USER MANUAL - BETA VERSION

Investment Comparison Calculator

Offset Account - ETF (Stocks) - Physical Gold - Term Deposit - Super Contribution

Beta version | User Manual

Educational comparison calculator only - not financial, investment, superannuation or tax advice. It produces illustrative mathematical outputs from the assumptions you enter. It does not recommend any product or course of action, and does not consider your personal objectives, full tax position or superannuation eligibility. Always consider speaking with a licensed adviser or registered tax agent before making decisions.

This manual explains how to use the calculator, how to read calculated gains versus estimated final values, and how to understand the assumptions behind the comparison.

1. What this tool is for

This calculator helps you compare, side by side, what a single lump sum of money might grow to across five common places an Australian could put it over a holding period you choose. **You enter the assumptions; the tool shows the maths. You draw the conclusion.** It is designed to make the trade-off between after-tax dollars, risk haircuts, tax treatment and access/liquidity easier to see.

- Offset Account - money parked against your mortgage, saving interest tax-free.
- ETF (Stocks) - share investment with capital growth plus dividends, after capital gains tax.
- Physical Gold - bullion priced from the gold spot rate you enter, after capital gains tax.
- Term Deposit - fixed interest taxed each year at your marginal rate.
- Super Contribution - a one-off contribution into superannuation, taxed on entry and then compounded using a simplified in-fund earnings-tax treatment.

This is a comparison and sensitivity tool, not a recommendation engine and not a retirement projection. It is designed for an individual Australian tax resident holding assets in their own name.

2. Getting started in four steps

Step	Action	What to do
1	Set your shared assumptions	Enter your lump sum, marginal tax rate, inflation input and holding years. These apply across the comparison.
2	Tune each option	Adjust expected returns, CGT treatment, dividend yield, gold price, term deposit rate and super return.
3	Read the result	The headline badge, gain-order podium, cards, table and chart show the calculated gain order under the active view.
4	Test and export	Use Sensitivity Analysis to see what assumptions would change the order, then export the PDF Decision Report.

Every change recalculates instantly. Use Reset to defaults if you want to start again.

3. The input variables

Inputs are split into shared assumptions and per-option inputs. The default values below match the beta calculator settings.

3.1 Shared assumptions

Input	Default	Range	What it does
Principal (AUD)	$100,000	$1,000-$200,000	The lump sum run through every option.
Marginal tax rate	32.5%	0%-47%	Drives tax on dividends, term

Input	Default	Range	What it does
			deposit interest, capital gains and above-cap super.
Holding years	25 years	1-25	How long the money stays invested. Returns compound over this period.
Inflation rate (CPI)	3.0%	1%-10%	Only active in New law 2027 CGT mode. Has no effect in other CGT modes.

3.2 Per-option inputs

Option	Inputs	How the app treats them
Offset Account	Offset interest rate / mortgage rate	Default 6.5%, range 1%-12%. Interest avoided is treated as tax-free and compounds annually.
ETF (Stocks)	Capital gain return, dividend yield and CGT mode	Capital growth is separate from dividends. Dividends are taxed at your marginal rate and reinvested using the simplified method.
Physical Gold	Gold spot price, growth rate and CGT mode	Gold price sets ounces bought and projected price per ounce. Ranking depends on percentage growth, not spot price alone.
Term Deposit	Term deposit rate	Default 5.00%, range 1%-10%. Interest is taxed each year at your marginal rate and then compounded.
Super Contribution	Gross super return and fixed concessional cap	Default gross return 7.0%. Model applies 15% entry tax on within-cap contributions and simplified 15% tax on in-fund earnings each year.

Super note: Super often shows a lower early gain because contributions are taxed on entry. Only the after-tax amount compounds, not the full principal. This is a one-off contribution comparison, not a full retirement projection.

4. How the calculator works behind the scenes

This section explains the plain-English calculation logic behind the five-option model.

