Corporate restructuring: kinds, valuation and effects

Corporate Issuers

1 A story: the family with a big house

- A company can add, shrink or reshape itself
- Each family of moves has a typical reason
- Sort the move first, then ask why
- Together these are corporate restructurings

IN THE LESSON

- Picture a family living in a big old house.
- Over the years they have three choices.
- They can add something, like buying the flat next door.
- They can shrink, selling a spare room or giving one wing to a grown child.
- Or they can keep the same house and change how it runs, by renovating the kitchen, or refinancing the mortgage.
- A company is no different.
- It can add to itself, shrink itself, or reshape itself.
- Analysts call all three corporate restructuring.
- The family would also have a reason for each choice, perhaps more space, less cost, or a better use of money.
- Our first job is to sort the moves, and to link each one to its reason.

2 Add, shrink or reshape

Investment: adds to the company →
Divestment: shrinks the company →
Restructuring: reshapes it

IN THE LESSON

- Here are the three families as a picture.
- Read the boxes from left to right.
- The first family adds to the company.
- Investment actions are a minority stake, a joint venture and an acquisition, The second shrinks the company.
- Divestment actions are a sale of a business, and a spin-off.
- The third leaves the size of the company about where it was, and changes how it runs or how it is financed.
- That means a cost programme, a balance sheet change such as a leveraged recapitalisation or a sale and leaseback, and a reorganisation under the protection of a court when creditors cannot be paid.
- Keep this picture in mind.
- Every announcement you meet will sit in one of these three boxes.

3 Investment actions: how much control?

- Minority stake
- Joint venture
- Acquisition

IN THE LESSON

- Start with the top row, investment actions.
- What separates them is control.
- On the left is a minority equity investment.
- A company buys, say, a fifth of another company's shares.
- It gets a say and perhaps a seat on the board, but not control, and it may be able to buy more later.
- In the middle is a joint venture.
- Two companies set up a new business together and share control and profits.
- On the right is an acquisition, where the buyer takes over the whole target and controls it.
- The further right you go, the more money, the more risk and the more of a say.

4 Divestments: a sale is not a spin-off

Two ways to shrink the company (examples)

Question	Answer
Sale: who gets the unit?	A buyer
Sale: does cash come in?	Yes
Spin-off: who gets the unit?	Our holders
Spin-off: does cash come in?	No

IN THE LESSON

- Now the middle row.
- There are two ways to shrink.
- In a sale, the company sells a business to an outside buyer and receives cash.
- In a spin-off, the company creates a new listed company out of one of its units and hands the new shares to its own shareholders.
- Nobody pays anything.
- The same owners hold the same assets, now in two pieces.
- So here is the trap.
- A spin-off is not a sale, because no cash comes in.
- If a question asks what a spin-off does to the parent's cash, the answer is nothing.

5 Reshaping: same scope, different shape

- Cost programme: close sites, cut jobs
- Leveraged recap: borrow, buy back shares
- Sale and leaseback: sell the building, rent it
- Reorganisation under creditor protection

IN THE LESSON

- The bottom row keeps the company about the same size, but changes how it works.
- A cost programme closes plants or cuts jobs to lift profit.
- A balance sheet action changes the funding.
- In a leveraged recapitalisation, the company borrows a lot and uses the money to buy back shares or pay a special dividend, so debt rises and equity falls.
- In a sale and leaseback, it sells a building, often its head office, and rents it back, turning a fixed asset into cash.
- The last is reorganisation under creditor protection, which means a court shields the company while it agrees a new deal with those it owes.
- This is bankruptcy, but with the aim of keeping the business alive.

6 Why do companies do it?

- Growth, synergies, scale, new capabilities
- Closing a conglomerate discount
- Answering an activist investor
- Sharper focus; better returns; lower costs

IN THE LESSON

- Why would a company do any of this?
- There are a handful of common reasons.
- One, to pursue growth or synergies, which are savings or extra sales that two businesses can produce together but not apart.
- Two, to gain a capability or scale, such as a technology or a network.
- Three, to correct perceived undervaluation.
- A conglomerate is a group of unrelated businesses, and the market often values it at less than its parts, a gap called the conglomerate discount.
- Four, to answer pressure from an activist, an investor who buys a stake in order to push the board for change.
- Five, to sharpen strategic focus.
- Six, to improve returns or cut costs.
- Always ask whether the stated reason is believable.

