Value a Business with DCF and Trading Comps

Investment Banking & M&A | Intermediate | 90 minutes (estimate)

Three-year DCF - USD thousands

Measure	Year 1	Year 2	Year 3
Unlevered free cash flow	100.00	120.00	140.00
Discount factor	0.91	0.83	0.75
Present value	90.91	99.17	105.18

The unlevered free cash flows are supplied inputs. Terminal value is placed at the end of year 3 and discounted by the year-3 factor.

Enterprise value sensitivity - USD thousands

Discount / growth	1%	2%	3%
8%	1,910.15	2,195.93	2,596.02
10%	1,475.67	1,636.36	1,842.98
12%	1,199.56	1,301.02	1,425.03

Valuation summary - USD thousands

Measure	Value
Terminal value	1,785.00
PV terminal value	1,341.10
Enterprise value	1,636.36
Terminal share	82.0%
Peer low / median / high	750.00 / 900.00 / 1,050.00

Interpretation and recommended actions

Base terminal value is 1,785 (USD thousands). Base EV is about 1,636.36, compared with 750 / 900 / 1,050 from peers. Most DCF value is terminal, so the implied mature cash conversion and reinvestment deserve scrutiny. Present both ranges with assumptions; do not call the peer range observed market evidence because it is synthetic. A higher perpetual growth rate must be consistent with the reinvestment needed to support it.

Scoring rubric - 100 points

Dimension	Points	Awarding guidance
Calculation	40	Yearly DCF 12; terminal value 8; sensitivities 12; comparable values 8.
Interpretation	25	Correct application of the case rules 10; explain the business decision 10; identify evidence or limitations 5.
Controls / audit trail	20	Traceable formulas 8; independent reconciliation 8; explicit units and signs 4.
Communication	15	Decision and numerical headline 5; actions with owners and evidence 5; concise response covering all required deliverables 5.

Award method credit after an isolated arithmetic error rather than repeatedly deducting for it. Equivalent account labels and well-supported alternative recommendations are acceptable. Numerical tolerance is 0.01 in the stated units; no universal passing score is prescribed.

Common mistakes

Discounting terminal value one extra year; using a growth rate at or above the discount rate; treating synthetic peers as market evidence.

Staged hints

Calculate yearly PV first. Put terminal value at year 3. The 10% / 2% grid result must equal the base DCF.

Instructor notes

Prerequisites: Free cash flow, discounting and multiples. The total duration of 90 minutes is a planning estimate, not a tested completion time. Allocate class time according to prior knowledge and reserve time for discussion of the decision and evidence.

For a simpler class, provide the model structure and work through one driver. For an extension, change one operational assumption and require a new reconciliation and recommendation. Verify the new key before distributing any variant. Open files in the intended spreadsheet application before class. Solutions are learning resources, not secure hiring examinations.

Decision

Present the DCF and comparable ranges separately and investigate why the DCF is materially higher.

Evidence and reasoning

About 82% of base DCF value comes from the terminal period. That makes sustainable cash conversion and the reinvestment required for growth decisive assumptions, not minor sensitivity settings.

What would change the conclusion

Reinvestment needs, cash conversion, risk or peer comparability could change the valuation. Reject growth at or above the discount rate rather than reporting a misleading perpetuity value.