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From fragility to hybrid resilience: institutional learning and the adaptive function of informality in Thailand's dual crisis (1997-2020)

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Abstract

This paper evaluates Thailand's trajectory from systemic fragility to adaptive institutional resilience by synthesizing evidence from the 1997 Asian Financial Crisis and the 2020 COVID-19 Crisis. It develops the concept of Hybrid Resilience, which argues that sustainable stability in dualistic emerging economies arises from the interaction between credibility from above, the strength, autonomy, and discipline of formal institutions, and flexibility from below, the shock absorbing capacity of the informal economy. While post-1997 financial reforms created the policy autonomy that enabled an inclusive, countercyclical response in 2020, the paper highlights that Thailand's next structural vulnerability is the exposure to rising global trade fragmentation. To address this gap, the review introduces the Dynamic Trade-Risk Mitigation Reserve, a mechanism through which profit linked corporate contributions are pooled in regional financial institutions to fund automatic, diversification linked subsidies anticipating and/or during tariff shocks. The findings suggest that extending Hybrid Resilience to encompass external shock mitigation is essential for embedding long term, strategic resilience within Thailand's formal governance architecture.

Keywords

Hybrid Resilience, Institutional learning, Informal economy, Financial reform, Policy autonomy, Thailand, Asian Financial Crisis, COVID-19, Global trade fragmentation, Deglobalization

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1. Introduction

1.1 Contextualizing Thailand's dual crisis trajectory (1997-2020)

Thailand's modern economic history is characterized by a dynamic, often tumultuous, transition from an agrarian society in the 1960s to a major export-oriented industrial power, maintaining average annual growth > 7% until the late 1990s (1, 2). This rapid industrial ascent, however, was fundamentally underpinned by systemic structural flaws. These vulnerabilities included deficient financial supervision, chronically excessive current account deficits, and a dangerous dependence on volatile, short-term foreign capital inflows, all which rendered the burgeoning economy acutely susceptible to internal and external shocks (2).

The analysis of two defining economic contractions – the 1997 Asian Financial Crisis (AFC) and the 2020 COVID-19 pandemic downturn – provides a crucial framework for evaluating the maturation of Thailand's crisis management capabilities (3, 4). These crises represent distinct institutional challenges. The AFC was an intrinsically endogenous, financially rooted catastrophe, triggered by domestic regulatory inadequacy and mismanagement. Conversely, the COVID-19 shock was unequivocally exogenous, originating outside the economic sphere but transmitting its damage through existing structural dependencies within the real economy and labor market (4, 5). In 1997, the confluence of institutional immaturity and the near absence of formal social safety nets resulted in a devastating economic contraction, necessitating painful, externally mandated reforms. By 2020, the nation's institutional landscape had undergone a fundamental transformation. Leveraging accumulated institutional experience and possessing significantly greater domestic policy autonomy, the state, complemented by the profound flexibility of its informal economy, successfully mitigated catastrophic systemic collapse (4 - 6). This sharp contrast charts a clear trajectory: the Thai economy transitioned from a condition of fragile liberalization towards a state of adaptive resilience.

A central premise of this analysis is that institutional success in managing the 2020 crisis was not a direct function of having learned to cope with an exogenous shock, but rather the successful immunization against the type of crisis experienced in 1997. The structural robustness achieved over two decades, focusing intently on financial insulation, enabled the state to face a fundamentally different, real-sectoral challenge with the necessary fiscal and monetary confidence. Institutional learning in emerging markets, therefore, is inherently path-dependent, focusing resources on redressing the most recent, painful systemic failure. These focused correction efforts, while ensuring stability against similar shocks, inadvertently created the necessary capacity, policy autonomy and fiscal space, to manage unrelated future crises (4, 5).

While these two crises, one financial and one social, defined Thailand's domestic institutional trajectory, a third, equally critical structural threat is now emerging from the global arena: the sustained shift toward deglobalization, trade protectionism, and geopolitical decoupling. For an export dependent economy, this structural shift

represents the next major test of institutional learning. True Hybrid Resilience must therefore prove its capacity to evolve beyond managing domestic shocks to proactively mitigating systemic external vulnerabilities, ensuring sustained national stability in an increasingly fragmented world.

1.2 Defining the research question and theoretical contribution

This paper addresses a central question concerning institutional development and economic survival: how did Thailand's informal economy and institutional reform capacity interact to shape the nation's ability to absorb and recover from two crises with distinctly different origins, and what lessons does this trajectory offer for emerging market governance (7, 8) ?

