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Institutional Memory and Long-Run Economic Resilience through Learning from Recurrent Shocks

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ABSTRACT

Economic resilience is often assessed through an economy's immediate response to a discrete crisis, such as the speed of recovery or the extent of output loss. This event-based perspective provides limited insight into why some economies develop durable adaptive capacity across repeated disruptions while others remain vulnerable. This conceptual paper reconceptualizes economic resilience as a long-run institutional process shaped by institutional memory and learning from recurrent shocks. Drawing on institutional economics, historical institutionalism, and economic history, the framework explains how societies encode past crisis experience in legal rules, administrative routines, fiscal and monetary arrangements, and informal governance norms. It further shows that learning is selective and politically mediated: experience may be retained and translated into adaptation, reinterpreted to preserve existing arrangements, or forgotten, thereby reproducing vulnerability. The paper develops a dynamic feedback framework in which the outcomes of each shock reshape institutional memory and influence responses to subsequent disruptions. By shifting attention from isolated recovery episodes to cumulative institutional change, the study offers an explanation for divergent long-run resilience trajectories across societies and historical periods. The framework provides a foundation for comparative historical research, including research on Asia-Pacific economies exposed to recurrent economic, political, and trade-related disruptions.

Keywords: Institutional memory; Economic resilience; Historical institutionalism; Recurrent economic shocks; Asia-Pacific economic history

1. INTRODUCTION

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Economic systems have been repeatedly exposed to disruptive shocks throughout history, including wars, pandemics, financial crises, environmental disturbances, and major transformations in trade and production regimes (Yu et al., 2022). While such shocks often generate immediate economic dislocation, their long term consequences vary markedly across societies (Dadush, 2023). Some economies demonstrate a capacity to absorb disruption, reorganize economic activity, and sustain development over time, whereas others experience repeated fragility, prolonged stagnation, or structural decline (Farhadi, 2014). Explaining these divergent long run trajectories has long been a central concern in economic history and historical political economy (Hay, 2004). Scholars have emphasized that these differences cannot be understood solely through contemporaneous policy choices or resource endowments but must be situated within historically evolving institutional arrangements that shape how economies respond to disruption across time (Chen et al., 2023; Hamdy, 2024; Oliver, 1997).

A growing interdisciplinary literature has examined economic resilience in response to crisis. Much of this work, however, conceptualizes resilience as an event-based outcome, focusing on short term recovery, resistance, or the speed with which economic activity returns to pre-shock levels. These approaches typically privilege discrete shocks and compressed time horizons, relying on post event indicators to assess resilience (Derwort et al., 2019; Ha, 2023; Mahmood et al., 2024). While analytically useful, such perspectives provide limited insight into how adaptive capacity is constructed and sustained across recurrent disruptions. By treating shocks as isolated events, event based frameworks risk overlooking the cumulative effects of repeated crises and the role of historically embedded institutions in shaping responses over time (Minniti et al., 2025). As a result, resilience is often framed as a temporary response rather than as a long run property of economic systems.

Insights from economic history challenge this event centric view by emphasizing the persistence and recurrence of disruption (Christensen et al., 2018). Wars, epidemics, financial crises, and trade collapses rarely occur in isolation; instead, they unfold in sequences that interact with inherited institutional structures. The conception of historical time underscores how short term events are embedded within deeper structural and institutional rhythms that shape long run outcomes (Day, 1980). Similarly, comparative analyses of financial crises reveal recurring patterns of boom, collapse, and recovery across centuries, yet with sharply different consequences depending on institutional context (Faroque et al., 2022). These perspectives suggest that understanding resilience requires attention to how past experiences with disruption are remembered, interpreted, and incorporated into institutional arrangements that condition future responses.

This paper argues that institutional memory and learning across shocks provide a critical foundation for understanding long run economic resilience. Institutions do more than coordinate economic activity at a given moment; they also function as repositories of collective experience. Through laws, governance structures, fiscal frameworks, and administrative routines, institutions encode lessons from past disruptions and transmit them across political cycles and generations (Oliver, 1997; Oshilalu, 2024). These accumulated experiences shape how economies interpret new shocks, anticipate risks, and select appropriate responses. Institutional memory thus mediates the relationship between recurrent disruption and long run outcomes, influencing whether

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economies persist along established paths, adapt existing arrangements, or undergo more fundamental structural transformation.

The paper makes three interrelated contributions to the economic history literature. First, it reconceptualizes economic resilience as a historically embedded institutional process, rather than as an episodic recovery outcome. Second, it introduces institutional memory and learning across shocks as explicit mechanisms linking recurrent disruption to long run adaptive capacity. Third, it integrates feedback effects into the analysis, showing how resilience outcomes themselves reshape institutional memory and condition future responses. Together, these contributions provide a framework capable of explaining persistent variation in resilience across societies and historical periods without resorting to deterministic or ahistorical explanations.

More specifically, the framework extends existing research on path dependence, institutional change, and adaptive capacity by specifying the temporal mechanism through which recurrent shocks shape resilience. Its distinctive contribution is not simply to treat institutions as important background conditions. Rather, it explains how the experience of repeated shocks is retained in institutional arrangements, selectively interpreted by political and administrative actors, partially forgotten, or converted into new rules and routines. This process-based account distinguishes institutional memory from path dependence: path dependence may result when retained experience constrains later choices, whereas institutional memory also permits the reinterpretation and revision of earlier lessons. The framework therefore explains why similar shocks can generate persistence, adaptation, or transformation, producing divergent long-run resilience trajectories across societies.

Building on institutional economics and historical political economy, the paper addresses three guiding questions. How do institutions accumulate and retain experience from recurrent economic shocks? Through what mechanisms does institutional learning via selective retention and forgetting shape adaptive responses over time? Why do similar shocks generate divergent resilience trajectories across societies and historical periods? Addressing these questions shifts analytical attention away from short run recovery metrics toward the long run institutional processes through which adaptive capacity is constructed, contested, and revised.

