

The two positions

Chapter 19, step one. The draft you are about to sign against the best alternative genuinely available: a bid on the table, the incumbent's terms, a qualified supplier's paper. Never an ideal, and never nothing.

Contract / part		Prepared by	
Counterparty		Date	

Clause	The draft you will sign	The alternative you hold	Driver that turns it into money
Unit price and term			
Indexation: index, start, frequency, cap, floor			
Volume band: threshold, rate, applied to the year or the shortfall			
Rebate: threshold, rate			
Payment terms, and from what date			
Currency of denomination			
Liquidated damages: rate, cap, grace period			
Limitation of liability and the exclusion above it			
Warranty: duration, trigger date, remedy			
Change control: margin, audit of the base			
Force majeure: trigger, alternative sourcing, termination			
Tooling: title, lien, removal			
Termination for convenience: notice, stock, anniversary			
Audit, benchmark, change of control, exclusivity			

If the alternative is silent on a clause, its position is the absence of the clause. Tarnwick had no volume band, and that absence was worth 514,263.68. On the Larchmere agreement the eight lines with an operator took ninety minutes to write.

The six operational rates

Chapter 19, step two. They live outside procurement, and every one of them is already maintained by somebody for another purpose. Collect them once; the second contract takes ten minutes.

Contract / part		Prepared by	
Counterparty		Date	

Rate	Held by	Value	As at	What it prices
1. Cost of funds				
2. Cost of an hour of downtime on the line this part feeds				
3a. Defect rate on this part family				
3b. Cost of a field repair, all in				
4a. Engineering changes a year, last four years				
4b. Average value of a change				
5. Low case volume, from the published commercial plan				
6. Currency: exposure and the forward curve				

Larchmere, for comparison	
Cost of funds (treasury)	6.40 per cent
Downtime (plant standard cost file)	18,400 an hour
Defect rate and repair (quality)	0.42 per cent, 890 a repair
Changes (change system)	38, 47, 41 and 44 in four years; 14,600 average
Low case (commercial plan appendix)	50,200 units in year two, against a band at 55,000
Currency (treasury)	3.10 then a further 1.70 per cent against the buyer

Every one of these existed inside Larchmere on 3 October. None required a forecast of anything genuinely unknowable: 94.68 per cent of what the clauses cost was computable on the day of signature.

One line of arithmetic per clause

Chapter 19, step three, and Appendix B. Nine lines. A column for each position and one for the difference, which is the cost of the clause.

Contract / part		Prepared by	
Counterparty		Date	

Clause	Arithmetic	Signed	Alternative	Cost of the clause
Payment terms	spend x days conceded / 365 x cost of funds			
Indexation	compounded price path minus capped path, times volume			
Volume band	volume x price x surcharge, each year it triggers; test at the low case			
Rebate	payout x probability of clearing the threshold			
Liquidated damages	affected order value x cap; compare with hours x cost an hour			
Warranty	units x defect rate x share outside cover x repair cost			
Change control	changes a year x average value x margin difference x years			
Currency	spend after year one x cumulative expected movement			
Termination	notice volume x price gap + stock + tooling unamortised + tooling elsewhere			

Clause cost (sum of the incurred lines)		Divided by total volume	
Offered price		EQUIVALENCE PRICE = offered price less cost per unit	

Larchmere: $1,565,906.48 / 159,700 = 9.8053$ a unit; $104.00 - 9.8053 = 94.1947$. Indexation is shown and not added: its effect is already inside the price gap, and counting it twice is the commonest way this arithmetic goes wrong.

Three columns that are never added together

Chapters 2 and 19, step four. Incurred calls for a renegotiation, exposure for a carve-out and an insurer, a barrier for an exit plan built before you need it.