7 Example 1: sorting Halden's announcements

Four actions announced on one day (example)

Sell logistics for $600m	divestment: a sale	**cash in**
Spin off packaging	divestment: a spin-off	**no cash**
Buy 20% of a battery start-up	investment: minority stake	**influence**
Sell head office, lease it back	balance sheet change	**reshaping**
Stated motive	parts $38.00 vs price $30.40	**20% discount**

IN THE LESSON

- Example one.
- Halden Group is a conglomerate with three businesses: coatings, packaging and logistics.
- On one day it announces four actions.
- First, it sells the logistics unit to a buyer for six hundred million dollars.
- That is a divestment, a sale, and cash comes in.
- Second, it spins off packaging, handing the new shares to its own holders.
- A divestment too, but with no cash.
- Third, it buys twenty per cent of a battery start-up.
- An investment, a minority stake.
- Fourth, it sells its head office and leases it back.
- That reshapes the balance sheet.
- The stated motive is a conglomerate discount.
- Analysts value the parts at thirty eight dollars a share against a price of thirty dollars forty, a gap of twenty per cent.

8 Four questions, then a decision

What: type, price, payment, timing →
Why: stated reason; credible? →
How big, against the issuer →
Risks and first view of value

IN THE LESSON

- Now the second outcome, the first assessment of a proposal.
- When a company announces a restructuring, you cannot analyse everything at once, so you do a quick first look that decides how much attention it deserves.
- Here are the four questions in order.
- What is happening?
- That means the type of action, the price, the form of payment and the timing.
- Why does the company say it is doing it, and is that believable?
- How big is it, compared with the issuer?
- And what are the main risks and the first view on value?
- Think of a doctor in a waiting room.
- A cut finger gets a plaster.
- A chest pain gets the full examination.
- Size sorts the two.

9 Size and track record

- Check the stated reason against the record
- Material means big enough to move value
- Measure it against the ISSUER's size
- Rule of thumb: a tenth of EV or more, analyse fully

IN THE LESSON

- Let us take the questions one at a time.
- On why, check the story against history.
- A company that has promised synergies from three earlier deals and delivered none deserves a sceptical reading of the fourth.
- The company's record with similar actions counts as evidence.
- Now size, which is called materiality.
- An action is material if it is big enough to change the issuer's value, so we measure it against the issuer.
- We might compare the price with the issuer's enterprise value, which is the value of its equity plus its net debt.
- Or we might look at the effect on revenue, operating profit or debt.
- A small disposal can be noted and set aside.
- As a rough rule of thumb, a deal worth a tenth or more of enterprise value usually needs full analysis.

10 Materiality of a deal

Materiality = consideration ÷ issuer's enterprise value

Materiality	Share of issuer's value at stake
Consideration	What is paid or received
Issuer's enterprise value	Issuer's equity + net debt

IN THE LESSON

- Here is the simple test.
- Materiality equals the consideration divided by the issuer's enterprise value.
- The consideration is the total the issuer pays, or receives, for the action.
- In a purchase, count what it pays for the equity, and note any debt it takes on as well.
- The issuer's enterprise value is the market value of its equity plus its net debt.
- It is the issuer's, not the target's.
- Why?
- Measured against the target, every acquisition looks total, since the buyer gets all of it, so every deal would look important.
- The question is whether the deal can change the value of the company doing it.
- The same test works with revenue, operating profit or debt in place of enterprise value.

11 Example 2: Corvane buys Delmar

Corvane: EV 9,000, revenue 5,000, EBITDA 800 (millions)

Price ÷ issuer EV	1,200 ÷ 9,000	**13.3%**
Revenue added ÷ issuer revenue	450 ÷ 5,000	**9.0%**
Small disposal ÷ issuer EV	60 ÷ 9,000	**0.7%**
Net debt ÷ EBITDA before	1,000 ÷ 800	**1.25×**
Net debt ÷ EBITDA after	(1,000 + 200 + 1,200) ÷ 920	**2.61×**

IN THE LESSON

- Example two.
- Corvane Industries has two hundred million shares at forty dollars each, so its equity is worth eight thousand million.
- Net debt is one thousand, so its enterprise value is nine thousand.
- Revenue is five thousand and E B I T D A is eight hundred.
- Corvane agrees to buy Delmar Foods for twelve hundred in cash, all from new debt.
- Delmar has revenue of four hundred and fifty, E B I T D A of one hundred and twenty, and net debt of two hundred which Corvane will take on.
- The price is thirteen point three per cent of Corvane's enterprise value, and the leverage jumps.
- The same day, Corvane sells a small unit for sixty.
- That is under one per cent, so note it and move on.