Beyond its general theoretical contribution, the framework has relevance for Asia-Pacific economic history. Economies across the region have experienced recurrent shocks linked to colonial legacies, wars, state building processes, financial crises, and shifting integration into global markets. Despite facing comparable external pressures, these economies have followed markedly different development trajectories. Understanding how institutional memory and learning have shaped adaptive capacity offers a promising avenue for comparative historical analysis of resilience across the region (Hamdy, 2024; Sharma et al., 2025). By situating resilience within historically grounded institutional processes, the paper contributes to broader debates on divergence, development, and economic endurance.

The remainder of the paper proceeds as follows. Section 2 critiques the limitations of event-based resilience perspectives. Section 3 conceptualizes institutions as carriers of memory in economic history. Section 4 develops the mechanisms through which institutional memory and learning generate long run economic resilience, as summarized in Figure 1. Section 5 discusses implications for economic history and comparative analysis and presents illustrative historical episodes. Section 6 concludes.

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1.1 Conceptual Development Approach

This conceptual framework was developed through an integrative synthesis of four complementary bodies of scholarship: economic-resilience research, historical institutionalism, institutional economics, and economic-history research. The review focused on studies that explain responses to economic disruption, institutional continuity and change, the accumulation of historical experience, and variation in long-run economic outcomes. These literatures were examined together to identify the framework's central elements: recurrent shocks, institutional memory, institutional learning, response modes, feedback effects, and long-run economic resilience. The proposed relationships were then developed through a process-based logic in which repeated shocks generate experiences that may be retained, selectively interpreted, forgotten, or translated into institutional responses. This approach supports a historically grounded explanation of why comparable disruptions can produce persistence, adaptation, transformation, or continued vulnerability across societies and periods.

1.2 Relevance to Asia-Pacific Economic History

The Asia-Pacific provides a particularly useful setting for examining the long-run relationship between recurrent shocks, institutional memory, and economic resilience. Economies across the region have experienced colonial rule, wars, state-building challenges, financial crises, trade disruptions, and unequal integration into global markets, but their institutional trajectories have varied substantially (Slater, 2010). These differences make it possible to examine why comparable external pressures have produced divergent responses, ranging from persistent vulnerability to incremental adaptation and institutional transformation. A long-run institutional perspective is especially valuable in this context because it directs attention to how colonial administrative legacies, state capacity, policy repertoires, and political coalitions shape the retention and use of experience across successive shocks. The Asia-Pacific is therefore not merely an illustrative location; it provides a theoretically relevant context for comparative historical analysis of how resilience develops over time (Kohli, 1945; Slater, 2010).

2. LIMITS OF EVENT BASED RESILIENCE PERSPECTIVES

Economic resilience has become an increasingly prominent concept across economics and related disciplines, particularly in the aftermath of major disruptions such as financial crises, pandemics, and environmental shocks (Capoani et al., 2025). Much of this literature conceptualizes resilience as an event based phenomenon, focusing on how economies respond to a discrete shock and how quickly they recover to pre-crisis conditions (Shepherd & Williams, 2023). Common indicators include recovery speed, resistance to output loss, and the extent of post shock stabilization. While these approaches have generated valuable insights into short term adjustment dynamics, they provide a limited explanation of why some economies repeatedly demonstrate adaptive capacity across successive disruptions, whereas others remain persistently vulnerable (Derwort et al., 2019; Ha, 2023; Mahmood et al., 2024).

A core limitation of event based resilience perspectives lies in their treatment of time (Minniti et al., 2025). By framing shocks as isolated events, these approaches compress historical processes

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and overlook the cumulative nature of economic disruption. Economic history demonstrates that wars, epidemics, financial crises, and trade collapses recur over long periods and interact with inherited institutional arrangements (Christodoulakis, 2015; Guo et al., 2022). The distinction between short term events and long run structural rhythms underscores that historical outcomes are shaped not only by singular crises but by deeper institutional continuities and transformations (Day, 1980; Sun et al., 2019). Similarly, long run analyses of financial crises reveal recurring patterns of disruption across centuries, yet with markedly different consequences depending on institutional context (Faroque et al., 2022). Event based frameworks struggle to capture these cumulative dynamics.

A second limitation concerns the way institutions and historical experience are typically incorporated into event-based resilience research. Some event-based studies do recognize that governance structures, policy capacity, and institutional quality shape crisis responses. However, these factors are often treated as contemporaneous conditions or explanatory variables for a particular event, rather than as historically evolving arrangements shaped by earlier disruptions. This focus can leave underexplored how governance arrangements, legal systems, fiscal regimes, and administrative routines accumulate, revise, or lose experience over successive shocks. A long-run institutional perspective complements event-based research by examining how these processes of retention, learning, and forgetting condition responses over time (Mahoney & Thelen, 2010). These conceptual differences are summarized in Table 1, which contrasts dominant event-based resilience perspectives with a long run institutional approach. The comparison highlights how event-based frameworks emphasize short term recovery outcomes and equilibrium restoration, whereas an institutional perspective foregrounds cumulative learning, memory, and structural adaptation over extended historical horizons.

Table 1. Event Based and Long Run Institutional Perspectives on Economic Resilience

Dimension	**Event Based Resilience Perspective**	**Long Run Institutional Perspective**
Temporal orientation	Short term, crisis specific	Long run, historically cumulative
Concept of shocks	Isolated, exogenous events	Recurrent disruptions embedded in history
Core explanatory focus	Speed and extent of recovery	Accumulation of adaptive capacity
Role of institutions	Static background conditions	Dynamic carriers of memory and learning
Treatment of experience	Implicit or episodic	Cumulative and historically embedded
Learning mechanism	Largely unspecified	Selective retention and forgetting
Mode of analysis	Outcome oriented	Process oriented
Ability to explain divergence	Limited	Strong
View of resilience	Episodic response	Emergent institutional property

Note: The table is a conceptual synthesis developed by the author, drawing on insights from the economic resilience and historical institutionalism literature.

