

Reading a loan tape

Chapter 3. About twelve of a hundred and twenty columns matter. For each, write what the tape shows and what it conceals; then run the cross-check nobody runs.

Deal		Analyst	
Class / position		Date	

Column	What it really tells you	This tape	Concern?
Balance and concentration: top five, top ten, largest loan against the first-loss class			
Property type, and type x vintage x market			
Coupon: gross, and net of top-of-pool fees			
Loan-to-value: appraisal over balance, and whose appraisal			
Debt service coverage: on which debt service (interest-only or amortizing)?			
Amortization: interest-only loans do not deleverage			
Term and maturity dates, clustered			
Sponsor, repeated across loans			
Reserves and holdbacks, funded or not			
Lease rollover: the schedule, not the summary			
Additional debt: mezzanine, preferred equity			
Environmental and engineering flags			

The cross-check: income recovered from the coverage column, valued at a market rate on the same net-cash-flow basis

Step	Value
Pool net cash flow = sum of (coverage x contractual debt service), amortizing basis	
Sum of appraisals = sum of (balance / loan-to-value)	
Implied capitalization rate = net cash flow / appraisals	
Market rate (net cash flow basis) and the gap in basis points	
Value at the market rate, and pool leverage recomputed at that value	

Meridian 2026-C1: \$107.02 million of income, 6.41 per cent implied against 6.40 per cent, leverage 59.9 to 59.8 per cent: a clean tape. A rate quoted on net operating income is not comparable. Three things the tape will not tell you: whether the sponsor has money left, whether the appraiser was early or late, whether the largest tenant has told its broker it is leaving.

Underwritten cash flow, rebuilt from the outside

Chapter 4. Rebuild the largest loans from a rent, a vacancy and an expense load, without the tape. Three readings two competent analysts might defend.

Deal		Analyst	
Class / position		Date	

Line (per square foot or per unit, and in dollars)	Conservative	Central	Generous
Face rent			
Stabilized vacancy (higher of actual, submarket, about 5 per cent floor)			
Gross potential rent			
Less vacancy			
Plus other income (parking, signage; no termination fees)			
Effective gross income			
Less operating expenses (market management fee 3-4 per cent; taxes reassessed at the price)			
Net operating income			
Less replacement reserves			
Less tenant improvements and commissions, against expected rollover			
Net cash flow			
Contractual debt service (amortizing if the loan amortizes)			
Implied coverage ratio			
Tape coverage ratio, and the gap			

Item	Answer	Evidence / note
Before you trust the numerator		
In-place rents above market marked down (below-market rents are not marked up)		
Income from leases expiring inside the loan term adjusted		
Reserves plus leasing costs as a share of net operating income: which of the two numbers are you shown?		
Coverage ratios compared only between loans with the same amortization		

Harborline Center: tape income \$8.374 million, central rebuild \$8.354 million, 0.24 per cent apart; conservative 1.28x, generous 1.65x: a spread of 0.37x without a single fact changing. Dropping reserves and leasing costs (14.9 per cent of NOI) would show 1.73x.

The stack, the iso-loss curve and the rating

Chapters 5 to 7. Credit support from the stack, never from the term sheet. The senior block is cut in time, not in credit.

Deal		Analyst	
Class / position		Date	

Class	Rating	Size	Senior block?	Everything below	Credit support	Support, dollars

The iso-loss curve: default rate that breaches each class = credit support / severity

Loss severity	Senior block	Mezzanine	Lowest investment grade	Lowest rated	Your class
25 per cent					
35 per cent					
45 per cent					
55 per cent					
65 per cent					
Chapter 16 severity (realized, not appraisal)					

Presale report, top ten loans	Agency value / appraisal	Agency LTV	Agency loss expectation
Loan 1			
Loan 2			
Loan 3			
Loan 4			
Loan 5			

Worst vintage in the loss study, not the average: default rate x severity, once with the study severity and once with a realized one. The dispersion between agencies is larger at AAA than at BBB: senior ratings are tail statements.

