

Living Annuity Modelling Tool

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December 2, 2024

A Game Plan for Something Not a Game:

Target Audience and Concessions

Typically those closer to retirement but as everyone will need some type of pension fund should be designed with a wide age range. With that in mind it should be usable by those that are older as well so have a simple interface and be easy to read/use.

General UX

Since some might have an issue seeing how this affects them from just a “here’s your monthly figure and total fund” number, some form of data visualisation may go a *loong* way.

Info on a Annuity

This is a post-retirement product – typically one buys them with one big lump sum and draws down a monthly amount until either the money runs out, or the person dies. Whatever is left on death can be given to beneficiaries (i.e., children, spouse, whatever).

Most places charge a larger fee when the fund starts paying out and then a yearly fee there after. Most look to be lower than 2% though.

Assumptions and other Info

- Final calculations will assume no withdrawals from new savings pot before retirement.
- A compound interest rate of 6%
- Interest calculated yearly
- An initial fee of $1.5 * \text{VAT}\%$ deduction (Hollard’s max fee * VAT)
- A yearly fee deduction of $1 * \text{VAT}\%$ (Hollard’s max continual fee * VAT)

Sources

1. <https://personal.nedbank.co.za/learn/blog/pension-fund-vs-retirement-annuities.html>
2. <https://www.oldmutual.co.za/two-pot-retirement-system/>
3. <https://www.hollard.co.za/invest-and-save/retirement-savings/living-annuity>

Building Plans

A tool to model the total funds invested into a living annuity will be developed in Python using Tkinter for the interface and Matplotlib for a visualisation of the fund amount over the years.

Likely Input Fields

- Current and proposed retirement age
- Amount saved towards the fund
- Current saving for the fund
- annual funds taken out as % or ZAR
- Option for the 1/3 lump sum to be removed

Outputs

- Savings at retirement
- Monthly income
- Years the fund can pay out
- Visualisation

To Consider

- Tooltips of some kind
- ...