Contract / part		Prepared by	
Counterparty		Date	

Column one: INCURRED (paid, or certain to be)	Amount	Per unit

Column two: EXPOSURE (an event the contract did not transfer)	Size	Survives the exclusion?	Accepted in writing by

Column three: BARRIER (the cost of leaving)	Signed	Alternative
Notice period: volume in the notice x (contract price - market price)		
Stock and work in progress to be taken		
Tooling not yet amortised		
Tooling at an alternative supplier		
COST OF WALKING AWAY		

The three added together: a number with no owner and no next step. Do not write it here.

Larchmere: incurred 1,565,906.48; recall exposure 2,294,000 carried rather than transferred; walking away at the end of year two 2,009,092.93 against 978,830.47 under the rejected bid. Their sum, 5,868,999.41, means nothing.

The one-page brief

Chapter 18. What a negotiator carries into the room. Everything is per unit, in the currency the other side is already thinking in.

Contract / part		Prepared by	
Counterparty		Date	

Equivalence price		Below it we sign. Above it we do not, whatever the headline price says.
Clause cost per unit		Further discount required

MUST HAVE: open here	Per unit	Over the term	The sentence that goes with it

TRADABLE: one at a time, for the three above	Per unit	Over the term	Why the supplier may want it more than you

The walk-away: the alternative, its headline price, and what its terms are worth per unit	
Words not on this page	market standard, best practice, reasonable

Larchmere: 94.19 against 104.00. Must have: index cap 3.3708, volume band 3.2202, currency 2.8544, together 9.4454. Tradable: warranty 1.2335, change margin 1.1793, force majeure 0.5217, damages cap 0.5080, payment terms 0.2882. Walk-away: Tarnwick at 109.50 with terms worth 9.81 more.

The ledger and the smallest sufficient package

Chapters 17 and 18. Sort by worth, add from the top, and stop at the first line that clears the gap. Everything below the line is currency.

Contract / part		Prepared by	
Counterparty		Date	

Rank	Ask	Worth over the term	Per unit	Cumulative	Clears the gap?	Priority
1						
2						
3						
4						
5						
6						
7						
8						
9						

Gap to close: the net position against the alternative		per unit	
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Before the meeting	Answer
Which clauses multiply the whole spend (index, band, currency) and which only a subset (events, defects, changes)?	
Aligning the top one alone: how far from break-even does it leave you?	
What would each tradable be worth to THIS supplier: thin cash, volatile inputs, spare capacity?	
The trade in one sentence, per unit, both sides checkable on the back of the agenda	

Larchmere, corrected: no single clause turns the deal; the index cap alone leaves -901,798. The cap, the band and the currency together reach +21,104; the five below the line add 604,509. The best single fix closes 39 per cent of the gap.

The liability test

Chapter 9. Read the exclusion first and the cap second. The operations owner names the three worst outcomes and their cost; the legal reviewer says whether each survives. Twenty minutes.

Contract / part		Prepared by	
Counterparty		Date	

The three worst things this supplier could do to us	Cost (units x cost of the remedy)	Survives the exclusion?	Within the cap?
1.			
2.			
3.			

Item	Agreed?	Note
Carve-outs, asked for by name		
Product recall		
Third-party property damage		
Regulatory fines arising from the supplier's non-compliance		
Rework and re-inspection of affected goods		
Line stoppage (loss of use), at least up to a stated amount		
Evidence		
Product liability cover, amount, insurer, expiry		
Buyer named as additional insured, where the policy permits		
Evidence renewed annually, next date		

The sentence for the approval paper: "This agreement leaves _____ of _____ exposure with us; the alternative transferred it; we accept it because _____."

Larchmere: 1,850 machines at 1,240 = 2,294,000. The cap of 5,804,238.26 covered it 2.5302 times over and recovered nothing, because recall is consequential loss and the exclusion sat above the cap.

Volume, rebate and who carries the forecast

Chapters 4, 5 and 16. Test every threshold at the low case of your own plan, book the rebate at expected value, and list every clause whose value depends on volume.

