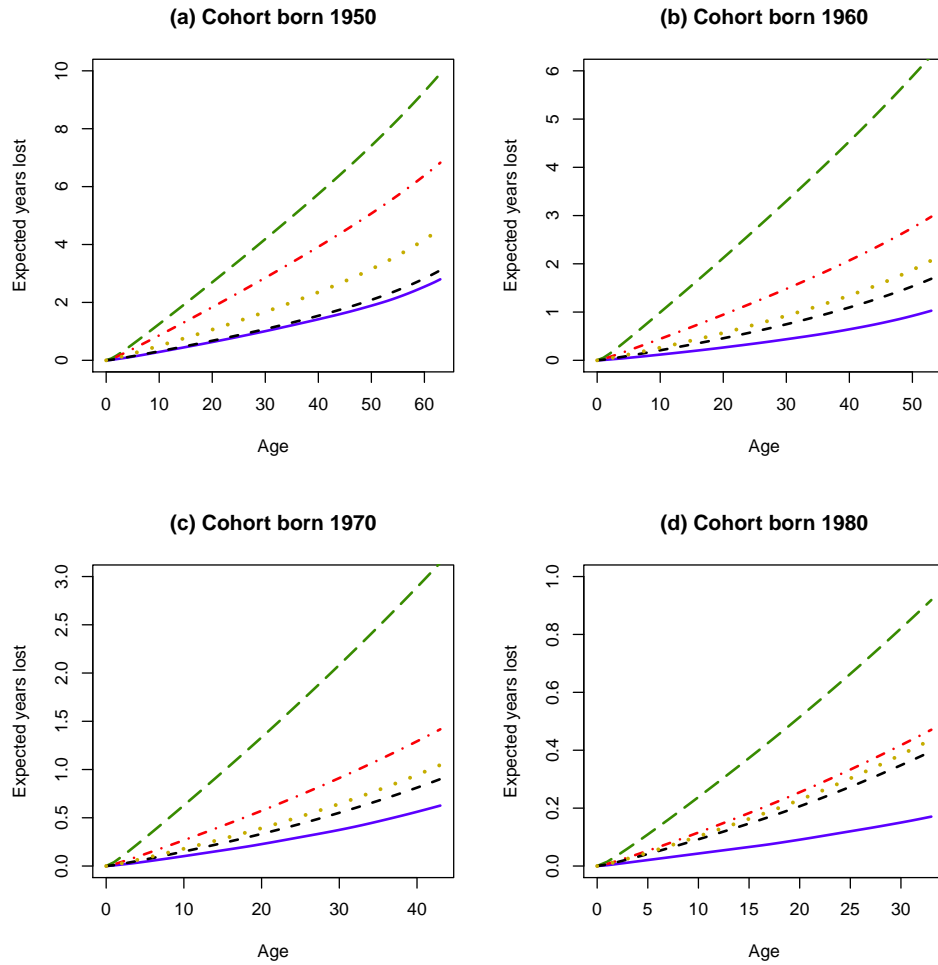


Figure B: *Expected number of years lost (as a function of age) for cohorts of women in five European countries born in 1950, 1960, 1970, and 1980. The legends are the same as in Figure A. Note that the scales are not the same for panels a-d.*

Expected number of years lost for cohorts

Figure B shows the expected number of years lost before age a as a function of a for the cohorts born in 1950, 1960, 1970, and 1980 and Figure C illustrates how the expected number of years lost before ages 50, 40, 30, and 20 years depend on the birth cohort c . From the figures, we see that for all cohorts and ages considered, women in Iceland have the lowest expected number of years lost among the five countries. Next follows Switzerland and France. For the 1950 cohort, women in Spain may expect to lose more than twice as many years than women in Iceland and Switzerland, and clearly more years than French women. But the situation improves for younger cohorts, and for the 1980 cohort, Spanish women may expect to lose about the same number of years as French and Swiss women. Finally, we note that women in Portugal have the highest number of years lost for all cohorts and ages considered. And even though the longevity of Portuguese women has improved a lot, also the younger cohorts of women from Portugal may expect to lose more years than women from the four other countries.

