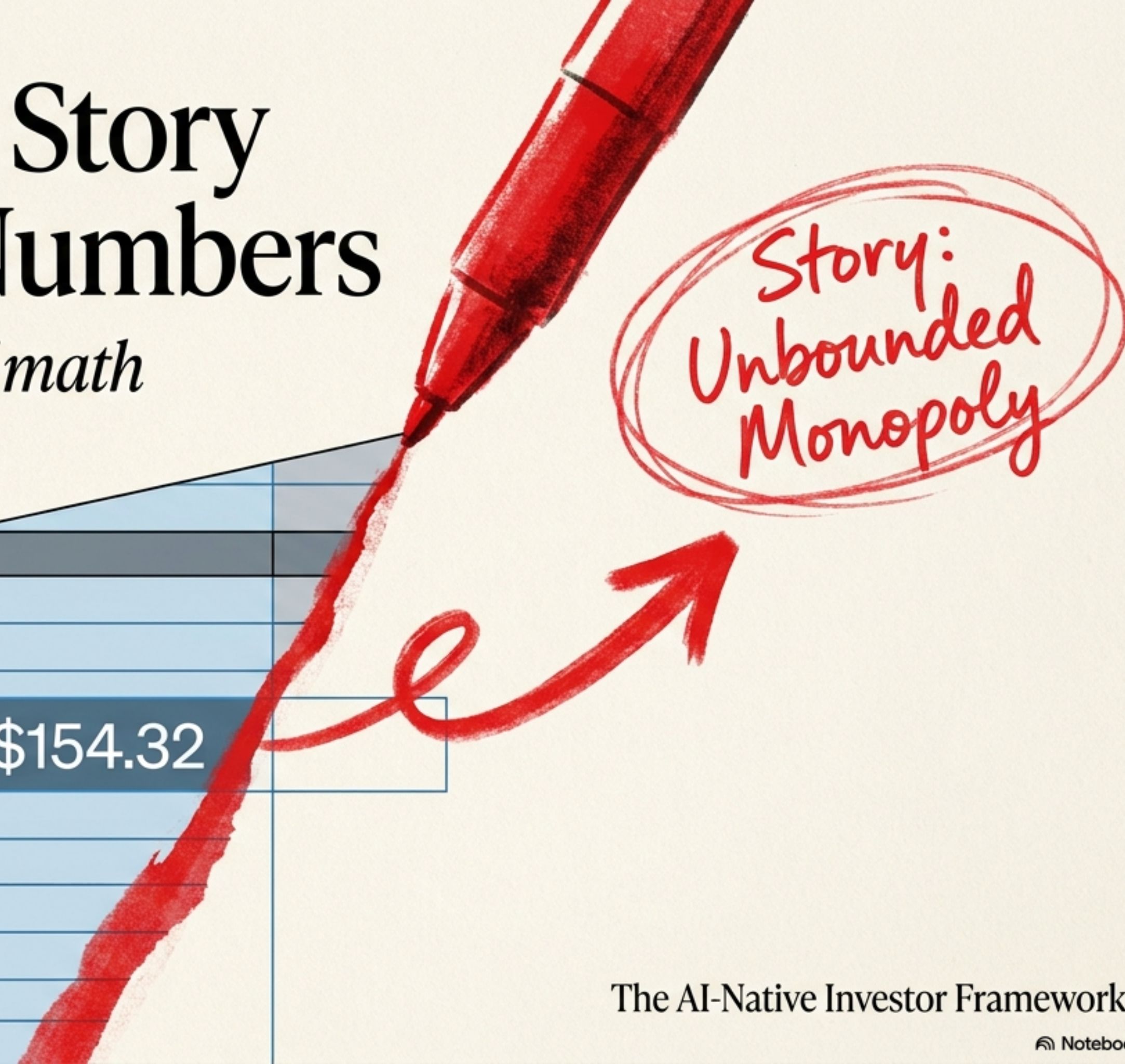


Valuation is a Story Wrapped in Numbers

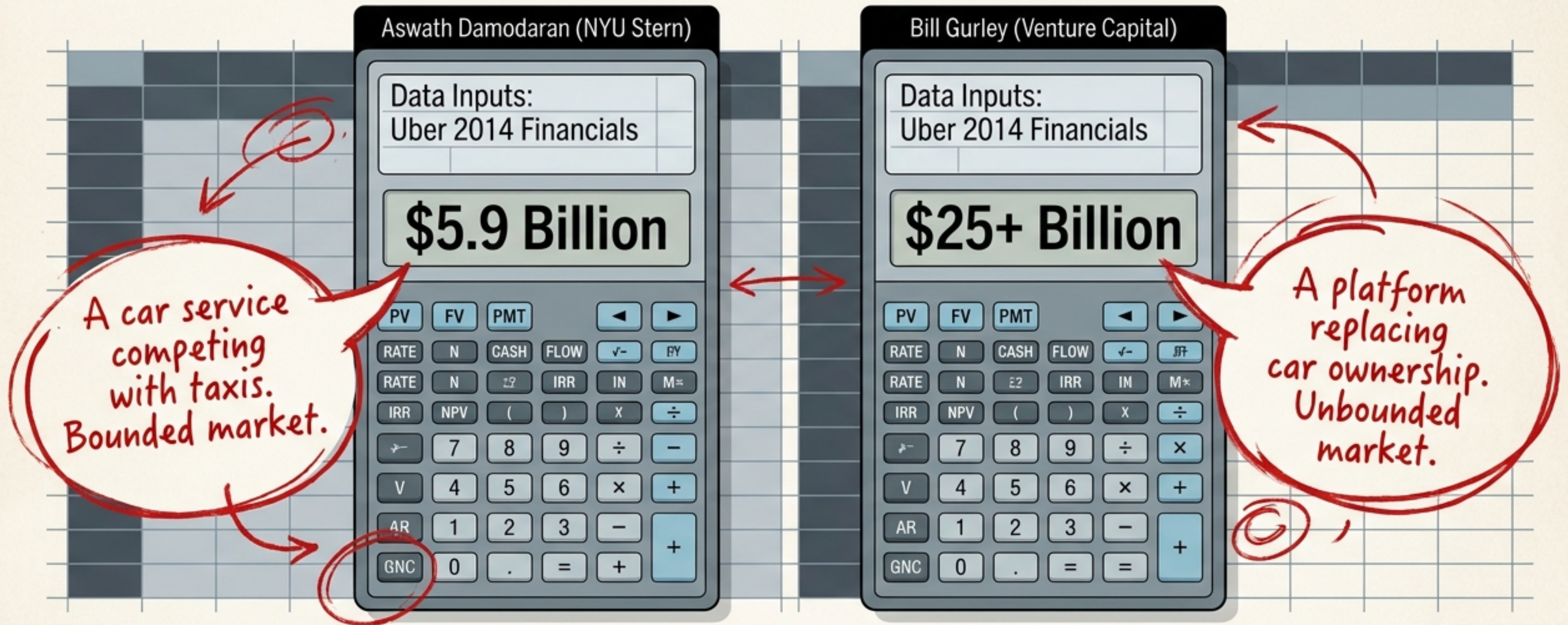
Surviving the *illusion of math*
in the age of AI agents.