The waterfall and the cash reconciliation

Chapters 8 to 10. Interest down, principal down, losses up, advances off the top. Prove the waterfall with an identity: every dollar in leaves by one door.

Deal		Analyst	
Class / position		Date	

Sources, over the life	\$	Uses, over the life	\$
Interest, performing loans			
Interest, defaulted loans before default			
Interest advanced by the master servicer			
Scheduled amortization			
Balloon principal			
Liquidation proceeds			
Total			

Uses, in order: master servicing and trustee fees; special servicing fees; liquidation fees; legal and property protection; repayment of advances; interest to certificates; principal to certificates. Realized loss is not a use: it is issued less principal distributed.

Interest-only strip	Value
Notional (which classes are stripped?)	
Net pool coupon less the coupon on the referenced classes	
Strip a year, and what shrinks the notional	
Share of yield maintenance the documents give the strip	

Yield maintenance on a prepayment	Value
Balance, coupon, years remaining	
Matching Treasury rate	
Make-whole: present value of (coupon less Treasury) on the balance, at the Treasury rate	
Per cent of balance (zero when the Treasury rate reaches the coupon)	
Defeased balance in the pool, and what is left for the junior classes	

Meridian: \$9.09 million of the \$571.3 million of certificate interest, 1.59 per cent, was advanced rather than collected, and taken back out of liquidation proceeds. A 6.55 per cent loan with six years left pays 22.31 per cent of balance at a 2.50 per cent Treasury and nothing at 6.55.

The borrower's side of a securitized loan

Chapter 11. The relationship manager is replaced by a platform with a case number. Know who decides before you ask.

Deal		Analyst	
Class / position		Date	

Request	Who decides	Difficulty	Your case: date asked, answer
Routine consent (minor lease, service contract)	Master servicer	Low	
Major lease approval	Master servicer, sometimes the controlling class	Moderate: read the threshold first	
Release of reserve funds	Master servicer	Low if the conditions are met exactly	
Assumption on sale	Master servicer, rating agency confirmation	High: months, fees, a re-underwrite	
Partial release of collateral	The documents	High to impossible	
Additional or mezzanine debt	Usually prohibited	Read the covenant	
Defeasance	A defined process	Expensive, reliable	
Extension or modification	Special servicer only	Needs a transfer	
Discounted payoff	Special servicer, controlling class	Only in real distress	

Before asking for time on a maturity	Your numbers
What will the refinancing market lend, and which constraint binds?	
The gap, in dollars and per cent of balance	
What the sponsor will fund, and when	
Imminent default letter: consequences on both sides understood?	

Item	Answer	Evidence / note
Five rules		
Read the lease approval thresholds, reserve release conditions, transfer provisions and recourse carve-outs now		
Never trip a carve-out casually: voluntary bankruptcy and unpermitted transfer convert the whole debt		
Allow four to six months and a fee budget for an assumption		
Everything in writing with the servicer		
The fees are set in an agreement you never saw		

Transfer to special servicing: the first ninety days and the fee stack

Chapter 12. The transfer is the single most informative event in a loan's life. Read a situation from a dated line.

Deal		Analyst	
Class / position		Date	

Window	Event	Date seen	Note
Trigger: 60 days delinquent, maturity default, bankruptcy, breach, or a letter (imminent default)			
Days 1-15: file moves; springing lockbox springs			
Days 10-30: inspection; appraisal ordered			
Days 20-45: borrower proposal (capital, deed in lieu, time, or silence)			
Days 60-120: appraisal lands; reduction computed; advancing capped; shortfall starts			
Days 60-90: asset business plan; controlling class consulted			

