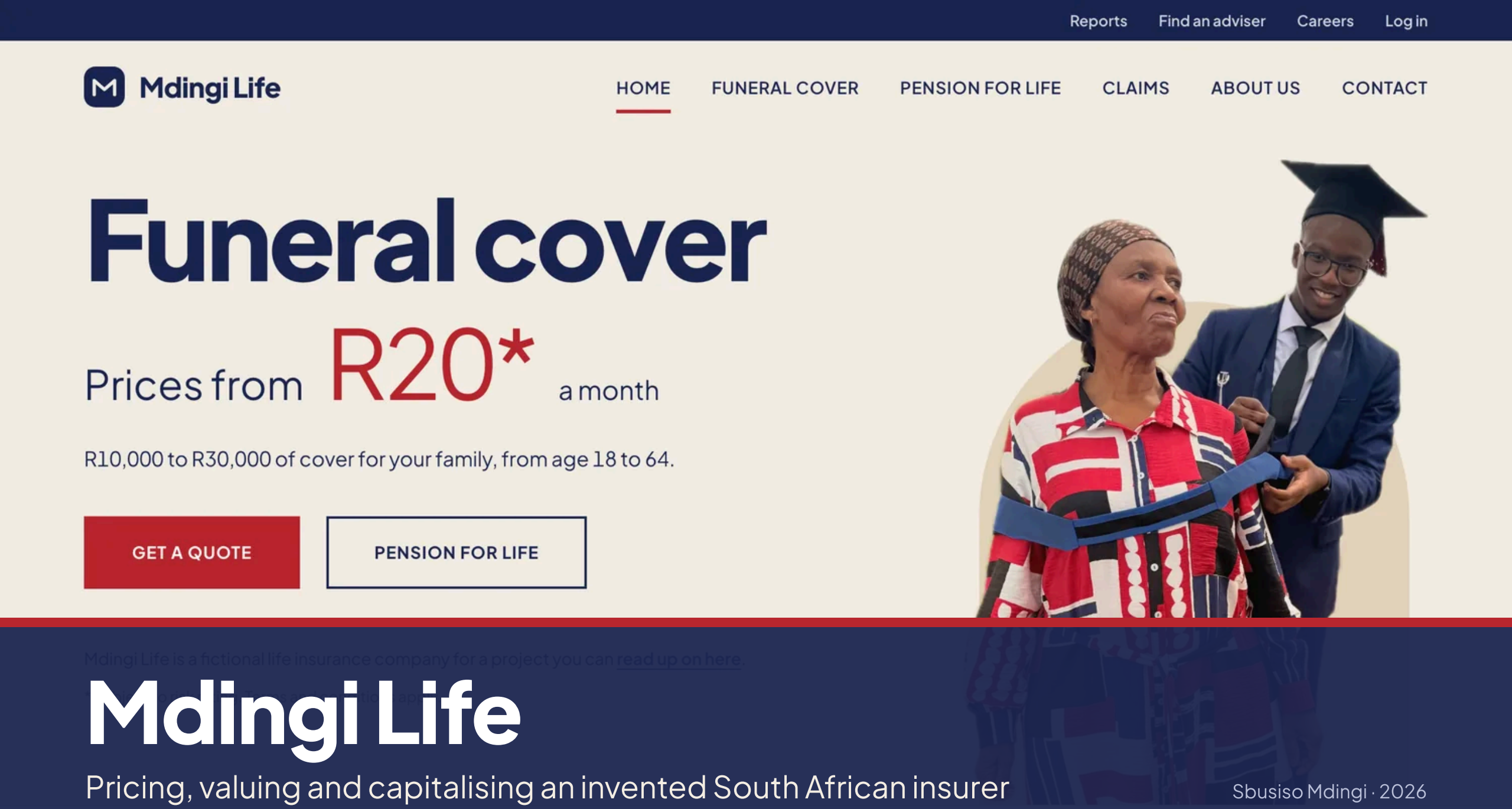


Mdingi Life

Pricing, valuing and capitalising an invented South African insurer

Sbusiso Mdingi · 2026

It started with a funeral benefit

In January 2026, on the Actuaries in the Making vacation work programme, my group had two weeks to price a funeral benefit for a life insurer. That was one product. Mdingi Life asks what it takes to run a whole insurer: set its prices, work out what it owes, hold enough capital and report a profit.

The company and its customers are invented. The death rates and interest rates are real.

It sells two things

212,455

funeral policies

A fixed sum of R10,000 to R30,000 when the customer dies.

