

The hour before the model

Chapter 2. Reading, not modelling, in a fixed order: each thing read changes what the next one means. For each stop, what was found and what a bad answer looks like.

Borrower		Analyst	
Facility		Date	

Item	Answer	Evidence / note
1. Basis of preparation		
Framework; consolidated or company-only; period (a part-year acquisition makes the last twelve months a stitched figure)		
Going concern plain or qualified; any change of policy or estimate, quantified?		
2. Revenue recognition		
Despatch or acceptance; rebates; consignment stock; tooling; freight; disclosure by customer		
The three margins side by side: statutory, lender, management (same revenue)		
3. Capitalisation policy		
Intangibles movement: additions, amortisation, impairment; capitalised share of development spend		
Useful life lengthened? Additions growing faster than revenue?		
Leverage on statutory EBITDA had the capitalised amount been expensed		
4. Leases		
Short-life and low-value exemptions; sale and leaseback gains; incentives spread forward; breaks inside the tenor		
5. Related parties		
Monitoring fee: terminated or subordinated? accrues and compounds while blocked? add-back limited to a contractual block?		
Sponsor loans and their ranking; balances with directors; amounts, counterparties, terms		
6. Provisions		
Opening, charged, utilised, released, closing for each material provision		
Releases credited to profit; a restructuring charge present three years running		
7. Audit report, read last		
Opinion, emphasis of matter, going concern, signature date, change of auditor		
Key audit matters against the quality-of-earnings areas; materiality against the adjustments argued about		

Three reconciliations that must tie	Tied?	Difference and explanation
Statutory EBITDA to operating profit plus depreciation and amortisation, to the line		
Lender's EBITDA to cash available for debt service: the three deductions, each interrogated		
Net debt to the balance sheet: cash that is trapped, factoring and supply chain finance, leases, pension deficit, deferred consideration and earn-outs		

Halstead: the whole 0.0336 turns of leverage headroom is 955,000 of debt-like obligations outside the 120,000,000. The analyst who lets the borrower define the starting number has already lost the argument about the ending number.

The add-back bridge, priced line by line

Chapter 5. Every add-back is a claim with a case for, a case against and a document that would settle it. Rank the lines by amount and spend the time in that order.

Borrower		Analyst	
Facility		Date	

Add-back	Amount	% of statutory	Turns of leverage	Character of the claim	Document that settles it	Allowed
Total						

Test for each line	Answer
Characterisation: how many times has this borrower called it non-recurring? (bridges of the last three years, as presented at the time)	
Timing or forecast: how much is savings banked, how much still to be delivered?	
Perimeter: stub period grossed up, or the target's own adjusted figure, and whose adjustments? Contracted revenue and expiries?	
Definitional: is the cost blocked contractually, and is it still paid in cash?	
Non-cash: settled in shares or in cash?	
Volatility: both signs over three to five years, and the hedge book	

Leverage three ways, on one line	Value
Statutory: net debt / audited EBITDA	
Management: net debt / management's adjusted EBITDA	
Lender: net debt / lender's adjusted EBITDA	
Add-backs as a share of statutory EBITDA, and of the number the loan is sized on	
Add-back argument in turns, over covenant headroom in turns	

Halstead: 13,000,000 of add-backs, 52.8455 per cent of statutory EBITDA, worth 1.6866 turns against 0.0336 of headroom: 50.3 to one. A line nobody can name a document for is not an adjustment; it is a preference.

Reading a quality-of-earnings report you did not commission

Chapter 6. Evidence, not a verdict. Read the scope first, then the percentages behind the round numbers, then the matters raised but not quantified, then the findings, and the summary last.

Borrower		Analyst	
Facility		Date	

Haircut	Amount	Test applied	Finding (document) or judgement (percentage)?	Evidence that would move it	Softness 1-5

Item	Answer	Evidence / note
Scope and limitations		
What the reviewer was not asked to look at		
What management would not produce (e.g. translation against transaction FX)		
Round numbers		
Who chose each percentage, on what schedule, at which date (reporting date or signing)?		
Declined to quantify		
Related-party terms		
Customer concentration		
Debtor ageing		
Anything else raised and left out of the number		
Lines left standing		
Accepted on which argument: cash, recurrence, or both? Untested lines recorded as untested		
The definition		
Does the credit agreement adopt the same tests: savings actioned at the test date, pro forma limited to signed contracts, an aggregate cap on unadjusted EBITDA?		

Halstead: the review takes 37,600,000 to 28,460,000. The restructuring haircut is the strongest (the borrower's own prior bridges); the 60 per cent on unactioned savings is the softest and the one to expect back across the table. The review is the analysis; the definition is the protection.

