

**Beyond Chesterton's Fence:
Institutional Intervention Readiness in Complex Policy Systems**

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Author Note

This article develops a conceptual theory and practical appraisal framework. The illustrative cases are used to clarify mechanisms and boundary conditions; they are not presented as empirical tests of the theory. Correspondence concerning this article should be addressed to Saint Lucia Policy Analysis.

Abstract

Public institutions are often changed when original purposes are forgotten, present effects have diverged, and dependencies are causally opaque. Chesterton's Fence warns against removing an inherited arrangement merely because its use is not visible. As a policy rule, however, it can confuse origin with function, function with legitimacy, and caution with continuity. This article develops Institutional Intervention Readiness (IIR), a decision-relative theory of what must be understood before preserving, redesigning, replacing, or removing an arrangement. IIR defines function as an evidence-supported causal contribution within a bounded system and horizon. It separates current function from public-value legitimacy, maps dependency and distribution, tests replacement-function coverage, and evaluates transition controllability. Sufficient understanding is not complete knowledge. It exists when risk-proportionate evidence identifies critical functions and dependencies; separates unlawful or unjust functions from legitimate ones; compares preservation and feasible alternatives symmetrically; covers or safely decouples critical legitimate functions; and makes residual uncertainty decision-immaterial or governable through staging, monitoring, fallback, and recovery. Claim-specific thresholds rise with nonrecoverable downside, while a pairwise warrant subjects preservation to the same harm, cost, and irreversibility profile as intervention. The theory derives ten falsifiable propositions, formalizes for institutional dismantling an established preparedness and invisible-success dynamic, and operationalizes a function-to-capacity form of administrative thinness as a hypothesized small-state boundary condition. IIR complements consequence mapping and option-sensitive decision design.

Keywords: institutional intervention readiness; Chesterton's Fence; policy termination; causal opacity; policy design; institutional change; small island developing states; public administration

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Introduction

Inherited policy arrangements invite two recurrent errors. Reformers can treat age, inconvenience, or obscurity as evidence that an arrangement is useless. Defenders can treat persistence, original intention, or hidden complexity as evidence that it must remain. Both errors are especially consequential in complex policy systems, where visible outputs depend on less visible rules, routines, information channels, fallback capacities, informal relationships, and expectations. An apparently narrow intervention can therefore remove a function that was not named in the statute, shift risk to people who were not represented in the decision, or produce a failure only when the next shock arrives.

The familiar maxim known as Chesterton's Fence captures one side of this problem. In *The Thing*, Chesterton (1929) imagined a reformer encountering a fence across a road, declaring that it served no visible purpose, and proposing to remove it. The reply was that a person who could not see its use was not yet entitled to clear it away. The popular formula, "do not remove a fence until you understand why it was built," is a later condensation rather than Chesterton's exact sentence. His argument was also subtler than reflexive conservation. He allowed that a purpose might have been bad, might have become bad, or might no longer be served. Understanding was a condition of responsible change, not a permanent veto.

That principle remains powerful because it disciplines epistemic confidence. Yet it does not tell policymakers what counts as understanding, how much is enough, which kind is relevant, or how the required standard changes with the danger and reversibility of the proposed intervention. It also centers original purpose, even though current functions may have drifted,

multiplied, or disappeared. Institutions can persist through path dependence, increasing returns, power, sunk costs, and political feedback rather than public value (Acemoglu & Robinson, 2008; Mahoney, 2000; Pierson, 1993, 2000). Conversely, a rule created for a discredited purpose can later carry a legitimate coordination or protection function. Origin, current causal contribution, and public legitimacy must therefore be kept analytically distinct.

This article asks:

What constitutes sufficient functional and systemic understanding to justify preserving, redesigning, replacing, or removing an inherited policy arrangement under conditions of causal opacity?

Its answer is Institutional Intervention Readiness (IIR), a theory of decision warrant rather than a generic preference for intervention or continuity. IIR argues that sufficiency is action-specific and risk-adjusted. Complete understanding is neither possible nor necessary. A decision is sufficiently understood when the evidence needed for that decision meets a threshold proportional to the credible nonrecoverable downside of being wrong, all critical rights and continuity gates are satisfied, and unresolved uncertainty either cannot plausibly alter the comparative choice or is contained through a controllable transition.

IIR makes five contributions. First, it replaces the search for original purpose with current function and harm portfolios that record what an arrangement now causes, enables, constrains, or stabilizes, for whom, by what mechanism, and under which conditions. Second, it separates causal function from public-value legitimacy, preventing efficiency from laundering exclusion, capture, or rights violations. Third, it conceptualizes dependency centrality, replacement-function coverage, and transition controllability as distinct sources of intervention risk. Fourth, it operationalizes for institutional intervention an established dynamic through which successful

prevention can weaken the visible case for its own continuation. Fifth, it generates disposition criteria for preserve, redesign, replace, and remove, together with propositions and an auditable policy protocol.

The framework connects to two existing Saint Lucia Policy Analysis theories. RIPPLE-4 maps how the effects of a candidate intervention may propagate across four orders (Michel, 2026a). Sovereign Option Theory concerns decisive action that preserves or enlarges future choice under complexity (Michel, 2026b). IIR first diagnoses what is load-bearing and screens provisional candidate classes. RIPPLE-4 then supplies propagation evidence needed for IIR's final comparative readiness gates, after which Sovereign Option Theory supports choice and sequencing.

Method and Scope

This is a conceptual theory-building article based on an integrative, mechanism-oriented synthesis. The review brought into conversation eleven strands that usually address different pieces of the problem: Chesterton's original argument; sociological accounts of manifest and latent function; historical institutionalism and policy feedback; Institutional Analysis and Development; policy termination and dismantling; systems thinking; policy robustness, resilience, and policy mixes; organizational learning and memory; decision making under deep uncertainty; regulatory appraisal; and public administration in small states. Sources were selected for conceptual relevance, field importance, recency where the literature is changing, and ability to support or challenge the proposed mechanisms. The review included primary texts, peer-reviewed scholarship, authoritative institutional reports, and the author's related theoretical work through August 10, 2026.

The method is integrative rather than systematic. It does not estimate effect sizes, claim exhaustive coverage of every adjacent field, or establish IIR's empirical validity. Novelty claims are therefore bounded. To the author's knowledge, and subject to the normal limits of an integrative search, existing frameworks do not combine a nonteleological current-function audit, a rights and legitimacy screen, dependency centrality, function-by-function replacement coverage, and transition controllability into a comparative readiness standard for four institutional dispositions.

Five cases are used as theory-illuminating illustrations: India's 2016 demonetization, Mexico's transition from Seguro Popular, the Montreal Protocol, the Netherlands' Room for the River program, and the erosion of Windward Islands banana preferences. They were purposively selected to vary in policy domain, jurisdictional scale, intervention pattern, and transition architecture. They are not tests of IIR, and causal claims are confined to what the cited evidence can support. The paper distinguishes established observations, attributed interpretations, theoretical inferences, and propositions requiring future testing.

The unit of analysis is an intervention episode:

$$I = (A, a, S, t, h, E) \quad (I)$$

Here, A is an inherited policy arrangement; a is a proposed action toward it; S is a bounded policy system; t is the decision time; h is the relevant horizon; and E is the available evidence. An inherited policy arrangement is a durable configuration of formal or informal rules, roles, routines, resources, organizations, capacities, or infrastructure that predates the focal decision and to which other actors or processes may have adapted. It need not be old. A recently established system becomes inherited for present purposes once dependencies, expectations, or specialized capacities have formed.

IIR is most useful when an intervention is consequential; the arrangement may perform more than its stated purpose; other processes may depend upon it; causal knowledge is incomplete; and preservation can itself impose material harm. The arrangement must also be bounded tightly enough for causal claims to be assessed. “The civil service” is normally too broad. A procurement-review rule, a fiscal safeguard, an emergency stockpile, a licensing workflow, or a particular service-delivery institution is tractable.

From a Fence Heuristic to a Policy Theory

What Chesterton’s Argument Gets Right

Chesterton’s thought experiment imposes an epistemic burden on the would-be remover. It recognizes that institutional form can outlive collective memory, that visible cost is easier to observe than avoided loss, and that an observer’s inability to identify a function is not evidence that none exists. Those insights align with systems thinking. Complex systems contain feedback loops, delays, buffers, and emergency mechanisms whose value may be invisible during normal operation. Removing redundancy or weakening a negative feedback loop can narrow a system’s survival range even when day-to-day performance initially appears unchanged (Meadows, 1999, 2008).

The fence also captures a distributional fact. People positioned differently in a system possess different fragments of causal knowledge. Formal designers may know the mandate; front-line workers know workarounds; service users know access barriers; auditors know failure patterns; and marginalized groups may know burdens that aggregate indicators conceal. Institutional analysis therefore requires multiple forms of evidence and attention to rules-in-use, not only rules-in-form (Ostrom, 2005).

Where the Heuristic Stops

Chesterton's formulation is an insufficient decision rule for five reasons.

First, purpose is not function. Merton's (1968) distinction between manifest and latent functions established that conscious motives and objective consequences are not identical. An arrangement may perform functions never intended by its designers, while failing at its formal purpose. Historical change can also transform the environment in which a rule operates. The relevant question is not only why the fence was built but what difference it makes now.