12 How big is each action?

Share of issuer EV (%)

Delmar purchase	**13.3%**
Rule of thumb	**10.0%**
Small disposal	**0.7%**

Measured against the issuer, never the target

IN THE LESSON

- Here are the sizes as bars.
- The vertical axis shows the share of the issuer's enterprise value that is at stake.
- The first bar is the Delmar purchase, at thirteen point three per cent.
- The second is the rule of thumb, ten per cent, and the purchase clears it.
- The third bar is the small disposal, which is under one per cent, so tiny it is hardly a bar at all.
- The test compares each action with the company doing it.
- For the purchase we also checked leverage, which rises from one point two five times to two point six one times.

13 Four mistakes so far

- 1. A spin-off is not a sale: no cash
- 2. Stake, venture, takeover: control differs
- 3. Size is against the issuer, not the target
- 4. Check the record behind the reason

IN THE LESSON

- Before we move on, four slips to avoid.
- One.
- Calling a spin-off a sale.
- It brings no cash in, because the new shares go to the existing owners.
- Two.
- Treating a minority stake, a joint venture and an acquisition as the same, when the degree of control is what differs.
- Three.
- Measuring size against the target instead of the issuer.
- A purchase always looks big next to the thing bought, so it tells you nothing.
- Four.
- Believing the stated reason without checking the record.
- A company that reports a one-time restructuring charge every year has a recurring cost, whatever it calls it.
- Keep these four in mind and you will handle the first look correctly.

14 Valuation methods in a restructuring

Is a control premium inside the value? (example)

Method	Premium inside?
Comparable companies	No
Comparable transactions	Yes
Premiums paid	Added by you
Discounted cash flow	Your forecast

IN THE LESSON

- Now the third outcome: valuing the businesses involved.
- There are three relative methods and one intrinsic one.
- Comparable company analysis takes the multiples at which similar listed companies trade, such as enterprise value to E B I T D A, and applies them to the target.
- It gives a value with no control premium, because the peers are trading as ordinary minority holdings.
- Comparable transaction analysis uses the multiples paid in past takeovers.
- Those prices already include a premium for control.
- Premiums paid analysis takes the target's unaffected price and adds the premium that buyers typically pay.
- And discounted cash flow gives an intrinsic value from the company's own forecasts.
- Keep an eye on which methods carry a premium, because it affects how you read the answer.

15 From a multiple to a value of equity

Equity value = multiple × EBITDA − net debt

Equity value	What is left for shareholders
Peer multiple, EV ÷ EBITDA	From peers or past deals
EBITDA of the business	Earnings before interest, tax, D&A
Net debt	Borrowing less cash; lenders first

IN THE LESSON

- Every multiple method follows the same recipe.
- Take the earnings measure of the business, here E B I T D A, which is earnings before interest, tax, depreciation and amortisation.
- Multiply it by the peer multiple to get the enterprise value.
- Then subtract net debt, to get the value of the equity.
- Net debt is borrowing less cash, and it belongs to the lenders.
- They are paid first, so before shareholders are left anything, net debt must come off.
- Divide the equity by the number of shares and you have a value per share you can set against a price.
- Forgetting to subtract net debt is the most common mistake in this topic, and it overstates the value every time.