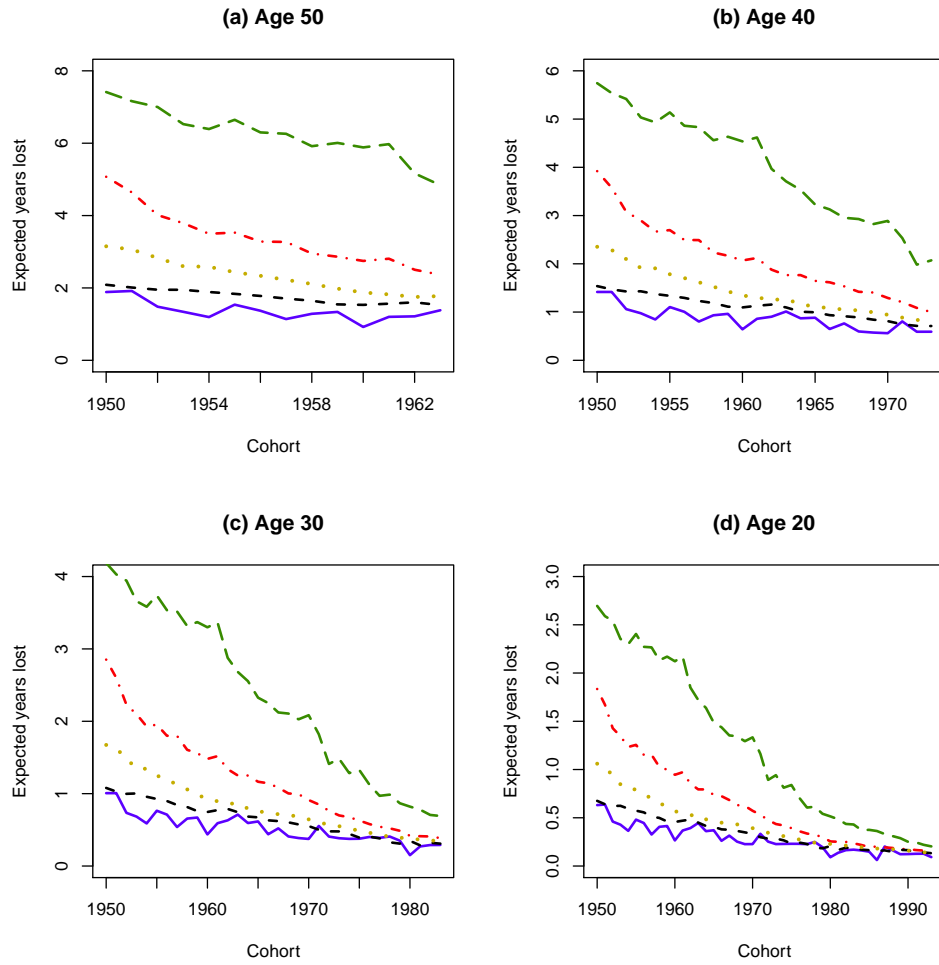


Figure C: *Expected number of years lost before age 50 years, 40 years, 30 years, and 20 years as a function of birth cohort for five European countries. The legends are the same as in Figure A. Note that the scales are not the same for panels a-d.*

Discussion and conclusion

If we consider life expectancy at birth based on the period life table from 2013 (Figure A), we get the impression that Spanish women may expect to live longer than women in Iceland. But for all cohorts considered, the expected number of years lost for Spanish women is at least twice the expected number of years lost for women from Iceland (Figures B and C). Also French and Swiss women may expect to lose fewer years than women from Spain. So the period life expectancies give a distorted view when they falsely give the impression that women in Spain may expect to live two years longer than women in Iceland. Moreover, from the cohort data, there are no indications that Spanish women may expect to live longer than women in France and Switzerland. Portuguese women have the largest increase in period life expectancy since 1950 among the five countries, and in 2013 their period life expectancy is slightly higher than that of women from Iceland, Norway, and Sweden; cf. Figure A and Figure 1 in the paper. But for all cohorts and ages considered, women in Portugal may

expect to lose substantially more years than women in Iceland, Norway, and Sweden; cf. Figures B and C and Figures 2 and 3 in the paper. Thus, the small differences in period life expectancies for 2013 between Portugal on the one side and the Nordic countries Iceland, Norway and Sweden on the other side is an artefact due to the distortion that period life tables imply in times of changing mortality. In conclusion, we find that the results for France, Iceland, Portugal, Spain, and Switzerland are in agreement with the general pattern we discuss at the end of Section 5 of the paper.