Second, persistence is not proof of necessity. Historical institutionalism explains how increasing returns, sunk costs, coordination effects, power asymmetries, and policy feedback can reproduce arrangements after their original rationale weakens (Mahoney, 2000; Pierson, 1993, 2000; Thelen, 1999). An adaptationist inference that every surviving feature must be beneficial is as hazardous in institutional analysis as it is in evolutionary explanation (Gould & Lewontin, 1979). A function claim needs a mechanism and evidence, not an inference from survival.

Third, function is not legitimacy. A policy can efficiently concentrate rents, restrict participation, obscure accountability, or reproduce discrimination. These are causal contributions, but they do not thereby merit preservation. Conversely, a well-intended program can impose severe burdens. Policy analysis must identify what an arrangement does before asking whether those effects are lawful, rights-compatible, democratically answerable, and publicly defensible.

Fourth, the heuristic is asymmetric. It warns about the harm of change but says little about the harm of continuity. Existing arrangements can accumulate fiscal costs, foreclose innovation, violate rights, increase fragility, or distribute risk unjustly. Delay can itself become

irreversible. Preservation must therefore be treated as an affirmative disposition and compared with feasible alternatives, not accepted as a neutral baseline.

Fifth, “understand” has no operational threshold. Public decisions cannot wait for exhaustive causal knowledge. Evidence is incomplete, contested, and time-bounded; shocks create urgency; and intervention itself can be a source of learning. A useful theory must explain when remaining uncertainty is tolerable and when it demands research, staging, substitution, or fallback.

The upgrade can be stated compactly:

Understand the function without becoming captive to the form.

This formulation preserves Chesterton’s epistemic humility while rejecting a general presumption that inherited form deserves deference.

The Unfilled Space in Existing Policy Theory

No single adjacent literature answers the central question. Historical institutionalism explains the production and persistence of paths, including gradual change through layering, drift, conversion, and displacement (Mahoney & Thelen, 2010; Thelen, 1999). Policy feedback explains how policies reshape interests, capacities, identities, and future politics (Pierson, 1993). These traditions reveal why inherited arrangements acquire dependencies and why origin cannot settle present value. They do not, by themselves, provide an intervention-readiness test.

The Institutional Analysis and Development framework supplies a closely related micro-institutional architecture: action situations, actors, rules-in-use, material conditions, community attributes, interactions, outcomes, and evaluative criteria (Ostrom, 2011). It can support IIR’s actor, rule, and dependency mapping. IIR does not supersede IAD; its narrower proposed

contribution is an action-specific standard of evidentiary sufficiency, functional coverage, and transition controllability for deliberate intervention in an incumbent arrangement.

Policy termination and dismantling scholarship studies reductions in policy density and intensity, the politics of blame and resistance, and the organizational consequences of ending programs (Bauer & Knill, 2014). Recent work connects termination to strategic aspirations and capabilities (Torfs et al., 2026), while mapping consequences across target populations, implementing organizations, policy mixes, and political feedback (Bhatia et al., 2026; Cejudo & Olvera, 2026). It does not yet operationalize an ex ante, function-by-function readiness profile comparing preservation, redesign, replacement, and removal.

Policy design, robustness, and resilience scholarship shows how diversity, modularity, redundancy, adaptation, and learning can maintain functionality under perturbation (Capano & Woo, 2017, 2018; Duit, 2016). Policy-mix research shows that instruments interact and that coherence or inconsistency can arise at the level of the configuration rather than the individual instrument (Howlett & Rayner, 2007; Rogge & Reichardt, 2016). Work on fragmented government further demonstrates that coordination, coherence, and integration are distinct responses to complex problems (Cejudo & Michel, 2017). These literatures explain design properties that make systems robust, but they do not specify what evidence is sufficient before disturbing a particular inherited arrangement.

Readiness is also an established family of concepts. Organizational readiness for change concerns shared commitment and collective efficacy to implement an intended change (Weiner, 2009), while institutional-readiness approaches can assess whether settings are prepared to adopt or mainstream innovations (Van Cauwenbergh et al., 2022). IIR evaluates a different object. It asks whether the proposed disturbance of an incumbent arrangement is sufficiently understood

and safeguarded, even where political commitment and implementation capacity are high. High organizational readiness can coexist with low intervention readiness.

Decision making under deep uncertainty shifts attention from optimal prediction to robustness across plausible futures, staged pathways, monitoring, and adaptation (Haasnoot et al., 2013; Lempert et al., 2003; Marchau et al., 2019). That insight is central to IIR's treatment of residual uncertainty. Yet adaptive-policy methods typically begin with a policy problem and candidate pathways. They do not center the hidden current-function portfolio of the inherited arrangement being altered.

Organizational learning and high-reliability research explain why rare events, near misses, institutional memory, sensitivity to operations, and reluctance to simplify matter (March et al., 1991; Walsh & Ungson, 1991; Weick & Sutcliffe, 2015). These fields help explain why successful protective functions can become invisible. They do not translate that mechanism into a comparative public-policy disposition rule.

Regulatory impact assessment and ex post evaluation provide practical procedures for defining problems, comparing options, consulting affected groups, and evaluating rules after implementation. OECD guidance stresses proportionality and the importance of beginning analysis before a preferred intervention is fixed (Organisation for Economic Co-operation and Development [OECD], 2020). European Commission guidance includes evaluation, fitness checks, coherence, continued relevance, and unintended effects (European Commission, 2021). U.S. Circular A-4 likewise applies to rules that create, modify, or rescind regulation and requires baselines, alternatives, ancillary effects, countervailing risks, and uncertainty analysis (Office of Management and Budget, 2003). OECD evidence also indicates that ex post evaluation remains uneven across jurisdictions (OECD, 2025). IIR is therefore proposed as a specialist diagnostic

module within or alongside established appraisal systems, not as a remedy for a universal omission in RIA. Its focus is the full current contribution, dependency, memory, and replacement portfolio of what a proposal would displace. Policy accumulation makes that task harder because a single instrument can be embedded in an interdependent stock (Adam et al., 2018).

Table 1
Adjacent Literatures and the IIR Gap

Literature	What it contributes	What remains unresolved for intervention readiness
Historical institutionalism and policy feedback	Path dependence, drift, increasing returns, constituencies, and institutional evolution	No decision-relative threshold for disturbing a specific arrangement
Termination and dismantling	Political process, reduction strategies, resistance, and post-termination effects	Limited ex ante standard for four dispositions and function coverage
Robustness, resilience, and policy mixes	Redundancy, modularity, diversity, adaptation, and instrument interaction	Design properties are not an evidence sufficiency test for inherited arrangements
Deep-uncertainty methods	Robust alternatives, staged pathways, signals, triggers, and adaptation	Usually begins after the problem and candidate actions are framed
Organizational learning and high reliability	Rare-event learning, near misses, memory, and sensitivity to failure	Does not yield a public-policy warrant threshold or legitimacy screen
Regulatory appraisal	Option comparison, consultation, proportionality, and review	Can miss latent functions, dependencies, and replacement traceability

Note. IIR is presented as an integrative bridge, not as a replacement for these literatures.

IIR's distinctive claim is consequently modest but consequential: before a candidate intervention receives full consequence analysis, policymakers need a structured baseline account of what the inherited arrangement presently does, what deserves continuity, and what depends on it. Consequence analysis then tests how proposed coverage and transition controls may perform, allowing IIR to make a final comparative readiness judgment.

Institutional Intervention Readiness Theory

Current Function Portfolio

The current function portfolio is the set of effects that an arrangement presently causes, materially enables, constrains, or stabilizes within a specified system and horizon:

$$F(A, t, S) = \{f1, f2, ..., fk\} \quad (2)$$

Each function claim is represented as:

$$fk = (yk, mk, gk, \omega-k, ek, qk) \quad (3)$$

In Equation 3, y is the outcome or capacity affected; m is the proposed mechanism; g identifies beneficiaries and burden bearers; ω specifies normal and stress conditions; e represents the estimated direction, magnitude, and reliability of the causal contribution; and q represents the quality and strength of evidence. A function is therefore not a purpose, mandate, stakeholder assertion, or story about institutional age. It is an evidence-supported, difference-making causal contribution relative to an explicit counterfactual.

“Function” is normatively neutral. The portfolio should record intended and unintended effects; visible services; prevention and failure containment; information, coordination, and standard setting; redundancy and latent capacity; distributional and symbolic effects where causally supported; harmful effects; and functions that appear only under stress. It should also record credible null findings and rival explanations, including inertia, capture, sunk costs, symbolic compliance, and obsolete coordination. Failure to prove a proposed function is not proof of its absence, but neither is uncertainty a license to invent hidden benefits. After the legitimacy screen, IIR maintains a portfolio of legitimate contributions, *F-plus*, and a parallel harm or dysfunction portfolio, *F-minus*. Each uses the same causal, distributional, temporal, and confidence fields. Mixed functions are disaggregated rather than forced into a single valence.

