Risk Isn't Volatility

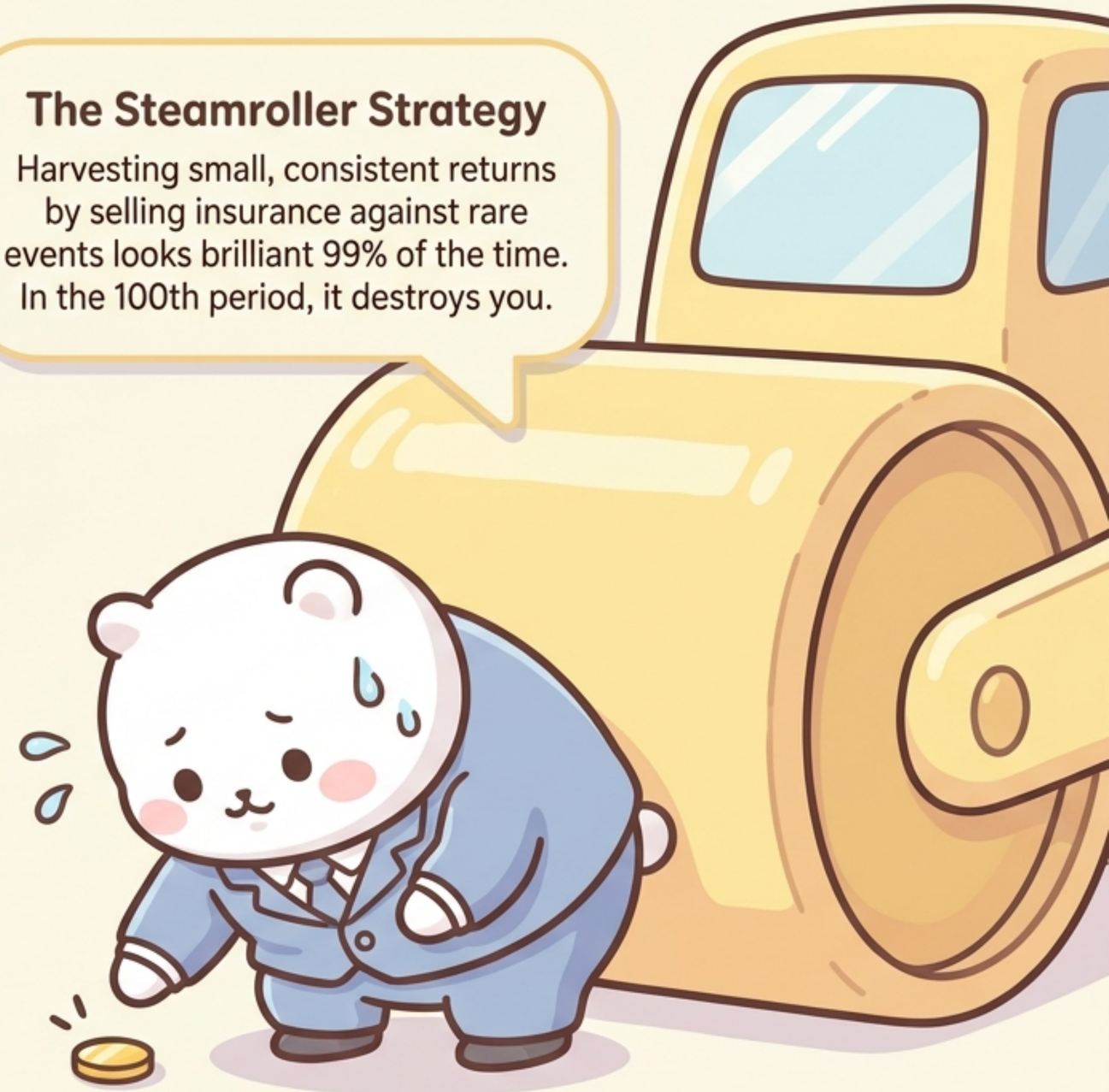
"Risk is the probability of a loss you cannot afford — not standard deviation."

The Flawed Standard (Volatility)

- Symmetric: Penalizes upside gains just as much as downside drops.
- Assumes a 'Normal' Distribution (Bell Curve).
- Ignores extreme, highly improbable events ("fat tails").

The Steamroller Strategy

Harvesting small, consistent returns by selling insurance against rare events looks brilliant 99% of the time. In the 100th period, it destroys you.