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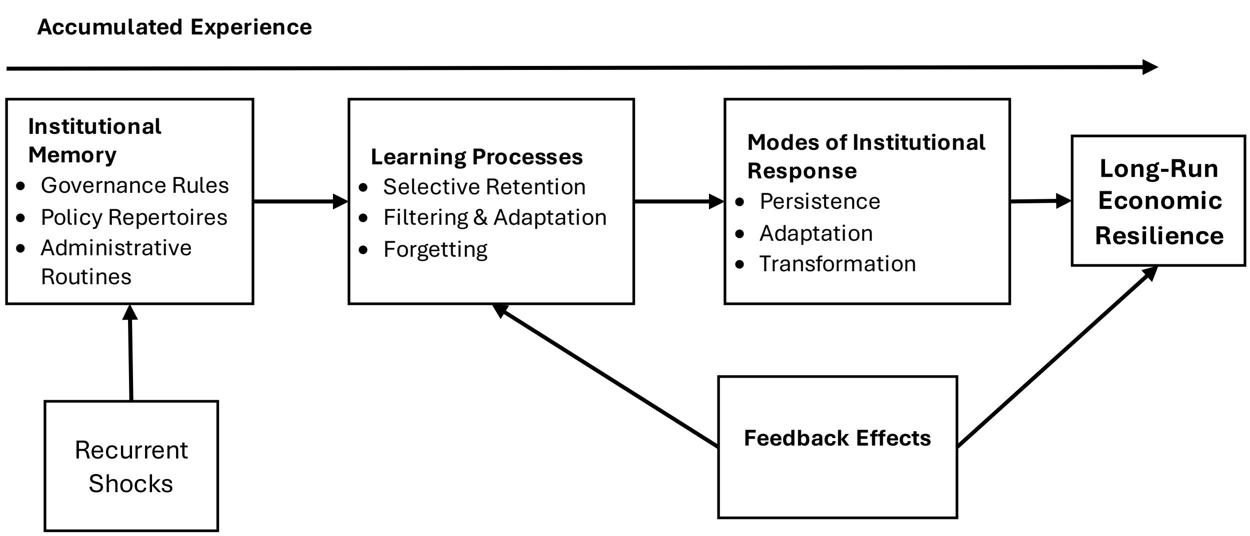
Event based perspectives also offer limited leverage for explaining cross temporal and cross societal variation in resilience (Gonzalez et al., 2020; Karacora et al., 2024). If resilience is assessed primarily through immediate recovery metrics, it becomes difficult to account for why similar shocks produce divergent outcomes across economies or why the same economy responds differently to comparable disruptions at different historical moments (Testa et al., 2015). Historical institutionalism suggests that such variation reflects differences in institutional memory, learning capacity, and political mediation rather than differences in shock magnitude alone (Alegre & Chiva, 2013; Jerez-Gomez et al., 2005). Without an explicit account of how experience is retained, filtered, and mobilized, event-based approaches remain largely descriptive.

These limitations point to the need for a conceptual shift away from resilience as an episodic response and toward resilience as a historically embedded institutional process. Rather than asking how economies recover from a single shock, a long run perspective asks how repeated disruptions interact with institutional arrangements to shape adaptive capacity over time. To guide this reconceptualization, Figure 1 introduces a framework in which recurrent shocks contribute to the formation of institutional memory, shaping learning processes that condition future responses and long run economic resilience.

Figure 1. Learning from Disruption: Institutional Memory and Long Run Economic Resilience



3. INSTITUTIONS AS CARRIERS OF MEMORY IN ECONOMIC HISTORY

Economic history has long emphasized that institutions shape economic outcomes not only by structuring incentives at a given point in time, but also by embedding historical experience into durable arrangements that persist across generations. From this perspective, institutions function as carriers of collective memory, preserving and transmitting knowledge derived from past economic disruptions. This temporal dimension distinguishes institutional explanations from event

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based accounts and provides a foundation for understanding long run economic resilience. Early contributions in institutional economics highlighted how rules, norms, and organizations constrain and enable economic behavior over time, thereby shaping development trajectories far beyond the circumstances of their initial formation (Hamdy, 2024; Oliver, 1997).

Institutional memory refers to the accumulation of past experiences that become encoded in governance structures, policy repertoires, and administrative routines. These memories are not stored solely in individual cognition, but are embedded in formal laws, fiscal frameworks, regulatory practices, and informal norms that endure beyond specific crises or political cycles. As a result, institutions allow economic systems to draw on historically informed responses rather than relying on ad hoc improvisation when confronted with new shocks (Jerez-Gomez et al., 2005; Oshilalu, 2024). Institutional memory thus shapes how economies interpret disruption, define appropriate responses, and coordinate collective action under conditions of uncertainty.

Institutional memory and institutional learning are related but distinct. Institutional memory is the retained and codified experience from earlier shocks, embedded in laws, policy instruments, administrative routines, and informal governance norms (Mahoney & Thelen, 2010). Institutional learning is the subsequent process through which actors interpret, evaluate, and use that retained experience to maintain, revise, or replace institutional arrangements. Memory is therefore the repository of experience, whereas learning is the active use of that repository in response to new conditions. Path dependence is neither memory nor learning; it is one possible consequence of retained experience when earlier institutional choices constrain later options.

3.1 Forms of Institutional Memory

Institutional memory takes multiple forms, each operating through distinct mechanisms and time horizons. Legal memory is embedded in constitutions, statutes, and judicial precedents that codify responses to past disruptions. Such legal arrangements often reflect lessons learned from earlier crises and constrain future policy choices, thereby shaping long run economic behavior. Administrative memory, by contrast, resides in bureaucratic routines, organizational practices, and professional norms that guide day to day governance. These routines persist through personnel turnover and provide continuity in policy implementation, particularly during periods of uncertainty. Finally, fiscal and monetary memory is embedded in budgetary rules, central banking mandates, and macroeconomic policy frameworks that reflect historical experiences with inflation, debt crises, or financial instability (Faroque et al., 2022; Oliver, 1997).

