

A WACC model with a dashboard and checks in 10 minutes

✱ From three prompts

CHECKS INCLUDED

Speed is not the story. Who checked it? I instructed Claude to reperform every figure from the inputs and reconcile the dashboard back to the workings.



10 min Build time, dashboard and checks included	3 Prompts, in one conversation	146 Formulas, no errors	25 Sensitivity cells reconciled one by one
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INSIDE THE WORKBOOK

The Dashboard tab

Every figure on this sheet is reperformed from the inputs on the WACC sheet, then reconciled to the main calculation.

Reconciled

All dashboard figures agree to the main calculation. If one line breaks, this banner reads
Not reconciled: see reconciliation table.

15.74%

WACC
E/V 71%, D/V 29%

18.68%

Cost of equity
 $R_f + \beta \times ERP + CRP + SRP$

8.40%

After-tax cost of debt
Pre-tax 11.50% at tax 27%

1.03

Relevered beta
Unlevered 0.80 at D/E 0.40

Cost of equity build-up

COMPONENT	RATE
Risk-free rate	10.00%
Relevered beta x ERP	5.68%
Country risk premium	3.00%
Specific / size premium	0.00%
Cost of equity	18.68%

WACC composition

SOURCE	WEIGHT	COST	CONTRIBUTION
Equity	71.43%	18.68%	13.35%
Debt	28.57%	8.40%	2.40%
WACC	100.00%		15.74%

Sensitivity, reperformed: WACC by unlevered beta and ERP

Beta, ERP	4.50%	5.00%	5.50%	6.00%	6.50%
0.60	14.18%	14.45%	14.73%	15.01%	15.28%
0.70	14.59%	14.91%	15.24%	15.56%	15.88%
0.80	15.01%	15.38%	15.74%	16.11%	16.48%
0.90	15.42%	15.84%	16.25%	16.67%	17.08%
1.00	15.84%	16.30%	16.76%	17.22%	17.68%

Lowest	14.18%
Base	15.74%
Highest	17.68%
Range	3.51%

Darker is a higher WACC. The outlined cell is the base case.

Reconciliation: reperformed figures against the main calculation

ITEM	MAIN CALC	REPERFORMED	DIFFERENCE	STATUS
Debt / Equity	0.40	0.40	0.0000000	OK
Relevered beta	1.03	1.03	0.0000000	OK
Cost of equity	18.68%	18.68%	0.0000000	OK
After-tax cost of debt	8.40%	8.40%	0.0000000	OK
Equity weight E/V	71.43%	71.43%	0.0000000	OK
Debt weight D/V	28.57%	28.57%	0.0000000	OK
WACC	15.74%	15.74%	0.0000000	OK
Ke build-up total	18.68%	18.68%	0.0000000	OK
WACC composition total	15.74%	15.74%	0.0000000	OK
Sensitivity grid (25 cells)	3.9362	3.9362	0.0000000	OK
WACC sheet internal checks (weights, sensitivity centre)				OK

Sensitivity row: Difference is the sum of absolute cell-by-cell differences, not the difference of the sums. Tolerance is set on the WACC sheet.

INSIDE THE WORKBOOK

The WACC tab

Twelve input cells are the only hardcodes, each with a source note. Every other cell on this tab is a formula: the relevered beta, the cost of equity, the WACC, a five by five sensitivity grid and two internal checks.

Example values are illustrative placeholders, not market data. Replace each with a sourced, dated figure.

Inputs

INPUT	VALUE	SOURCE OR NOTE
Risk-free rate	10.00%	Govt bond yield, cash-flow currency, matched tenor
Unlevered beta	0.80	Peer average, unlevered
Equity risk premium	5.50%	Damodaran or house view
Country risk premium	3.00%	Damodaran CRP table; 0 if n/a
Specific / size premium	0.00%	Judgement; document basis
Pre-tax cost of debt	11.50%	Actual rate or Rf + credit spread
Tax rate	27.00%	Statutory rate, relevant jurisdiction
Equity value (m)	1,000	Market cap or target weight
Debt value (m)	400	Market value of debt or target weight
Sensitivity step: beta	0.10	Increment for sensitivity rows
Sensitivity step: ERP	0.50%	Increment for sensitivity columns
Reconciliation tolerance	0.0000001	Max difference accepted on Dashboard reconciliation

Workings

LINE	FORMULA	VALUE
Debt / Equity	=IFERROR(Debt/Equity,0)	0.40x
Relevered beta (Hamada)	=Beta_U*(1+(1-Tax)*DE)	1.03
Cost of equity	=Rf+Beta_L*ERP+CRP+SRP	18.68%
After-tax cost of debt	=Kd_pre*(1-Tax)	8.40%
Equity weight E/V	=IFERROR(Equity/(Equity+Debt),0)	71.43%
Debt weight D/V	=IFERROR(Debt/(Equity+Debt),0)	28.57%
WACC	=We*Ke+Wd*Kd_post	15.74%

Sensitivity: WACC by unlevered beta and ERP

Unlevered beta, ERP	4.50%	5.00%	5.50%	6.00%	6.50%
0.60	14.18%	14.45%	14.73%	15.01%	15.28%
0.70	14.59%	14.91%	15.24%	15.56%	15.88%
0.80	15.01%	15.38%	15.74%	16.11%	16.48%
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1.00	15.84%	16.30%	16.76%	17.22%	17.68%

Rows are unlevered beta, columns are the equity risk premium. The outlined cell is the base case.

Internal checks

CHECK	STATUS
Weights sum to 100%	OK
Centre cell of the grid equals the WACC	OK