The Map is Not the Territory

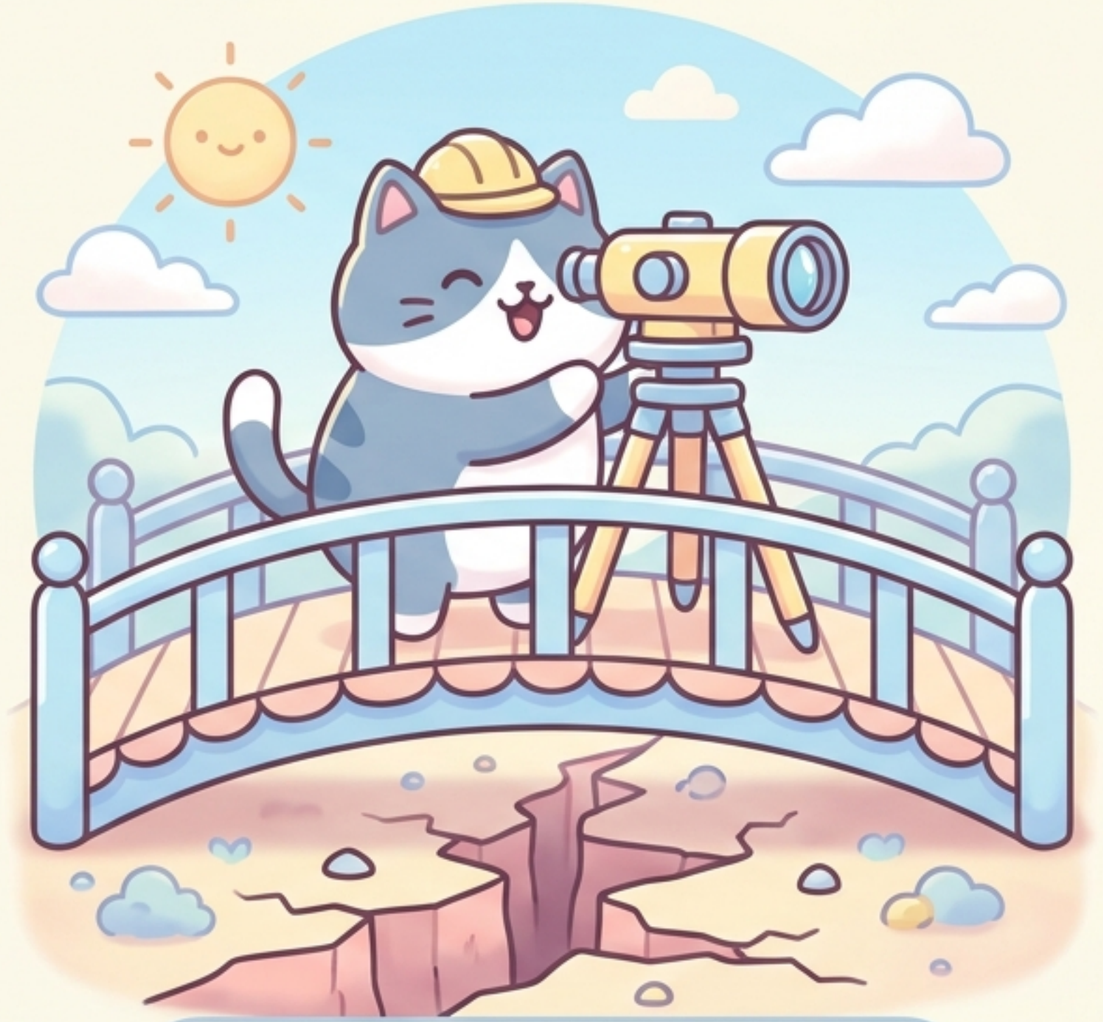
Panel 1: The Sunny Day (The LTCM Model)

The smartest fund in history lost $4.6B because of a definition.

- Assumption 1: Correlations are stable.

- Assumption 2: Liquidity is continuous.

- Assumption 3: Extreme events happen once in a universe lifetime.



Measuring bridge stability on a sunny day tells you nothing about the earthquake.

Panel 2: The Earthquake (The Reality)

In a crisis, the only active strategy is survival.

