BudgetSmart — Methodology Appendix: Model Assumptions

Version V-35 · September 2026

This document describes the assumptions and rules the software calculates by. It is written so that you know exactly what stands behind every number — and what the number does not say.

> BudgetSmart is a planning and assessment tool. It is not a substitute for due diligence, tax advice or a professional valuation.

1. Founding principles

- Everything is derived from the base data you enter. There is no external data, no industry averages and no hidden assumptions.
- There is no artificial intelligence and no generated text. Every conclusion sentence is pre-written text selected by numeric conditions. The same data always produces the same sentence, word for word.
- All amounts are exclusive of VAT or sales tax. The model assumes revenue and expenses are entered net.
- The project horizon is five years, fixed and independent of the financing structure.

2. The decision tree — three axes

The verdict is not a cascade of tests but three independent axes, each coloured separately. The most severe colour among them determines the overall verdict.

Axis	What it tests	When it turns red
A — Operating viability	Operating profitability	EBITDA is zero or negative
B — Deal economics	The return at the price entered	Project IRR is zero or negative, or there is no positive cash flow at all
C — Financing and solvency	Ability to service the debt	DSCR below 1, a cash hole, or debt outstanding above the exit value

> A negative EBIT does not disqualify. When EBITDA is positive and EBIT is negative, depreciation absorbs the entire profit. There are two possible reasons — a one-off equipment purchase or ongoing erosion — so the axis turns yellow and raises the question, rather than rejecting on the basis of accounting timing.
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> A high price does not disqualify either. A price above the valuation range flags yellow and invites negotiation or a review of assumptions. Only an operating loss or a return that does not recover the investment disqualify.

3. Valuation

The multiple range

Multiple	Its role
4x	The conservative anchor. Sets the exit value in the return calculations and forms the bottom of the valuation range
5x	The typical multiple for a stable business with reasonable customer diversification
6x	The top of the range. A price above it triggers the price warning

The price test in the verdict runs against the top of the range (6x). The 4x multiple is a conservative anchor for display and for the exit value — it is not a decision threshold.

Balance-sheet adjustments

The adjustments — surplus cash, net debt, abnormal working capital and manual adjustments — correct the operating value to the actual company value. The adjustments affect the value, not the return.

- The adjusted value is the governing value. The return metrics — IRR, ROI and payback — derive from the price actually paid and are shown at their base figure, with the adjusted value beside them for information.

- The verdict runs on the base metric. The reason is practical: entering the adjustments requires expertise, and a year-end balance is sometimes entered instead of an average. A verdict that flips on such an assumption is more dangerous than one that ignores it.
- Equity metrics are not adjusted. The adjustment concerns the value of the company, not the return produced by the price paid.
- The adjustments do not change the financing structure, the equity contributed or the DSCR.

4. Return metrics

Metric	Definition
Project IRR	Internal rate of return on the project, unlevered. Five-year horizon, exit value at 4x
Equity IRR	Return to the owner: EBIT less debt service, and in year five also the exit value less the outstanding loan
Cumulative ROI	(Cumulative five-year EBIT less the investment) divided by the investment. Cumulative and undiscounted — do not divide it by the number of years
Return on equity	Cumulative over five years, including the sale value and net of the outstanding debt
Payback period	The investment divided by the annual cash flow

> The annual version of any cumulative metric is the IRR. Dividing a cumulative ROI by the number of years ignores compounding and the timing of the cash received, and will give a wrong number. The IRR is shown on the card beside the ROI for exactly that reason.

When the debt outstanding at the end of five years exceeds the exit value, equity value at exit is negative — and the equity metrics are shown as "N/A" alongside a warning setting out the gap. A missing number is better than a wrong one.

5. Financing and debt service

The debt service coverage ratio (DSCR) is scanned across every year of the loan, and the figure displayed is the worst year — not the first. With a bullet loan or a long interest-only period, the early years flatter the deal and the true ratio only emerges once principal begins to amortize. The governing year is named beside the figure.

The ratio	The meaning
Below 1.0	Cash flow does not cover debt service. Red
1.0 to 1.2	Marginal coverage. Yellow
Above 1.2	Comfortable coverage by the methodology threshold

Order of funding sources: cash explicitly allocated to the investment, then equity, and only the remainder is financed by the loan.

> Only cash you explicitly allocate reduces the loan. A bank balance that is not allocated stays as a cash buffer and is not absorbed into the investment automatically. The sources-of-funds card shows the three sources — cash applied, equity contributed and the loan — and their total, which equals the investment.

6. Cash flow

Cash flow is not profit. Revenue is collected according to customer payment terms, and suppliers are paid according to the terms they give you.

- In an existing business, the first months also include collections from the end of the previous year. If a receivables balance was entered in the adjustments panel it governs the split; otherwise an estimate is derived from last year’s revenue. The split assumes the balance is current; overdue debt will be collected more slowly.
- A new business has no opening receivables, so the shortfall in the first months is real — this is the working capital to be funded on day one, not a business failure.

- The supplier balance works the same way on the payments side.

7. The required return and the discount rates

The software uses two separate rates, and they should not be confused.

The rate	What it is used for	Range
Required annual return	Discounts Estimates 1 and 2, and serves as the benchmark for project IRR	Minimum 1%, no cap
Discount rate for Estimate 3	Discounts five years of EBIT with no terminal value — Estimate 3 only	0.1% to 40%

The hurdle you set is a personal benchmark and does not disqualify. A return below it flags yellow and appears in the conclusion, but does not turn a sound transaction into a rejected one. Rejection is reserved for a zero or negative return — where the investor gets back less than was put in.

> Estimate 3 is a reference scenario, not a guaranteed floor: the order of the three estimates can change with the inputs, and a government-bond yield is not a business-risk rate. A low rate raises this figure — a higher rate is the more conservative reading.

8. Tracking actual performance

Step 7 offers two separate measurement bases, with a toggle between them. Each basis is measured on its own.

Basis	What you enter	What it is compared with
Actual vs. Budget	Revenue as recognized in the books — according to your recognition policy: delivery, invoice or receipt — and the COGS matched to it	The profit and loss lines of the forecast
Actual vs. Cash Forecast	Actual receipts and payments, net of VAT or sales tax	The scheduled collections and payments in the forecast

> There are no estimates on this page. A month left blank stays empty and is excluded from the comparison. Deriving a number where the user knows the real one replaces a measurement with an estimate.

The profit-to-cash bridge reconciles profit to cash flow and separates two different causes of a cash hole: profitability, which is fixed through price or costs, and timing, which is fixed through payment terms or a credit line. The bridge is shown only for the months measured on both bases, and says so explicitly.

The revenue-recognition policy determines what you type, not how the software calculates. Use the same policy for all twelve months, otherwise month-to-month comparison loses meaning.

9. What the software does not do

- It does not perform due diligence and does not verify the data entered.
- It does not replace a professional valuation for tax, legal or transaction purposes.
- It does not calculate VAT or sales tax, and does not handle foreign currency, exchange differences or multi-entity transactions.
- It does not predict. It calculates the result of the assumptions you entered.

> When a metric cannot be calculated, the software shows "N/A" rather than zero. Zero is a measurement; an inability to calculate is not. If a central metric breaks, the calculation stops, an alert is shown and export is blocked — so that no report leaves the tool that does not match the screen.