The cash flow series, built once

Chapter 2. Every metric is computed from one object: dated flows plus a terminal value. Build it once, in one place, and reconcile it every quarter, not when a board paper needs a number.

Fund / program		**Analyst**	
Manager		**As of**	

Date of the cash movement	Amount	Currency	Rate on that date	Type (contribution / distribution / recallable / in kind)	Fee-related?	Source document

Item	Answer	Evidence / note
Contributions: seven traps		
Fee and expense calls included in paid-in		
Recalled distributions shown as a new contribution, the original distribution left in place		
Equalization on later closings, on the date paid		
Capital called and returned unused: both flows, on their dates		
Each flow converted at the rate on its own date; residual at the measurement date		
Date of the cash movement, not of the notice		
Calls after the investment period: fees, follow-ons, expenses, indemnities		
Distributions: four traps		
In kind: at the value assigned when distributed; treatment stated		
Net of withholding: what the investor actually received		
Return of capital or profit: noted, arithmetic unchanged		
Recallable: flagged on arrival		

The reconciliation test, every quarter	Left	Right	Difference
Contributions to date + commitment remaining = commitment (adjusted for recycling)			
Contributions – distributions + cumulative gains = residual value (capital account identity)			
This series = manager's capital account statement, to the currency unit			

The most common source of a wrong performance figure is not a wrong method; it is a series that quietly diverged from the manager's records two years ago.

Reading someone else's number

Chapters 1, 3 and 8. Six questions before any private markets figure is quoted, and the seven conventions that make two honest sources differ by a hundred basis points or more.

Fund / program		**Analyst**	
Manager		**As of**	

Question	Answer	Source
Over what period: since inception, or a point-to-point window?		
Net of what: fees, carry, fund expenses, the investor's own costs?		
How much is unrealized, as a share of total value?		
Was a subscription facility used? Are both figures available?		
Compared to what: a public market equivalent, a peer universe, or nothing?		
Pooled or average, for any aggregate figure?		

Convention	Source A	Source B	Likely effect
Daily-dated or quarterly-dated flows			
Residual value net or gross of accrued carry			
Fee contributions in paid-in capital			
Currency at flow dates or at one rate			
Recallable distributions netted			
Start at first cash flow or at commitment			
Annualized by compounding or multiplied			

The reporting line (chapter 8)
Since inception to ______ · net IRR ____% · TVPI ____x · DPI ____x · ____% of value unrealized · residual value net / gross of accrued carry · daily / quarterly / annual flows · subscription facility adjustment applied: yes / no

Annualize a quarterly rate as (1 + q) to the fourth, minus 1. Multiplying by four understates by about 20 to 80 basis points at rates of 8 to 15 per cent: 43 on the book's 11.07.

The multiples, and how much is a mark

Chapters 5 and 6. The multiple has no timing sensitivity; the realized share says how much of the record has met a buyer; the rate with and without the residual value prices the mark in basis points.

Fund / program		**Analyst**	
Manager		**As of**	

Figure	Value	Note
Paid-in capital (fee calls included)		
Distributions		
Residual value, net of accrued carry		
DPI = distributions ÷ paid-in		
RVPI = residual ÷ paid-in		
TVPI = DPI + RVPI		
Realized share = DPI ÷ TVPI		
Since-inception IRR, residual as the final flow		
IRR on realized flows only		
Contribution of the mark, bp (the difference)		
Gross multiple quoted? On invested or paid-in capital?		

Exit-to-mark test: realization	Carrying value, quarter before exit	Proceeds	Proceeds ÷ mark	Holding period	Multiple

Valuation test	Finding	Signal
Write-downs: investments ever marked below cost in prior funds, when, by how much		
Cost anchor: assets held at exactly cost, and for how long (normal in year one, a signal after three)		
Valuation adviser, advisory committee consent, method per investment disclosed		

The sentence to put beside every TVPI: TVPI ____x, of which ____x realized: ____ per cent of reported value has been received in cash.

The subscription facility test

Chapter 7. The same capital, called later: the rate rises, the multiple falls a little, nothing underneath changes. Ask for both figures and for the terms that control it.

Fund / program		**Analyst**	
Manager		**As of**	

Measure	Without the facility	With the facility	Difference
Since-inception IRR			
TVPI			
DPI			
Paid-in capital			
Interest paid by the fund, total			

Term	Answer	Note
Facility size, as a share of commitments		
Maximum period any drawing may remain outstanding (the control)		
Average period drawings actually remained outstanding		
Interest rate and who bears it		
Can the manager produce the unlevered figures without difficulty?		
Used across successive funds? Track record restated for each?		

Realized investment	Entry	Exit	Holding period	Multiple	IRR

A facility repayable within ninety days is a bridging tool; one that may remain outstanding for a year is leverage that flatters the return. On the book's fund a one-year deferral, the interest paid out of distributions, adds about 170 basis points and takes 0.045 off the multiple.

The public market equivalent worksheet

Chapters 9 and 10. The only calculation that says whether the illiquidity was worth accepting. The method matters less than the index; record both, and the date, every time.