An auditable function claim should state what would be expected to change if the arrangement were absent or altered, identify observable implications, name relevant data or testimony, and grade measurement confidence separately from causal confidence. This separation matters. Policymakers may measure an outcome precisely while remaining unsure

whether the arrangement caused it, or possess strong causal evidence about a mechanism while measuring its magnitude poorly.

Causal Opacity

Causal opacity is the degree to which available evidence leaves unresolved which material functions exist, how they are produced, when they operate, how large they are, and what would happen under the proposed intervention. It is relational rather than intrinsic:

$$O = O(A, a, S, t, h \mid E) \quad (4)$$

The same arrangement can be sufficiently understood for a narrow pilot yet highly opaque for immediate nationwide abolition. Opacity arises from rare preventive events, long delays, multiple causation, nonlinear feedback, thresholds, actor adaptation, undocumented routines, lost memory, weak comparison cases, model disagreement, and the possibility that material functions have not yet been identified. It includes uncertainty about known claims and residual omitted-function risk.

Opacity does not imply preservation. It changes the appropriate mode of action. When consequences can be contained and reversed, action can generate evidence. When failure would be catastrophic, delayed, or irreversible, the warrant threshold rises. The central policy question becomes not “Are we certain?” but “Could the uncertainties that remain reverse this choice, and can we discover error before unacceptable loss becomes entrenched?”

Public-Value Legitimacy

After causal functions are identified, IIR asks which merit continuity. Public-value legitimacy is assessed across legality, constitutional compatibility, fundamental rights, democratic authorization, accountability, distribution of benefit and burden, proportionality, effects on vulnerable groups, and treatment of future generations. It is initially a vector, not a

single score. Noncompensable legal and rights constraints are screened before aggregate balancing; an institution cannot purchase permission for a grave rights violation through administrative efficiency elsewhere.

Value disagreement is not treated as analytical noise. Competing defensible valuations should be made visible and tested through sensitivity analysis. If modest changes in legitimate public-value judgments switch the recommended disposition, the decision is normatively fragile and should be reported as such. IIR requires clarity about disagreement, not a fiction of value-free optimization.

The legitimacy screen also blocks a common misuse of Chesterton's Fence. Discovering that an arrangement performs an important function can justify continuity planning without justifying its existing form. A discriminatory rule may carry a coordination function that must be transferred even while the offending mechanism is ended. In such cases, rapid containment of the violation and a service bridge may be more responsible than either blanket preservation or unplanned abolition.

Dependency Centrality

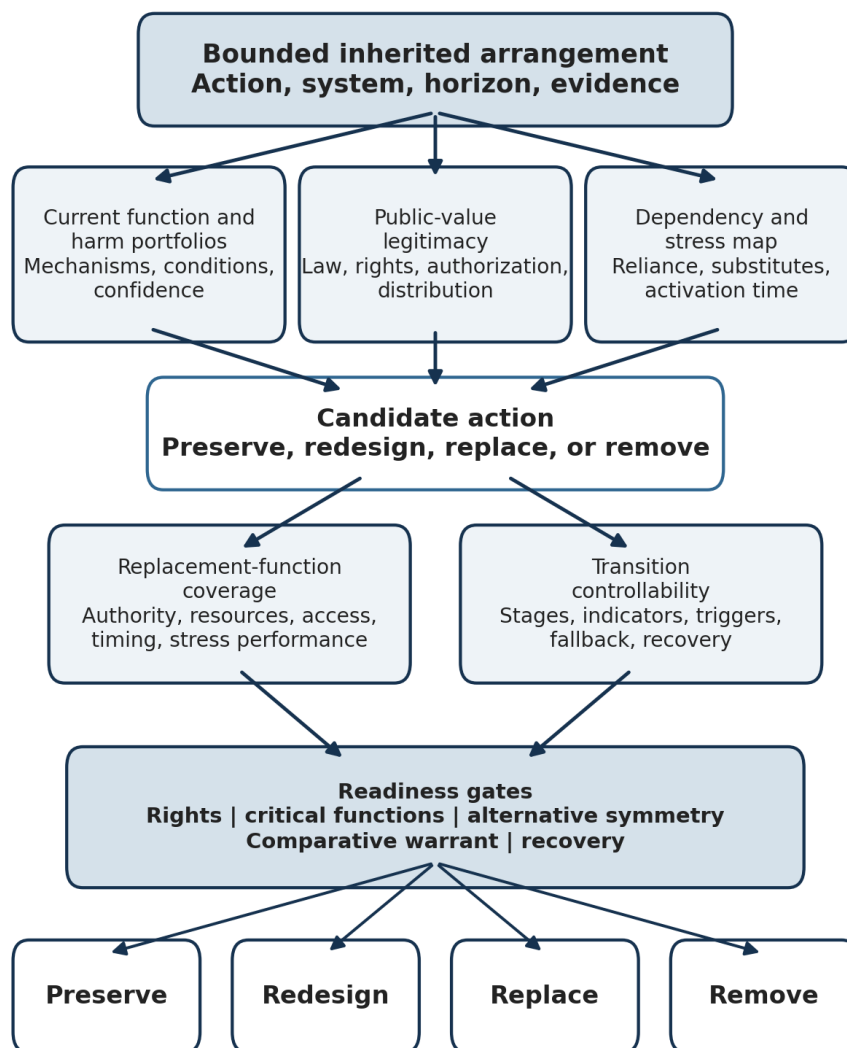
Dependency centrality is the extent to which valued actors, processes, services, safeguards, or policy instruments rely on the arrangement or one of its functions. It includes the number and importance of dependent processes, strength of reliance, substitute availability, activation delay, concentration of dependence, and stress-only reliance. A conceptual function-specific expression is:

$$dk = \text{sum-}j [wj * rjk * (1 - sj)] \quad (5)$$

Here, w is the public importance of dependent process j ; r is its reliance on function k ; and s is effective substitutability. The expression is an organizing relation, not a validated

estimator. Its purpose is to show that a lightly connected but safety-critical function with no timely substitute can be more load-bearing than a densely connected routine with many alternatives.

Dependency mapping must include formal and informal reliance. Legal authority, budget lines, data interfaces, procurement chains, staff expertise, records, vendor arrangements, public expectations, and tacit workarounds can all carry continuity. A formal assignment to a successor is not a transfer if the successor lacks resources, skills, information, relationships, or time.

Figure 1*Institutional Intervention Readiness architecture*

The burden of evidence rises with nonrecoverable downside and falls with controllable learning.

The Protective-Success Mechanism

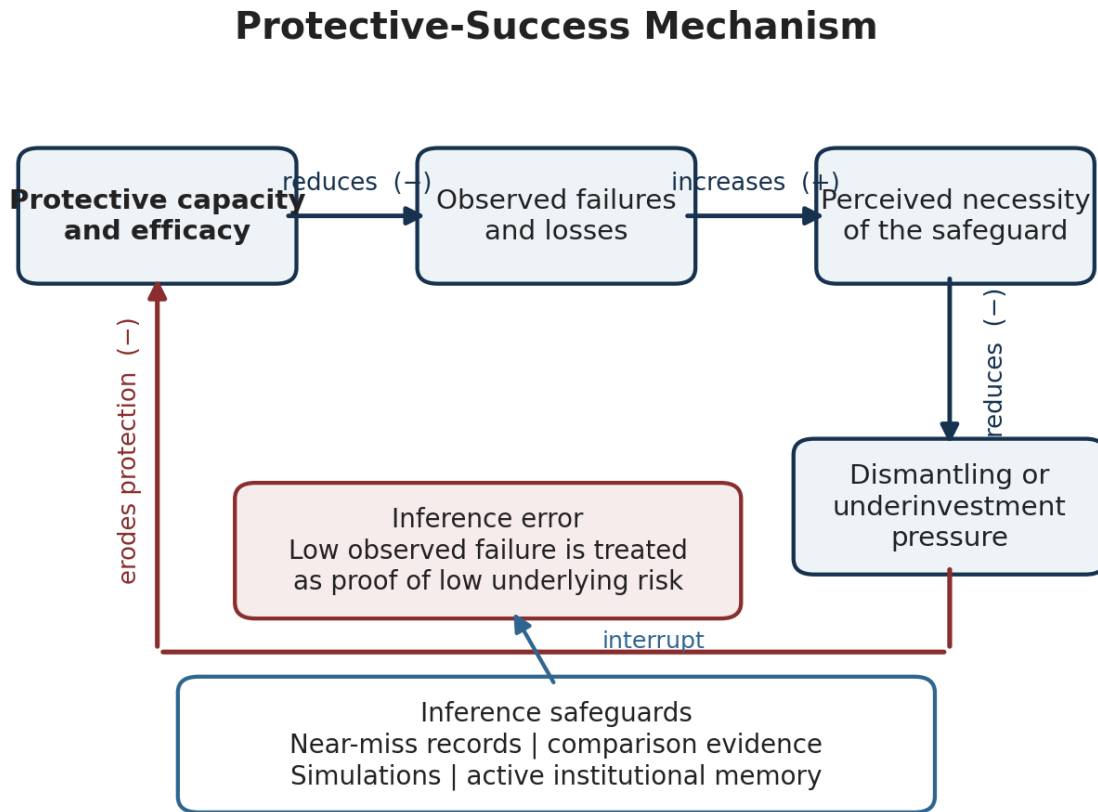
Protective arrangements create a special inferential problem. An effective safeguard lowers the incidence of the condition that would demonstrate its necessity. Costs and procedures remain visible, while the avoided loss is counterfactual. Institutional memory fades, personnel turn over, and a long period without failure is reinterpreted as evidence that the protection is redundant. Within IIR, this article refers to that process as the *protective-success mechanism*:

efficacy up -> observed failures down -> perceived necessity down -> dismantling pressure up(6)