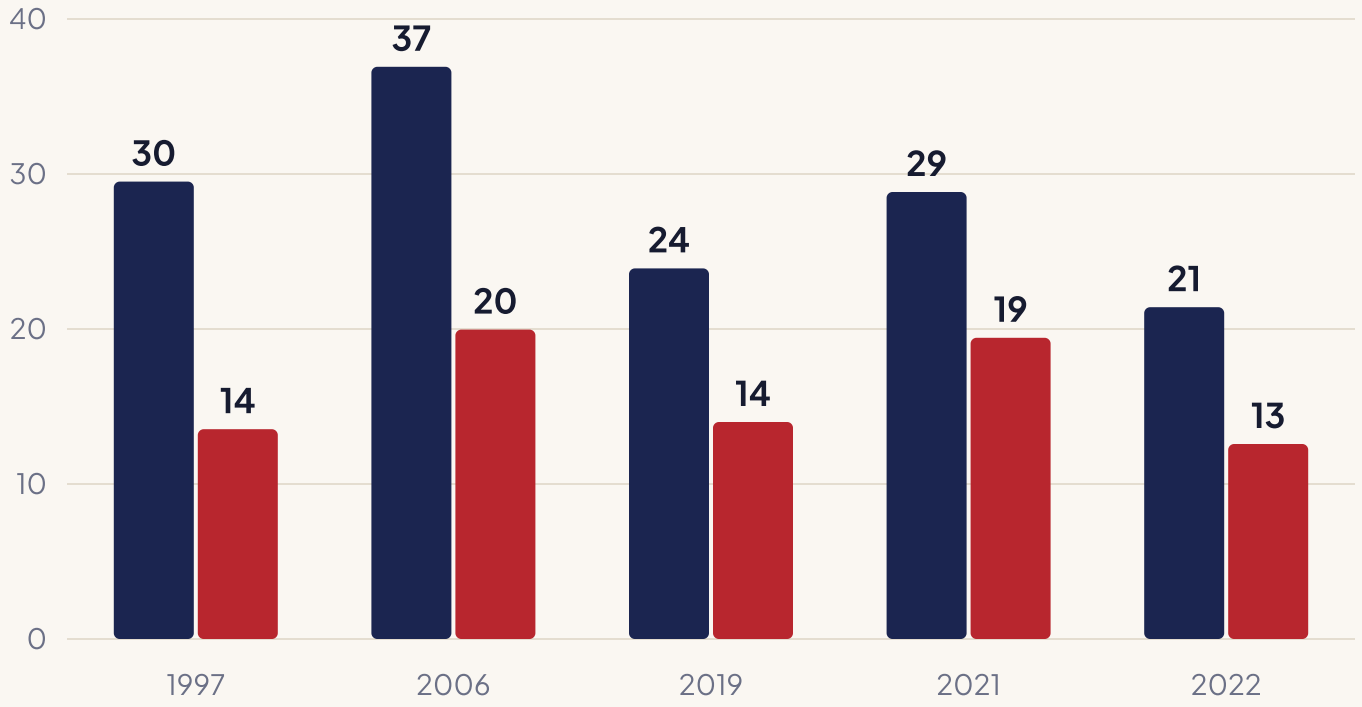
676

pensioners

An income for life, level or rising with inflation.

The two pull in opposite directions. When people die sooner, funeral cover pays out more and the pensions pay out less.

Death rates rose with HIV, and again with COVID-19



Men
Women

Registered deaths for every 1,000 people aged 60. For men, 30 in 1997, 37 in 2006, 24 by 2019 and 29 in 2021. Not every death is registered, so the true rates are higher.