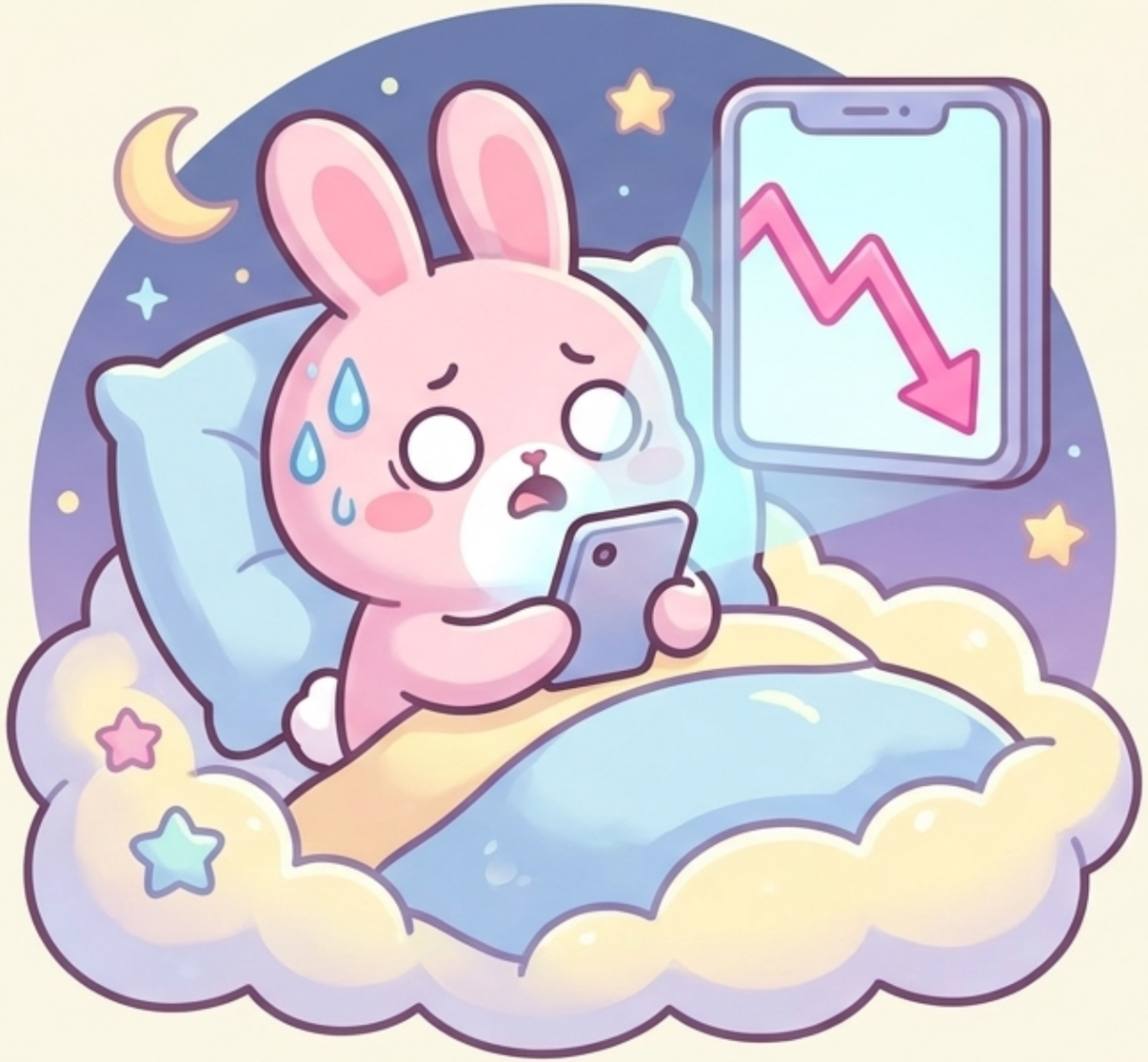
- Reality 1: Correlation goes to 1. Everyone sells everything.

- Reality 2: Liquidity vanishes precisely when needed.

- Reality 3: Risk models only measure normal variation, missing the moves that kill you.

The Sleep Test & Drawdown Math

Position sizing matters more than stock selection.



The Asymmetry of Recovery

Loss:	→	Need to Recover:
Loss: 10%	→	Need to Recover: 11%
Loss: 30%	→	Need to Recover: 43%
Loss: 50%	→	Need to Recover: 100%
Loss: 70%	→	Need to Recover: 233%
Loss: 90%	→	Need to Recover: 900%

The Ultimate Metric: The Sleep Test

If a position is large enough that you check its price first thing in the morning with anxiety, it is too large. Fractional Kelly sizing trades theoretical max returns for emotional survival.

