



LONGEVITY ROME 2026

**L21: The Twenty First International Longevity Risk and
Capital Markets Solutions Conference**

MORTALITY RISK MANAGEMENT : A CHALLENGE FOR THE ACTUARIAL PROFESSION

8-9 September 2026 - La Sapienza University of Rome

**Nino Savelli - president Italian Council of Actuaries
and Catholic University of Milan**



**CONSIGLIO NAZIONALE
DEGLI ATTUARI**



Italian Council of Actuaries and Longevity/Mortality topics

- studies and analyses on mortality and longevity are by far one of the focus point for the Council and Italian actuaries, with effect on insurance industry and pension funds;
- since last decade the Council supported studies on annuitants mortality in connection with INPS (Italian Social Security Institute), ANIA (Italian Insurers Association) and the main pension funds. Just recently, a new updated project on this item started in partnership with INPS based on empirical data of national collectivity;
- we recently presented in May 2026 a report to Parliament Committee on Demographic Transition with a specific focus, among others, for longevity effects on pension funds and social systems and how actuarial community may find innovative solutions as the gradual extension of LTC products to the entire population
- furthermore, longevity and mortality modeling will be included in the programme of the next Italian Congress of Actuaries to be held in June 2027.

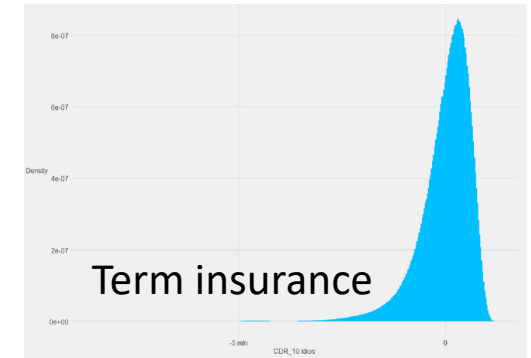
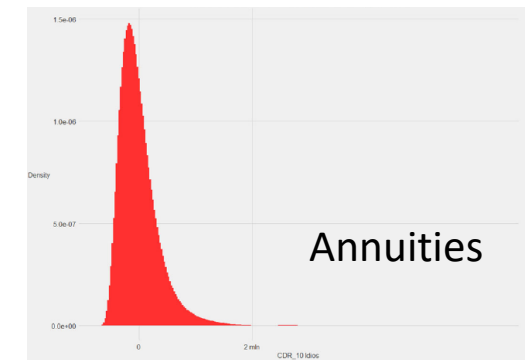
The state of the art

- In many national markets the most popular mortality insurance products (term insurance) are usually linked with real estate mortgage loans, rather than for direct family revenue protection. The premiums volume for mortality coverages is by far less than endowment or other high intensive financial products (as unit-linked).
- But when in the past times (around 2015-2022) the European Gov bonds gave poor investment revenues the term insurance section was able to financially support many life insurance companies, avoiding to either register high losses in their balance-sheets and put at risk solvency level.
- Then more attention by insurance industry is needed in order to improve the offer of demographic coverages (term insurance and annuities in particular), where the systemic risk is clearly to be handled with care by both appropriate pricing models and risk mitigation strategies. This target would also help to identify and emphasize even more the mission of insurance industry as unique risk taker and protection player in front of entire population.

Mortality volatility

- Mortality rates may have **favorable and unfavorable deviations** notwithstanding a significant expected decrease linked with the well-known trend for the continuous longevity improvements (well known references are Lee-Carter and Cairns-Blake-Dowd mortality models);
- Deviations can be due to:
 - a) **standard volatility**;
 - b) **short-term fluctuations** in the main parameters: e.g. Covid, AIDS, Spanish flu or any pandemics in general;
 - c) **trend changes**: e.g. climate changes, pollution or possible deterioration of life style
- It must be highly pointed out as **for standard volatility the sum insured distribution (in particular volatility and skewness) has a relevant role**. That is particularly crucial for risk mitigation instruments based only on number of deaths and not on claims amount.
- **Left or right-hand tail of P/L** probability distribution is strongly effected also by sum-at-risk rate and it is crucial for risk analysis.