These forms of memory interact over time, reinforcing or constraining one another. Legal rules may institutionalize administrative practices, while fiscal frameworks may limit the scope of discretionary intervention during crises. Together, they form layered institutional arrangements that encode historical experience in ways that shape future responses to disruption. Understanding these distinct but interconnected forms of memory is essential for explaining why some economies develop coherent adaptive capacity while others struggle to translate experience into durable institutional change.

3.2 Intergenerational Transmission of Institutional Memory

A defining feature of institutional memory is its capacity for intergenerational transmission. Unlike individual learning, which is bounded by human lifespans, institutional memory allows societies

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to retain experience across generations. This transmission occurs through formal mechanisms such as legal continuity, bureaucratic training, and standardized procedures, as well as through informal norms and professional cultures that socialize new actors into established practices (Jerez-Gomez et al., 2005). As a result, institutions can preserve lessons from past disruptions even when the original decision makers are no longer present.

However, intergenerational transmission is neither automatic nor complete. Political turnover, regime change, and institutional reform can disrupt memory, leading to partial forgetting or reinterpretation of past experience. In some cases, institutional memory may be deliberately dismantled or marginalized as part of broader political or ideological shifts. Historical institutionalism emphasizes that the durability of memory depends on the stability of institutional arrangements and the coalitions that support them (Alegre & Chiva, 2013; Chen et al., 2023). Where institutions are weak or highly politicized, memory may erode rapidly, undermining long run adaptive capacity.

While much of institutional memory is embedded in formal rules and administrative structures, a significant portion operates through informal institutions and tacit norms that shape behavior beyond written law. Shared expectations about appropriate state intervention, fiscal prudence, or crisis response are often transmitted through professional cultures, elite networks, and historically rooted conventions. These informal dimensions of memory can be particularly influential during periods of uncertainty, when formal rules provide limited guidance, and actors rely on historically grounded norms to coordinate action. Economic historians have long emphasized that such informal institutions evolve slowly and exert durable influence on economic behavior, reinforcing continuity across shocks even in the absence of explicit policy continuity (Hamdy, 2024; Oliver, 1997). At the same time, tacit memory is more vulnerable to erosion through generational turnover, ideological shifts, or prolonged periods of stability that weaken awareness of past disruptions. Recognizing the role of informal institutional memory helps explain why similar formal arrangements may produce different resilience outcomes across societies and periods.

Institutional memory is not only accumulated but can also decay over time, particularly in the absence of reinforcing shocks or when institutional arrangements are repeatedly restructured. Periods of prolonged stability may weaken incentives to preserve crisis related knowledge, leading to gradual forgetting or complacency. Moreover, institutional memory may erode when governance systems experience frequent political turnover, administrative fragmentation, or external intervention that disrupts continuity. Historical institutionalism highlights that forgetting is not merely passive but often reflects active political processes through which inconvenient lessons are marginalized or suppressed (Alegre & Chiva, 2013; Jerez-Gomez et al., 2005). Such erosion can undermine long run resilience by disconnecting present decision making from historically accumulated experience. Economies characterized by institutional decay may therefore face recurrent shocks with diminished adaptive capacity, despite prior exposure to similar disruptions. Incorporating memory erosion into the analysis reinforces the framework's emphasis on resilience as an evolving and contested institutional property rather than a permanently secured outcome.

3.3 Institutional Memory versus Organizational Memory

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It is important to distinguish institutional memory from related concepts such as organizational or firm level memory. While organizations may learn from experience, such learning is often localized, contingent, and vulnerable to leadership change or market pressures. Institutional memory, by contrast, operates at a broader societal level and is embedded in governance structures that transcend individual organizations. This distinction is particularly relevant for economic history, where long run outcomes reflect interactions among multiple actors operating within shared institutional frameworks (Hamdy, 2024).
Organizational learning may contribute to institutional change, but it does not automatically translate into institutional memory. For learning to become institutionalized, it must be codified, routinized, and embedded in durable arrangements that shape behavior across sectors and over time. Failure to make this transition can result in repeated rediscovery of past lessons or persistent vulnerability to recurrent shocks. Recognizing this distinction helps clarify why some economies exhibit sustained resilience while others experience cycles of crisis and reform without durable improvement.

3.4 Cumulative Experience and Institutional Path Dependence

A central insight from historical institutionalism is that experience with disruption is cumulative rather than episodic. Wars, pandemics, financial crises, and trade disruptions recur over time, and each episode interacts with institutional arrangements shaped by earlier shocks. Over successive disruptions, patterns of response become institutionalized, forming repertoires that influence future behavior. On long run structures underscores how these accumulated experiences condition economic outcomes beyond the immediate effects of individual events (Day, 1980).
Cumulative experience also generates path dependence, whereby early institutional choices shape the range of feasible responses to later shocks. While path dependence can support stability and coordination, it can also constrain adaptation by locking economies into suboptimal arrangements. Whether institutional memory facilitates resilience or reinforces vulnerability depends on how experience is interpreted and mobilized over time (Mirghaderi et al., 2023).

3.5 Contestation, Power, and Selective Memory

Institutional memory does not imply mechanical repetition or automatic learning. Institutions selectively retain certain lessons while discarding or suppressing others. Which experiences are remembered, how they are interpreted, and whether they are mobilized depend on political power, social conflict, and prevailing ideologies. Historical institutionalists emphasize that learning is often contested and uneven, producing variation in adaptive capacity across societies and over time (Alegre & Chiva, 2013; Chen et al., 2023).
In some contexts, institutional memory may reinforce stability and coordination; in others, it may entrench maladaptive practices or inhibit necessary change. Political actors may resist learning that threatens established interests, leading to institutional amnesia or symbolic reform without substantive adaptation. These dynamics help explain why repeated exposure to disruption does not necessarily produce improved resilience.