Value: \$154.32

Story:
Unbounded
Monopoly

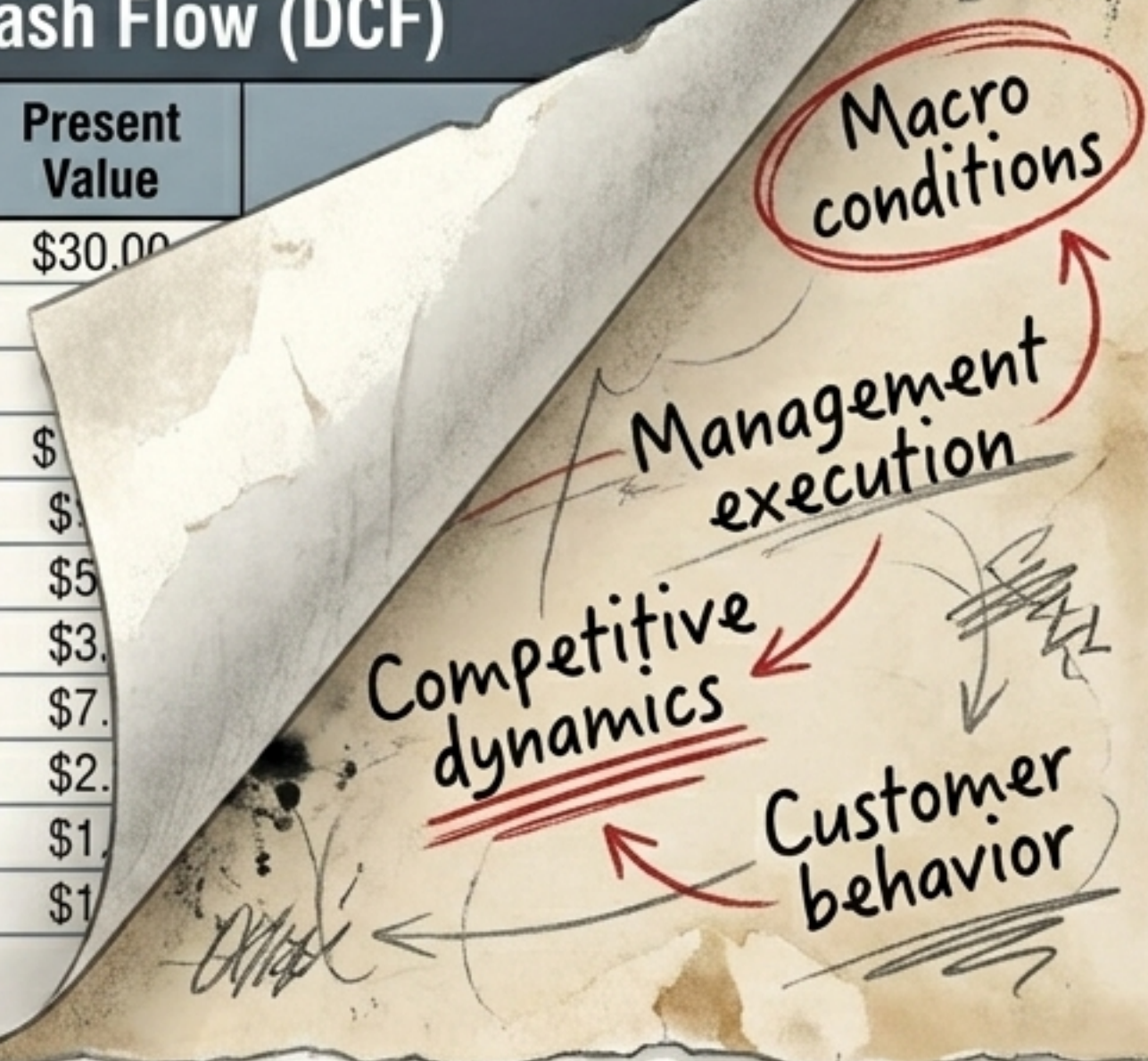
The Math Was Perfect. The Stories Were Different.



The numbers did not resolve the disagreement. The numbers were the disagreement, translated into a format that made it look like a math problem.

The Illusion of Engineering

Discounted Cash Flow (DCF)			
Years	Free Cash Flow	Discount Factor	Present Value
1	\$1.00	0.700	\$30.00
2	\$2.00	0.673	
3	\$3.00	0.568	
4	\$4.00	0.485	\$
5	\$4.00	0.448	\$
6	\$5.00	0.390	\$5
7	\$7.00	0.376	\$3.
8	\$7.00	0.254	\$7.
9	\$7.00	0.233	\$2.
10	\$8.00	0.192	\$1.
11	\$0.00	0.160	\$1
	\$150.00		



- ✓ The Trap: Treating valuation like engineering (Right Formula + Accurate Data = True Answer).
- ✓ The Reality: The future is not a dataset. Every input is a judgment call compressed into a percentage.
- ✓ The Function: Valuation does not eliminate uncertainty—it organizes it.