16 Example 3: Halden, sum of the parts

Halden: net debt 1,200; 100m shares; price $30.40

Coatings: 300 × 10.0	peers in coatings	**3,000**
Packaging: 200 × 7.0	peers in packaging	**1,400**
Logistics: 100 × 6.0	peers in logistics	**600**
Equity per share	(5,000 − 1,200) ÷ 100	**38.00**
Discount to the parts	(38.00 − 30.40) ÷ 38.00	**20%**

IN THE LESSON

- Example three, back to Halden.
- For a conglomerate we use a sum of the parts.
- Value each segment separately, using the multiple of companies that do only that business.
- Coatings has E B I T D A of three hundred, and peers trade at ten times, so three thousand.
- Packaging has two hundred at seven times, so fourteen hundred.
- Logistics has one hundred at six times, so six hundred.
- The parts add up to five thousand of enterprise value.
- Halden's net debt is twelve hundred, so the equity is thirty eight hundred.
- With one hundred million shares, that is thirty eight dollars a share.
- The market price is thirty dollars forty.
- The gap is seven sixty, which is twenty per cent of the value of the parts, the conglomerate discount.

17 Adding up the parts, then net debt

Value (millions of dollars)

Coatings	**3,000**
Packaging	**1,400**
Logistics	**600**
Net debt	**−1,200**

Parts 5,000 − net debt 1,200 = equity 3,800

IN THE LESSON

- Here is the same sum as bars.
- The vertical axis is value in millions of dollars.
- The first three bars are the enterprise values of the segments, coatings at three thousand, packaging at fourteen hundred and logistics at six hundred.
- Together they make five thousand, which is what the whole business is worth if each part is valued as a pure play.
- The last bar is net debt, twelve hundred, in red, because it comes off.
- What remains, thirty eight hundred, is the equity value the parts imply.
- Because the multiples come from ordinary trading peers, this figure carries no control premium, so it can be set straight against the share price.
- Forget net debt, and the parts look worth fifty dollars a share.

18 The takeover premium

Premium = (offer − unaffected price) ÷ unaffected price

Takeover premium	Extra paid for control
Offer price	What the bidder pays per share
Unaffected price	Price before the bid was known

IN THE LESSON

- Next, the premium in a takeover.
- A bidder usually pays more than the market price, because it is buying control.
- The premium is the offer price minus the unaffected price, divided by the unaffected price.
- The unaffected price is the price before anyone knew about the bid.
- Once rumours start, the share price rises, so using that higher price understates the premium.
- Suppose a bidder offers thirty eight dollars for Halden shares, which were thirty dollars forty before the news.
- The premium is seven sixty over thirty forty, which is twenty five per cent.
- But the offer is exactly the sum of the parts.
- So the whole premium only closes the conglomerate discount.
- The buyer is paying nothing above the parts.
- A premium alone cannot tell you if the price is fair.

19 Example 4: four views of Delmar

Delmar: 50m shares, unaffected $18.00, EBITDA 120, net debt 200

Peers at 9.0×: 9.0 × 120	1,080 − 200 = 880	**$17.60**
Past deals at 11.0×: 11.0 × 120	1,320 − 200 = 1,120	**$22.40**
Premiums paid: 18.00 × 1.30	typical 30% premium	**$23.40**
Corvane's offer: 1,200 ÷ 50	premium 6.00 ÷ 18.00	**$24.00**
Trap: deals, net debt forgotten	1,320 ÷ 50	**$26.40**

IN THE LESSON

- Example four, back to Delmar Foods.
- Delmar has fifty million shares, an unaffected price of eighteen dollars, E B I T D A of one hundred and twenty and net debt of two hundred.
- Listed food peers trade at nine times E B I T D A.
- That gives enterprise value of ten eighty.
- Take off two hundred of net debt, and equity is eight eighty, or seventeen sixty a share.
- Recent takeovers of similar dairies were done at eleven times, so thirteen twenty less two hundred is eleven twenty, or twenty two forty a share.
- Premiums paid adds a typical thirty per cent to eighteen, giving twenty three forty.
- Corvane offers twenty four, a premium of thirty three per cent.
- Now the traps.
- Forget net debt on the transactions value and you get twenty six forty, which makes the offer look cheap.

20 Delmar: what each method says

Value per share ($)

Trading peers	**17.60**
Past deals	**22.40**
Premiums paid	**23.40**
Offer	**24.00**

Deal multiples already include a premium

IN THE LESSON

- Here are the answers as bars.
- The vertical axis is value per Delmar share in dollars.
- The first bar is the trading peers, seventeen sixty, a value with no control premium, close to the market price of eighteen.
- The second is the past takeovers, twenty two forty.
- It is higher because those prices include a premium for control.
- The third is the premiums paid method, twenty three forty.
- The last is the offer, twenty four dollars, above all three.
- So Corvane pays full value for control.
- One more trap: do not add a thirty per cent premium on top of the transaction value.
- That would count the premium twice, and give twenty nine twelve.