3.6 Institutional Memory and Long Run Economic Resilience

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By conceptualizing institutions as carriers of memory, this perspective helps explain why similar shocks produce divergent outcomes across time and space. Economies facing comparable disruptions may respond differently depending on the coherence, depth, and adaptability of their institutional memory. Where memory supports coordinated learning and adjustment, shocks may catalyze adaptation or transformation. Where memory is fragmented, politicized, or suppressed, repeated disruption may reinforce vulnerability and stagnation (Jerez-Gomez et al., 2005; Mirghaderi et al., 2023).

As illustrated conceptually in Figure 1, institutional memory occupies a central mediating role between recurrent shocks and long run economic resilience. By linking past experience to present responses through learning and adaptation, institutions shape whether economies persist along established paths, adapt incrementally, or undergo structural transformation. This understanding provides the foundation for examining the specific mechanisms through which institutional memory and learning generate resilience, developed in the following section.

4. INSTITUTIONAL MEMORY, LEARNING, AND LONG RUN ECONOMIC RESILIENCE

The framework developed in this paper conceptualizes long run economic resilience as an outcome of historically embedded institutional processes rather than as an immediate response to discrete shocks. Central to this perspective is the role of institutional memory, which mediates the relationship between recurrent disruptions and economic outcomes by shaping how past experiences inform present and future responses. Institutions store accumulated knowledge from earlier crises in governance rules, policy repertoires, and administrative routines, enabling economies to draw on historically informed responses rather than relying on ad hoc improvisation (Jerez-Gomez et al., 2005; Oliver, 1997). In this framework, institutional memory refers to the storage of accumulated experience, while institutional learning denotes the processes through which that experience is interpreted and translated into institutional change. This distinction is crucial for understanding why exposure to repeated shocks produces divergent resilience trajectories across societies.

The framework also distinguishes institutional memory, institutional learning, path dependence, adaptive capacity, and resilience. Institutional memory is the retained experience from earlier shocks; institutional learning is the interpretation and application of that experience in later decisions. Path dependence is a possible consequence of institutional memory when accumulated experience narrows the range of perceived or feasible responses. Adaptive capacity is the potential of institutions to adjust to disruption, whereas long-run economic resilience is the evolving outcome of how that potential is exercised across successive shocks. These distinctions prevent the concepts from being treated as interchangeable and clarify their respective roles in the proposed process.

Institutional learning across shocks is neither automatic nor uniformly progressive. Learning reflects historically constrained processes shaped by political incentives, power relations, and inherited institutional arrangements. Some experiences are retained and embedded, while others are forgotten, marginalized, or actively suppressed. Historical institutionalism emphasizes that such selective retention and forgetting are central to institutional evolution and to variation in

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adaptive capacity over time (Alegre & Chiva, 2013; Frost et al., 2025; Oshilalu, 2024). Consequently, repeated exposure to disruption does not guarantee improved resilience. Instead, learning depends on the capacity of institutions to encode experience in durable forms and to mobilize that experience in subsequent periods of uncertainty.

4.1 Learning Failure and Institutional Amnesia

A key contribution of the framework is its explanation of why recurrent shocks do not always produce positive learning. Whether experience becomes durable adaptation or institutional amnesia depends on several conditions. Political stability can provide the continuity needed to preserve lessons across electoral or leadership cycles, while bureaucratic capacity supports their codification in rules, records, and routines. Institutional legitimacy increases the likelihood that actors accept and use earlier lessons, whereas elite interests may encourage the suppression of lessons that threaten established power or distributional advantages. The severity, frequency, and sequencing of shocks also matter: closely spaced crises may reinforce preparedness, but repeated crises can instead exhaust administrative capacity or normalize emergency responses.

Institutional amnesia is therefore not simply an absence of memory. It can result from regime change, rapid policy turnover, fragmented governance, external intervention, weak administrative capacity, or deliberate political efforts to marginalize inconvenient lessons. Under these conditions, reforms may remain symbolic, be reversed before they are institutionalized, or be applied selectively. By contrast, when institutions possess continuity, administrative capacity, legitimacy, and political support for revision, retained experience is more likely to be translated into adaptation or transformation. This conditional account explains why similar financial crises, pandemics, or trade disruptions can generate learning in one economy but repeated vulnerability in another (Mahoney & Thelen, 2010).

4.2 Path Dependence, Lock In, and Maladaptation

Institutional memory generates path dependence, whereby early responses to disruption shape the range of feasible adaptations to later shocks. While path dependence can support coordination and stability, it can also produce lock into suboptimal arrangements. Institutions may continue to rely on established repertoires even when changing conditions render them ineffective. In such cases, institutional memory reinforces maladaptation rather than resilience (Mirghaderi et al., 2023).

Maladaptive learning occurs when institutions misinterpret experience or apply lessons inappropriately to new contexts. For example, policies designed to address one type of crisis may be extended to fundamentally different disruptions, limiting flexibility and innovation. Historical institutionalism emphasizes that institutional change is often incremental and constrained, making it difficult to abandon established practices even in the face of repeated failure (Oshilalu, 2024). This perspective helps explain why some economies experience cycles of crisis and reform without achieving sustained resilience.

4.3 Modes of Institutional Response: Persistence, Adaptation, and Transformation

Institutional learning can produce three analytically distinct response modes: persistence, adaptation, and transformation. Persistence occurs when institutions maintain existing rules, routines, and governance arrangements despite disruption. It can preserve stability and

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coordination, but it may also protect arrangements that have become ineffective. Adaptation involves incremental modification of policies, procedures, or resource allocations while the underlying institutional architecture remains intact. Transformation entails a fundamental restructuring of institutional arrangements, including the replacement of established rules, organizations, or governing policy paradigms. Transformation is most likely when existing arrangements lose legitimacy or become unable to address the disruption.