A good valuation doesn't tell you what a company is worth. It tells you what you have to believe for the company to be worth a given price.

Three Tools, Three Specific Lies

Approach	Logic	Ideal Use	The Specific Lie
Intrinsic (DCF)	Present value of future cash flows.	Predictable cash flows, stable business (e.g., Coke in 1990).	False Precision. A single number with decimals hides massive uncertainty.
Relative (Multiples)	Compare ratios to peers or history.	Mature industries with many comparable companies.	Market Anchoring. If the whole sector is in a bubble, comparing against it confirms the delusion.
Asset-Based	Value of assets minus liabilities.	Liquidations, holding companies, real estate.	Ignores the Engine. Treats an operating business as a static pile ignoring future earnings.

Multiples: The Compressed Files of Valuation

A multiple is a one-sentence summary of someone else's story—with the plot omitted.



	1	2
1	P/E <i>Warning</i> The most misused. Ignores debt, capital structure, and future growth rates.	EV/EBITDA <i>Warning:</i> Ignores real capital expenditure and actual depreciation.
3	P/FCF <i>Warning</i> Grounded in cash, but highly volatile year-to-year based on lumpy investments.	P/S <i>Warning</i> Revenue without profit is not inherently valuable.

The Cisco 1999 Trap

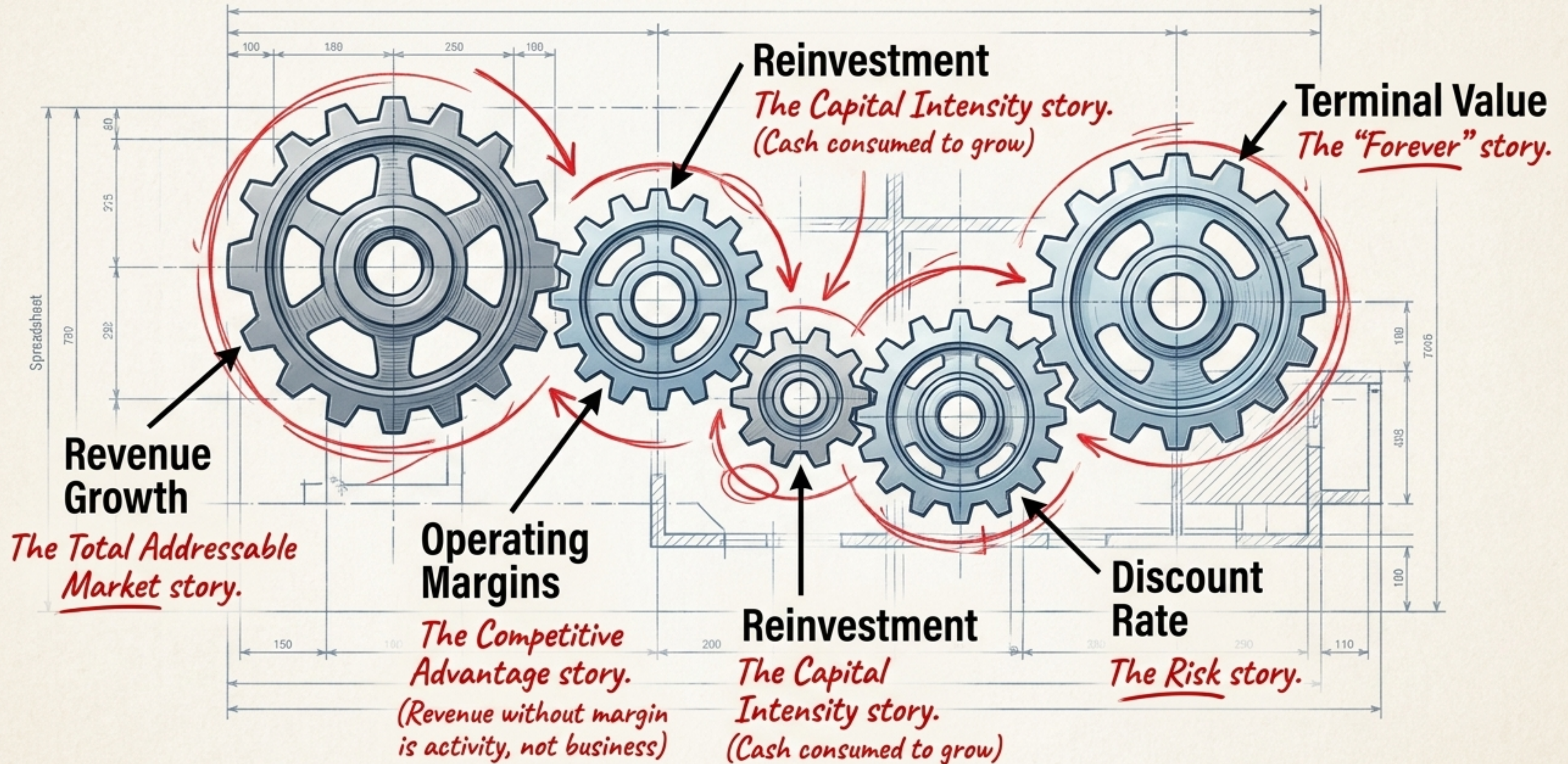
Cisco traded at 120x earnings.

Analysts called it "cheap" relative to Microsoft and Intel.

The relative comparison was technically accurate, but the entire peer group was overvalued.