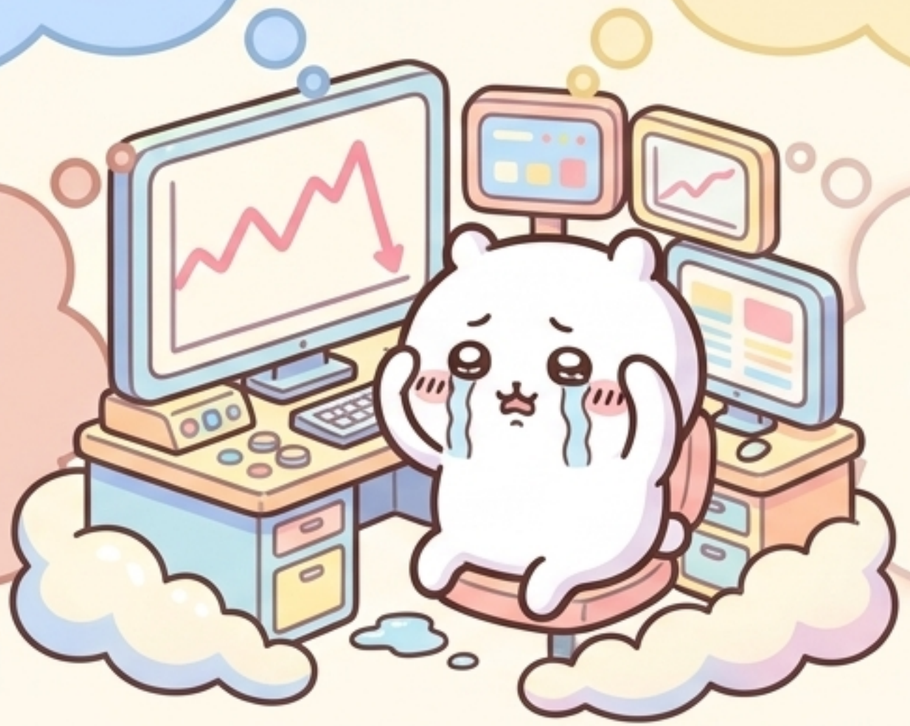
Four Risks That Actually Matter

1. Fat Tails

Events your model calls "virtually impossible" are merely infrequent. Extreme distribution ends are thicker than predicted.

2. Correlation Breakdown

In normal markets, diversification protects you. In a liquidity crisis, every "risk asset" falls simultaneously.



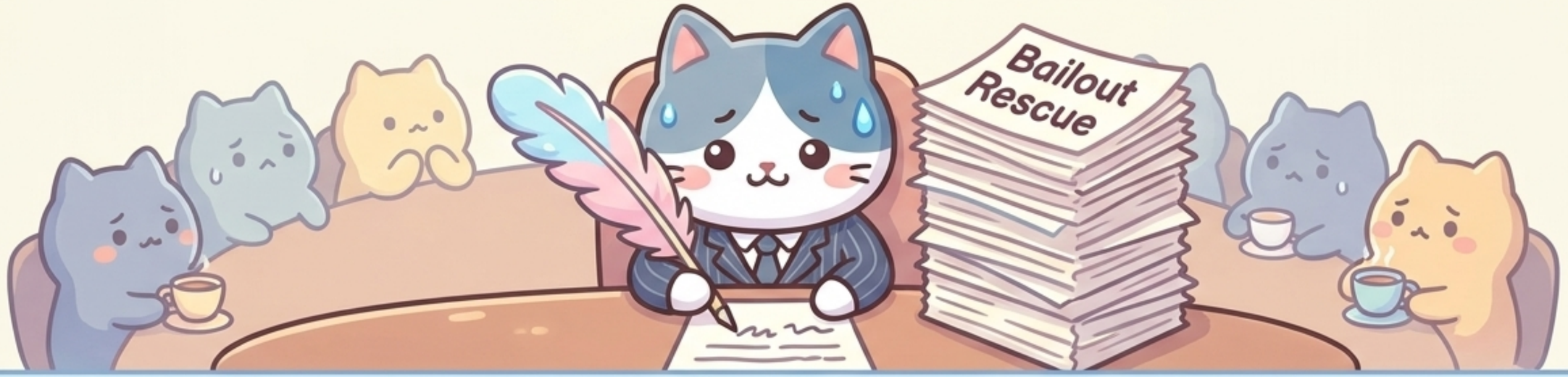
3. Illiquidity

The exit disappears. The quoted price on your screen isn't the real price; it's just the last trade before the panic started.