The same shock can produce different response modes because responses are shaped by political incentives, the distribution of power, bureaucratic capacity, and the perceived legitimacy of existing institutions. Accordingly, persistence, adaptation, and transformation should not be understood as automatic stages or uniformly desirable outcomes. Persistence may be stabilizing, adaptation may be insufficient, and transformation may be necessary but politically difficult. This distinction clarifies how institutional memory can support resilience in some circumstances while reinforcing vulnerability or maladaptation in others (Mahoney & Thelen, 2010).

4.4 Feedback Effects and the Cumulative Nature of Resilience

Long run economic resilience emerges through feedback effects that link outcomes back to institutional memory. Successful adaptation or transformation reinforces governance repertoires, strengthening confidence in specific institutional arrangements and increasing their likelihood of future use. Conversely, failure may prompt contestation, revision, or abandonment of existing practices. Over time, these feedback loops contribute to cumulative learning, updating institutional memory and reshaping future responses to disruption (Jerez-Gomez et al., 2005; Oliver, 1997).

Feedback effects may be positive or negative. Positive feedback reinforces adaptive capacity, enabling institutions to refine responses and deepen resilience. Negative feedback, by contrast, may erode institutional legitimacy, fragment governance, or entrench maladaptive practices. The balance between these feedback processes helps explain long run divergence in resilience trajectories across societies.

Historical experience illustrates how institutional memory shapes resilience across recurrent shocks. For example, postwar fiscal and monetary institutions in several advanced economies were explicitly designed in response to interwar instability, embedding lessons from earlier crises into durable governance frameworks. In contrast, repeated financial crises in some emerging economies have produced uneven learning, with regulatory adaptation constrained by political fragmentation and external dependence (Faroque et al., 2022; Mirghaderi et al., 2023). These contrasting trajectories underscore the importance of institutional learning and feedback in shaping long run outcomes.

4.5 Institutional Memory as a Mediating Mechanism

By integrating institutional memory, learning, and feedback, the framework clarifies how resilience is constructed over long historical horizons. Resilience is not defined by the speed of recovery from a single crisis, but by the capacity of institutions to absorb disruption, reorganize economic activity, and sustain continuity across successive shocks. Institutional memory mediates the impact of recurrent disruptions by shaping how experience is interpreted and mobilized, influencing whether economies persist along established paths, adapt incrementally, or undergo structural transformation.

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As summarized in Figure 1, institutional memory occupies a central mediating role between recurrent shocks and long run economic resilience. By linking historical experience to adaptive capacity through learning and institutional change, the framework provides a historically grounded explanation of why some economies endure and adapt while others remain vulnerable to repeated disruption. The following section discusses the implications of this perspective for economic history and comparative analysis.

4.6 Crisis Sequencing and the Timing of Institutional Learning

An additional dimension shaping long run economic resilience concerns the sequencing and timing of crises. Economic history suggests that the order, frequency, and proximity of shocks influence how institutional memory is formed and how learning unfolds over time. Early crises often play a disproportionate role in shaping institutional trajectories by establishing initial repertoires of response and framing expectations about appropriate intervention. When such early experiences are encoded into durable governance arrangements, they may condition responses to subsequent shocks long after the original disruption has passed (Jerez-Gomez et al., 2005; Oliver, 1997).

Crisis sequencing also affects the depth and durability of learning. Closely spaced shocks may reinforce institutional memory by repeatedly activating crisis related routines, increasing the likelihood that lessons are retained and embedded. Conversely, long intervals between disruptions may weaken memory through erosion or complacency, reducing the salience of experience when new shocks emerge. Economic historians have noted that prolonged periods of stability can diminish preparedness by undermining the perceived relevance of earlier crises, even when formal institutional arrangements remain in place (Day, 1980; Faroque et al., 2022).

The nature of sequencing further shapes whether learning leads to adaptation or maladaptation. When early crises are misinterpreted or addressed through narrowly targeted responses, institutions may become locked into response patterns that prove ill suited to later disruptions. In such cases, subsequent shocks may reinforce maladaptive learning rather than prompt reconsideration, particularly when political incentives favor continuity over experimentation. Conversely, sequences that expose the limitations of existing arrangements may facilitate deeper institutional reconfiguration, especially when shocks occur under conditions that weaken entrenched interests (Oshilalu, 2024; Singh et al., 2023).

Sequencing also interacts with feedback effects emphasized earlier in this section. Successful responses to early shocks may generate confidence in particular governance repertoires, increasing their likelihood of reuse even as conditions change. Failed responses, by contrast, may trigger contestation and revision, but only when institutional arrangements allow for critical reflection and adaptation. Thus, crisis sequencing shapes not only what institutions learn, but also when and how learning occurs, influencing long run resilience trajectories.

Incorporating crisis sequencing into the analysis reinforces the framework's emphasis on resilience as a historically contingent and non-deterministic process. The timing and order of shocks condition the formation of institutional memory, the operation of learning mechanisms, and the balance between persistence, adaptation, and transformation. Recognizing these dynamics further strengthens the explanatory power of an institutional approach to long run economic resilience.

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5 ILLUSTRATIVE HISTORICAL EPISODES OF INSTITUTIONAL MEMORY AND RESILIENCE

To further ground the conceptual framework, this section presents a set of illustrative historical episodes that demonstrate how institutional memory and learning across recurrent shocks have shaped long run economic resilience. These episodes are not intended as empirical case studies or systematic comparisons, but as historically informed illustrations that clarify the mechanisms developed in earlier sections. By highlighting how institutional memory has been embedded, contested, and mobilized across different contexts, these examples underscore the explanatory value of a long run institutional perspective on resilience.

5.1 Institutional Learning after the Great Depression

The institutional transformations that followed the Great Depression provide a canonical illustration of how crisis experience can be embedded into durable governance arrangements. The collapse of financial systems and mass unemployment during the interwar period exposed the limitations of prevailing policy frameworks and prompted a rethinking of the institutional foundations of economic stability. In several advanced economies, lessons drawn from this experience were encoded into new fiscal, monetary, and regulatory institutions designed to prevent a recurrence of systemic collapse. Central banking mandates were revised, financial regulation was expanded, and countercyclical fiscal policies were institutionalized as legitimate tools of economic governance (Falaleeva et al., 2011; Oliver, 1997).