From EBITDA to cash

Chapter 7. Four subtractions that nobody defends in a memorandum and that take more out of the number than the review did. Three years of history, and the direction of each line.

Borrower		Analyst	
Facility		Date	

Line	Year -2	Year -1	Last twelve months	% of EBITDA	Source / who defined it
EBITDA as adjusted by the lender					
Maintenance capital expenditure					
Depreciation (cross-check only)					
Increase in working capital					
in days of revenue					
Cash tax paid					
effective rate on EBITDA less interest					
Cash available for debt service					
conversion from EBITDA					

Item	Answer	Evidence / note
Maintenance capital expenditure		
Test: what happens if it is not spent? (output, certification, customer, plant)		
Average over a cycle, not a single year; lumpy items (roof, furnace, systems)		
Sponsor's own investment committee figure		
Capitalisation habit on development: same finance function, same habit		
Working capital		
Growth or deterioration: receivables, inventory and payables in days, against the same quarter last year		
A release in a downside is one-off and reverses on recovery		
Cash tax		
Durable or borrowed: losses with an expiry date, accelerated allowances that reverse, group structure		
Statutory rate on a normalised profit before tax, and the reconciliation to the actual		

Halstead: 28,460,000 less 6,200,000, 1,600,000 and 2,100,000 is 18,560,000; 65.2143 per cent reaches debt service. The three deductions are 9,900,000 (Chapter 6 prints 10,200,000).

Leverage, four ways, and what is in net debt

Chapter 8. One numerator, four denominators. Name the argument each gap is: add-backs (a debate), the review (evidence), cash (a fact).

Borrower		Analyst	
Facility		Date	

Measured against	EBITDA	Leverage	Covenant: met?	Debt supported at the covenant	Against the debt asked
Statutory					
Management					
Lender					
Cash available					

The gaps	Turns	Kind of argument
Statutory to management (the add-back argument)		
Management to lender (the review took back)		
Lender to cash (nobody argued)		
Spread: highest less lowest (not the sum of the three: the review sits inside the add-back argument)		

Item	Amount	Included in the definition?
Net debt: what goes missing		
Leases, and rent added back while the lease stays out of net debt		
Pension deficit		
Receivables factoring and supply chain finance (receivable days better than the sector, cash conversion not)		
Earn-outs and deferred consideration from recent acquisitions		
Cash netted that is trapped or restricted		
Which twelve months		
Last twelve months, run rate, or budget? Share of the denominator that is forward or annualised		

Halstead: each 10,000,000 of extra net debt costs 0.3514 turns on the lender's EBITDA. 7,100,000 of management's 37,600,000 describes a period the company has not lived through. A leverage figure without its denominator is not a fact; it is a claim.

The cover schedule

Chapter 9. Read the cover definition before the leverage one, and the denominator before the level. Print the cushion in money and the break-even rate.

Borrower		Analyst	
Facility		Date	

Test	Numerator	Denominator	Ratio	Covenant	Leaves out
Interest cover, on EBITDA					
Interest cover, on cash					
Fixed charge cover					
Debt service cover, on EBITDA					
Debt service cover, on cash					
Interest cover on management's EBITDA (the one in the deck)					

The two numbers that are never on the schedule	Value
Cushion in money: cash available less covenant x debt service	
Break-even rate: (cash / covenant - amortisation) / principal	
rise in the base rate that breaks the test, basis points	
Cover at +100 and +200 basis points	
Hedged share of the floating debt, and until when	

Item	Answer	Evidence / note
The definition to insist on		
Numerator: lender's EBITDA, less capital expenditure incurred subject to a floor, less cash tax paid, less the increase in working capital; rolling twelve months		
Denominator: cash interest at the rate paid, scheduled amortisation, mandatory prepayments, finance lease payments		
Tested quarterly from the first quarter end		
Two carve-outs to refuse		
Borrower-designated growth capital expenditure (replace with a floor: greater of actual and a percentage of depreciation)		
An equity cure counted in the numerator as if the business had produced it		

Halstead: 704,000 of cushion; the cover covenant breaks at 7.8889 per cent, 48.8889 basis points above the 7.40 per cent priced. Interest cover on an amortising loan deletes 40.3226 per cent of the obligation before it starts.

Which test binds, at close and in the downside

Chapter 10. Solve every test backwards for the movement in its own driver, translate them into one driver, rank them. Do it twice.