4. Drawdown Depth

The exponential arithmetic of ruin. A hole so deep that even decades of subsequent business growth cannot recover your capital.

The Pre-Mortem & Who Rescues You



Risk management cannot be fully outsourced. Conduct a “Pre-Mortem”:
Assume it’s 2030, your investment collapsed by 70%, and work backward to find out why.

What AI Agents Do Well

- **Compute:** Drawdowns, rolling volatility, and historical stats.
- **Stress Test:** Model performance against past crises (2008, 2020).
- **Draft Narratives:** Write plausible pre-mortem failure scenarios without emotional bias.

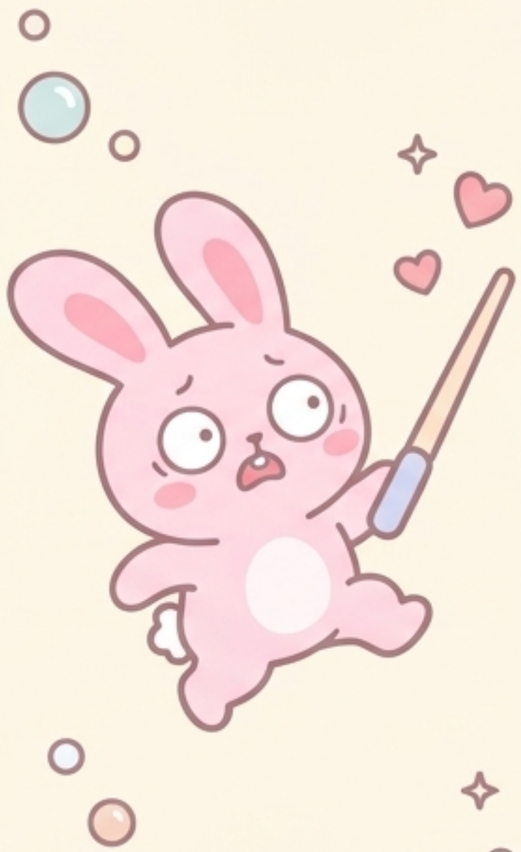
What ONLY You Can Decide

- **Loss Tolerance:** Agents don’t know your mortgage, income, or psychology.
- **Scenario Relevance:** Which of the AI’s 20 failure scenarios actually justify selling?
- **The Unknown:** AI relies on consensus data. You must imagine the novel, unseen blind spots.

History Ignores The Models

Drawdown Depth

Cisco (2000-2015)
The stock hit $77, then fell 89% to $8.60. A buyer at the peak waited 26 years underwater, despite the business recovering.



Fat Tails

Swiss Franc (Jan 2015)
The 'safest' currency peg vanished instantly. The franc jumped 30% in minutes, wiping out retail accounts and brokerages.