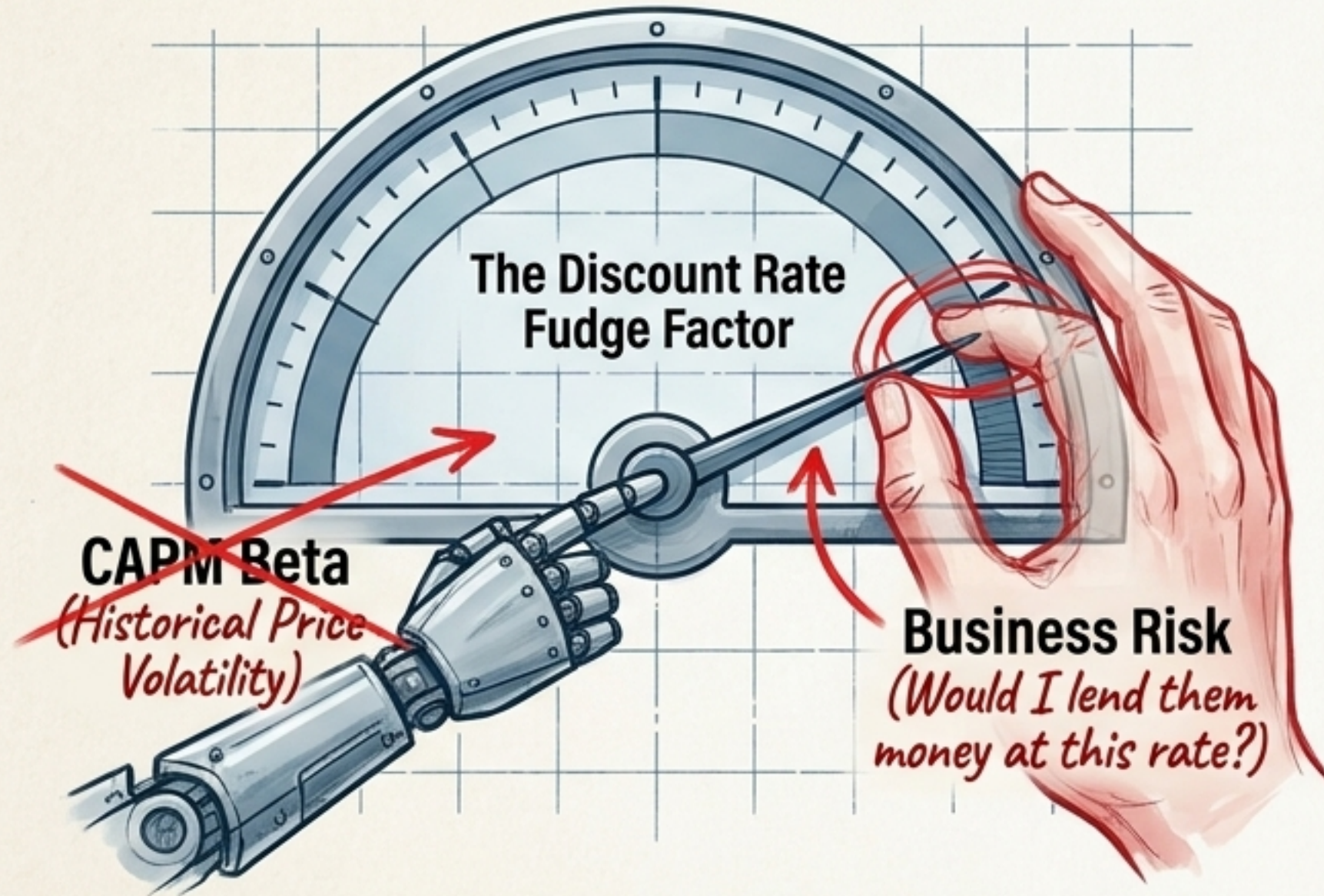
Being "cheap relative to expensive" provides the illusion of rigor, not a margin of safety.