The underlying causal pattern is not claimed as new. Prevention, preparedness, and public-health scholarship describe how effective protection can make its necessity politically and evidentially invisible (Fineberg, 2013; Messinger Cayetano & Crandall, 2020; Naumova, 2026). It should not be confused with Rose's (1981) population-level prevention paradox. IIR's proposed contribution is to specify the mechanism for institutional intervention, identify moderators, and connect it to an ex ante disposition test. The mechanism draws more specifically on research showing that organizations must construct meaning from rare events and near misses, and that memory is stored imperfectly across people, routines, records, structures, and culture (March et al., 1991; Walsh & Ungson, 1991). Public-sector research documents institutional amnesia as a policy problem (Pollitt, 2000; Stark & Head, 2019). High-reliability scholarship similarly emphasizes preoccupation with failure and reluctance to simplify when success can conceal risk (Weick & Sutcliffe, 2015).

The mechanism should be strongest when the prevented event is rare and severe; benefits are not measured; costs are continuous and salient; memory has decayed; fiscal or political incentives reward visible reductions; and no comparison case, simulation, or near-miss record is available. It should weaken when credible counterfactual evidence, discontinuities, historical comparison, stress tests, near-miss logs, or actively maintained institutional memory make avoided loss visible.

This mechanism does not prove a safeguard is effective. It identifies an endogenous inference error: low failure incidence may be evidence of low underlying risk, effective protection, or both. Decision-makers must distinguish those hypotheses before treating nonoccurrence as nonnecessity.

Figure 2*The protective-success mechanism*

Replacement-Function Coverage

Replacement-function coverage is the degree to which candidate action a will preserve, transfer, replicate, or deliberately supersede each legitimate function at an acceptable level under normal and stress conditions. For each function, c_{-ak} ranges conceptually from 0 to 1. A weighted summary can aid transparency, but no average should allow excellent coverage of minor functions to compensate for failure on a rights-critical or safety-critical one. Critical functions require individual floors.

Conceptual legitimate function-loss exposure is:

$$\Lambda_{-a} = \sum_{k \in F_{plus}} [v_{plus-k} * e_k * d_k * (1 - c_{ak})] + U_a(O) \quad (7)$$

In Equation 7, *v-plus* represents the publicly defensible importance of a function after the legitimacy screen; *e* is its estimated causal contribution; *d* is dependency centrality; *c* is credible coverage; and *U-a(O)* is a residual allowance for material omitted functions that increases with causal opacity. Evidence quality, *q*, does not reduce estimated exposure. Lower-quality evidence widens the ranges around *e*, *d*, and *c* and increases *U-a(O)*. The formulation forces traceability but should usually be implemented ordinally with ranges. False precision would conceal rather than resolve contested values and uncertain causal relations.

Coverage requires more than naming a successor. It asks whether legal authority, finance, staff, information, infrastructure, supplier relationships, geographic access, public legibility, accountability, and stress performance will be available at the required time. Removal needs no successor where a function is no longer required, is unlawful, is normatively rejected, or is already supplied elsewhere. Each conclusion still requires evidence, including proof that dependencies have been safely decoupled.

Transition Controllability

Transition controllability is the extent to which intervention effects can be bounded, detected, corrected, or reversed before unacceptable losses become entrenched. Its components include reversibility; divisibility and staging; leading indicators; detection time; correction time relative to harm-development time; operational fallback; administrative response capacity; geographic or functional containment; and review or sunset mechanisms.

Formal reversibility is insufficient. A statute may be re-enacted while dispersed staff, destroyed records, terminated suppliers, or lost public trust cannot be restored within the relevant horizon. Controllability is therefore a weakest-link property in many cases. Excellent monitoring cannot compensate for the absence of a fallback where failure develops faster than correction.

High controllability permits learning through action and can reduce the pre-action evidence required for a limited step. Low controllability raises the warrant threshold. This point creates an important bridge to adaptive-policy scholarship, which values pathways, signposts, and triggers under deep uncertainty (Haasnoot et al., 2013; Marchau et al., 2019), while preserving IIR's prior focus on the arrangement's existing functions.

Table 2
Core IIR Constructs

Construct	Operational question	Evidence expected
Current function and harm portfolios	What does the arrangement now cause, enable, constrain, stabilize, or damage?	Mechanisms, counterfactuals, data, testimony, comparison, rival explanations
Causal opacity	Which material causal claims or omitted functions remain unresolved for this action?	Data gaps, model disagreement, rarity, delays, sensitivity, unknown-function register
Public-value legitimacy	Which functions and forms merit continuity under law, rights, accountability, and distribution?	Legal review, distributional analysis, authorization, deliberation, sensitivity analysis
Dependency centrality	Who and what relies on each function, under normal conditions and stress?	Process and network maps, substitute readiness, activation time, criticality
Replacement-function coverage	How will each critical legitimate function be covered or safely decoupled, and how will any noncritical function be transferred or relinquished?	Function-to-successor traceability, authority, resources, access, stress tests
Transition controllability	Can error be detected and corrected before unacceptable loss?	Staging, indicators, trigger authority, correction latency, fallback, recovery capacity
Comparative warrant	Does the action outperform preservation and the strongest feasible alternative under uncertainty?	Symmetric baseline, bounded benefits and losses, scenario and sensitivity analysis

Note. Measurement confidence and causal confidence should be reported separately.

Sufficient Understanding as a Comparative Warrant

Evidence Adequacy and the Warrant Threshold

IIR distinguishes evidence adequacy from the warrant threshold at the level of material claims. For claim r , evidence adequacy, $E-r$, records source quality, independence, relevance, consistency, counterfactual strength, and coverage of plausible rival explanations. The threshold, $\tau-r$, specifies the minimum support required, set before the disposition decision according to the maximum credible nonrecoverable loss if that claim is wrong. Critical-function, current-harm, dependency, coverage, and controllability claims can therefore have different thresholds. Causal opacity lowers adequacy, widens plausible-loss bounds, and increases the residual omitted-function allowance.

The exposure model and evidentiary threshold perform different jobs. Centrality, coverage, and severity estimate the possible consequence of error; they are not added again as points in an evidence score. They determine which claims require a higher evidentiary floor. Let $G-a$ denote new public gains and current harms remedied by action a ; $H-a$ denote current harms continued and new operating harms; $\Lambda-a$ denote uncovered legitimate function exposure; $Z-a$ denote transition costs and risks; and $K-a$ denote continuing operating and resource costs. Each term is evaluated over the same horizon and includes distribution, timing, cumulative irreversibility, and uncertainty.

$$P(a) = Ga - [Ha + \Lambda-a + Za + Ka]; \quad W(a:b) = P(a) - P(b) \quad (8)$$

Equation 8 defines a pairwise warrant. Candidate a is compared with preservation and the strongest feasible alternative b , using conservative interval bounds and the same public-value rule. An action is intervention-ready only when every critical claim meets its claim-specific threshold, the conservative lower bound of its pairwise warrant is positive, critical-function

coverage floors are met, and all noncompensable legal and rights conditions are satisfied. An independently specified lexicographic legal or rights duty can exclude an otherwise attractive candidate before comparison; it cannot be invoked retrospectively to rescue a failed warrant. Where values cannot be cardinally combined, the same terms form a multi-criteria profile and unresolved tradeoffs are referred to accountable political authority without relaxing the gates. In many applications, low, medium, and high ranges with explicit confidence and sensitivity tests will be more honest than a composite score.

The status quo enters the comparison as an action. For every disposition, the decision record must show legitimate value retained, current harms continued, current harms remedied, new harms created, operating and transition costs, and cumulative irreversibility. Preservation can carry current harm, liability, opportunity cost, weakening capacity, and irreversible delay. A framework that demands extensive evidence for change but accepts continuity without analysis merely converts epistemic humility into status quo bias. IIR applies the same profile and horizon to all dispositions, while recognizing that their error structures differ.

Five Readiness Gates

The central research question can now be answered directly. Sufficient functional and systemic understanding exists when five gates are met at a standard proportional to intervention hazard.

Gate 1: Bounded causal account. The arrangement, system, time horizon, and proposed action are specified. The function search provisionally closes only after relevant source classes have been sampled, including provenance records, administrative data, front-line knowledge, affected-group experience, and independent expertise; new inquiries yield diminishing material categories; high-risk rival explanations have been tested; and unresolved hypotheses are

preserved in an unknown-function register with an explicit opacity reserve. Original purpose is evidence, not the conclusion.

Gate 2: Legitimacy and rights separation. Causal functions are separated from their public-value status. Illegal or rights-violating mechanisms are identified as constraints, distributional incidence is explicit, and valuable functions carried by an unacceptable form are marked for continuity planning rather than used to excuse the form.