Correlation Breakdown

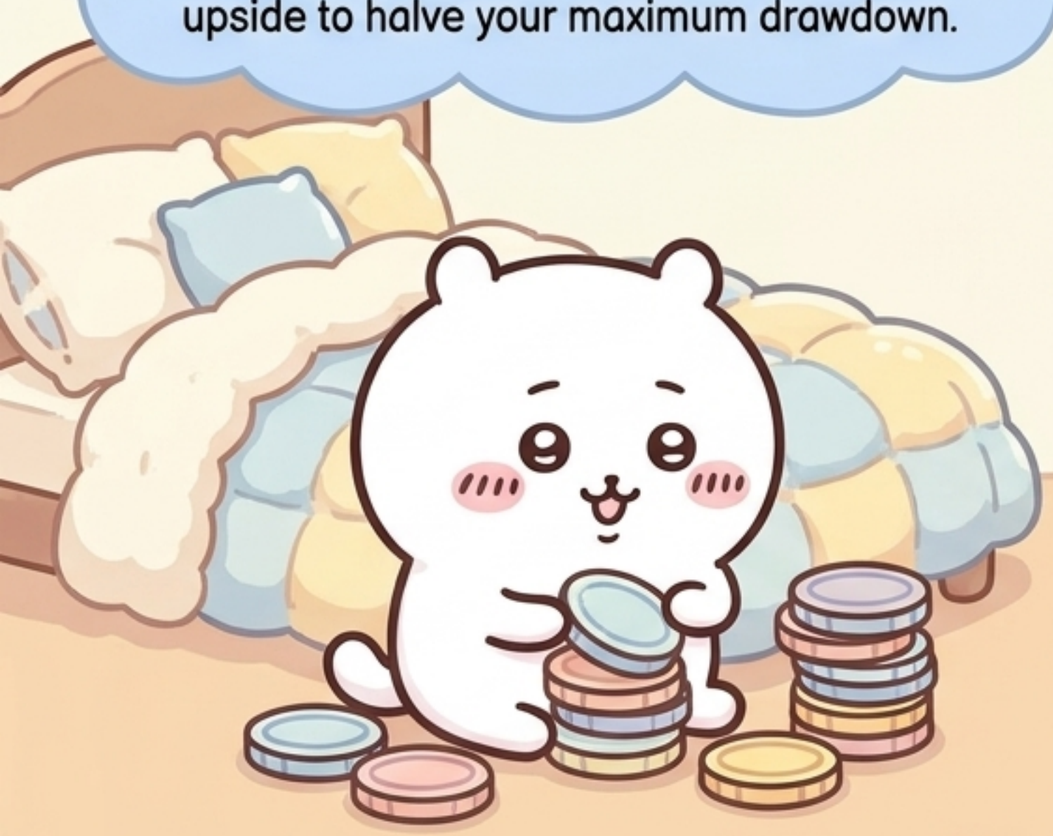
60/40 Portfolio (2022)
The ultimate safe harbor failed. Fed rate hikes caused stocks to fall 19% and bonds to fall 13% simultaneously.

Illiquidity

ETF Flash Crash (Aug 2015)
During a market panic, major S&P 500 ETFs traded at a 20% discount to their actual value. Panic sellers locked in artificial losses.

The Fractional Sizing Framework

Full Kelly Criterion maximizes growth but mathematically guarantees 50% drawdowns. “Half-Kelly” trades 25% of upside to halve your maximum drawdown.



Core (5-10%)

High conviction, highly liquid. Do not exceed 10%, or a single bad quarter inflicts permanent portfolio damage.

Satellite (2-5%)

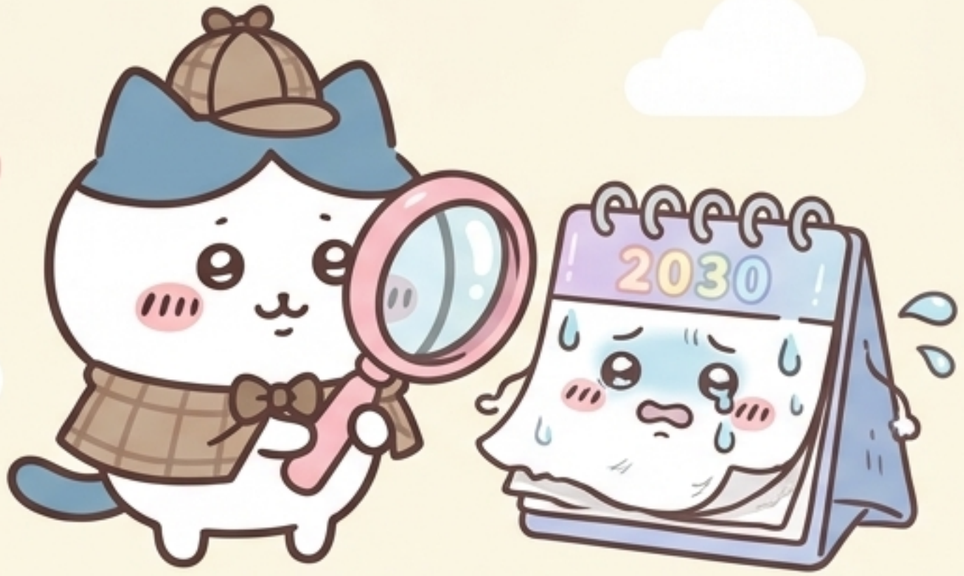
Moderate conviction or lower liquidity assets. Sized so a difficult exit under stress won’t trap your core capital.

Speculative (1-2%)

Early-stage theses. Explicitly sized to survive a total 100% loss without altering your life.

Cash Equivalents

Not a fixed percentage. Keep exactly enough cash to look at a 30% market drop and see options instead of panic.