Anatomy of a Story: The 5 DCF Assumptions



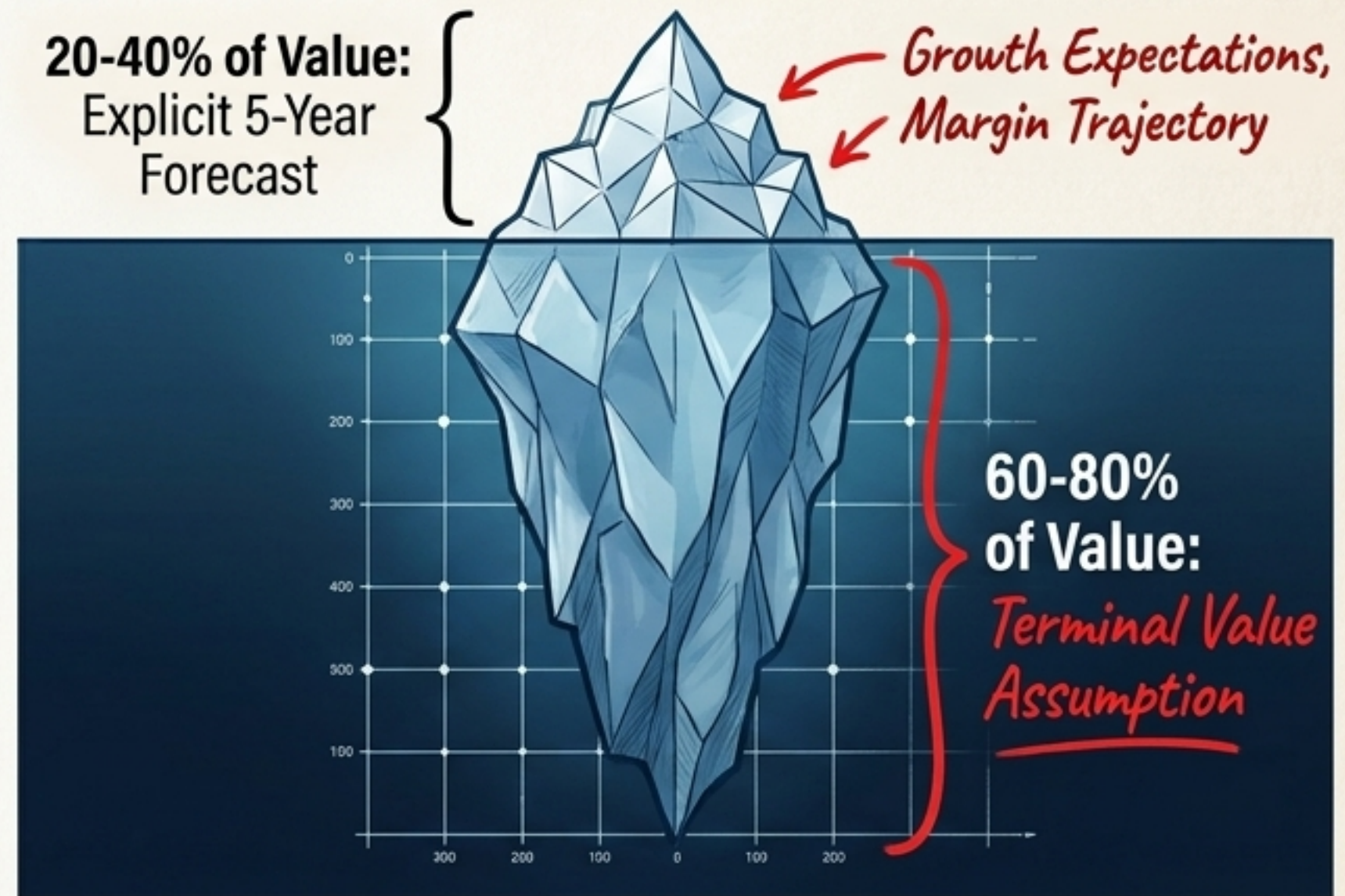
Where the Danger Hides

The Discount Rate



Beta measures price risk, not business risk.
Changing this rate by 2% alters valuation by 30%.
It's where disagreements get buried.

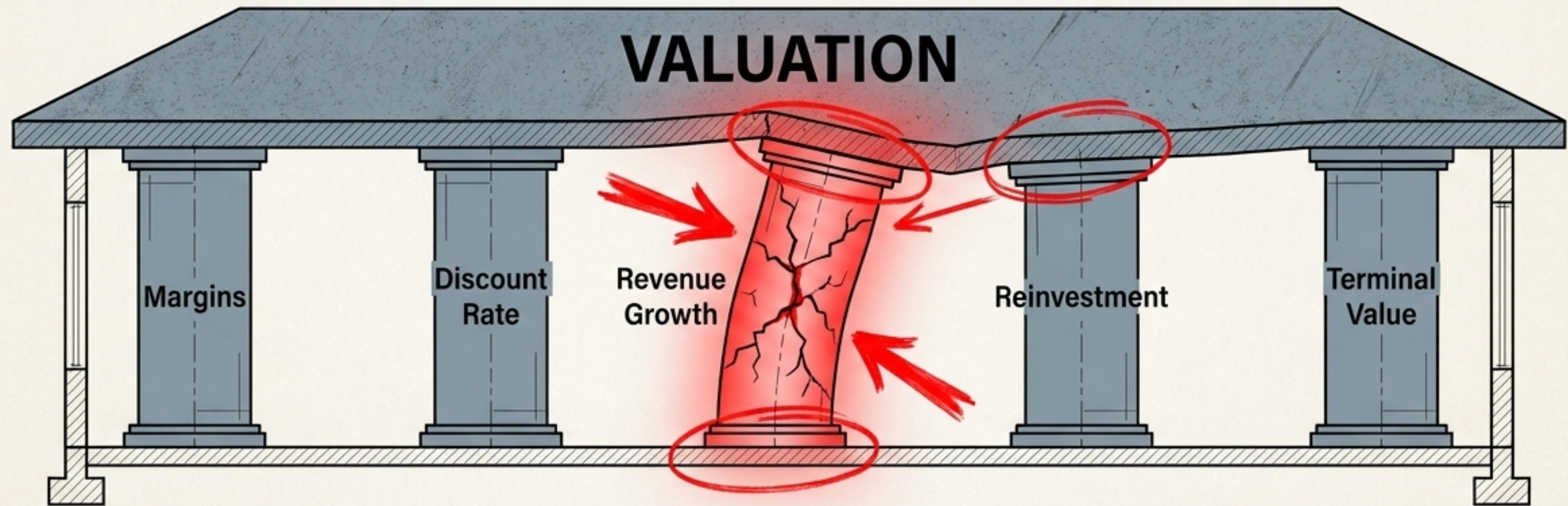
Terminal Value



Analysts spend hours on the first 5 years, then casually assign a 3% growth rate to eternity. The assumption that receives the least scrutiny often carries 80% of the model's weight.

Sensitivity Analysis: Finding the Load-Bearing Wall

A DCF is the output of five story choices. Sensitivity analysis asks:
Which of those choices are you actually betting on?



The One-Variable Test: After the agent runs the model, force yourself to answer:
"If I could only be right about one assumption, which one would I choose?"
If you cannot defend that specific assumption with evidence, your thesis is weak.

The Agent vs. The Human: The Compute and The Narrative

The Agent (Computes)

Data Retrieval: Pulls 10 years of financials instantly.

Computation: Executes flawless arithmetic.

Scenario Mechanics: Calculates 50 permutations in seconds.

Default Setting: Median-of-Wall-Street Consensus.

