Modeling longevity risk – the central European case

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A longevity risk is any potential risk attached to the increasing life expectancy of pensioners and policy holders, which can eventually translate in higher than expected pay-out-ratios for many pension funds and insurance companies. One important risk to individuals who are spending down savings, is that they will live longer than expected and thus exhaust their savings, dying in poverty or burdening relatives. The main aim of this paper is to point out the view of many random aspects of the problem. We use stochastic approach which is similar to the one applied in modern finance, quantile risk measures, namely the Value at Risk in modeling longevity risk. The calibrations are made for financial and longevity or mortality (equivalently) data from chosen central European countries.

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