Gate 3: Dependency and alternative symmetry. Formal and informal dependencies, including stress-only and vulnerable-group dependencies, are mapped. Preservation and feasible intervention alternatives are appraised using the same horizon, evidence standards, and treatment of uncertainty. The strongest credible alternative, not a straw proposal, anchors the comparison.

Gate 4: Function coverage and transition integrity. Every critical legitimate function threatened by the action is credibly covered or safely decoupled. A noncritical legitimate function may be deliberately relinquished only through an explicit, authorized, and publicly reasoned risk judgment; deliberate relinquishment cannot satisfy a safety-, rights-, or continuity-critical floor. Authority, resources, people, information, access, timing, and stress performance are traceable. Transition burdens and service bridges are assigned.

Gate 5: Learning and recovery. Residual uncertainties are either unlikely to reverse the comparative choice or are bounded by staging, monitoring, indicators, triggers, fallback, correction authority, and recovery resources. Detection and correction can occur before unacceptable harm becomes entrenched.

These gates yield a decision-relative sufficiency rule:

Understanding is sufficient not when uncertainty disappears, but when all choice-relevant uncertainties have been reduced, exposed, or made governable in proportion to the credible loss that error could cause.

The rule permits urgent action. An emergency can compress the audit to life- and safety-critical functions, highest-centrality dependencies, immediate substitutes, catastrophic failure modes, and fallback. It cannot make causal dependence vanish. Temporary authority, limited scope, sunset clauses, incident logging, and mandatory review compensate for reduced pre-action inquiry.

Four Institutional Dispositions

IIR does not map a single readiness score to a single action. It supports a reasoned choice among four dispositions.

Preserve. Preservation is warranted when material legitimate functions remain, the existing form is lawful and publicly defensible, ongoing harms are limited or remediable without structural alteration, and no feasible intervention has a stronger comparative warrant.

Preservation is active stewardship: document functions, maintain capacity, monitor drift, and schedule reassessment.

Redesign. Redesign retains the same authoritative institutional locus and primary responsibility while materially altering internal rules, processes, resources, or delivery features. It is appropriate when valuable functions remain substantial, harms or inefficiencies are separable from those functions, and internal modification offers credible coverage with controllable transition risk.

Replace. Replacement retires the existing form and, because of the intervention, transfers primary responsibility for legitimate functions to a materially different rule, organization,

process, or capacity. It is appropriate when the functions remain valuable but the form is obsolete, structurally ineffective, captured, or normatively unacceptable, and a designated successor can assume the full required portfolio in time.

Remove. Removal terminates the arrangement without an intervention-caused transfer to a designated successor. It is appropriate when no material legitimate function requires continuity; the relevant need has disappeared; functions are unlawful or publicly rejected; or other arrangements already supplied the function independently before the focal decision and dependencies are safely decoupled. Removal is not readiness by exhaustion. The absence of a formal mandate or recent visible output is insufficient.

Table 3
Disposition Logic

Disposition	Characteristic evidentiary pattern	Required policy commitment
Preserve	Legitimate functions and dependencies remain; form is defensible; alternatives do not improve comparative warrant	Maintenance, documentation, monitoring, and scheduled review
Redesign	Legitimate functions remain; harmful features are separable; internal coverage is credible	Function traceability, bounded change, indicators, and fallback
Replace	Functions remain valuable; form is defective; successor coverage is strong	Timed transfer of authority, resources, information, access, and accountability
Remove	No material legitimate function needs continuity, or coverage already exists; dependencies are decoupled	Verified closure, transition support, monitoring for omitted functions

Note. The dispositions are **not** a linear sequence or ranking.

The governing principle is: preserve necessary functions without presuming that their existing form deserves preservation.

Testable Propositions

IIR is intended to be vulnerable to evidence. Function cannot mean whatever later proves important, and readiness cannot be defined as whatever later succeeds. Function claims, coverage estimates, outcome criteria, and time horizons should be recorded before intervention.

Where feasible, assessments should be preregistered, independently reviewed, and compared with simpler rival approaches such as mandate-only analysis or conventional impact assessment.

Proposition 1: Current-function superiority. Current function and dependency maps will predict post-intervention service changes and losses more accurately than accounts based only on original purpose, statutory mandate, or institutional age, controlling for case complexity and analyst expertise.

Proposition 2: Multifunctionality penalty. Whole-form interventions justified by a single stated purpose will generate more unanticipated losses and compensatory workarounds than interventions preceded by a multi-function portfolio analysis. The difference will increase with the number of independently supported nonmandated functions.

Proposition 3: Protective-success mechanism. Controlling underlying hazard exposure, independently estimated protective efficacy will lower observed failure incidence; lower incidence will in turn reduce perceived necessity and increase dismantling support when institutional memory and counterfactual accounting are weak. Credible avoided-loss, near-miss, comparison, or simulation evidence will attenuate the mediated relationship.

Proposition 4: Opacity-centrality interaction. Adverse post-change surprises will be disproportionately more frequent and severe when causal opacity and dependency centrality are both high than would be predicted by their separate additive effects.

Proposition 5: Stress-sensitive coverage. Ex ante replacement-function coverage will predict post-intervention continuity, and coverage assessed under stress conditions will predict crisis performance more strongly than coverage assessed only during normal operations.

Proposition 6: Controllability moderation. At comparable levels of opacity and estimated coverage, staged, monitorable, reversible interventions with operational fallbacks will

produce fewer persistent losses and faster recovery than abrupt, low-controllability interventions. The advantage will be greatest under high opacity and centrality.

Proposition 7: Legitimacy-function separation. Evidence that an arrangement performs an effective function will increase preservation support only when that function and form are judged publicly legitimate. Where function is valuable but form violates salient legitimacy constraints, fuller IIR information will shift recommendations toward redesign or replacement.

Proposition 8: Status quo symmetry. Making ongoing status quo harms explicit will reduce preservation recommendations when those harms are large, cumulative, or difficult to reverse, without creating a general pro-intervention shift where they are small. A fence heuristic that evaluates intervention risk alone will exhibit greater preservation bias.

Proposition 9: Redesign-replacement discrimination. Using ex ante independent coding of harm separability and internal and external function coverage, redesign will produce greater rights-adjusted net public value and continuity over a fixed horizon when harms are separable and internal coverage is high. Replacement will outperform redesign when harms are embedded in the authoritative form and external coverage is high.

Proposition 10: Administrative-thinness moderation. Controlling intervention scale, dependency centrality, estimated coverage, and formal reversibility, a given replacement-function gap will produce more persistent harm and slower realized recovery as the mismatch between critical function load and effective specialized capacity, substitutes, institutional memory, and recovery resources increases.

Table 4
Empirical Proposition Register

Proposition	Main independent variables	Primary observable outcome	Falsifying pattern
P1 Current-function superiority	Function and dependency mapping versus mandate-only analysis	Forecast accuracy for service, distributional, and continuity effects	No predictive gain after controls

Proposition	Main independent variables	Primary observable outcome	Falsifying pattern
P2 Multi-functionality penalty	Number and quality of nonmandated functions identified	Unanticipated losses and compensatory workarounds	No relationship or reverse relationship
P3 Protective success	Independent efficacy, hazard exposure, observed failures, memory, counterfactual evidence	Mediated effect on perceived necessity and dismantling support	No efficacy-incidence mediation or moderation by memory and evidence
P4 Opacity-centrality interaction	Opacity and centrality	Frequency and severity of adverse surprises	Only additive effects or no interaction
P5 Stress-sensitive coverage	Normal and stress coverage estimates	Continuity and crisis performance	Ex ante coverage does not predict outcomes
P6 Controllability moderation	Staging, monitoring, reversibility, fallback	Persistent loss and recovery time	No advantage under comparable exposure
P7 Legitimacy-function separation	Function evidence and legitimacy judgment	Disposition recommendation	Function evidence drives preservation regardless of legitimacy
P8 Status quo symmetry	Explicit continuity harms	Preservation recommendation	General pro-change bias or no response to major harms
P9 Disposition discrimination	Ex ante harm separability and internal versus external coverage	Rights-adjusted public value and continuity over a fixed horizon	Redesign and replacement perform indistinguishably across conditions
P10 Administrative thinness	Function-to-capacity mismatch, controlling centrality, coverage, and formal reversibility	Persistent harm and realized recovery time	No incremental moderation beyond component variables

Note. Tests should record the assessment before outcomes are observed and compare IIR with simpler rival models.

Illustrative Cases

The cases in this section do not establish the propositions. They show how IIR changes the questions asked and clarify the difference between changing a form and covering its functions.

India: Demonetization and Uneven Substitution

On November 8, 2016, India invalidated high-denomination notes representing 86% of currency in circulation while replacement notes entered gradually. Using district-level variation

in cash-shortage exposure, Chodorow-Reich et al. (2020) found relative reductions in economic activity and credit, together with faster adoption of alternative payment technologies. Their estimates imply short-run contractions of at least two percentage points in employment and night-lights-based output and two percentage points in bank credit in the fourth quarter of 2016, with effects dissipating over subsequent months.