A woman's pension costs more, and funeral cover can start cheap

R15.67

for a pension of R1 a year

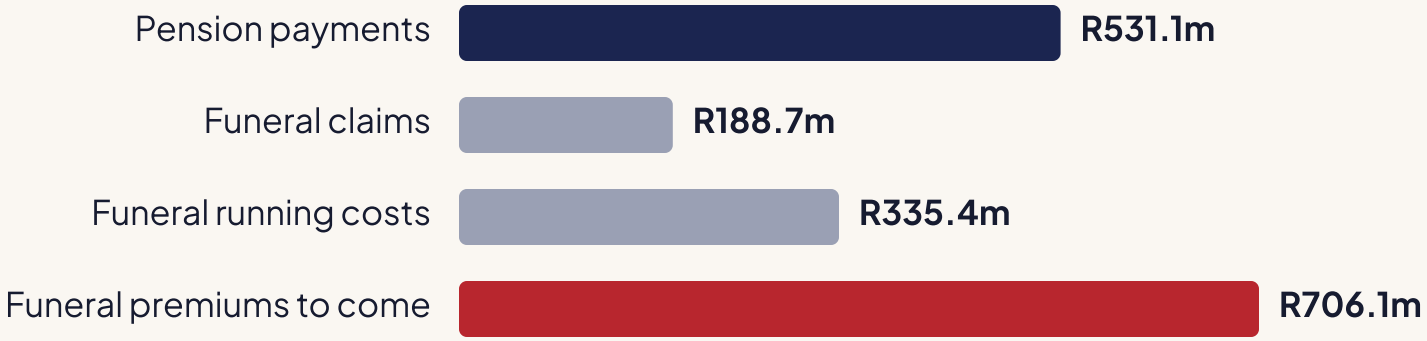
A woman retiring at 65, with the income rising with inflation. A man's costs R13.22, because men die younger.

R43

a month for R15,000 of funeral cover

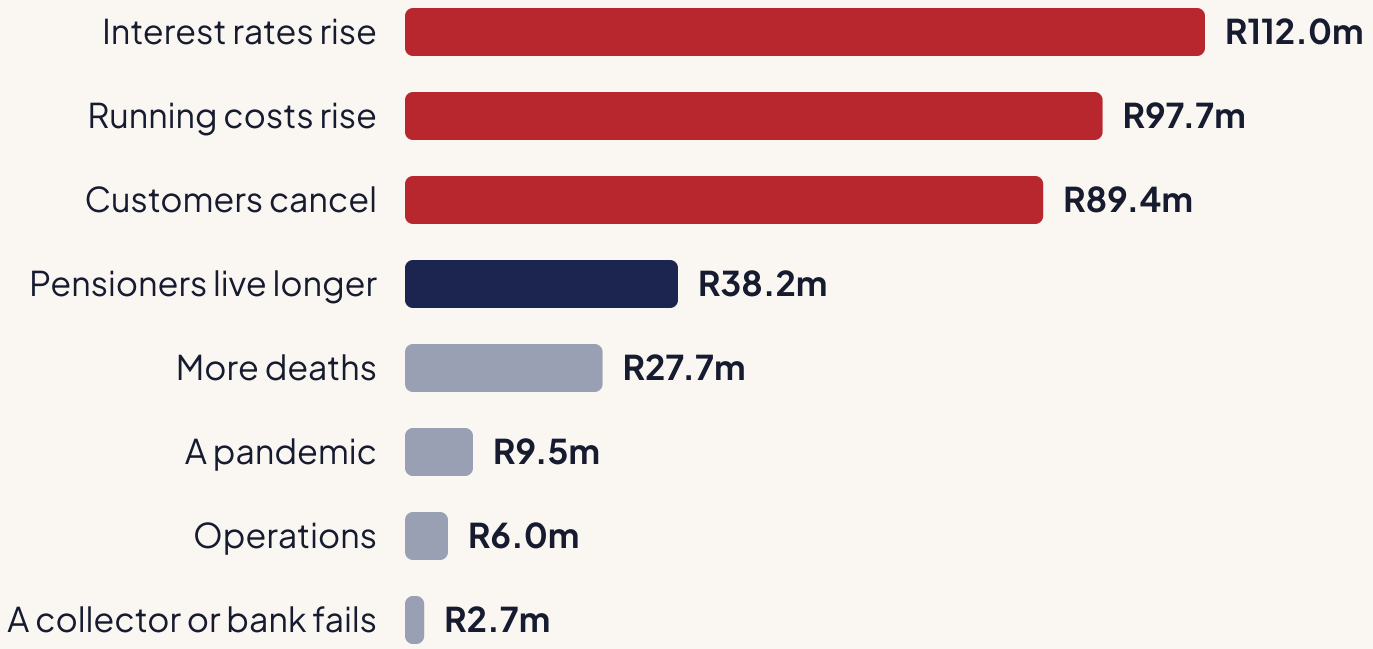
A woman of 35, paying the same for life. Or R23 to start, rising as she gets older.

The pensions are what it owes. Funeral cover brings money in.