The Human (Narrates)

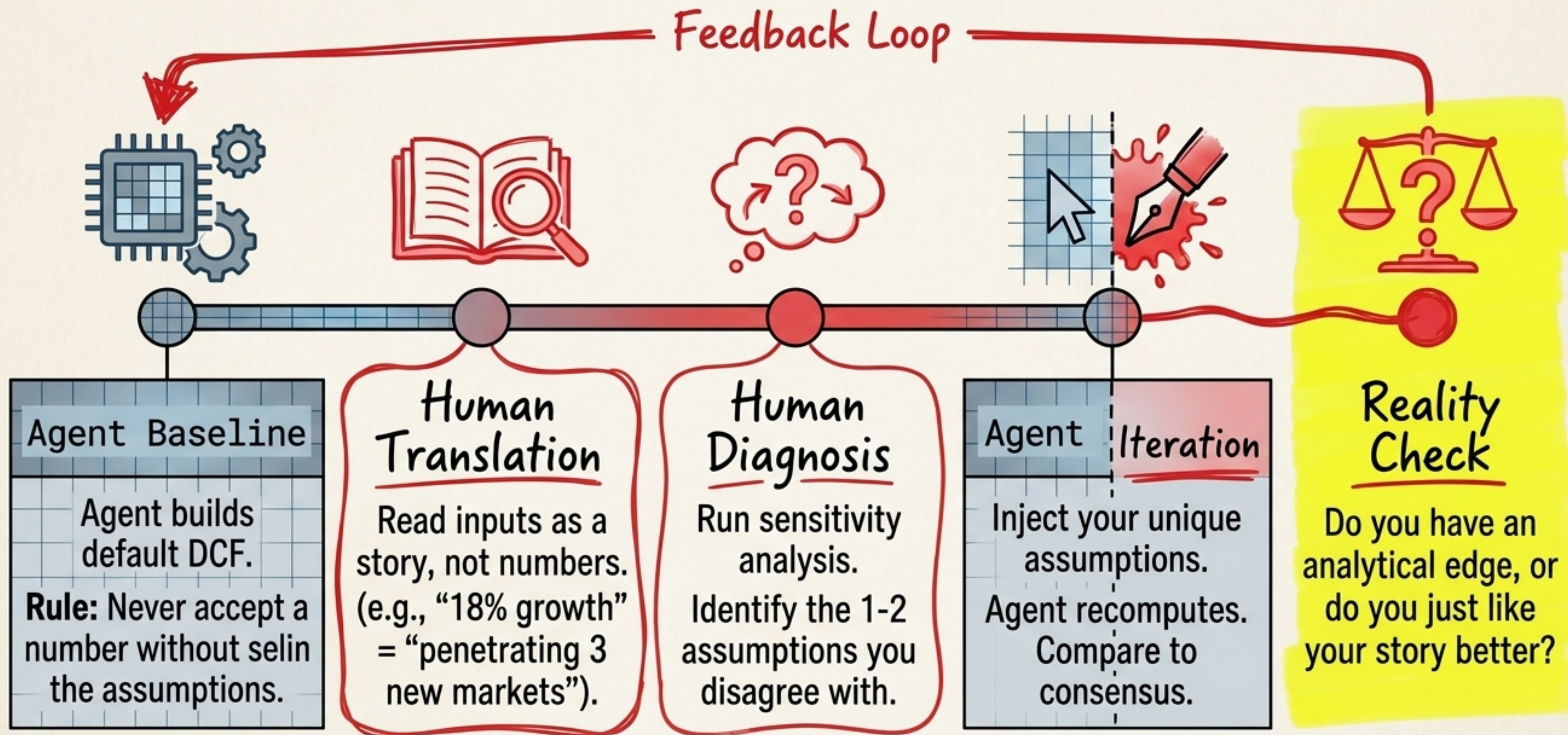
Narrative Selection: Forms conviction on the future.

Assumption Consistency: Ensures high growth aligns with capital needs.

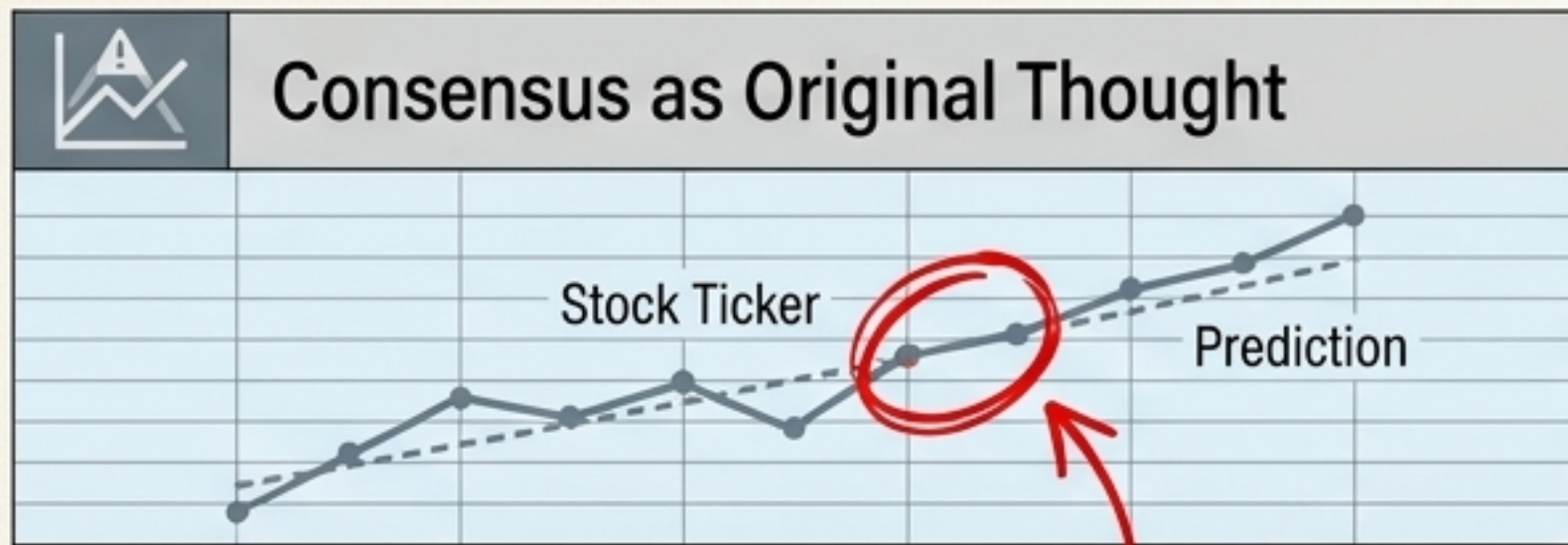
Judgment Under Uncertainty: Decides what to believe when ranges are wide.