The IIR point is not a complete welfare verdict on demonetization. The IIR interpretation is that cash plausibly served a portfolio wider than the harmful uses emphasized in the public rationale, including payment infrastructure, working capital, a liquidity reserve, and an access bridge for people and firms with unequal banking and digital substitutes. The study's documented cash-shortage effects are consistent with uncovered or delayed substitution, but do not independently identify every function in that inferred portfolio. Aggregate successor capacity did not guarantee timely, geographically or socially accessible coverage. Temporal compression magnified the exposure because behavioral, technological, and administrative substitution could not occur instantaneously.

Mexico: Seguro Popular and the Difference Between a Successor and Coverage

Seguro Popular extended health protection to people outside formal-employment social security and, by 2018, covered approximately 53 million beneficiaries. It also had well-documented weaknesses, including fragmented administration and uneven access. Mexico replaced it with INSABI in 2020. A nationally representative longitudinal study of adults aged 50 and older found that the share reporting no insurance rose from 9% in 2018 to 26% in 2021; 53% of those reporting Seguro Popular coverage in 2018 reported no coverage in 2021, with disadvantaged groups especially exposed (Cabrero-Castro et al., 2025). Research on high-cost

disease care likewise identifies disruptions associated with the transition (Cortés-Adame & Gómez-Dantés, 2025). INSABI was dissolved in 2023.

The period overlaps with the COVID-19 pandemic, so these observations should not be presented as a clean estimate of the institutional replacement's total causal effect. They nevertheless illustrate a critical IIR distinction. A named successor and an announced entitlement do not demonstrate that affiliation, financing, medicines, records, provider networks, treatment continuity, and high-cost care have been transferred. The inherited arrangement's defects could warrant redesign or replacement, while incomplete coverage could still make a particular transition unready.

The Montreal Protocol: Staged Function-Preserving Substitution

The Montreal Protocol targeted ozone-depleting chemical substrates without treating refrigeration, air conditioning, insulation, fire suppression, and related social functions as disposable. Its design combined stepwise phaseout schedules, differentiated timetables, measurement and reporting, scientific and technical assessment, repeated adjustment, and financial and technical assistance for industrial conversion and institutional capacity. Research documents the sustained search for commercially viable alternatives and substitutes (Andersen et al., 2018). UNEP reports that controlled ozone-depleting substances have been almost entirely phased out relative to historical baselines and that the Multilateral Fund has supported thousands of projects (United Nations Environment Programme, n.d.).

This is an international environmental regime rather than a conventional domestic agency, so transfer should be cautious. Its relevance is architectural: readiness did not require perfect ex ante knowledge. It was created through staged commitments, credible substitution, monitoring, revision, and differentiated support for actors with weaker transition capacity.

Room for the River: Preserve the Function, Change the Form

The Dutch Room for the River program changed a flood-control paradigm centered on increasingly constraining rivers. Measures included moving dikes, lowering floodplains, creating side channels and storage areas, and removing obstructions. Flood safety remained a nonnegotiable function, while the physical and governance form changed and spatial quality became a second objective. Research on the program shows how different planning and policy-instrument configurations supported those dual aims (Busscher et al., 2019).

Room for the River demonstrates that IIR is not institutional conservation. It asks reformers to preserve or replace a necessary function, not its inherited embodiment. The case also shows why affected land uses, local legitimacy, ecological systems, and multi-level governance belong in the dependency map. Its administrative, fiscal, technical, and deliberative capacity was substantial, which limits direct transfer to settings with fewer substitutes and thinner implementation capacity.

Saint Lucia and Windward Banana Preferences: Multifunctionality Under External Change

The erosion of European preferences for Windward Islands bananas is a directly relevant small-state illustration. Preferential access was economically distortive and contributed to dependence on a protected market. It nevertheless did more than set a tariff. Banana income supported smallholder agriculture, rural employment, foreign-exchange earnings, housing, household welfare, landholding, and community life. Narcisse (2010) reports that Saint Lucian banana exports fell from 132,854 tonnes in 1992 to 30,000 tonnes in 2005, while the number of farmers declined from about 10,000 to 1,800. Cashin et al.'s (2010) vector autoregression analysis linked reductions in implicit assistance to considerable macroeconomic effects,

especially on real GDP growth. The burdens were also gendered and spatially concentrated, while Fairtrade arrangements sought to modify production and trading terms (Moberg, 2005; Narcisse, 2010).

Preference erosion was not the sole cause of decline. Weather, disease, production costs, global competition, and domestic constraints also mattered. Nor does the function portfolio imply that the trade regime should have been preserved indefinitely. The regime was being dismantled through external legal and market change and had generated path dependence. The IIR question is which legitimate livelihood, rural-development, social-protection, and foreign-exchange functions required transitional coverage when the trade form changed. Saint Lucia's Social Recovery Programme, which addressed multiple social and productive domains, can be interpreted as partial recognition that the affected portfolio exceeded agricultural export volume alone (Narcisse, 2010).

Table 5
Theory-Illuminating Cases

Case	Intervention pattern	IIR mechanism	Evidentiary caution
India demonetization	Abrupt invalidation with delayed and uneven substitution	Hidden transactional functions, compressed transition, unequal access	Short-run evidence is not a complete welfare evaluation
Mexico Seguro Popular	Termination with attempted successor	Successor labels can mask coverage gaps	COVID-19 overlaps with the observation period
Montreal Protocol	Staged adaptive phaseout	Function-preserving substitution, monitoring, differentiated support	International regime, not a domestic institution
Room for the River	Systemic redesign	Protective function retained while form changes	High-capacity context limits simple transfer
Windward banana preferences	Externally driven erosion of inherited trade regime	Multifunctionality, path dependence, transition coverage	Multiple causes contributed to sector decline

Note. Cases illustrate mechanisms and boundary conditions; they do not test IIR.

Across the cases, the decisive distinction is not between intervention and nonintervention. It is between changing an institutional form and transferring, replacing, or deliberately

relinquishing the full portfolio of functions embedded within it. Incomplete transfer becomes more dangerous when transition is compressed, substitutes are unevenly accessible, dependencies are concentrated, and administrative systems have little redundancy.

Small States as a Boundary Condition

Small island developing states are not a homogeneous capacity category, and smallness should not be coded automatically as weakness. They can possess relational proximity, rapid communication, social cohesion, and cross-government visibility that may facilitate coordination and feedback (Everest-Phillips & Henry, 2018; Kaur & Tennant, 2024). They also face structural exposure to external shocks, narrow production bases, and limits to scale and specialization (Briguglio, 1995; Briguglio et al., 2009; Streeten, 1993). Many core state functions must be supplied regardless of population, while the pool of specialized staff and organizational substitutes may be limited (Operations Policy and Country Services, World Bank, 2016).

IIR operationalizes *administrative thinness*, an existing descriptive phrase, as a testable function-to-capacity boundary condition. Novelty is claimed for the definition and hypotheses below, not for the words themselves (see Miranti, 1989):

Administrative thinness is a system-level function-to-capacity mismatch: the extent to which the number, diversity, simultaneity, and continuity requirements of critical public functions exceed the effective joint supply of specialized personnel, organizational substitutes, institutional memory, and recovery capacity available to perform them.

The mechanism is functional, not demographic. Administrative thinness can occur in a large jurisdiction or be mitigated in a small one through regional pooling, cross-training, interoperable records, durable external support, and well-designed redundancy. It is a higher-

order configuration rather than a relabeling of any single IIR component. Dependency centrality describes load-bearingness, coverage describes a candidate successor, and controllability describes a transition pathway. Administrative thinness describes the surrounding system's ability to supply several critical functions and recover across concurrent demands. Its incremental validity beyond those component measures is an empirical question. It matters in three ways. First, one institution or person may perform several formal and informal functions, so mandate-based analysis systematically understates multifunctionality. Second, few domestic actors may be capable of absorbing a discontinued function within the required time. Third, the administration that fails to identify a dependency may also lack the spare capacity to detect and repair the resulting harm.

Several boundary-condition hypotheses follow. The adverse effects of uncovered functions should rise with administrative thinness, controlling for intervention magnitude. Thinness should increase the probability of consequential functions outside formal mandates. Formal reversibility should predict actual recovery less well where staff, records, suppliers, and networks cannot be restored quickly. Timely and politically reliable regional pooling should weaken each relationship. A countervailing proximity hypothesis predicts lower harm when decision authority is close enough to affected communities to detect and correct function gaps rapidly.

These claims require empirical testing. Suitable indicators include critical functions per specialist; single-person or single-unit dependency; specialist vacancy duration; number and readiness of substitutes; cross-training and documentation; consultant dependence; regional service-sharing reliability; recovery time; and service interruption following staff or institutional change. Comparative designs could examine sectors within Organisation of Eastern Caribbean

States members, matched transitions across small and larger jurisdictions, or similar small states with different levels of regional pooling.

A Practical IIR Protocol

IIR is designed to be usable without pretending that every administration can conduct a multi-year systems study. The protocol is scalable. The depth of inquiry should follow plausible nonrecoverable downside, centrality, opacity, and controllability, not the political visibility or nominal budget of the arrangement.

