ACCA FM NPV proforma and checklist

How to lay out the NPV

Use time points (T0, T1, T2 and so on) as columns and cash flow types as rows. With tax paid one year in arrears, run the table one year past the end of the project.

Row	What goes in it	Taxed?
Sales revenue	Units × price, inflated at its own rate	Yes
Variable costs	Units × cost, inflated at its own rate	Yes
Fixed costs	Incremental only, inflated at its own rate	Yes
Net operating cash flow	Sales minus costs	Yes
Tax on operating flow	Tax rate × net operating flow	n/a
TAD tax saving	Tax rate × TAD	n/a
Asset cost and sale	Cost at T0, proceeds at the end	No
Working capital	Change only, one time point early	No
Net cash flow	Sum of the rows	n/a
Discount factor	Money cost of capital	n/a
Present value	Net cash flow × discount factor	n/a

Timing rules

- T0 is now, the start of Year 1. Year 1 cash flows sit at T1.
- Asset bought at T0: first TAD is claimed against Year 1 profit.
- Tax paid one year in arrears: Year 1 tax and Year 1 TAD saving go at T2.
- Tax paid in the same year: Year 1 tax and Year 1 TAD saving go at T1.
- Working capital needed at the start of a year goes at the previous time point.
- Final year TAD is a balancing allowance (tax written-down value minus proceeds) or a balancing charge.

Inflation

- Fisher formula: $(1 + i) = (1 + r)(1 + h)$.
- Money method: inflated cash flows with the money cost of capital. Use it whenever there's tax or more than one inflation rate.
- Real method: today's prices with the real cost of capital. Use it only with one general rate and no tax.
- Current prices are inflated once for Year 1. Year 1 prices are not inflated in Year 1.

Checklist before you discount

1. Sunk costs left out.
2. Allocated overheads left out.
3. Interest and other financing costs left out.
4. Total TAD equals cost minus sale proceeds.
5. Working capital column sums to zero.
6. Tax rows run one year past the project if tax is paid in arrears.
7. One method only: no inflated cash flows at a real rate.
8. Spreadsheet formula is =NPV(rate, T1:Tn) + T0.

After the number

- State the decision: accept if the NPV is positive.
- Name the limits: forecast accuracy, inflation assumptions, project life.
- Answer every written requirement. Discussion marks are often the quickest to earn.