Fee	Basis	This loan, a month	This loan, to resolution
Special servicing fee (25 bp a year on the balance)			
Workout fee (1 per cent of collections, if returned to performing)			
Liquidation fee (1 per cent of proceeds, if sold)			
Legal and property protection (at cost)			
Interest advanced (balance less reduction, at the coupon)			

Advances	Value
Interest advanced a month, before any reduction	
Months in special servicing so far	
Principal advances (amortizing loans), and their effect on severity	
Non-recoverable determination made? (read it as a write-off)	

Marlowe Tower: \$322,792 a month advanced; over 22 months without a reduction, \$7.10 million, 11.6 per cent of the balance. The monthly fee is \$12,708 against a \$452,000 liquidation fee; the workout fee is the larger pull, toward extension.

Appraisal reduction, interest shortfall and control

Chapters 13 and 14. The first loss is a loss of coupon, and control can move before a dollar of principal is written.

Deal		Analyst	
Class / position		Date	

Loan	Balance	Advances and accrued, to the appraisal	90% of new appraisal	Reduction	Net coupon	Monthly shortfall

Allocation, bottom class up	Value
Combined monthly shortfall	
Bottom class monthly coupon	
Spill into the class above, and its share of that class's coupon	
Months to the last liquidation, and the coupon receivable they build	

Control	Value
Controlling class today, original balance	
Threshold: 75 per cent of that balance in cumulative reductions	
Cumulative reductions allocated so far	
Distance to the line, in dollars and as one more loan of what size	
Who holds the class above, and what does it want?	

Item	Answer	Evidence / note
Five causes of shortfall: name the one on the page		
Appraisal reduction (predictive)		
Weighted-average-coupon cap (permanent, not predictive)		
Special servicing and workout fees		
Reimbursement of a non-recoverable advance from general collections		
Modification: rate cut or deferral		

Meridian: \$39.92 million of reductions, \$217,173 a month against a \$196,612 coupon; \$20,562 spills into G. Control passes at \$28.13 million, after the second loan, in year 4.

Wait or sell, and the liquidation bridge

Chapters 15 and 16. The cost of waiting accrues on the loan; the benefit accrues on the building. Then take the severity apart.

Deal		Analyst	
Class / position		Date	

One more year	With the reduction	Without it
Balance on which interest is advanced		
Advanced interest, one year		
Special servicing fee, one year		
Total cost of one year		
Required appreciation, on the appraisal known today (not the eventual price)		

Omissions and their direction: income during the hold (waiting looks worse than it is); capital to hold the asset (better); the sponsor's option (worse); transaction costs (excluded, correctly). With a reduction in place the advancing balance is at most 90 per cent of the appraisal, so the break-even barely moves with the depth of the default.

The bridge	\$	Per cent of loan
Sale proceeds		
Less liquidation fee		
Less special servicing fee, over the months in special servicing		
Less legal and property protection		
Less repayment of servicer advances		
Net proceeds to the trust		
Realized loss and severity		
Appraisal severity		
Gap: advance repayment, and fees and expenses		

Marlowe Tower: \$2.79 million a year, 5.86 per cent (8.48 without the reduction). Severity 25.90 to 37.24 per cent; 8.59 points of the 11.34 are advanced interest. Each extra month adds \$232,095 to the loss.

The first-loss bid, and risk retention at fair value

Chapters 18 and 19. State the required yield and the loss case; the price falls out. Then do the retention test on fair values, not face.

Deal		Analyst	
Class / position		Date	

The bid	Value
Face of the block, and its credit support	
Net coupon	
Required yield	
Loss case: size, and year of the write-down	
Years of coupon lost to the reduction before the write-down	
Price: present value of the cash flows at the required yield, cents	
Return at zero, loss in year of case; where the top class starts to be written down	

Return at the price	Loss in year 2	Loss in year 5	Loss in year 8
Pool loss 2.0 per cent			
3.0 per cent			
4.0 per cent			
5.5 per cent			
7.0 per cent			

Retention test	Value
Rated classes at market coupons, about par	
First-loss block at its price	
Interest-only class: strip a year, discounted over an assumed life	
Fair value of the whole structure; five per cent of it	
Covered by the block, and the gap: larger block, L-shape, or the sponsor	

Meridian: 45.37 cents, \$34.03 million. 4.68 per cent in year 8 is worth 3.0 per cent in year 2. The block covers 3.36 per cent of \$1,013.3 million, not five: \$16.64 million short. Losses of 4.47 per cent, written in year 5, return 8.02 per cent.