Option	Simplified formula	What to remember
Offset Account	Principal x (1 + mortgage rate)^years - principal	Avoided interest is treated as tax-free and low uncertainty. Risk score 0 means the full positive gain is shown in Risk ON view.
Term Deposit	Principal x (1 + after-tax TD rate)^years - principal	After-tax TD rate = TD rate x (1 - marginal tax rate). Risk score 1 keeps 90% of a positive gain in Risk ON view.
ETF (Stocks)	After-CGT capital gain + after-tax dividend gain	Capital gain is taxed under the selected CGT mode. Dividends are taxed annually at marginal rate, then reinvested using the simplified method.
Physical Gold	Principal x (1 + gold growth)^years - principal, then CGT on positive gain	Gold has no income component in the model. The gold spot price sets ounces, while growth rate drives the comparison.
Super Contribution	After-entry-tax contribution x (1 + net super return)^years - original principal	Within-cap entry tax is 15%; above-cap excess is simplified as taxed at the higher of 15% or marginal rate. Net super return = gross return x 85%.

Raw after-tax gain vs risk-adjusted gain

The calculator works out two figures for every option:

- Raw after-tax gain - the projected dollar gain after the simplified tax rules, before any risk haircut.
- Risk-adjusted gain - the same positive gain after applying the fixed risk score.

This matters because an option can show the highest raw after-tax dollars while a safer option can show the highest risk-adjusted gain. The difference between the two views is the core trade-off the tool is designed to reveal.

4A. Gain vs final value: what the displayed numbers mean

The main results compare calculated gains, not total final balances. This distinction is important because a term deposit, ETF, gold holding and super balance can all have a final balance, while the Offset Account benefit is mortgage interest saved rather than an investment account that automatically grows.

Use this simple rule: calculated gain is the benefit produced by the option. Estimated final value is usually original principal plus after-tax gain. For the Offset Account, the clearer phrase is estimated economic value: original cash retained plus mortgage interest avoided.

Term	How to read it
Calculated gain	The dollar benefit produced by the option after the simplified tax rules. This is the main comparison/ranking number.
Estimated final value / balance	For ETF, Gold, Term Deposit and Super: original principal plus after-tax nominal gain. For Offset: cash retained plus interest avoided, described as economic value.
Risk-adjusted gain	Positive calculated gain after the fixed illustrative risk haircut. It is a comparison figure, not a final account balance.

Term Deposit example: $10,000 at a 5.00% term deposit rate for 25 years with a 32.5% marginal tax rate compounds at 3.375% after tax. The estimated final balance is about $22,929, the after-tax gain is about $12,929, and the risk-adjusted gain is about $11,636. The $12k figure is gain, not the final balance.

In the app and PDF, the main number remains the gain so every option can be compared consistently. The estimated final/economic value is shown as a secondary line to avoid confusion.

5. Risk model: ON and OFF

Above the results is a single toggle button - Risk model: OFF / ON. Risk OFF is the default opening view. It is a display switch only: the app has already calculated both views and simply changes which column you are looking at.

Risk model OFF - after-tax nominal gains

Every option is shown as its plain projected after-tax dollar gain. This raw comparison treats a dollar of projected gain from gold the same as a dollar from an offset account, with no adjustment for uncertainty. In this view, risk-score references are hidden.

Risk model ON - risk-adjusted gains

Each option's positive gain is reduced by a fixed illustrative haircut based on a risk score from 0 to 10:

Risk-adjusted gain = positive after-tax gain x (10 - risk score) / 10

Option	Risk score	Multiplier	Effect on positive gain
Offset Account	0/10	1.00	No haircut - full positive gain shown
Term Deposit	1/10	0.90	10% haircut
Super Contribution	3/10	0.70	30% haircut
ETF (Stocks)	4/10	0.60	40% haircut
Physical Gold	5/10	0.50	50% haircut

- Losses are never haircut. If an option loses money, the full loss is shown.
- The haircut is illustrative. It is not a formal volatility model, product risk rating or forecast.
- The 0%-50% haircut band is deliberately narrow so growth-rate assumptions remain the main driver and the risk model mainly acts as a tie-breaker.