Time-Traveling to Disaster

Step 1: The AI Prompt

Force the Narrative

Command the agent: “It is 2030. My position in [Ticker] lost 70%. Write a plausible narrative explaining why, including one non-consensus scenario.”

Step 2: The Plausibility Filter

Ask Three Questions

1. Is the AI’s scenario functionally plausible?
2. Would I detect the erosion in time to exit?
3. At my current sizing,
3. At my current sizing, would this loss alter my life?

Step 3: The Hard Action

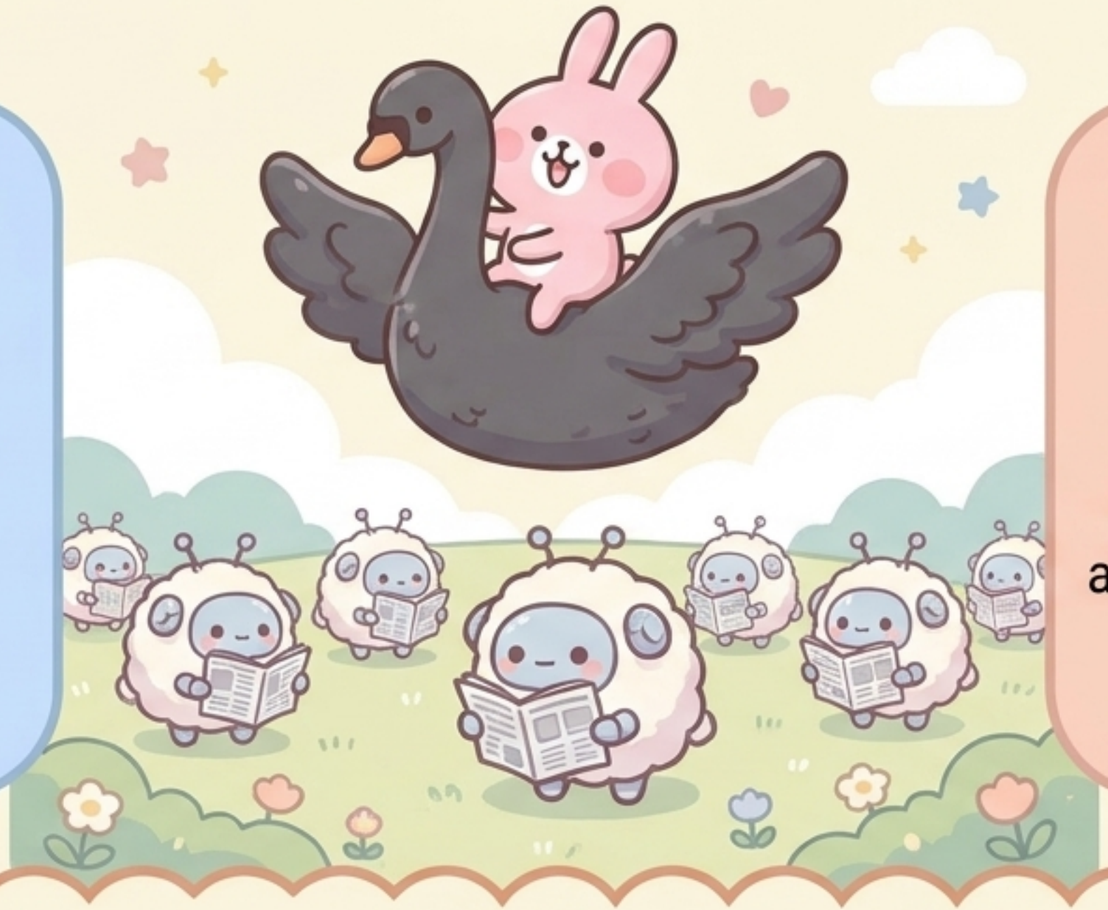
Shrink to Survive

If the scenario is plausible and the loss would change your life, your position is too large. Reduce the allocation until the disaster becomes merely an inconvenience.

Escaping the Consensus Trap

The Limits of AI

Agents are trained on historical data and current analyst chatter. If you ask them for risks, they will surface the "Consensus Bear Case" obvious competitors).



The Real Threat

The crises that destroy portfolios—like MBS correlation in 2008 or a global lockdown in 2020—are precisely the ones absent from standard analyst reports.

Risk Management is an Act of Imagination

AI can flawlessly compute the past and summarize the present. But surviving the future requires you to imagine the unprecedented. You cannot delegate the unknown.