Step 1: Establish Scope, Authority, and the Decision Set

Define the arrangement, system boundary, horizon, and decision owner. State the proposed change precisely and include preservation, redesign, replacement, and removal where each is feasible. Record legal authority, nonnegotiable rights, deadlines, and the credible harm of delay. Separate verified constraints from assumptions.

Step 2: Reconstruct Provenance and Institutional Drift

Recover the original purpose, design problem, historical environment, amendments, prior failures, and changes in context. Use statutes, archives, administrative records, evaluations, oral histories, and stakeholder testimony. Treat provenance as a source of hypotheses about current function, not proof. Document policy feedback, constituencies, skills, and expectations that may have formed.

Step 3: Build the Current Function Portfolio

For every proposed function, specify outcome, mechanism, groups affected, operating conditions, evidence, measurement confidence, causal confidence, rival explanation, and counterfactual. Search deliberately for prevention, information, coordination, redundancy,

memory, access, legitimacy, and stress-only functions. Record dysfunctions and burdens with equal care.

Each entry should have a claim status:

- **Verified observation:** Directly supported by a primary or authoritative source.
- **Attributed claim:** A stakeholder or source asserts it, but independent confirmation is incomplete.
- **Causal inference:** Evidence and mechanism support a difference-making contribution, with assumptions stated.
- **Scenario or hypothesis:** Plausible and material, but not yet established.

Missing data remain missing. They are not coded as zero function, zero dependence, or zero risk.

Step 4: Screen Legitimacy and Distribution

Identify legality, rights, authorization, accountability, proportionality, and distributional effects. Name beneficiaries, burden bearers, vulnerable groups, and future interests. Where a function is effective but its mechanism is unacceptable, separate the obligation to stop the mechanism from the obligation to bridge legitimate services or protections.

Step 5: Map Dependencies and Stress Conditions

Trace formal and informal reliance across people, agencies, rules, databases, budgets, suppliers, communities, and other policy instruments. Test normal operations and plausible shocks. Identify concentration, activation delays, single points of failure, and dependencies known only to front-line or affected actors. Use RIPPLE-4 at this stage for deeper multi-order propagation analysis when the candidate intervention is sufficiently specified.

Step 6: Build a Function-to-Successor Traceability Matrix

For each legitimate function threatened by each candidate action, name the successor, transfer mechanism, accountable owner, legal authority, resources, skills, information, geographic reach, start date, stress capacity, performance measure, and fallback. If no successor is planned, state whether the function is safely decoupled, redundant, or no longer needed. Only a noncritical function may be deliberately relinquished; identify the accountable authority, public reasoning, affected groups, and residual risk. A critical floor cannot be waived through ordinary balancing.

Step 7: Design Controllability

Assess the controllability of every candidate without preselecting its scale. For candidates that can be reconfigured, specify smaller or staged variants capable of producing decision-relevant learning. Record pilot boundaries, leading indicators, trigger thresholds, monitoring cadence, data owner, pause authority, reversal authority, fallback capacity, recovery time, and service bridge. Test whether failure will become visible soon enough to act.

Step 8: Make and Record the Comparative Warrant

Compare each disposition using the same baseline, horizon, evidence treatment, and public-value criteria. Report the readiness profile, not only a final label. Name unresolved uncertainties and show which could reverse the choice. State the decision owner, implementation owner, expected cost range, deadlines, monitoring measures, and review date. Preserve an auditable record for ex post testing.

Table 6
IIR Policy Appraisal Protocol

Step	Required output	Minimum accountability field
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Step	Required output	Minimum accountability field
1. Scope and decision set	Bounded arrangement, horizon, candidates, rights, urgency	Decision owner and legal authority
2. Provenance and drift	Purpose history, amendments, context change, memory sources	Evidence custodian
3. Function portfolio	Mechanisms, groups, conditions, confidence, rivals, unknowns	Claim owner and source status
4. Legitimacy and distribution	Rights, legality, authorization, benefit and burden map	Legal and distributional reviewer
5. Dependencies and stress	Formal, informal, policy-mix, and shock dependencies	System-map owner
6. Replacement coverage	Function-to-successor traceability and residual gaps	Successor owner, resources, start date
7. Controllability	Stages, indicators, triggers, pause, fallback, recovery	Monitoring and reversal authority
8. Comparative warrant	Readiness profile and chosen disposition	Cost, deadline, measure, review date

Note. Protocol depth should be proportional to credible nonrecoverable downside and administrative feasibility.

Decision Record and Assurance

For consequential interventions, the appraisal team should not be identical to the sponsoring team. Independent challenge reduces motivated simplification and the risk that the analysis begins with a preferred solution. Front-line workers, affected communities, implementation partners, and rights holders should be included because causal knowledge is distributed. Minority analyses should be preserved when disagreement concerns a material mechanism or value.

The final record should distinguish measurement confidence from causal confidence and use ranges where appropriate. It should report the strongest alternative explanation, the strongest feasible alternative action, and the critical evidence that would change the disposition. Recommendations should name an owner, mechanism, resource or cost range, deadline, and measure. Ex post review should compare preregistered function and coverage claims with observed continuity, workaround, distributional, and recovery outcomes.

Relationship to RIPPLE-4 and Sovereign Option Theory

IIR, RIPPLE-4, and Sovereign Option Theory address different analytical objects and should not be collapsed. IIR analyzes the inherited arrangement and the readiness of a proposed transition. RIPPLE-4 analyzes the effects initiated by that transition across direct incidence, participant adaptation, system propagation, and inherited state change (Michel, 2026a). Sovereign Option Theory analyzes the strategic choice among viable courses and the sequencing of commitments so future options are preserved or enlarged (Michel, 2026b).

Table 7
The SLPA Theory Stack

Framework	Primary object	Main question	Principal output
Institutional Intervention Readiness	Existing arrangement and proposed transition	What does it now do, and is this action sufficiently understood, covered, and controllable?	Baseline admissibility and final preserve, redesign, replace, or remove readiness profile
RIPPLE-4	Consequences initiated by an intervention	How may effects propagate across four orders and recursive pathways?	Multi-order mechanism and consequence map
Sovereign Option Theory	Strategic decision architecture under uncertainty	Which viable course and commitment sequence preserve or enlarge future choice?	Option-sensitive strategy, triggers, and staged authority

Note. The sequence is analytical rather than bureaucratic; iteration among the frameworks is expected.

The default SLPA sequence has four moves: IIR baseline diagnosis; RIPPLE-4 candidate analysis; IIR final readiness gates; and Sovereign Option Theory choice and sequencing. The baseline maps load-bearing functions and creates a provisional admissibility profile. RIPPLE-4 supplies prospective evidence about propagation, adaptation, coupling, and inherited state change. IIR then re-evaluates coverage, transition exposure, and comparative warrant. Sovereign Option Theory chooses and sequences among alternatives that have crossed the final gates. Iteration is essential. A RIPPLE-4 pathway can reveal a previously missed dependency and send

the analysis back to the baseline; option analysis can motivate a more controllable candidate that returns to the readiness test.

This separation also clarifies what IIR is not. It is not a replacement for impact assessment, evaluation, systems mapping, public consultation, legal review, or political judgment. It is an integrating diagnostic that makes a particular claim auditable: policymakers understood enough about what they were disturbing, and designed enough coverage and recovery, to warrant the chosen intervention.

Stress Tests and Failure Modes

The Functionalist Fallacy

The most serious theoretical risk is circular functionalism. If every persistent feature is assigned a hidden benefit, IIR becomes unfalsifiable and politically conservative. The safeguard is strict claim discipline. Existence, age, stakeholder attachment, and original intention are not evidence of current function. Each proposed function must specify mechanism, counterfactual, evidence, and observable implications, and must compete with explanations based on inertia, capture, symbolic compliance, or power. Functions should be recorded before outcomes are known.

Status Quo Bias

IIR can be misused to create endless demands for study whenever reform threatens an incumbent interest. Symmetry is the response. Preservation receives no evidentiary privilege. Current rights violations, cumulative fiscal or environmental costs, exclusion, fragility, and opportunity loss enter the same comparative analysis. High opacity normally shifts action toward a controllable probe, service bridge, or staged transition, not indefinite delay.

Rights Violations

Clear illegality or serious rights violation is a hard constraint, not a negative weight that can be offset by administrative benefit. The offending mechanism may require immediate cessation even when the arrangement carries other legitimate functions. Responsible intervention then combines rapid containment with continuity planning: stop the violating component, protect dependents, establish a temporary bridge, and redesign or replace the arrangement. Chesterton's principle cannot require victims to endure ongoing violation until every dependency is known.

Emergency Compression

Emergencies narrow the feasible inquiry horizon. The minimum viable audit should focus on life- and safety-critical functions, highest-centrality dependencies, catastrophic failure modes, immediate substitutes, monitoring, and fallback. Temporary orders, narrow scope, sunsets, incident logs, and mandatory review compensate for compressed analysis. A claim of urgency should itself be documented, since manufactured urgency is a common route around due process.

Capture and Strategic Information

Stakeholders may exaggerate hidden functions to prevent change or suppress dependency information to accelerate it. Triangulation, disclosure of interests, independent challenge, and observable mechanism tests are necessary. Distributional and power analysis must examine who has voice in defining function, whose burden is treated as a cost, and whose knowledge is excluded.