21 Discounted cash flow, and reading the answers

- DCF: intrinsic value from own forecasts
- A check when peer multiples look stretched
- Only as good as the forecasts behind it
- Show a range, then place the offer in it

IN THE LESSON

- What about discounted cash flow?
- It builds an intrinsic value from the company's own forecast cash flows, discounted at its cost of capital.
- It does not depend on what peers or past buyers happened to pay, so it is a good check when the multiples look stretched, for example after a run in share prices.
- But it depends on the forecasts, so it is only as good as they are.
- In practice, an analyst shows a range from several methods, not a single figure.
- Where the offer sits in that range says whether the buyer pays too much, or the seller sells too cheaply.

22 What does the deal do to the buyer?

- Pro forma: the numbers as if the deal is done
- Gauge 1: earnings per share (EPS)
- Gauge 2: net debt ÷ EBITDA
- Gauge 3: weighted average cost of capital

IN THE LESSON

- Now the fourth outcome.
- Once you know what a target is worth, ask what the deal does to the buyer's numbers.
- Think of buying a bigger house with a mortgage.
- Your income is the same, but you have a new monthly payment, and the bank now sees you as a bigger risk.
- In the same way, the buyer's profit may change, its debt rises, and its funding gets more expensive.
- Analysts show this with pro forma figures, which means the numbers rebuilt as if the deal had already happened.
- We will build three gauges: earnings per share, net debt to E B I T D A, and the weighted average cost of capital.
- We start with earnings per share.

23 Pro forma net income

Pro forma NI = NI(A) + NI(T) − interest × (1 − t) + synergies × (1 − t)

Pro forma net income	Divide by new shares for EPS
Acquirer's net income	Buyer's own
Target's net income	Target's own
After-tax interest on new debt	New debt, or cash given up
After-tax synergies	Pre-tax saving × (1 − t)

IN THE LESSON

- Here is pro forma net income for a purchase.
- Start with the buyer's own net income.
- Add the target's net income.
- Subtract the after-tax interest on any new debt, or the after-tax interest that is given up if cash is used instead.
- Then add the after-tax synergies.
- The word after-tax is the whole point.
- Interest on new debt is deductible, so the real cost is the interest times one minus the tax rate.
- Synergies lift profit before tax, so only the part left after tax counts.
- Taking interest off before tax overstates the damage.
- Adding synergies before tax overstates the gain.
- Then divide by the new number of shares, which is the old number, plus any shares issued, to get pro forma earnings per share.

24 Pro forma net debt to EBITDA

Leverage = (net debt A + net debt T + new debt) ÷ (EBITDA A + EBITDA T)

Pro forma net debt ÷ EBITDA	Lenders watch this ratio
Both net debts plus new borrowing	Include the target's debt
Combined EBITDA	Without synergies, as lenders do

IN THE LESSON

- The second gauge is leverage.
- Pro forma net debt to E B I T D A is the sum of three things in the top line.
- The buyer's net debt, the target's net debt which comes with it, and any new borrowing for the purchase.
- Divide by the combined E B I T D A of the two companies.
- Lenders watch this ratio.
- Two cautions.
- First, the target's own debt is part of the bargain.
- Leave it out, and you understate leverage.
- Second, pay attention to how the lenders define the ratio.
- Many of them count combined E B I T D A without the synergies, because the synergies are only promised.