Fund / program		**Analyst**	
Manager		**As of**	

Index choice	Answer	Note
Asset class of the index, and why it is the alternative actually held		
Size and geography match		
Total return (dividends reinvested)? Yes / no		
Chosen in the investment policy, before the commitment? Date		
Leverage: noted / levered index / sector-matched		
Policy premium, set in advance		

Method	Result	What it says	Usable?
Kaplan-Schoar		wealth ratio: above 1.0, the fund beat the index	
Long-Nickels		synthetic terminal value; fails when negative	
PME+ (lambda = ____)		the index rate on the fund's own timing	
Direct Alpha		annualized geometric excess	

Figure	Value	Note
Fund IRR		
PME+ rate		
Geometric excess (1 + IRR) ÷ (1 + PME+) – 1		
Arithmetic difference: NOT to be quoted as excess		
Hurdle: index plus premium, and margin		
Realized flows only: does the conclusion survive without the marks?		
Contribution to the total portfolio: excess × allocation		

Line to report: against ______, total return, from first cash flow to ______: Kaplan-Schoar ____ · Direct Alpha ____% a year · PME+ ____% against the fund's ____% · hurdle cleared / not · ____% unrealized.

The peer comparison, with its numbers

Chapters 11 and 12, Appendix F. Step seven of chapter 19 written the way every other step is: N, X and Y, the precision of the boundary, and the size of the bias.

Fund / program		**Analyst**	
Manager		**As of**	

Figure	Value	Note
N, cohort size (the cohort, not the database)		
X, cohort median		
Y, top-quartile boundary, and how it is drawn (rank cut floor / ceiling / interpolated)		
Fund's rank and quartile on IRR / TVPI / DPI		
Standard error of the boundary: 1.3626 × dispersion ÷ √N		
95 per cent range on the boundary (± 1.96 standard errors)		
Bias gap for this universe (Appendix F: about 180 to 560 bp)		
True median = X – gap; the fund's standing against it		

To the provider	Answer	Published?
How many funds are in this cohort?		
Manager-reported, investor-reported or public?		
Net of fees and carried interest?		
How is vintage defined?		
Are funds added retrospectively (backfill)?		
What is the cutoff date, and the lag?		
How is the boundary drawn when N is not divisible by four?		
On how many ranking bases is this fund top quartile, and on how many not?		

Below about 63 funds the 95 per cent interval on the top-quartile line is wider than the second quartile itself: "top" and "second" are not distinguishable. Report the ranking as indicative, and the public market equivalent as the primary benchmark.

The portfolio page

Chapter 13. Pool, never average; decompose the pooled figure; and report exposure, not net asset value, in any allocation context.

Fund / program		**Analyst**	
Manager		**As of**	

Figure	Value	Note
Pooled since-inception net IRR (all flows on the calendar, all residual values)		
Simple average of the fund IRRs (for the record only)		
Aggregate TVPI and DPI		
Share of total value unrealized		
Public market equivalent, program level		
Number of managers and of funds		

Decomposition	Pooled IRR	TVPI	DPI	PME	Paid-in
By vintage:					
By vintage:					
By vintage:					
By strategy:					
By strategy:					
By strategy:					
By manager:					
By manager:					
By manager:					

Denominator	Amount	% of total assets	Note
Total commitments			
Paid-in capital			
Net asset value			
Undrawn commitments			
Total exposure = NAV + undrawn			

On the book's three funds the simple average overstates the pooled return by about two points, all of it from the smallest fund. If the pooled rate and the aggregate multiple tell different stories, the difference is duration.

The pacing page

Chapter 14. To hold a target you commit more than the target, every year; the stress case is the one where distributions halve and calls continue.

Fund / program		**Analyst**	
Manager		**As of**	

Year	Commitments	Calls	Distributions	Net cash flow	NAV	Undrawn	Exposure % of assets
-4							
-3							
-2							
-1							
This year							
+1							
+2							
+3							

Stress: distributions halve	Calls	Distributions	Net	Allocation vs limit	Funded from
+1					
+2					
+3					

Figure	Value	Note
Target allocation, range and limit		
Steady-state annual commitment (a fifth to a third of the target)		
Vintage diversification: largest year as a share of commitments		
Public fall that breaches the limit on the day: 1 – (NAV ÷ limit – NAV) ÷ public assets		
Program return pooled across funds		
Program return on the allocation, liquidity included		

The last two lines are the ones that change conversations: the allocation's return sits below the funds' by an amount set by how much liquidity the institution holds against its calls.

The gross-to-net bridge

Chapter 15. Once a year, per manager and per program: what the program produced, and what it cost. Always state what the gross figure is gross of.