Tip: look at both views. Risk OFF shows pure projected dollars. Risk ON shows the same comparison with a rough allowance for uncertainty. If the same option is highest in both views, the result is more stable under this model.

6. Worked example - default beta scenario

This example shows how the default settings flow through the tool. It is not a forecast; it simply demonstrates the mechanics of the calculator.

Assumption	Value
Principal	$100,000
Holding period	25 years
Marginal tax rate	32.5%
Offset rate	6.5%
ETF capital growth	8.0%
Dividend yield	3.8%
Gold growth	8.0%
Term deposit rate	5.00%
Super gross return	7.0%
CGT mode	50% discount for ETF and Gold
Risk view	Risk OFF by default

Option	After-tax nominal gain	Risk-adjusted gain	Risk	Explanation
Offset Account	$382,770	$382,770	0/10	Full gain shown
ETF (Stocks)	$578,166	$346,900	4/10	Highest raw after-tax gain, but reduced by the 40% illustrative haircut
Physical Gold	$489,810	$244,905	5/10	No income in the model; positive gain receives a 50% haircut
Term Deposit	$129,292	$116,362	1/10	Lower raw return after annual tax, but small haircut
Super Contribution	$210,428	$147,300	3/10	Starts after entry tax; compounds at gross return less simplified 15% earnings tax

Default example - gain vs estimated final/economic value

The default beta numbers are gains. The app opens in Risk OFF view by default. The estimated value line adds the original $100,000 principal back for context.

Option	After-tax nominal gain	Estimated final/economic value
Offset Account	$382,770	$482,770 economic value (cash retained + interest avoided)
ETF (Stocks)	$578,166	$678,166 estimated final value
Physical Gold	$489,810	$589,810 estimated final value
Term Deposit	$129,292	$229,292 estimated final balance
Super Contribution	$210,428	$310,428 estimated super balance

What this example shows: Under the raw after-tax view, ETF (Stocks) has the highest calculated dollar gain. Under Risk ON, Offset Account remains the highest calculated gain because it keeps its full positive gain while higher-uncertainty options are haircut. This is exactly why the tool shows both views.

7. Capital Gains Tax modes (ETF & Gold)

Both ETF (Stocks) and Physical Gold let you choose how capital gains are taxed. CGT is only applied to positive capital gains.

Mode	What it does
No discount	Full capital gain taxed at your marginal rate. Can represent an under-12-month sale or a conservative no-discount assumption. The app does not check eligibility.

Mode	What it does
50% discount (current law)	Half the capital gain is taxed. This is the default mode.
New law 2027	Simplified indexation model: the cost base is lifted by your CPI input, then the remaining real gain is taxed at the higher of 30% or your marginal rate. The CPI slider only matters in this mode.

Key insight: the New law 2027 indexation mode may be higher or lower than the 50% discount depending on asset return, CPI, holding period and marginal tax rate. The 30% floor matters most when the marginal rate is below 30%.

8. Sensitivity Analysis

The Sensitivity Analysis panel answers the reverse question: how much would one assumption have to change for a selected option to become the highest calculated gain?

- Select the option to test - for example ETF (Stocks), Physical Gold, Offset Account, Term Deposit or Super Contribution.
- Choose the variable to adjust - return/growth, dividend yield, mortgage offset rate, holding years, or show all allowed levers.
- The app holds every other input fixed and searches for the threshold value where the selected option overtakes the current leader.
- If the option is already highest, the panel says so. If it cannot become highest within the slider range, the panel says that too.

The Sensitivity Analysis respects the Risk model toggle. With Risk ON, thresholds are calculated against risk-adjusted figures. With Risk OFF, they are calculated against after-tax nominal figures.