Borrower		Analyst	
Facility		Date	

Covenant	Level	At close	Breaks on (own driver)	Breaks on (% of EBITDA)	Cushion in money	Downside	Recovery that cures it
Leverage							
Cover							
Other test							

Ranking	Value
Ratio of tolerances in their own units (what the certificate shows)	
Ratio like for like, both on EBITDA (what the committee is asking)	
Binding test at close	
Binding test in the downside	
Binding test in year two and year three of the amortisation schedule	
What the binding number is made of: net add-backs still inside it, as a share of itself	

The sentence for the paper. The binding covenant is _____ at _____. It breaks on a fall in _____ of _____ per cent, being _____, measured on a number that still contains _____ of add-backs (_____ per cent of itself), so the cushion is _____ per cent of the adjustments the deal was underwritten on.

Halstead: leverage breaks on 0.7895 per cent of EBITDA, cover on 2.4736 per cent of the same EBITDA: 3.1330 like for like, 4.8041 in own units. In the downside cover needs 1.5572 times the recovery leverage needs: the ranking inverts.

The covenant package that would survive

Chapter 11. Not "what level" first but "on what number", then the level. Price each control on the borrower's own bridge; do not add the prices up.

Borrower		Analyst	
Facility		Date	

Control	Drafting	Add-back at stake	Leverage if allowed	Turns saved	Agreed?
Cap on add-backs	% of EBITDA BEFORE the adjustments it caps, stated in terms, not by cross-reference				
Look-forward on run-rate savings	actioned by the test date; twelve months from the action				
Pro forma effects contracted	contracted revenue in place at the test date only				
Certification of non-recurring items	itemised, officer-certified, with the two prior periods' certificates				
Frozen accounting policies	policies of the original statements; changes reversed for the test				
Capital expenditure floor	minimum spend, tested annually, limited carry-forward				
Information undertaking	monthly accounts, quarterly bridge line by line, statutory-to-covenant reconciliation				

Level	EBITDA admitted	Fall tolerated	Headroom, turns	Documented downside: passes?

What the borrower will ask for	Response	Why
Equity cure		
applied to debt, capped in number, never counted twice		
Opening headroom (the level)		
First-test holiday		
Materiality threshold on itemisation		

Halstead: the four controls price at 0.2429, 0.2508, 0.4500 and 0.3025 turns; together they are worth 1.0250, not 1.2463. A cure credited to EBITDA costs the sponsor 4.25 times less than the same cure applied to debt.

The downside case, run properly

Chapters 12 and 13. Two multiplications, not one; the lines below EBITDA; an event rather than a percentage; and the reverse test before the forward one.

Borrower		Analyst	
Facility		Date	

The amplification	Value
Revenue fall	
Operating leverage (contribution / EBITDA) and the fixed cost base	
EBITDA fall	
EBITDA over cash available (the second stage)	
Cash available fall, and the amplification = operating leverage x EBITDA / cash	
Leverage and cover in the downside; shortfall against debt service in money	

Line below EBITDA	Base	Downside, as copied	Downside, as it would behave	Reason
Maintenance capital expenditure (deferred? returns next year?)				
Working capital (release on volume; supplier terms shortening on default)				
Cash tax (instalments on last year's profit)				
Anything the default itself triggers				

Event that makes the percentage	Mechanism	Revenue effect	% of revenue	Cash effect outside revenue

Reverse test	Threshold	Fall from base	Fall in revenue	In money	In days of sales
Leverage covenant					
Cover covenant					
Cover of 1.00x (no longer paying its own debt service)					

Halstead: 8 per cent of revenue becomes 17.6 per cent of EBITDA and 26.9879 per cent of cash, 3.3735 times; leverage breaks on 0.3589 per cent of revenue, about 1.3 days of sales. Moving revenue alone with the three deductions held gives cover of 1.0943x, not 1.1475x.

Recovery at the EBITDA that exists in default

Chapter 14. Run the recovery on the downside earnings, solve for the multiple needed for par, and model the levers that move recovery more than the multiple.

Borrower		Analyst	
Facility		Date	

Exit multiple	Enterprise value (downside EBITDA)	Net of enforcement costs	Less claims ranking ahead	Recovery	Loss given default
3.0x					
3.5x					
4.0x					
4.5x					
5.0x					
5.5x					

The multiples	Value
Leverage at which the loan was written (lender's EBITDA; management's)	
Multiple needed for par on the downside EBITDA: debt / (EBITDA x (1 - costs))	
Gap in turns	
Multiple needed for par if run on base-case earnings (the usual method) - and the overstatement	

Lever	Effect in points of recovery	Where it is decided
Half a turn of exit multiple (the unit)		
Twelve months of delay at the downside rate		
Claims ranking ahead (receivables purchase, equipment finance, pension, preferential)		
One more point of enforcement cost		
Structural subordination: guarantor group EBITDA only		

Item	Answer	Evidence / note
Comparables, three conditions		
Distressed transactions, not sponsor auctions in a good year		
Same scale and customer concentration		
Multiple computed on the same definition of earnings		

Halstead: repaid in full only above 5.4437x, having lent at 4.2164x (1.2272 turns). Running recovery on the lender's EBITDA overstates it by 15.6947 points, 0.85 of a turn of exit multiple.