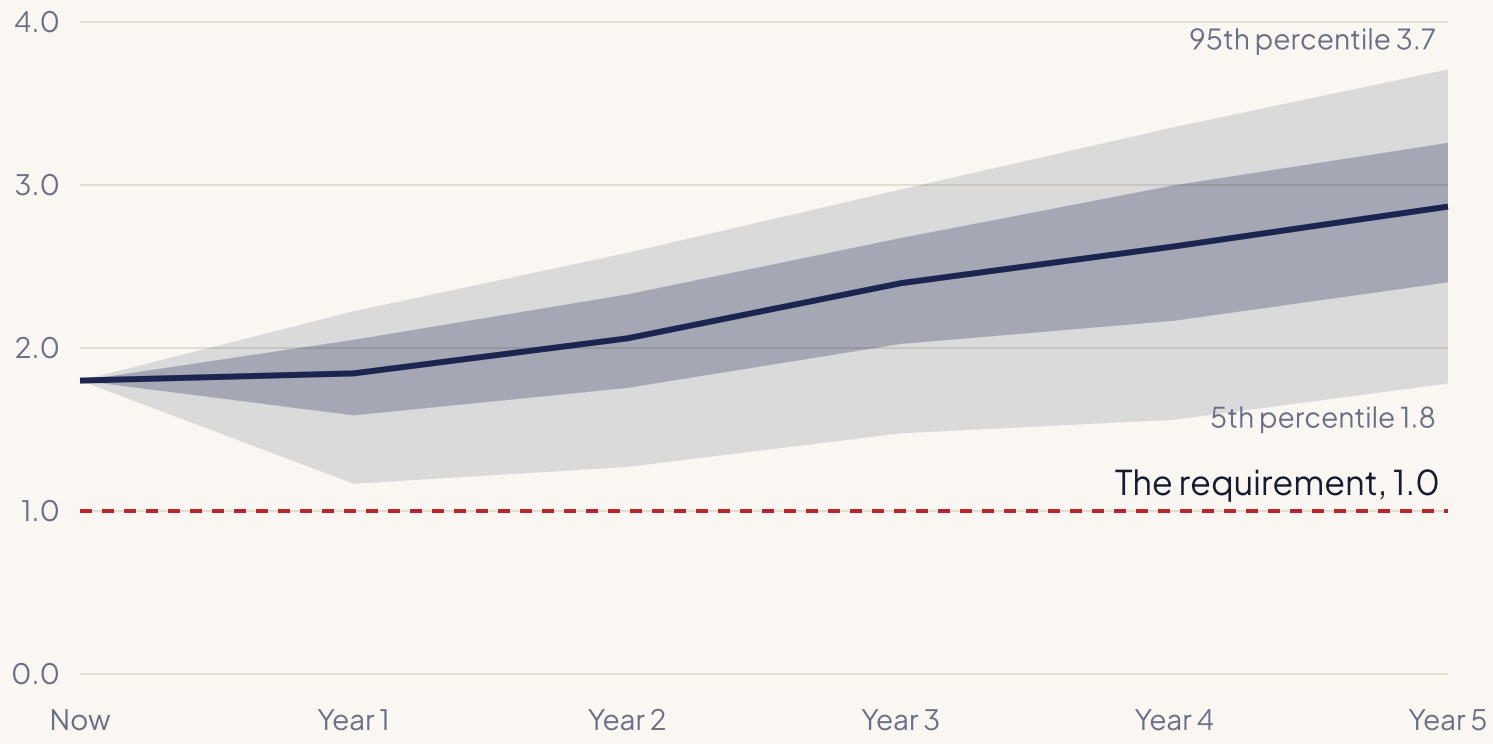
Take away the premiums still to come and it expects to pay out **R349m**. It holds **R807m**.

The rules ask it to survive a 1-in-200 year



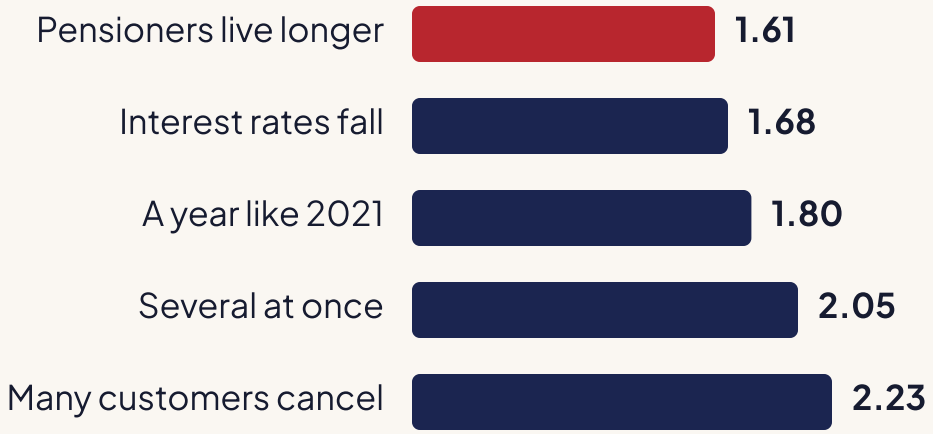
Together these come to **R222m**, because they would not all happen in the same year. With R400m it has 1.8 times that, the same as the median South African insurer.