Fund / program		**Analyst**	
Manager		**As of**	

Layer	Rate or bp	Money	Source
Gross return before management fees, fund expenses and carried interest			
Management fees			
Fund expenses			
Carried interest (paid and accrued)			
Net return to the investor			
Institution's own program costs (staff, consultants, custody, legal, liquidity)			
Net return after all costs			

Item	Answer	Evidence / note
Fee report to a recognized template		
Management fee charged, gross		
Offsets credited against it		
Management fee, net		
Fund expenses by category		
Carried interest paid and accrued		
Fees from portfolio companies, and the share credited back		

Figure	Value	Note
Fees, expenses and carry as a share of the value created		
Effective annual fee load: fees and expenses ÷ average NAV, annualized		
Waterfall: whole-fund or deal-by-deal; preferred return; catch-up		

A gross figure that adds back only fees and expenses leaves the carry inside the net: on the book's fund, carried interest of 20 per cent over 8 per cent would take the whole gap from about 320 to about 480 basis points.

Attribution: where the return came from

Chapter 16. Four sources at program level, and the value-creation decomposition at fund level. The market is most of it; say so in good years as well as bad.

Fund / program		**Analyst**	
Manager		**As of**	

Strategy × vintage cell	Program weight	Neutral weight	Program return	Cell benchmark	Allocation effect	Selection effect

Source	Contribution	One plain sentence
Market: total capital × overall benchmark return		
Strategy allocation		
Vintage allocation		
Manager selection		
Interaction (reported, not buried)		

Realized investment	Revenue growth	Margin	Multiple expansion	Debt paydown	Total

A record dominated by multiple expansion is a record of a market. Ask what it looks like without it.

The risk page

Chapter 17. Five risks that can be observed and managed, none of them a standard deviation of reported returns.

Fund / program		**Analyst**	
Manager		**As of**	

Manager	Investments	Below 1.0x (loss rate)	Average of those (severity)	Exit-to-mark record

Figure	Value	Note
Largest manager, % of exposure		
Largest five managers, % of exposure		
Two largest vintages, % of commitments		
Largest underlying company or asset, look-through		
Share realizable within a year, and at what discount		
Forecast calls against forecast distributions: base		
The same: distributions halve, calls continue		
Reported volatility, if required: unsmoothed, labelled (typically 1.5 to 2.5 × reported)		
Correlation on lagged or annual data, not quarter to quarter		

Stress: public markets fall, marks follow two to three quarters later	Answer
Does the allocation breach its policy limit, and when?	
Can calls be met without selling anything else?	
If a forced sale were required, what would it cost?	

If nothing else in the book is acted on: do not put reported private markets volatility into an optimizer without adjustment.

The one-page board report

Chapter 18. Seven lines, the four sentences that must appear, and the numbers not to put on a slide. The same framework in the good year as in the bad one.

Fund / program		**Analyst**	
Manager		**As of**	

Line	Content	Figure
1. The program	Commitments, paid-in, NAV, undrawn, exposure, exposure % of assets against the policy range	
2. Performance	Pooled since-inception net IRR, aggregate TVPI and DPI, share unrealized	
3. The comparison	Kaplan-Schoar and Direct Alpha against the named index; index-plus-premium hurdle cleared?	
4. Peer position	Pooled return against the vintage-weighted peer median, with the bias note	
5. Cost	Gross-to-net gap in bp; net-of-everything return	
6. What is coming	Calls and distributions for twelve months, base and stress	
7. Concentration	Largest manager, largest five, two largest vintages, % of exposure	

Item	In the pack?	Where
The four sentences		
"____ per cent of reported value is unrealized."		
"Returns are net of fund fees, expenses and carried interest, and before the institution's own program costs of approximately ____ basis points."		
"The peer universe is subject to selection, survivorship and backfill biases, all of which raise reported medians."		
"Private markets volatility as reported reflects appraisal smoothing and understates underlying risk."		
Not on a slide		
A single quarter's private markets return		
"Top quartile" without cohort, metric, date and boundary values		
Reported volatility		
A gross return without the bridge		

In a bad quarter, say in advance: private marks lag public prices by two to three quarters, so the reported decline is likely to continue after public markets have stabilized.

Questions worth asking a manager

Appendix D. Each question with what a good answer contains. Refusal, or difficulty, is itself informative.

Fund / program		**Analyst**	
Manager		**As of**	

Question	A good answer	Their answer
What is your DPI, and what share of the record is realized?	A number per fund	
Do you use a subscription facility? Returns with and without?	Yes, both, without difficulty	
Last twenty realizations: carrying value the quarter before exit, and proceeds?	A prepared answer	
Which investments were written below cost, when, by how much?	A complete list	
Decompose realized returns: revenue, margin, multiple, debt paydown	Most good managers have it	
Gross-to-net gap; fee reporting to a standard template?	Both, without a discussion	
What if you had held your best exit two years longer?	Evidence they think about the incentive the rate creates	
The complete list of every investment: dates, cost, proceeds, value	Provided; you compute the aggregate	
Waterfall: whole-fund or deal-by-deal, preferred return, catch-up	Stated, with carry paid and accrued	
Which funds and strategies are left out of the track record?	None, or each named	

To yourself, before quoting any number: since inception or over what window; net of what; what share is unrealized; compared to what and by how much per year, geometrically; pooled or averaged; and would I present it the same way if it were worse?