



Longevity reinsurance: from risk management to a strategic instrument

Over recent decades, life expectancy in the Netherlands and other developed countries has increased steadily. From a societal perspective, this is an undeniable success. For insurers providing pension and annuity products, however, this trend also introduces a material financial risk, making longevity risk¹ one of the most significant non-market risks on their balance sheet.

This article discusses longevity reinsurance as a means of managing this risk. We explore the economic rationale, the main features of longevity reinsurance transactions, their impact on solvency and capital, and recent developments in the Dutch and European market. While historically viewed as a risk mitigation tool, longevity reinsurance is increasingly used as a strategic instrument for balance sheet management, capital optimization, and business steering.

UNDERSTANDING LONGEVITY RISK

Longevity risk arises when actual mortality is lower than assumed in actuarial models, leading to longer benefit payment periods. For portfolios with long duration, such as pension annuities, even modest improvements in longevity can result in a significant increase in the best estimate liabilities, leading to a loss of the insurer's Own Funds.

Under Solvency II, this risk is captured in the Solvency Capital Requirement (SCR), either via the Standard Formula or via an Internal Model.

- Under the Standard Formula, insurers assess how much their Own Funds would deteriorate if mortality rates permanently drop by 20%.
- Internal Models for longevity risk generally focus more on trend uncertainty, using a stochastic approach rather than a deterministic decrease in mortality rates.

Furthermore, to better understand the consequences of longevity risk materializing, many insurers assess this risk also in their Own Risk and Solvency Assessment.

LONGEVITY RISK REMAINS DIFFICULT TO DIVERSIFY

THE CONCEPT OF LONGEVITY REINSURANCE

Longevity risk remains difficult to diversify, as improvements in mortality tend to be systematic and correlated across portfolios and geographies. Unlike market or credit risk, it cannot be hedged easily through traditional financial instruments.

Alternatively, 'longevity swaps' came to market where insurers transfer (part of) the financial risk of annuitants living longer than expected to a reinsurer. Such contractual arrangements convert uncertain, long-term payment obligations for the insurer into fixed cashflows, to protect against rising life expectancy, reducing capital volatility and capital requirements. Economically, this resembles a long-dated swap in which the actual payments driven by actual mortality experience (the so-called 'floating leg') are exchanged for predetermined fixed cashflows at the time of the transaction (the so-called 'fixed leg').

The first type of longevity swaps implemented in the Netherlands were index-based longevity derivatives. This type of longevity reinsurance uses as basis a reference mortality index (based on the general Dutch population), rather than the insurer's actual mortality experience. Nowadays, the most common structure within the Netherlands, but also within Europe, is indemnity-based longevity reinsurance. Under this structure, the insurer remains fully responsible for policyholder administration and benefit payments, while the reinsurer compensates deviations between expected and actual mortality of the underlying reinsured portfolio. These reinsurance agreements are typically long-



dated until the full run-off of the underlying reinsurance portfolio and highly customized, which can make each agreement cumbersome to operationally implement and maintain.

WHY INSURERS USE LONGEVITY REINSURANCE

The rationale for insurers to set-up indemnity-based longevity reinsurance agreements is threefold:

- 1. Risk mitigation:** In many life insurance and pension portfolios, longevity risk is the dominant non-market risk. Effectively transferring this risk reduces exposure to adverse mortality developments and stabilizes future cashflows and balance sheet outcomes.
- 2. Capital optimization:** Under Solvency II, longevity reinsurance can lead to a reduction in SCR, a lower Risk Margin, and consequently an uplift in the solvency ratio. Following the Solvency II 2020 Review, however, the capital relief is expected to be lower than under the previous regime, primarily due to the reduced Risk Margin².
- 3. Strategic objective:** Correlated to the second rationale, longevity reinsurance can also be used to be competitive on pricing. Examples include creating capacity for pension risk transfers (buy-outs or buy-ins) and supporting new production of pension annuities.

MARKET DEVELOPMENTS

The global market for longevity risk transfer has grown steadily, supported by a limited number of specialized reinsurers and long-term capital providers. Pricing is cyclical and sensitive to interest rates, spreads, and capital costs, while scale and data quality increasingly influence deal economics.

In the Netherlands, the longevity reinsurance market has flourished as can be seen from the recent notable indemnity-based longevity reinsurance transactions from insurers NN, ASR and Achmea³. This development is expected to continue given the current transition of the Wtp, enabling for life insurers to be in addition to pension funds also a provider of pension annuities, either via pension risk transfers or (defined contribution) pension annuities.

Next to indemnity-based arrangements, there is also the prospect of carrying out an asset intensive reinsurance, in which next to longevity risk also the investment risk is transferred to a reinsurer. So rather than paying predetermined fixed cashflows to the reinsurer over time, at inception a lump-sum payment is made to the reinsurer (i.e., a transfer of assets), who thereof is also the risk carrier of investment risk of the assets. Asset intensive reinsurance volumes are yet to take off in Europe, with only a limited number of transactions to date. Future growth will depend on more clarification of regulatory expectations and insurers' appetite.

REGULATORY DEVELOPMENTS

Regulatory scrutiny of longevity reinsurance has intensified in recent years. Beyond demonstrating effective risk transfer, insurers must also address compliance with the Prudent Person Principle, operational and legal robustness, and the impact on resolvability and governance. Following the introduction of Article 3:267e of the Financial Supervision Act (Wft) in January 2025, the DNB has stipulated that any new longevity reinsurance transaction, especially with reinsurers outside the European Economic Area, must obtain a Declaration of No Objection (DNO) before they can be finalized⁴.

Although the DNO process can take around eight weeks, the recent longevity reinsurance transactions since January 2025 have demonstrated this can be managed.

LONGEVITY REINSURANCE HAS THEREFORE EVOLVED INTO A STRATEGIC TOOL THAT SUPPORTS CAPITAL MANAGEMENT

CONCLUSION

Longevity risk remains a structurally significant and difficult to diversify risk on the balance sheet of life and pension insurers, driven by uncertainty around future improvements in life expectancy. Longevity reinsurance has therefore evolved from a risk mitigation instrument into a strategic tool that supports capital management, balance sheet optimization and business steering. Indemnity based arrangements have emerged as the most effective structures for achieving genuine risk transfer, while increasing regulatory scrutiny reinforces the importance of robust governance, transparency and resolvability. For actuaries, longevity reinsurance increasingly requires an integrated assessment of actuarial assumptions, capital implications, regulation and long-term strategic objectives. ■

1 – The risk that policyholders live longer than anticipated.

2 – With the reduction of the Cost of Capital and the introduction of the time dependent lambda factor, the Risk Margin will reduce in the range of 20–40% (pending on the duration of the liabilities).

3 – We refer to the transactions by NN in 2025 (€4bn), by ASR in 2026 (€1.3bn) and by Achmea in 2026 (€8bn).

4 – See the Q&A of DNB on Activa intensieve herverzekeringscontracten as published on 23 December 2024.

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