9. Reading the results

Result area	How to read it
Headline badge	Names the highest calculated gain and dollar value under the active view.
Output-order podium	Shows 1st to 5th by calculated gain and states that the order is a calculated comparison only, not a recommendation.
Five cards	Each option's gain. In Risk ON view, cards also show the before-risk figure and risk score.
Year-by-year table	Cumulative gains for each year up to the chosen holding period, with the yearly highest output highlighted.
Bar chart	Visual comparison of the final-year figures.

10. Saving and printing your scenario

The Print / Save my results as PDF button opens a clean, print-ready report based on your current inputs and current Risk model view. Choose Save as PDF in the print dialog if you want a file rather than paper.

Report item	What it contains
Date stamp and comparison view	Shows when the report was generated and whether it used Risk ON or Risk OFF.
Your assumptions	Lists all inputs so the scenario can be reproduced.
Calculated gain order	Shows the ranking table for all five options.
Charts	Includes final-year comparison and year-by-year visual gain output.
Super note	Explains the entry-tax treatment and simplified one-off contribution model.
Gain vs final value note	Explains that the main results are gains, not total balances, and shows estimated final/economic value where relevant.

The Decision Report

The Decision Report is the plain-English explainer appended to the export. It contains mechanical, factual content only - no advice - in three parts:

- What would have to be true to change the order - breakeven thresholds for options that are not currently top.
- How the view changes the order - explains who leads under Risk OFF versus Risk ON, and why the order shifts.
- Liquidity and access - a factual table showing how easily money can be accessed in each option, including the reminder that super is generally locked until preservation age.

Practical tip: the app opens in Risk OFF view by default. Export once with Risk OFF and once with Risk ON if you want both views saved.

11. Important simplifications in this model

This is a comparison tool, not a tax return, retirement projection or financial plan. It uses deliberate simplifications so the five options can be compared consistently.

- Dividends are reinvested at the after-tax yield and compounded on the starting principal, rather than tracking a full growing cost base.
- CGT is computed as if the asset were sold at the end of each year shown, so the year-by-year comparison can be displayed.
- The New law 2027 mode uses one CPI assumption selected by the user and does not apply transitional rules or actual quarterly CPI indexation.
- Franking credits, brokerage, ETF fees, buy/sell spreads, gold storage costs, insurance and product-specific fees are not modelled.
- Super is a simplified one-off contribution comparison. It does not model carry-forward concessional caps, Division 293 tax, release elections, pension phase, FHSS, spouse contributions or preservation-age eligibility.
- The tool assumes an individual Australian tax resident holding assets in their personal name. It does not model SMSFs, companies, trusts, non-residents or foreign withholding tax frameworks.
- Risk scores are fixed illustrative assumptions. They are not a product risk rating, volatility estimate or statement that one option is suitable for a user.

These simplifications do not make the tool useless; they make the comparison clear and fast. The important thing is that the same simplified framework is applied consistently, so users can see which assumptions drive the order.

12. Quick glossary

Term	Meaning in this manual
After-tax nominal gain	The projected dollar gain after simplified tax treatment, before the risk haircut.
Risk-adjusted gain	Positive after-tax gain after the fixed illustrative risk haircut has been applied.
CGT	Capital gains tax applied to positive capital gains for ETF (Stocks) and Physical Gold.
CPI / inflation	Used only in New law 2027 indexation mode.
Concessional cap	The annual limit for concessional super contributions used by the simplified super model.
Decision Report	The PDF export section explaining what the numbers show and what assumptions would change them.
Estimated final/economic value	A secondary context figure: original principal plus after-tax gain for investments, TD and super, or cash retained plus interest avoided for Offset Account.

Final reminder: A higher calculated gain does not mean an option is suitable, appropriate, safer, better or recommended for you. The calculator shows mathematical comparisons only. Consider seeking licensed financial, tax or superannuation advice before acting.