Five years on, it is still covered on almost every path



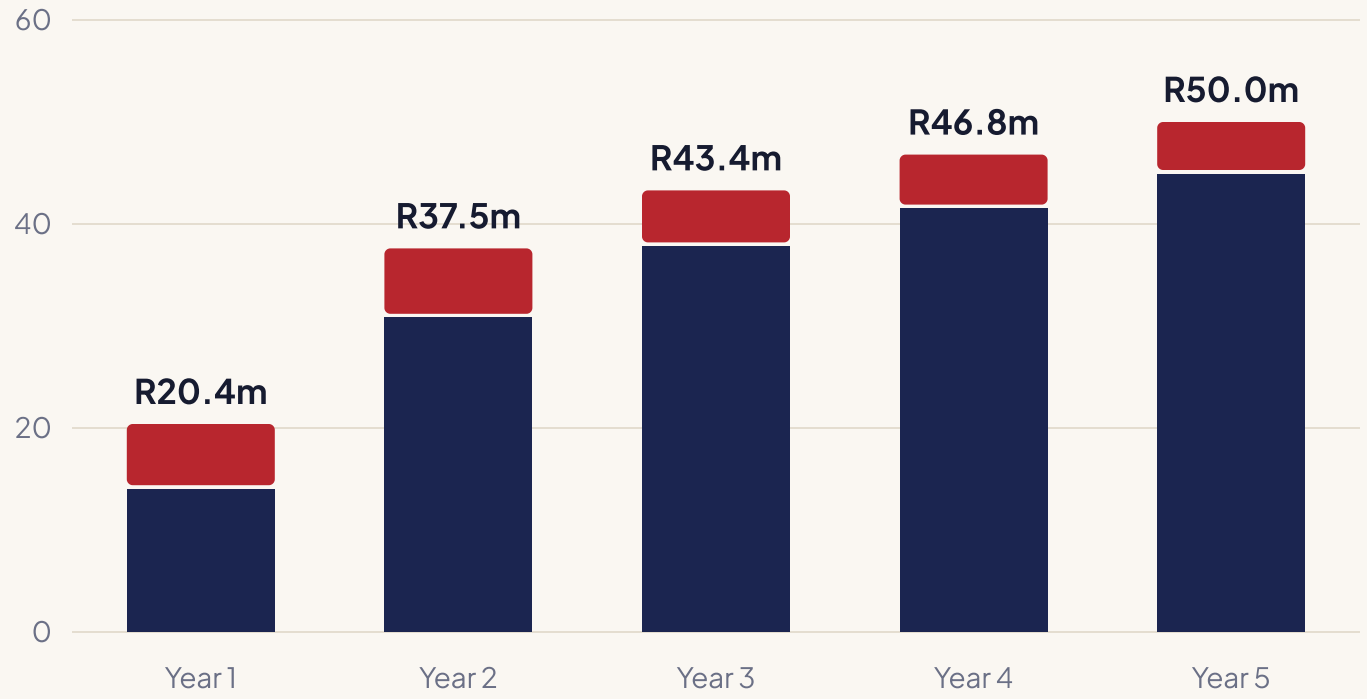
Across 1,000 possible paths for interest rates, **95.6%** keep enough capital in every year. On the middle path the 1.8 grows to 2.8.

Even the bad years leave it covered



The lowest cover in five years under each. Anything above 1.0 needs no new capital. **Pensioners living longer** hurts most.

Profit grows from R20m to R50m, mostly from investment



Investment return
Insurance

The insurance itself earns R5m to R7m a year.

What it can't tell you

1. The customers are invented, so the size and mix of the book is a choice.
2. Pensioners are assumed to die at 70% of the population's rates, because no South African pensioner data is public.
3. The funeral death table was never checked against later years.

The full write-up: **mdingi.co.za/work/mdingi-life**

The company's site: **mdingi-life.azurewebsites.net**