25 Example 5: Corvane buys Delmar with debt

Corvane NI 400, 200m shares; Delmar NI 60; synergies 30; tax 25%

After-tax interest	1,200 × 6% × (1 − 0.25)	**54.0**
After-tax synergies	30 × (1 − 0.25)	**22.5**
Pro forma net income	400 + 60 − 54 + 22.5	**428.5**
Pro forma EPS	428.5 ÷ 200	**2.14**
Net debt ÷ EBITDA	(1,000 + 200 + 1,200) ÷ 920	**2.61×**

IN THE LESSON

- Example five.
- Corvane earns four hundred on two hundred million shares, so earnings per share is two dollars.
- It borrows twelve hundred at six per cent to buy Delmar.
- Delmar earns sixty, and the synergies are thirty before tax.
- Tax is twenty five per cent.
- First, the after-tax interest.
- Twelve hundred times six per cent is seventy two, and times seventy five per cent that is fifty four.
- Next, the synergies.
- Pre-tax, thirty.
- After tax, twenty two point five.
- Pro forma net income is four hundred, plus sixty, minus fifty four, plus twenty two point five, which is four twenty eight point five.
- No new shares, so earnings per share is two fourteen, up seven per cent.
- Leverage is one thousand plus two hundred plus twelve hundred, over nine twenty, which is two point six one times, up from one point two five.

26 Example 6: half debt, half new shares

Same deal: 600 new debt, 600 new shares at $40.00; Delmar NI 60

New shares issued	600 ÷ 40.00	**15m**
After-tax interest	600 × 6% × 0.75	**27.0**
Pro forma net income	400 + 60 − 27 + 22.5	**455.5**
Pro forma EPS	455.5 ÷ 215	**2.12**
Net debt ÷ EBITDA	(1,000 + 200 + 600) ÷ 920	**1.96×**

IN THE LESSON

- Example six changes only the financing.
- Suppose Corvane pays for Delmar with six hundred of new debt and six hundred of new shares, issued at forty dollars.
- That is fifteen million new shares, so two hundred and fifteen million in all.
- Interest is six hundred times six per cent times seventy five per cent, which is twenty seven.
- Pro forma net income is four hundred, plus sixty, minus twenty seven, plus twenty two point five, which is four fifty five point five.
- Divide by two fifteen, and earnings per share is two twelve.
- Compare example five: two fourteen.
- Earnings per share has barely moved, but leverage is one point nine six times, not two point six one.
- Issuing shares costs a little earnings per share, and buys a lot of safety.

27 WACC at the new capital structure

WACC = wd × rd × (1 − t) + we × re

WACC	Average cost of the new funding
Debt weight, new structure	New debt as share of total
New pre-tax cost of debt	Rises with leverage
Equity weight, new structure	New equity as share of total
New cost of equity	Rises with leverage

IN THE LESSON

- The third gauge is the weighted average cost of capital, which you met at Level One.
- It is the average of what debt and equity cost, weighted by how much of each the company uses.
- After a restructuring, redo it at the new capital structure.
- The weights come from the new market values of debt and equity.
- The costs change too.
- As debt rises, lenders charge more, and shareholders, who are paid after the lenders, demand a higher return.
- So both the cost of debt and the cost of equity usually go up.
- Remember to use the after-tax cost of debt.
- The classic trap is putting new weights on the old costs, which makes more debt look like a free lunch.

28 Example 7: Corvane's WACC, before and after

Equity held at 8,000; tax 25%; costs rise with leverage

Before: debt / equity weights	1,000 and 8,000 of 9,000	**11.1% / 88.9%**
Before: WACC	11.1% × 3.75 + 88.9% × 9.0	**8.42%**
After: debt / equity weights	2,400 and 8,000 of 10,400	**23.1% / 76.9%**
After: WACC, new costs	23.1% × 4.875 + 76.9% × 10.5	**9.20%**
Trap: new weights, old costs	23.1% × 3.75 + 76.9% × 9.0	**7.79%**

IN THE LESSON

- Example seven.
- Before the deal, Corvane has net debt of one thousand and equity of eight thousand.
- So the weights are eleven percent debt and eighty nine per cent equity.
- Debt costs five per cent before tax, equity nine.
- WACC is eleven point one per cent times three point seven five, plus eighty eight point nine per cent times nine, which is eight point four two.
- After the debt-financed deal, debt is twenty four hundred, with the assumed debt included.
- Assume equity stays at eight thousand.
- The weights are twenty three and seventy seven.
- The costs rise to six and a half and ten and a half.
- WACC is nine point two.
- The trap, new weights with old costs, gives seven point seven nine, as if debt were free.

