

The Automation Debt Curve

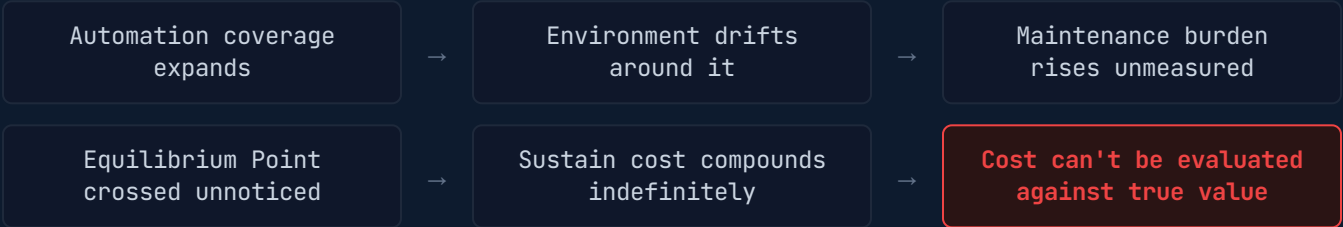
DEFINITION

The point at which automation costs more to operate than it saves, because the environment required to sustain it was never measured.

FRAMEWORK FLOW

01 The Condition Automation expands to reduce toil, judged only against the toil removed — not the discipline it now requires.	02 The Boundary Can the automation stay trustworthy — patched, revalidated, understood — without cost outpacing its value?	03 Failure State Debt Phase entered with no Equilibrium Point ever flagged — cost compounds unmeasured.	04 Consequence Automation is judged on coverage, never standing cost, until its environment becomes unsustainable.
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Failure State: Debt Phase Lock-In



THE THREE-PHASE MODEL

SAVINGS PHASE Cost center: Build Net-positive ROI. Build cost dominates and pays down fast.	EQUILIBRIUM POINT Cost center: Stabilize Further investment needs explicit justification — maintenance no longer auto-returns value.	DEBT PHASE Cost center: Sustain Governance burden and coordination cost exceed the value automation still produces.
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Measured across: Automation Volume (operating surface size) · Automation Complexity (coordination cost) · Automation Burden (maintenance effort)

ARCHITECTURAL RELATIONSHIPS

#138 Infrastructure Automation Ladder

EXTENSIONSTRONG

Extends the maturity position the Ladder measures — Ladder is where you are, Debt Curve is what staying there costs.

“Automation rarely fails because organizations stop writing it. It becomes difficult because organizations never stop carrying it.”