Maturity default or term default? The triage

Chapter 23, with Chapter 20. First question for every delinquent loan: has the income fallen, or only the value?

Deal		Analyst	
Class / position		Date	

The refinancing test	Value
Balance at maturity (after scheduled amortization, not the original)	
Net cash flow now	
Value at today's capitalization rate	
Maximum loan on debt yield	
Maximum loan on loan-to-value	
Maximum loan on coverage (rate, amortization)	
Binding constraint, and the gap	
Income that closes the gap, and the rise it needs	
Sale price at which the trust loses its first dollar; the discount to value	

Endings	Value realized	Severity
Extension, then sale		
Forced sale		
Term default (income falls): full Chapter 16 bridge		

Single-asset class	Size	Attaches at % of value	Credit support	Value fall before impairment	Same, after the queue

Fenwick: \$39.85 million owed, \$38.70 million on loan-to-value, gap \$1.15 million (2.89 per cent); \$5.30 million interest-only. No loss until the sale is 31.89 per cent below value. A single-asset class is a leverage statement on one building, and its cushion is thinner after fees and advances.

CRE CLO: the equity, the test, the mandate

Chapter 21, with Chapter 22 for a European deal. The haircut, not the trigger, is where the protection lives.

Deal		Analyst	
Class / position		Date	

Retained equity	Value
Asset yield: reference rate + margin + fees	
Cost of the notes: reference rate + margin + issuance	
Advance rate, and leverage	
Return before losses: (asset yield - advance x cost - management) / equity	
Annual loss rate that takes it to zero; per quarter	
Is the retained equity financed (repo)?	

Overcollateralization	Value
Ratio at closing and the trigger	
Definition of a defaulted or credit-risk obligation	
Carrying value of a defaulted loan, and who sets it	
Default rate at which the test fails	

Item	Answer	Evidence / note
Read before anything else		
Eligibility criteria and concentration limits for reinvestment: the worst pool the manager could legally hold		
Modification rights: can the manager keep a loan out of the defaulted bucket?		
The manager's retained interest, and how it is funded		
European deal (Chapter 22)		
Advancing obligation: weak or absent? Then shortfalls hit the bottom classes at once		
Valuation triggers and control provisions: read the servicing agreement first		
Enforcement jurisdiction: the largest single driver of severity		

Chapter 21: 13.35 per cent before losses, gone at 2.67 per cent a year. At a 90 per cent carrying value the test fails at a 76.00 per cent default rate; at 30 per cent, at 10.86.

The monthly surveillance pass

Chapter 25 and Appendix B. Thirty minutes, in this order, and six ratios the report never prints. Every ratio on the pool outstanding today.

Deal		Analyst	
Class / position		Date	

Page, in this order	Read	Note
Certificate distribution detail: balances, interest, shortfalls, losses by class		
Interest shortfall reconciliation: which cause, which class, first time?		
Delinquency and specially serviced schedules: split income problems from refinancing problems		
Appraisal reduction detail, with dates: control distance		
Realized loss detail: recompute severity from the components		
Watchlist: the reason codes		
Loan-level file: direction of travel against the tape		

Ratio	This month	Last month
Effective credit support: subordinate balances / current pool		
Loss-adjusted support: less reductions outstanding		
Implied capitalization rate: reported income / appraised value		
Specially serviced balance, by property type		
Time in special servicing, by loan (advanced interest accruing a year)		
Control distance: cumulative reductions / controlling class original balance (line at 75 per cent)		

Stress scenario (default rate and severity by type)	Pool loss	First class written down	Headroom	Resolution year	First-loss return

Meridian, four months after the transfers: 12.26 per cent specially serviced, \$39.92 million of reductions, class F loss-adjusted support 1.28 per cent against 5.25 stated, control at 106.4 per cent of class H: already passed to G, with the loss column still at zero.