29 Three WACC figures

WACC (%)

Before	**8.42**
After, new costs	**9.20**
Trap: old costs	**7.79**

Reweight AND re-price

IN THE LESSON

- Here are the three results as bars.
- The vertical axis is the weighted average cost of capital, in per cent.
- The first bar is before the deal, eight point four two.
- The second is the correct figure after the deal, nine point two, higher because the company carries more debt and because every source of funding became more expensive.
- The third bar is the trap, seven point seven nine, which falls below the starting point.
- It makes the deal look as if it makes funding cheaper.
- That is wrong, because it used the new weights with old costs.
- A higher cost of capital means projects must now earn more to create value.

30 Better EPS, higher risk

Fund the deal with debt →
EPS up; leverage up →
Lenders and owners want more → WACC up

IN THE LESSON

- Put the three gauges together as a chain of cause and effect.
- It begins with the choice to fund the deal with debt.
- The first step is that after-tax interest is less than the profit bought, so earnings per share rises.
- That is called accretion.
- But net debt to E B I T D A goes up as well, since debt was added.
- Lenders see the weaker cushion and charge more.
- Shareholders, who now sit behind more debt, ask for a higher return.
- Both together lift the cost of capital.
- So one deal can raise earnings per share while it also raises risk and cost of funding.
- Accretion on its own does not mean the deal creates value.
- You need to see the whole chain.

31 Traps in valuation and pro forma work

- Net debt forgotten; premium counted twice
- Premium measured on a bid-lifted price
- Interest or synergies not taken after tax
- Debt assumed from the target left out
- Old costs combined with new weights

IN THE LESSON

- Here are the slips to avoid in the second half.
- One.
- Forgetting to subtract net debt when you turn enterprise value into equity value.
- Two.
- Adding a premium on top of a transaction multiple, which already includes one.
- Three.
- Measuring the premium against the offer, or against a price already lifted by rumours, instead of the unaffected price.
- Four.
- Taking interest off before tax, or adding synergies before tax.
- Five.
- Leaving out the debt the buyer assumes from the target.
- Six.
- Applying new weights to old costs in the cost of capital.
- And when someone says that a deal which lifts earnings per share must create value, remember the chain: risk and cost of funding rose too.

32 Recap: the five measures

Materiality, equity value, premium, pro forma NI and leverage

Materiality	Consideration ÷ issuer's EV
Equity value	Multiple × EBITDA − net debt
Takeover premium	(Offer − unaffected) ÷ unaffected
Pro forma net income	Both NIs − interest + synergies
Pro forma net debt ÷ EBITDA	Both net debts + new debt ÷ EBITDA

IN THE LESSON

- Let us pull it together.
- Restructurings add, shrink or reshape the company, and each is driven by a motive that should be tested.
- The first look asks what, why, how big and what risks, with size measured against the issuer: consideration over the issuer's enterprise value.
- For valuation, equity value is multiple times E B I T D A, less net debt, and the premium is measured against the unaffected price.
- Pro forma net income takes both profits, less after-tax interest, plus after-tax synergies.
- Leverage adds both net debts and any new borrowing, over combined E B I T D A.
- And the cost of capital is reweighted at the new structure, with new costs.
- Know these five and you can handle most of what comes up.

33 Try three quick questions

1. Offer 25.00; unaffected price 20.00. What is the premium?
   Answer: (25 − 20) ÷ 20 = 25%
2. EBITDA 250, peers at 8.0×, net debt 600. Equity value?
   Answer: 8 × 250 − 600 = 1,400
3. Buyer ND 900, EBITDA 600; target ND 100, EBITDA 150; new debt 500. Leverage?
   Answer: 1,500 ÷ 750 = 2.0×

IN THE LESSON

- Now try three quick questions yourself.
- Pause after each one.
- Question one.
- A bidder offers twenty five dollars for a share whose unaffected price was twenty.
- What is the premium?
- Five over twenty, which is twenty five per cent.
- Question two.
- A business has E B I T D A of two hundred and fifty, comparable companies trade at eight times, and net debt is six hundred.
- What is the equity value?
- Eight times two fifty is two thousand, less six hundred is fourteen hundred.
- Question three.
- A buyer has net debt of nine hundred and E B I T D A of six hundred.
- The target has net debt of one hundred and E B I T D A of one hundred and fifty.
- New borrowing is five hundred.
- What is the leverage?
- Fifteen hundred over seven fifty, which is two times.
- Well done.