Contract / part		Prepared by	
Counterparty		Date	

Scenario (published plan)	Units	Band triggered?	Rebate earned?	Spend	Per unit	Weight
Low						
Base						
High						

The five questions	Answer
Volume 20 per cent below forecast: what changes in the price, in money?	
Volume 20 per cent above forecast: what changes in the price?	
Volume zero in a period: what do we still owe?	
Programme cancelled: who carries tooling, stock and notice?	
Are the first two answers symmetric? If not, what is the asymmetry priced at?	

Clause whose value depends on volume	Threshold	Value at the low case

Larchmere, year two at 109.4133: 114.34 a unit at the low case, 109.41 at the base, 107.77 at the high. Twenty per cent below forecast (49,600) costs 244,210 of surcharge; twenty per cent above (74,400) earns 122,105 of rebate. The asymmetry is in the thresholds: 55,000 inside the downside, 65,000 outside the base.

Delivery, warranty and change control

Chapters 8, 10 and 11. The damages clause is a deterrent, not a recovery; the warranty is measured against your own obligation; the change margin has a base you must be able to see.

Contract / part		Prepared by	
Counterparty		Date	

Delivery	Value
Hours lost x cost an hour = loss	
Affected order value x cap = recovery	
Recovery / loss (below a quarter: buy the buffer)	
Maximum damages / supplier margin on the order (the deterrent test)	
Buffer: extra days x average annual spend / 365 x carrying rate	

Warranty	Value
Downstream warranty + delivery-to-commissioning lag - supplier warranty = window	
Trigger: delivery, commissioning, or the earlier of commissioning and N months	
Remedy: the part only, or the cost of the failure?	
Share of defects surfacing by 12, 24 and 36 months (your field curve)	
Replaced parts: fresh warranty period?	

Change type (from the change log)	Count a year	Rate card price	Cost-plus?
Dimensional or tolerance: fixture adjustment and first article			
Material or finish substitution			
Substantive redesign			
Audit right over the base, once a year			

Larchmere: 12.69 per cent of 639,400 recovered; 14 extra days of buffer at 12 per cent carrying cost 26,852 a year. Window 36 + 5.2 - 12 = 29.2 months. 43 changes a year at 14,600: ten points of margin cost 188,340; a ten per cent overstated base, 229,775.

Continuity and exit

Chapters 12, 13 and 14. Compute the cost of leaving on the day you sign, in a bad scenario, and review it every year.

Contract / part		Prepared by	
Counterparty		Date	

Force majeure staircase	Signed	Asked for
Trigger defined, or a list?		
Reaches the supplier's own supply chain?		
Right to source elsewhere after N days, without liability		
Volume band and minimums suspended during and after		
Termination if the event persists beyond N days		
Allocation on a fair and non-discriminatory basis		

Tooling: three questions	Answer
If we gave notice tomorrow, when could we physically remove it (lien, clear account, cooperation)?	
Could anybody else use it? Ask engineering, not the contract.	
What would a second source cost to tool, today?	

Exit cost, bad scenario	Signed	Alternative
Notice volume x (contract price - market price)		
Stock and work in progress, capped at N weeks?		
Tooling unamortised		
Tooling at an alternative supplier		
TOTAL		
Benchmark clause: interval, panel, band, exit if refused		

Larchmere at the end of year two: $49,900 \times 20.1174 + 476,901.34 + 113,333.33 + 415,000 = 2,009,092.93$; with six months' notice, 978,830.47. Force majeure: seven weeks, 6,800 units at 138.00; beyond the four-week trigger, 83,309.93.

The first ninety days

Chapter 21. A nine-row register, two charts, and a review cadence that fits in the diary. A plan that takes longer to read than to run will not be run.

Contract / part		Prepared by	
Counterparty		Date	

Row	Mechanism, one line	Driver	Value at signature	Owner (a person)	Trigger
Price					
Indexation					
Volume band					
Rebate					
Payment terms					
Liquidated damages					
Warranty					
Change control					
Currency					

Cadence	What	Done
Monthly, 10 minutes	Rolling twelve-month volume against every threshold	
Quarterly, 30 minutes	Index revision checked; price path against the rejected bid, drawn forward	
Annually, half a day	Real market quotation; exit cost recomputed; exposure register re-read; decision to stay, in writing	
Days 30 to 60	Second source qualified at low volume; index reading process; change rate card agreed	

Larchmere signed on 19 December and next compared the agreement with its outcomes in month twenty-six. On the price chart the lines cross in month nineteen, visible six months before it happens.