Fifty questions before you buy

Appendix C. 1-17 from the tape in an afternoon; 18-33 once per deal; 34-44 every month; 45-49 CRE CLO or single-asset only. Senior buyers can stop at thirty.

Deal		Analyst	
Class / position		Date	

#	Question	Answer	#	Question	Answer
1	What is the pool balance, the loan count, and the balance of the largest five loans?		26	Is there any retained excess spread, or was all of it stripped at closing?	
2	What is the weighted average coupon, and what is it net of top-of-pool fees?		27	Who is the master servicer, and what is its advancing history?	
3	What is the weighted average loan-to-value, and from what appraisal dates?		28	Who is the special servicer, who appointed it, and what is its resolution record?	
4	What is the weighted average coverage ratio, and on what amortization basis?		29	What is the special servicing fee, the workout fee and the liquidation fee?	
5	Recompute pool income from the coverage ratios. Does it reconcile with the appraisals at a market capitalization rate?		30	Who is the operating advisor, and what are its rights?	
6	What is the capitalization rate implied by the tape, and how does it compare with the market?		31	Who holds the controlling class today?	
7	How much of the pool is interest-only for its full term?		32	What cumulative appraisal reduction moves control, and how far away is that?	
8	What is the property type concentration, and the submarket concentration within it?		33	What is the risk retention structure, and is the retained interest financed?	
9	Are any sponsors repeated across loans?		34	Are there loans already on the watchlist, and for what reason codes?	
10	What proportion of the pool has a lease expiring inside the loan term?		35	Are any loans already specially serviced, and since when?	
11	Which loans have unfunded reserves against known future costs?		36	For each specially serviced loan, the cost of a further year of waiting.	
12	Is there mezzanine or preferred equity behind any loan in the trust?		37	For each, the break-even appreciation rate.	
13	How are the maturity dates distributed?		38	For each delinquent loan: has income fallen, or only value?	
14	What underwriting adjustments were made to reach net cash flow, loan by loan, on the top ten?		39	For each maturity default: the refinancing gap and the binding constraint.	
15	Were real estate taxes reassessed at the transaction price where applicable?		40	At what discount to stabilized value does each maturity default become a loss?	
16	What replacement reserve and leasing cost deductions were applied?		41	What advances are outstanding, and against which loans?	
17	What evidence is there in the final pool of what the first-loss buyer removed?		42	Have any advances been declared non-recoverable?	
18	What is the capital structure, class by class, with credit support computed from the stack?		43	What interest shortfalls have been recorded, in which classes, and why?	
19	Which class is the lowest investment grade, and what is its credit support?		44	How much of the pool has been defeased, and what does the residue look like?	
20	What is the first-loss block, at what price, and to what yield?		45	CRE CLO: eligibility criteria and concentration limits for reinvestment?	
21	What loss scenario supports that price, and at what timing?		46	CRE CLO: how is a defaulted obligation defined, and at what haircut carried?	
22	What is the break-even default rate at fifty-five percent severity for the class you are buying?		47	CRE CLO: at what default rate does the overcollateralization test actually fail?	
23	At what cumulative loss does your class begin to be written down?		48	CRE CLO: the manager's retained interest, and is it levered?	
24	At what cumulative loss does your return reach zero?		49	Single-asset deal: the rent roll, the expiry schedule and the tenant credit?	
25	What is the interest-only class's notional balance, and which classes does it strip?		50	If this deal loses money, who decides what happens next, and what do they want?	