
STRESS PHYSICS / PARAMETERS

System Sensitivity: Where Small *Inputs* Hurt

Macro moves like weather until it moves like physics. Sensitivity is the discipline of naming which parameters own your timeline.

SYSTEM ARCHETYPE 020

System Sensitivity / *Elasticity* /

System sensitivity measures how violently outcomes respond to small input moves—interest rates being the canonical villain because they touch both psychology and amortization. Read it beside [leverage points](#),

feedback delays, and modular systems so you separate true diversification from correlated confidence.

1. Parameters Are *Politics*

System sensitivity asks a blunt question: which inputs move your outcomes disproportionately? Interest rates are the textbook parameter because they enter everywhere—mortgages, discount rates, credit card minimums, cap rates—yet most plans treat them as weather. Sensitivity analysis is the refusal to confuse stability on a spreadsheet with stability in a family kitchen.

Anchor the intuition in leverage points: small changes in timing, rate, or tax character can swamp heroic budgeting. That is not moral failure; it is geometry.

"Smooth assumptions produce jagged lives."

2. Rate Shocks as *Stress* Vectors

When the risk-free curve moves, every discounted cashflow story retells itself. Refinance windows slam shut; bond duration bites; cap rates hesitate while rent rolls do not. Model three scenarios: benign drift, step change, and "wrong for three years." If only the benign case keeps the plan breathing, you have a brittle system dressed as prudence.

Connect to feedback delays: payments reset on a schedule; anxiety resets faster. The gap between the two is where marriages, startups, and portfolios die of narrative whiplash.

SENSITIVITY SWEEP

01

List rate-linked pipes

Mortgage, HELOC, margin, floating business lines, credit cards, bond funds, seller financing—each gets a balance, reset date, and floor/ceiling.

02

Translate +100 bps to cash

Monthly dollars, not vibes. Include tax character where relevant.

03

Rank by elasticity of goal

Which goal—FI date, acquisition, sabbatical—moves first when the curve moves?

04

Install hedges or valves

Fix debt, shorten duration, raise cash, or narrow the business model—pick structural fixes, not hope.

3. Coupling Amplifies *Sensitivity*

Isolated shocks are manageable; coupled shocks are cinematic. If housing, labor, and platform income share one macro nervous system, your sensitivity is multiplicative. Modular systems thinking is how you lower the exponent without pretending you can delete macro.

4. Tarot as *Scenario* Prompt

The Tower is not prophecy; it is a reminder that single-story leverage is sensitive by design. The Star is not optimism; it is the question "what refills the tub when the parameter goes the wrong way?" Use archetypes to populate scenario branches your spreadsheet is too shy to name.

5. CLDs Close the *Loop*

After you run the numbers, draw the mechanism. Causal loop diagrams capture how rate changes propagate through behavior, not just through amortization schedules. Numbers without loops are precision theater.

Build the *lattice*, not the legend.

Return to the Reading hub for essays, tools, and the rest of the 100-topic map.

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