Agents compute correctly but narrate by default.
The output is consensus dressed as original analysis.

The AI-Native Valuation Engine

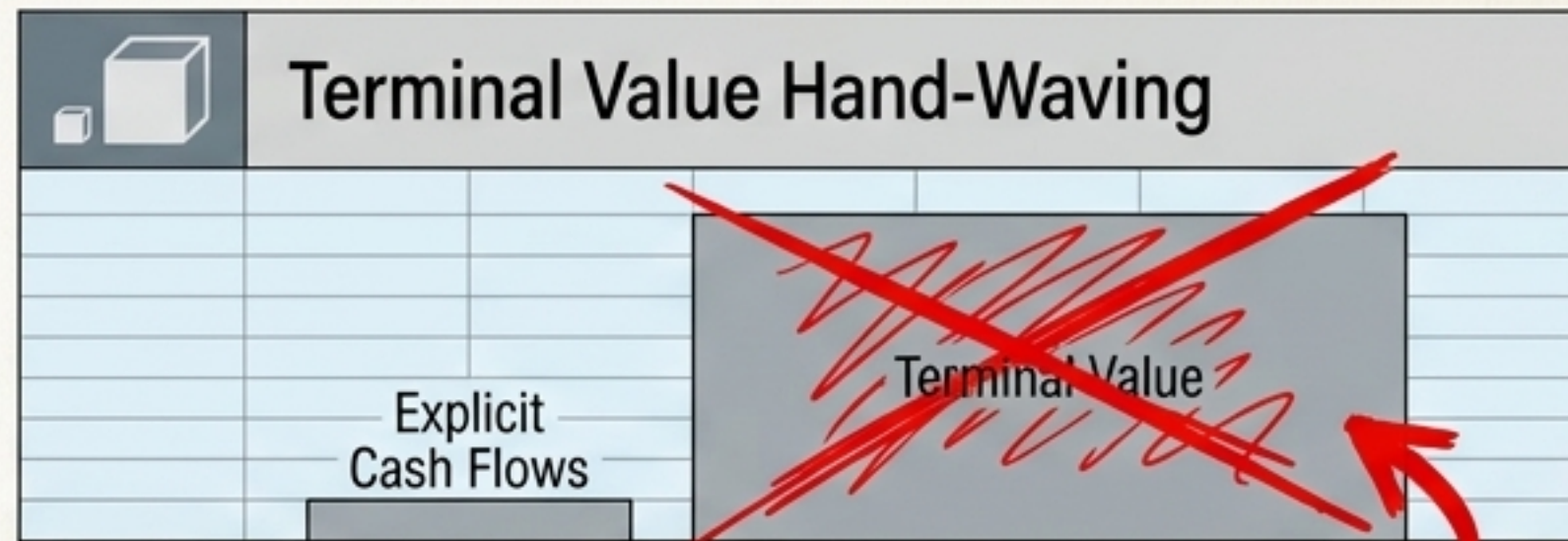


Four Ways Agent Valuations Go Wrong



The Tell: Valuation exactly matches the current stock price.

Reality: Circular logic using inputs that produced the price to verify the price.



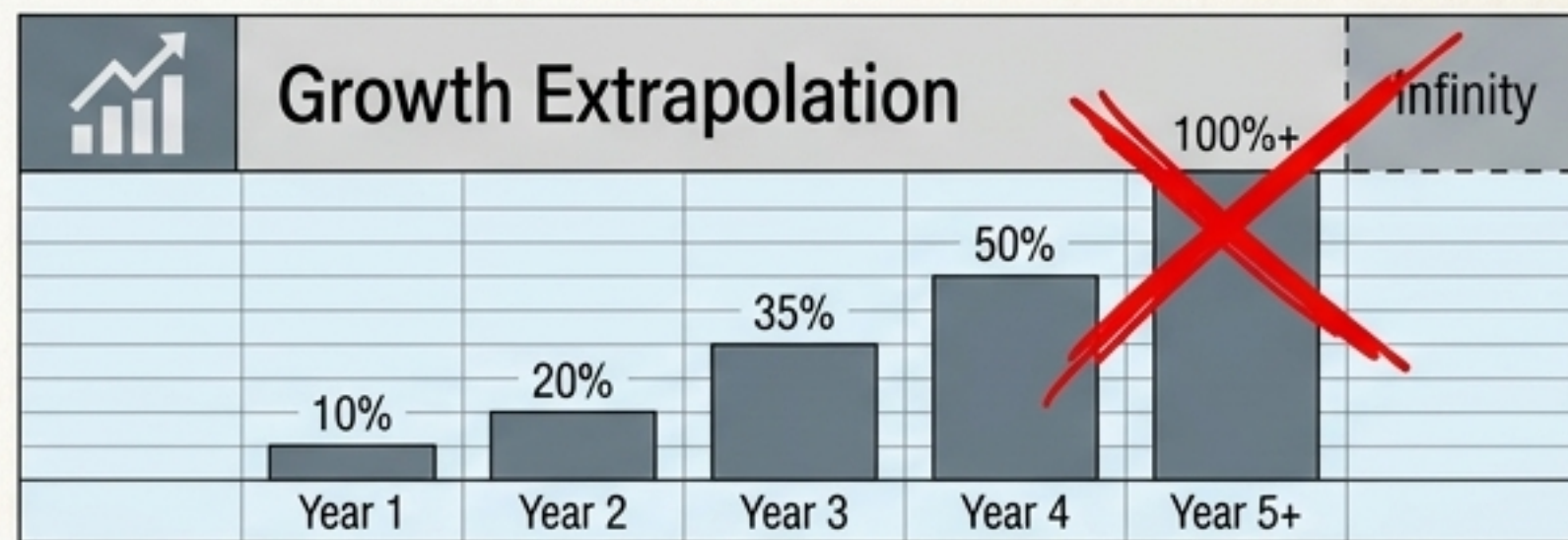
The Tell: Terminal value dwarfs explicit cash flows.