Demographic P/L for mortality/longevity products



The need of risk mitigation

- The new enhanced capital requirements at world level (e.g. Solvency II, RBC or IAIS-ICS for Global Insurers) are implicitly pushing even more the insurance industry to use reinsurance as one of the main strategy instruments in risk management and profitability planning;
- Clearly the company size factor can play a role to mitigate standard volatility but is not sufficient, consistent reinsurance strategies are needed to reduce and optimise risk mitigation also by capital relief (for Solvency II Standard Formula size factor is not properly accounted for also in life insurance);
- The need of risk mitigation instruments: traditional reinsurance, cat scenario protection, mortality/longevity bonds-swaps and other Insurance-Linked Securities (ILS). A practical topic is the market capacity at a worldwide level and the need of not-only standardised protections (also because of sums insured volatility)

The contribution of capital market

- Then is quite clear [the contribution of capital market](#), in addition to traditional reinsurance market, [will be more and more essential](#)
- This support is even more crucial for [longevity products](#), where the stochastic magnitude movements of longevity trend is really a key issue for insurance companies and pension funds, including multi-state [Long Term Care](#) products
- Longevity and LTC products should be [increasingly developed and substained by national Governments](#) to face the new annuitants waves provoked by demographic transition in the most developed countries.
- On both cases for mortality and longevity, [the presence of national Governments \(also at a joint level like EU or OECD\) as side risk-takers would be very relevant](#) to support, together with reinsurance and capital markets, insurance industry and pension funds in order to reinforce and spread over demographic covers. This action would have medium/long-term benefits also for public accounts.
- On these aspects [the driving role of pension and insurance supervisory authorities](#) will be crucial

Some basic references

- R. Lee, L. Carter (1992): «Modelling and forecasting U.S. mortality», Journal of the American Statistical Association
- A. Cairns, D. Blake, K. Dowd (2008): «Modelling and management of mortality risk: a review», Scandinavian Actuarial Journal
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- G.P. Clemente, F. Della Corte, N. Savelli (2024): «An undertaking specific approach to address diversifiable demographic risk within Solvency II framework», Decisions in Economics and Finance
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Many thanks for your attention

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SHORT BIO



prof. Nino Savelli

- ▶ Since October 2025 president of Italian Council of Actuaries (CNA).
- ▶ Since 2001 to nowadays full professor of Risk Theory in the Faculty of Banking, Financial and Insurance Sciences, Catholic University of Sacred Heart in Milan
- ▶ MSc. in Statistical and Actuarial Sciences with honors at the University of Rome “La Sapienza” in 1983
- ▶ PhD. in Actuarial Sciences at University of Rome “La Sapienza” in 1992
- ▶ Since 1985 to 1996 he has been serving at Inspection Department of ISVAP (Italian Insurance Supervisory Authority)
- ▶ From 2013 to 2016, he has been academic member of EIOPA Insurance & Reinsurance Stakeholder Group and in years 2016-2021 he has been appointed by the Holy Father Francesco as President of Vatican Pension Fund. Since 2019 he is independent board member of Assimoco Assicurazioni and Assimoco Vita (R+V Group) and chairman of Group Internal Audit and Risk Committee.
- ▶ He has been teaching at various Universities as assistant professor, associate professor or adjunct professor, as University of Rome “La Sapienza”, Catholic University in Milan, University of Molise, University of Sannio and LUISS and moreover at Cass Business School in London as visiting professor in 2002. Since 2009 he is senior lecturer at MIB School of Management in Trieste, teaching at the Master in Insurance and Risk Management (MIRM) and Executive Master in Insurance and Finance (EMIF).
- ▶ He has been board member and then Vice President of the Italian Institute of Actuaries since 2002 until 2019, Board member of Italian Council of National Order of Actuaries since 2004 to 2009 and member of Solvency Committee of International Actuarial Association (IAA) since 2004 to 2019: Member and treasurer of IAA-ASTIN Committee from 2003 to 2011 and member of IAA-AFIR/ERM Committee from 2009 to 2012.
- ▶ In academic research, he focused on topics related to solvency of insurance companies and pension funds. In particular, he studied the development of risk capital models aimed to analyze the underwriting risk both in life and non-life insurance. Author of some monographs and many scientific articles on actuarial items, published in national and international reviews.
- ▶ Founding partner in 1999 of actuarial firm “Studio Attuariale Savelli” and since 2016 co-founder partner of “Studio Attuariale De Angelis Savelli & Associati”.