Crucially, these reforms reflected not merely short-term crisis management, but the creation of institutional memory that shaped responses to subsequent shocks. Postwar macroeconomic frameworks incorporated lessons from interwar instability, constraining policy choices and guiding intervention during later downturns. While the effectiveness of these arrangements varied across countries, their durability illustrates how institutional memory can support long run resilience by embedding historical experience into governance structures that persist beyond the original crisis.

5.2 Recurrent Financial Crises and Uneven Learning in Emerging Economies

In contrast to the relatively consolidated learning observed in some advanced economies, the experience of recurrent financial crises in many emerging economies illustrates the uneven and contested nature of institutional learning. Episodes of currency collapse, sovereign debt crises, and banking failures have recurred across decades, often with striking similarities in their underlying vulnerabilities. While these crises have sometimes prompted regulatory reform and institutional adaptation, learning has frequently been partial or short lived, constrained by political fragmentation, weak state capacity, and external dependence (Faroque et al., 2022).

In such contexts, institutional memory has often been fragmented rather than cumulative. Reforms introduced in response to one crisis may be diluted, reversed, or undermined before they can be consolidated into durable governance arrangements. As a result, similar shocks re-emerge with comparable consequences, reflecting institutional amnesia rather than sustained learning. This pattern highlights how exposure to recurrent disruption does not automatically generate resilience; instead, it underscores the importance of stable institutional arrangements capable of retaining and mobilizing crisis experience over time (Mirghaderi et al., 2023).

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5.3 Pandemic Governance and the Limits of Institutional Memory

Pandemics provide a further illustration of the role and limits of institutional memory in shaping resilience. Historical experience with epidemics has informed the development of public health institutions, surveillance systems, and emergency response protocols in many societies. In some cases, lessons from earlier outbreaks were embedded into durable administrative routines, enabling more coordinated responses to subsequent health crises. In other contexts, however, institutional memory proved shallow or fragmented, with preparedness eroded by long periods without major outbreaks (Goldthau, 2014).

The varied responses to recent pandemics illustrate how institutional memory interacts with political incentives and governance capacity. Where public health institutions retained authority, resources, and legitimacy, historical experience supported more effective coordination and adaptation. Where memory had eroded or been politicized, responses were often delayed or inconsistent, despite prior exposure to similar threats. These contrasting outcomes reinforce the framework's emphasis on selective retention, learning failure, and feedback effects in shaping long run resilience.

5.4 Colonial Legacies and Institutional Memory in the Asia-Pacific

The Asia-Pacific region offers particularly rich illustrations of how institutional memory shapes resilience across long historical horizons. Colonial legacies left diverse institutional arrangements that conditioned how economies responded to post independence shocks, including wars, commodity price volatility, and financial crises. In some cases, colonial administrative structures were adapted and repurposed, forming the basis for postcolonial governance and economic coordination. In others, externally imposed institutions lacked legitimacy or coherence, limiting their capacity to retain and mobilize experience (Hamdy, 2024; Sharma et al., 2025).

These divergent trajectories highlight how institutional memory interacts with historical context. Where institutions evolved through gradual adaptation and learning, repeated exposure to disruption contributed to the development of adaptive capacity. Where institutional arrangements were frequently restructured or contested, memory remained fragmented, undermining long run resilience. This perspective underscores the value of analyzing resilience through the lens of institutional continuity and transformation rather than through isolated post crisis outcomes.

5.5 Synthesis: Historical Illustration and Conceptual Insight

Taken together, these historical episodes illustrate the central claims of the framework developed in this paper. First, resilience emerges through cumulative institutional processes rather than through isolated responses to discrete shocks. Second, institutional memory is selective, contested, and shaped by power relations, influencing whether learning leads to adaptation or reinforces vulnerability. Third, feedback effects link outcomes back to institutional memory, shaping future responses and long run trajectories.

By situating resilience within historically embedded institutional dynamics, these illustrations demonstrate why similar shocks can produce divergent outcomes across societies and periods. They also reinforce the analytical value of treating institutional memory and learning as central mechanisms in economic history. Rather than offering definitive explanations of specific episodes,

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the framework provides a lens through which such episodes can be interpreted, compared, and situated within broader patterns of long run economic change.

5.6 Trade Regime Disruptions, Institutional Memory, and Long Run Resilience

Repeated disruptions to international trade regimes provide a further illustration of how institutional memory shapes long run economic resilience. Trade collapses associated with wars, protectionist backlashes, and global economic downturns have recurred throughout modern economic history, often with profound consequences for growth, employment, and state capacity. While such disruptions are frequently analyzed as external shocks, their long run effects depend critically on how prior experiences with trade instability are encoded within domestic institutional arrangements. Economic history suggests that exposure to repeated trade shocks does not uniformly generate resilience; rather, outcomes reflect the extent to which institutions retain and mobilize lessons from earlier episodes (Falaleeva et al., 2011; Visseren-Hamakers, 2015).

The interwar collapse of global trade illustrates how the absence of institutionalized learning can amplify vulnerability. The breakdown of the international trading system during the Great Depression was shaped not only by economic contraction but also by weak institutional memory regarding the systemic consequences of protectionism. In many countries, fragmented governance and nationalist political pressures limited the capacity to retain and apply lessons from earlier trade disruptions, contributing to a downward spiral of retaliatory barriers and prolonged economic disintegration. This episode underscores how the failure to institutionalize trade related memory can transform shocks into enduring structural damage (Laux, 2024).

In contrast, the postwar reconstruction of the international trading system demonstrates how institutional memory can support long run resilience. The creation of multilateral trade institutions reflected an explicit effort to embed lessons from interwar trade collapse into durable governance frameworks. By institutionalizing rules, dispute resolution mechanisms, and norms of reciproc ity, postwar trade regimes constrained unilateral responses to disruption and reduced the likelihood that short term shocks would escalate into systemic breakdowns. These arrangements did not eliminate trade volatility, but they altered the institutional context within which shocks were managed, contributing to greater stability over time (Falaleeva et al., 2011; Oliver, 1997).