Reality: You are betting blindly on what happens 15 years from now. //



The Tell: Every company gets a 9-11% discount rate.

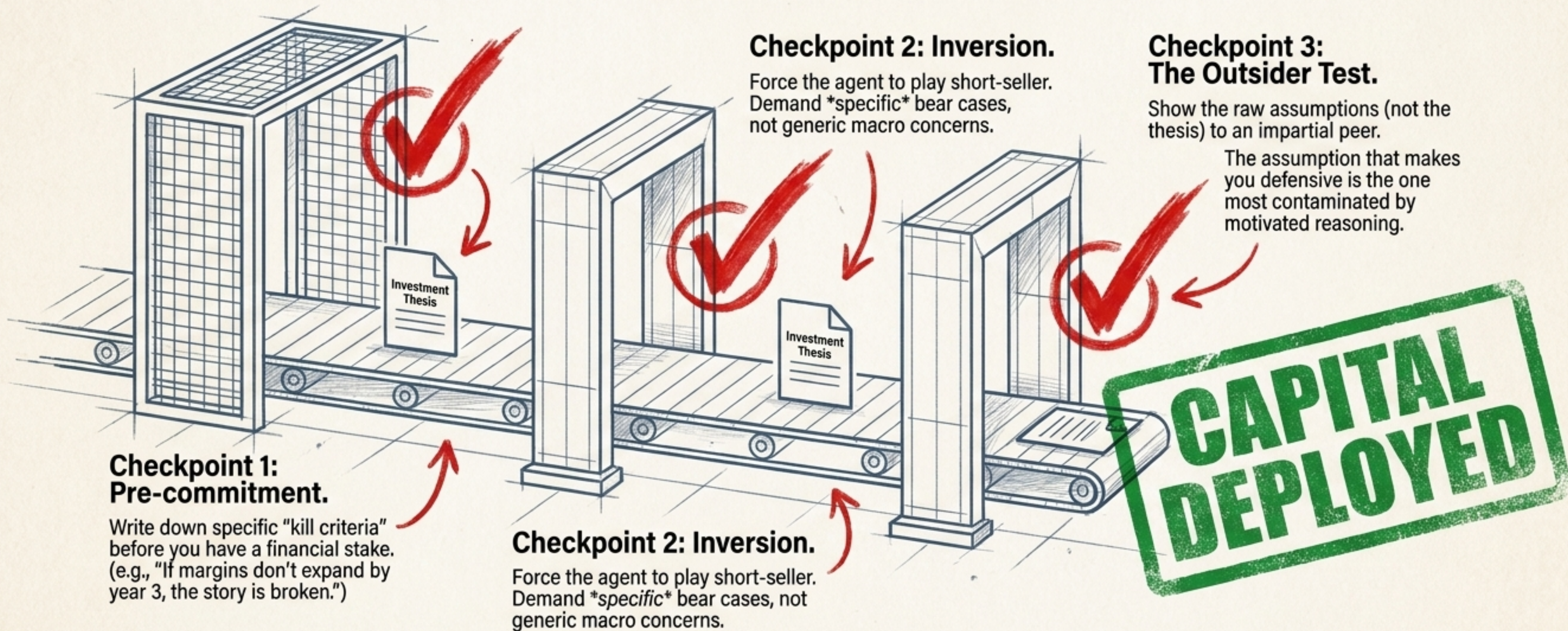
Reality: The agent used historical price stability instead of actual business risk.



The Tell: Capturing 60% of a fragmented market by Year 5.

Reality: Growth rates mean-revert. Extrapolating current growth is structurally impossible. //

Guardrails: When Narrative Becomes Rationalization



The End of the Math Illusion

$$DCF: F(n_u) = \frac{R_m - ob_{a}}{n-1} + data + DF = \frac{(b_t - Re + y)}{1 + (ob_c) + (ae - 1)^2}$$

$$DCF_{rosv} = \frac{(ny - it_{us3})}{1 + (1 + z_1 + ((n-1))^2)} \times it_{eta} + DCF$$

$$v(n_u - r_{ccv}) = \left[\frac{1}{1 - \frac{N(n-y)}{1}} \right]^{1/0}$$

$$DCF = \frac{DCF}{R_i} + \frac{M(1-1)^{yT}}{m^2}$$

$$DCF = \frac{DCF}{M}$$

$$DCF = \frac{DCF}{S}$$

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Year 1	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 2	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 3	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 4	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 5	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 6	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 7	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 8	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 9	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Year 10	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

Judgment

The Commodity:
AI agents and public data feeds have entirely commoditized flawless calculation and consensus modeling.

The Edge: The only remaining alpha is behavioral discipline and narrative clarity.

The Final Rule:
The scarcest skill in valuation is not computation. It is the honesty to tell a story you might not like—and the discipline to abandon that story when reality contradicts it.

$$\frac{\partial T(\omega_i)}{\partial \omega_i} = \frac{1}{h(1 + \rho_{am})^i} - j_h(\sin r) + \frac{\partial \omega_i}{1}$$

$$DCF = 1 + \frac{cyr_{w1}}{(1 + gun)}$$

$$DCF = \frac{\partial v_s}{\partial(1 - \kappa) f(x - p)}$$

$$\frac{\partial T(\omega)}{\partial \omega} = \frac{1}{h}$$

$$\frac{\partial T(\omega/\beta)}{\Delta \epsilon} = \frac{1}{1 + \gamma}$$

$$DCF = m(1 + t) + \frac{1}{N} - \left(sie_{ss} + \frac{\bar{k}^S}{1 - \bar{a}} \right)$$

$$m(T_{f, R}) = \left(\frac{\partial T_{f, R}}{1} + \frac{\partial CIF}{\partial ts} - 1 \right)$$

$$\mu R = \frac{1}{N} \mu \alpha - (p - a)$$

Valuation does not tell you the answer. It tells you exactly where you must be right.