False Precision

Composite scores can create an appearance of certainty and conceal noncompensable conditions. IIR therefore uses a profile and gates. Quantification is welcome where valid, but

ranges, confidence levels, scenario envelopes, and sensitivity tests should accompany estimates. No aggregate score can compensate for an uncovered critical safety function or a serious rights breach.

Administrative Overload

The protocol itself can exceed capacity, especially in a thin administration. Proportionality, modular templates, regional technical pools, cross-sector evidence registers, and reusable dependency maps can reduce burden. The appropriate response to limited capacity is a smaller, more controllable intervention and a focused audit, not an unexamined irreversible change.

Research Agenda

IIR's first empirical task is construct validation. Researchers should develop observable indicators for the current-function portfolio, causal opacity, legitimacy, dependency centrality, replacement coverage, transition controllability, evidence adequacy, and warrant threshold. Content validity can be tested with expert panels and affected-group review; inter-rater reliability can assess whether independent teams code the same case similarly; and discriminant validity can establish that IIR differs from organizational readiness for change, conventional RIA quality, implementation capacity, and target-policy effectiveness.

Predictive validation should use prospective designs. Before intervention, independent teams could prepare an IIR profile, a mandate-only assessment, and a conventional appraisal. Outcomes would include service continuity, distributional shifts, compensatory workarounds, fiscal displacement, network disruption, near misses, persistence of loss, and recovery time. Prediction accuracy and calibration could then be compared across models. Natural experiments,

stepped rollouts, administrative discontinuities, matched policy terminations, and archival cases with contemporaneous pre-decision records offer feasible designs.

The protective-success proposition requires independent estimates of efficacy to avoid circularity. Suitable settings include safety inspections, public-health surveillance, reserve capacity, flood protection, financial safeguards, and emergency preparedness. Researchers could test whether recent low failure incidence reduces perceived necessity through memory decay, and whether near-miss records or avoided-loss evidence change that relationship.

Small-state research should focus on administrative thinness rather than a SIDS dummy variable. Within-country sector comparisons can hold national context relatively constant while varying specialist concentration, substitute availability, documentation, regional pooling, and recovery time. Comparative Organisation of Eastern Caribbean States research could examine whether shared institutions and interoperable systems create genuine function coverage or only formal nominal substitutes.

Finally, IIR should be tested against failure. If ex ante function and dependency maps do not improve prediction; if opacity and centrality do not interact; if coverage does not predict continuity; or if controllability does not reduce persistent loss, the framework's claims should be narrowed or rejected. The theory's practical value depends on better decisions than simpler rivals, not on the intuitive appeal of a fence.

Limitations

IIR is a conceptual framework, not a validated index. Its equations specify monotonic relationships and traceability, not settled estimators. Public-value legitimacy cannot be fully technocratized, and legitimate disagreement may persist after excellent analysis. Complex

systems can surprise even well-prepared decision-makers, while political institutions may lack incentives to expose uncertainty or record predictions that enable later accountability.

The literature synthesis is integrative rather than systematic, and the exact compound term does not establish intellectual priority. Adjacent fields already contain readiness assessments, institutional-readiness concepts, functional alternatives, resilience tools, termination frameworks, and sophisticated impact analysis. IIR's defensible contribution is the particular integration and ex ante testable decision standard, not ownership of its component ideas.

The cases are illustrative and heterogeneous. They do not estimate IIR's effects, and some outcomes have multiple causes. The framework can also impose transaction costs and delay. Proportionality and controllable action are therefore integral, not optional. In some emergencies, a minimum viable audit will be all that is possible. In some rights cases, immediate containment must precede fuller diagnosis.

IIR may improve the transparency of judgment without resolving political conflict. Powerful actors can contest the system boundary, evidence standard, valuation, or definition of acceptable loss. The framework's response is to expose those choices, preserve minority analyses, and assign accountable authority. It cannot guarantee that institutions will use the information well.

Conclusion

Chesterton's Fence endures because it captures a truth about complex systems: inability to see a use is not evidence of uselessness. Public policy needs a stronger rule, because original purpose can diverge from current function, persistence can reflect power rather than value, and preservation can be as harmful as intervention.

Institutional Intervention Readiness supplies that rule. Sufficient understanding is not exhaustive history or complete causal identification. It is a decision-relative, risk-adjusted warrant. Policymakers must bound the arrangement and action; build an evidence-supported portfolio of current functions and dysfunctions; separate causal effectiveness from legality, rights, and public legitimacy; map dependencies and distribution; trace coverage for every critical legitimate function; compare continuity and change symmetrically; and ensure that remaining uncertainty is either immaterial to the choice or contained through staging, monitoring, fallback, and recovery.

The four dispositions follow from that analysis. Preserve when legitimate functions and defensible form remain and no alternative has stronger warrant. Redesign when harms are separable from valuable functions. Replace when functions remain necessary but the form is defective and a successor can truly cover them. Remove when no material legitimate function requires continuity and dependencies are safely decoupled. In every case, the object of loyalty is not inherited form. It is lawful, legitimate, and resilient public value.

For SLPA, IIR creates the missing institutional-diagnosis and readiness layer. It first asks what is load-bearing. RIPPLE-4 then asks how each plausible disturbance may propagate. IIR uses that evidence to decide which candidates are intervention-ready, and Sovereign Option Theory asks which ready course should be chosen and sequenced to preserve future freedom. Together, they support a style of public action that is neither timid nor reckless: understand enough, make uncertainty governable, protect what matters, and change what should not remain.

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Appendix A

Minimum Viable IIR Diagnostic

Use the minimum viable diagnostic when delay itself poses serious harm or decision time is sharply constrained. A “no” or “unknown” response to a critical item does not automatically stop action. It requires either immediate evidence, a narrower intervention, a bridge, or stronger controllability.

Table A1

Minimum Viable Function and Transition Audit

Diagnostic question	Yes, no, or unknown	Evidence or action required
Is the exact arrangement and proposed intervention bounded?		Name system, horizon, authority, and affected population
Are life-, safety-, rights-, and continuity-critical functions identified?		Record mechanism, operating condition, and confidence
Are current violations or irreversible status quo harms identified?		State immediate containment or delay cost
Are the most critical formal and informal dependencies mapped?		Name dependent service, group, substitute, and activation time
Will each critical legitimate function remain available throughout transition?		Name successor, bridge, owner, resources, and start date
Can failure be observed before unacceptable harm is entrenched?		Specify leading indicator and detection time
Can the action be paused, narrowed, or reversed in practice?		Name authority, trigger, fallback, and recovery time
Are vulnerable groups protected from transition burdens?		Specify access, compensation, continuity, and due process
Is preservation assessed for current and cumulative harm?		Compare the same horizon and evidence standard
Is a mandatory review scheduled with records preserved?		Name date, reviewer, outcomes, and evidence custodian

Note. Unknown is a substantive finding. It must not be converted to zero risk.

Appendix B

Full Function-to-Successor Register

Table B1

IIR Function Register Template

Field	Required entry
Arrangement and system boundary	Rule, organization, routine, infrastructure, jurisdiction, and horizon
Function claim	Present difference-making causal contribution
Mechanism and counterfactual	How the effect occurs and what would differ without it
Groups and distribution	Beneficiaries, burden bearers, rights holders, vulnerable groups
Operating conditions	Normal, stress, threshold, delayed, and rare-event conditions
Source status	Verified observation, attributed claim, inference, or scenario
Confidence	Measurement confidence and causal confidence, reported separately
Rival explanation	Inertia, capture, symbolic compliance, external cause, or other
Legitimacy status	Law, rights, authorization, accountability, proportionality, distribution
Dependency centrality	Reliance, criticality, substitute availability, activation delay
Candidate action	Preserve, redesign, replace, or remove specification
Coverage	Successor, authority, resources, staff, information, access, timing, stress performance
Residual gap	Uncovered noncritical function or deliberate noncritical relinquishment, public reasoning, and accepted risk owner; critical gaps fail the gate
Controllability	Stage, indicator, trigger, pause, fallback, correction, recovery
Decision record	Owner, cost range, deadline, measure, review date, minority view

Appendix C

Suggested Prospective Validation Design

A publishable first validation study could recruit multiple policy-analysis teams and assign them historical or live intervention episodes. Before outcomes are disclosed, teams would be randomized to one of three assessment conditions: original-purpose and mandate review; conventional regulatory appraisal; or the IIR protocol. All teams would forecast a preregistered set of direct, distributional, continuity, workaround, policy-mix, and recovery outcomes. Independent coders would score calibration, accuracy, omitted material outcomes, and recommended disposition.

The study should stratify episodes by causal opacity, dependency centrality, intervention reversibility, and administrative thinness. The primary test is whether IIR improves out-of-sample prediction and disposition quality beyond conventional appraisal. Secondary tests examine whether replacement coverage predicts continuity, whether the opacity-centrality interaction predicts surprise, and whether controllability predicts recovery. Qualitative process tracing would assess why IIR succeeded or failed and whether its additional analytical cost was proportional to decision value.