At the domestic level, repeated exposure to trade shocks has shaped divergent resilience trajectories across economies. In some contexts, institutional memory facilitated adaptation by encouraging diversification, investment in adjustment mechanisms, and the development of social and fiscal institutions capable of cushioning distributional impacts. In others, trade related memory remained fragmented or politicized, limiting the translation of experience into durable institutional change. Where governance arrangements failed to retain lessons from earlier disruptions, economies remained vulnerable to repeated cycles of exposure and adjustment without sustained improvement (Jerez-Gomez et al., 2005; Mirghaderi et al., 2023).

These dynamics are particularly salient in the Asia-Pacific region, where economies have historically been exposed to volatile external demand, shifting trade regimes, and geopolitical disruption. Colonial trade structures, post independence industrialization strategies, and integration into global value chains have interacted with domestic institutions in shaping how trade shocks are absorbed and managed. In some cases, institutional memory supported gradual adaptation to changing trade conditions; in others, repeated regime shifts undermined the

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accumulation of coherent learning, reinforcing vulnerability rather than resilience (Hamdy, 2024; Sharma et al., 2025).

From a conceptual perspective, trade regime disruptions highlight several core mechanisms emphasized in this paper. First, they illustrate how resilience depends not on exposure alone, but on the institutional capacity to retain and mobilize experience across successive shocks. Second, they demonstrate the importance of feedback effects, whereby successful or failed responses to trade disruption reshape institutional memory and condition future behavior. Finally, they underscore the non-deterministic nature of learning: similar shocks can produce adaptation, persistence, or maladaptation depending on how institutional memory is constructed and contested over time.

Taken together, trade related disruptions reinforce the broader argument that long run economic resilience is an emergent institutional property rather than an automatic consequence of market adjustment. By embedding lessons from past disruptions into durable governance arrangements, institutions can alter the long run consequences of external shocks. Where such memory is absent or eroded, repeated exposure to disruption may instead entrench fragility. This perspective complements the preceding illustrative episodes and further demonstrates the value of analyzing resilience through the lens of institutional memory and learning across shocks.

6. CONCLUSION

This paper has advanced a conceptual framework that reconceptualizes economic resilience as a long run, institutionally embedded process shaped by how societies remember, learn from, and adapt to recurrent shocks. Moving beyond event-based perspectives that emphasize short term recovery, the analysis has positioned institutional memory and learning across shocks as the central mechanisms linking repeated disruption to enduring adaptive capacity. In doing so, the paper aligns resilience analysis with foundational concerns in economic history regarding path dependence, institutional change, and the cumulative effects of historical experience on economic trajectories (Hamdy, 2024; Oliver, 1997).

By conceptualizing institutions as carriers of collective memory, the framework highlights how accumulated experience is embedded in governance rules, policy repertoires, and administrative routines that persist across political cycles and generations. Institutional learning, understood as a process of selective retention and forgetting, explains why exposure to shocks does not automatically translate into improved outcomes. Instead, resilience emerges through historically contingent processes of persistence, adaptation, and transformation, shaped by political incentives, power relations, and the durability of institutional arrangements (Chen et al., 2023; Oshilalu, 2024). This perspective helps explain why similar disruptions can produce stability in some contexts and prolonged vulnerability in others.

A key contribution of the framework lies in its emphasis on the non-deterministic and cumulative nature of resilience. Feedback effects link outcomes back to institutional memory, reinforcing or revising governance arrangements over time. Resilience is therefore not a terminal state, nor a simple function of recovery speed, but an evolving institutional property shaped by ongoing interaction between shocks and inherited structures (Jerez-Gomez et al., 2005; Mirghaderi et al.,

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2023). This insight challenges linear narratives of progress and highlights the possibility of both virtuous and vicious cycles of institutional learning.

The framework also has clear scope conditions. Its explanatory power is likely to be weaker in contexts characterized by extreme institutional instability, limited state capacity, or externally imposed governance arrangements, where institutional memory is fragmented or short lived. In such settings, repeated exposure to disruption may generate volatility rather than learning, limiting the emergence of long run resilience. Acknowledging these boundaries strengthens the framework's analytical credibility and underscores the importance of institutional continuity for cumulative learning.

Beyond its theoretical contribution, the framework offers a foundation for comparative historical analysis across regions and time periods. In particular, it provides a lens for examining how repeated exposure to disruption in regions such as the Asia-Pacific has interacted with diverse institutional trajectories to produce distinct patterns of long run resilience. By emphasizing institutional memory and learning, the framework encourages scholars to move beyond static institutional indicators and to analyze resilience as an evolving historical process shaped by sequences of shocks and responses (Sharma et al., 2025).

The framework also opens several concrete avenues for future research. First, comparative historical case studies can examine how similar recurrent shocks generated different institutional responses across countries or regions, particularly within the Asia-Pacific. Second, longitudinal archival research can trace how policy documents, legislation, central-bank records, administrative manuals, and parliamentary debates retain, revise, or abandon lessons from successive crises. Third, cross-country research can combine historical indicators of fiscal, monetary, legal, and administrative reform with evidence on repeated shocks to assess the conditions under which institutional memory supports resilience rather than maladaptation. Process-tracing studies of financial crises, pandemics, or trade disruptions could further identify how political incentives, bureaucratic capacity, and institutional legitimacy shape the movement from remembered experience to persistence, adaptation, or transformation.

In sum, reframing economic resilience as a product of institutional memory and learning provides a historically grounded explanation for enduring differences in adaptive capacity. By integrating recurrent shocks, institutional mechanisms, and long run outcomes into a coherent framework, this paper contributes to economic history scholarship and offers a conceptual foundation for future comparative research on resilience over time.

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