Pricing an amendment request

Chapter 15. Decide the alternative before the fee: what the reset tolerates, what it costs on the other covenant, and what enforcement is worth today against a year from now.

Borrower		Analyst	
Facility		Date	

The reset	Value
Fall in EBITDA tolerated, as signed and as reset (percentage, not level)	
Price: fee, ratchet per year, years remaining; package as the letter reads and as collected on the amortising balance	
Cost per percentage point of EBITDA cushion	
Fee against one year's interest and one year's expected loss	

First year after the reset	Cash available	Debt service	Cover	Against the covenant
Before the amendment				
Ratchet in debt service only				
Fee also charged to cash				
Fee and ratchet charged to cash				

The four choices	Value to the lender	Condition
Waive		
Reset		
Reset with conditions		
Enforce today		

Conditions worth more than the fee	Terms	Effect
Equity cure limits (applied to debt)		
Information step-up (monthly, within twenty days)		
Capital expenditure floor		
Cash sweep (share of excess cash)		
Permitted debt: nothing ranking ahead		

Halstead: 3,600,000 of fee and ratchet (1,200,000 and 600,000 a year for four years), against 15,518,960.23 of recovery lost if the year of forbearance fails. The amendment costs 0.1646 of a turn of cover against 0.0473 of headroom: reset cover too, or waive it silently. The case in this archive gives the probability of recovery at which amending breaks even.

The credit paper, first page

Chapter 16. Written for the second reading, eighteen months later. Every ratio with its denominator in the same sentence.

Borrower		Analyst	
Facility		Date	

Leverage measured on	EBITDA	Ratio	Covenant
Statutory EBITDA			
EBITDA as adjusted by management			
EBITDA as adjusted by the lender			
Cash available for debt service			

Line	Figure
Add-backs as a share of statutory EBITDA; disallowed as a share of the lender's EBITDA and of the add-backs claimed	
Binding covenant, the fall that breaks it (per cent of EBITDA, in money), and headroom in turns once, in brackets	
Downside: revenue event, EBITDA, cash, leverage, cover, shortfall; what the standard reset fixes and what it does not	
Recovery on the downside EBITDA; multiple needed for par; gap to the multiple lent at	
Price: margin, loss given default at the exit assumed, default rate assumed, expected loss, residual, break-even default rate	

Who owns what	Name	Tied / signed
Analyst: the bridge		
Reviewer: the disallowances		
Modeller: the cash bridge and the downside path		
Signatory: the exit multiple		
Reconciliations: statutory to audited; net debt to the facility definition; interest and amortisation reproduce		

Item	Removed?	Replaced by
Leave out		
Adjectives about management that no number supports		
A base case written as a forecast		
Any sensitivity that moves one variable at a time		
"Conservative", "prudent", "comfortable", "manageable" without a number beside them		

Halstead: 4.8780x statutory, 3.1915x management, 4.2164x lender, 6.4655x cash; 52.8455 per cent; leverage binds at 0.7895 per cent; 5.4437x needed in default.

Monitoring on one page, and the price in one line

Chapters 17 and 18. Rebuild the bridge each quarter; read the ratios last. A trigger set at the covenant is a breach, not a trigger.

Borrower		Analyst	
Facility		Date	

Line	At close	Trigger	Response	This quarter	Note or call
Add-backs, line by line against last quarter					
Leverage, lender's basis					
Cash cover, recomputed from the cash flow statement					
Maintenance capital expenditure, cumulative against plan					
Working capital, in days (receivables, inventory, payables)					
Top five customers: share and terms					
Order book; supplier terms; finance director					

Set every trigger between the figure at close and the covenant. On Halstead there is no room for a leverage trigger: close is 4.2164x and the covenant 4.25x, so Chapter 17's 4.1000x is tripped on the day of signing. Monitor the add-back lines instead: any line moving by more than 224,705.88 has moved by more than the whole distance to a breach.

The halfway review: still the credit that was approved?	Survived?
Add-backs: real and not real, as assumed	
Savings actioned	
Acquired contracts renewed	
Maintenance spend held	
Recovery assumption: still the right exit multiple	

Margin	LGD at exit assumed	Default rate assumed	Expected loss	Residual	Break-even default rate

Halstead: 4.0000 per cent of margin; 26.5201 per cent loss given default at 4.0x; 4.0000 assumed; 1.0608 expected; 2.9392 left; break-even at 15.0829 per cent. The gap between a 4.0x and a 3.0x recovery costs 2.94 times what 25 extra basis points of margin buy.