Forty questions before signature (1 to 23)

Appendix C. Ordered by what they were worth on the Larchmere agreement, not by where the clauses sit. The first fifteen would have found everything in the book.

Contract / part		Prepared by	
Counterparty		Date	

#	Question	Answer / value
Price and indexation		
1	What index is the price tied to, who publishes it, and how volatile has it been over five years?	
2	When does indexation start, and how often is the price revised after that?	
3	Is there a cap? What is it worth, in money, against our own commodity forecast?	
4	Is there a floor, and is the clause symmetric?	
5	Our price path against the rejected bid's: in which month do they cross?	
6	Who calculates the revision, and may we see the working?	
Volume		
7	What volume does every threshold assume, against the low case of our plan?	
8	Price effect of volume 20 per cent below forecast? 20 per cent above?	
9	Does the surcharge apply to the shortfall or to the whole year?	
10	Rebate threshold above or below our base case? Worth at expected value?	
11	Are we committing to a share of requirements, and what are we paid for it?	
12	Has the supplier committed to any capacity in return?	
Currency and payment		
13	In whose currency is this priced, and has treasury been told?	
14	What would the supplier charge to price in our currency?	
15	What are the payment terms worth at our cost of funds?	
16	Is there an early-payment discount, and what does it annualise at?	
17	Forty-five days from what: invoice date, receipt, goods receipt, acceptance?	
Delivery		
18	What does an hour of downtime cost on the line this part feeds?	
19	What share of that loss do the liquidated damages recover?	
20	Maximum damages as a share of the supplier's margin on the order?	
21	Is there a grace period, and how many historic late deliveries fall inside it?	
22	May we source elsewhere at the supplier's cost after repeated failure?	
23	How many days of buffer stock, and what would a stoppage have cost last year?	

Question 13 is the currency: the cheapest 455,844.71 anybody will save. Chapter 7 refers to it as question eleven.

Forty questions before signature (24 to 40)

Appendix C, continued, and the four questions that decide whether the answers to the forty make any difference.

Contract / part		Prepared by	
Counterparty		Date	

#	Question	Answer / value
Liability and warranty		
24	The three worst things this supplier could do to us, and the cost of each?	
25	Does each survive the exclusion of indirect and consequential loss?	
26	Are product recall and third-party property damage carved out?	
27	What is the cap, and is it relevant given question 25?	
28	What insurance does the supplier carry, evidenced this year?	
29	Our own warranty, from the same starting point as theirs?	
30	Delivery-to-commissioning lag, and does the warranty run from the right date?	
31	Do replaced parts get a fresh warranty period?	
32	Does the warranty cover the cost of the failure or only the part?	
Change control and administration		
33	Engineering changes in each of the last four years, and their average value?	
34	Margin on changes, and the difference against the alternative over the term?	
35	Can the repetitive change types go on a rate card?	
36	May we examine the cost base the margin is applied to?	
Continuity and exit		
37	Beyond four weeks of force majeure: may we source elsewhere, is the band suspended?	
38	If we gave notice tomorrow, what would leaving cost, line by line?	
39	Is the tooling free of any lien, and would it work at another supplier?	
40	If the supplier is acquired, would we learn it from the contract or the trade press?	
The four after the forty		
+	Who owns each of these answers after signature, by name?	
+	What is the equivalence price, and is the offered price below it?	
+	Which three clauses, if we fixed only three, would change the outcome?	
+	When is the next market test, and who has put it in a calendar?	

Question 27 reads: what is the cap, and is it relevant given the answer to question 25? At Larchmere it was not: the exclusion had already removed all three worst outcomes.