The core theoretical contribution of this study is the introduction and validation of the concept of Hybrid Resilience. This framework posits that stability in open, dualistic emerging economies is contingent upon the dynamic, functional co-existence and synthesis of two complementary components (9). First, credibility from above; this refers to the state's formal institutional capacity, represented by robust, prudent financial institutions, codified central bank independence, and necessary policy autonomy. Second, flexibility from below; this encompasses the adaptive capacity provided by the nation's large informal labor market, which, comprising between 40 and 50% of the total workforce, acts as a crucial societal buffer against sudden displacement from the formal economy (10, 11).

Crucially, the success of modern crisis management is defined by the state's ability to act as the institutional bridge between these two spheres (11, 12). This bridging function involves strategically transforming the temporary, precarious buffers provided by the informal sector into recipients of formal, targeted policy support during the crisis period (11, 12). Furthermore, the pervasive scale of the informal sector, while providing crucial flexibility, must be recognized as a profound measure of governance failure. Its large size is fundamentally a proxy for the state's historical inability to provide comprehensive, formal social security and employment protection (10, 13). Thus, while the Hybrid Resilience framework empirically describes the successful adaptive policy response, it simultaneously, mandates a long-term goal of leveraging crisis-era coordination to achieve permanent institutionalization of informality, moving beyond reactive support (10, 13).

1.3 Structure and method

The subsequent sections of this study trace the arc of Thailand's institutional journey. The analysis begins by establishing the theoretical foundations of institutional resilience, the political economy of crisis, and the dual economy model. It then details the architecture of fragility leading to the 1997 Asian Financial Crisis, focusing on the financial collapse and the subsequent, highly detrimental, externally imposed procyclical reforms. A subsequent dedicated section examines the critical phase of institutional hardening from 1998 to 2020, contrasting Thailand's financial reform path with that of South Korea to define the stability-dynamism trade off. This sets the stage for a deep analysis of the 2020 response, which utilized the newly established institutional credibility and policy focus on the informal sector, thereby validating the operational

mechanics of the Hybrid Resilience model. The report then examines the enduring structural pathologies, specifically the shifting of systemic risk to household debt.

Ultimately, this paper argues that true Hybrid Resilience must be continuously adapted and strategically applied to emerging threats. The paper's contribution lies in applying this concept to structural external risks. Specifically, the final section proposes the Dynamic Trade-Risk Mitigation Reserve as the next iteration of institutional learning, focused on insulating the export base from the rising pressures of deglobalization and tariff volatility, demonstrating how lessons learned in domestic crisis management can be leveraged to institutionalize strategic external resilience. The methodological approach relies on triangulation of macroeconomic time series data, detailed institutional reports from the Bank of Thailand (BOT), international financial institutions (IMF, World Bank), and established empirical studies on informality and the political economy of crisis response (7, 8).

2. Theoretical foundations: The political economy of institutional learning and dualistic structures

2.1 Institutional resilience, critical junctures, and path dependence

The durability and adaptability of any economy when confronted by severe economic shocks is fundamentally linked to the maturity, independence, and responsiveness of its regulatory and financial institutions (7, 8). Financial crises frequently operate as critical junctures, periods of heightened uncertainty where pre-existing institutional legacies are either fundamentally shattered, leading to comprehensive restructuring, or are reinforced and adapted through the necessity of crisis response (7). The resultant policy choices solidify the path dependence of the financial system, consequently dictating future vulnerabilities and the characteristics of subsequent crises responses (7).

The political economy literature focused on finance highlights that strong property rights, robust investor protection, and effective constraints on unlimited political power are crucial variables determining both the depth of financial development and access to capital (8). In the case of pre-1997 Thailand, political instability, institutional indecisiveness, and chronic mismanagement at both the political and administrative levels were widely recognized as key underlying factors contributing to the financial system's ultimate fragility (2, 14).

This institutional imperative extends directly to central bank governance. The literature consistently argues that a high level of central bank independence, coupled with an explicit mandate for price and financial stability, serves as a vital institutional device for maintaining discipline and resisting political pressures for inflationary or reckless policies (15). The "new political economy of central banking," however, cautions that these institutions can become "reluctant Atlases," potentially suffering from "loneliness" due to a lack of coordinated connection with central fiscal authorities, or from goal overstretching, especially when navigating modern geographical turmoil (16). Post-1997 institutional restructuring in Thailand was largely an attempt to correct the political

economy failure by legally securing the central bank's autonomy, thereby depoliticizing financial oversight and establishing the core of the necessary credibility from above (17, 18). The problem preceding the AFC was not solely a technical market failure but a failure of institutional political economy, where scattered and lax supervision, combined with frequent regulatory forbearance, actively permitted excessive risk-taking, exemplified by the rapid expansion of unhedged foreign debt via the Bangkok International Banking Facilities (BIBF) (18, 19).

2.2 The dual economy model and labor market theory

The structural characteristics of the Thai economy have historically been understood through the lens of the dual economy model, characterized by the co-existence of a modern, predominantly formal sector and a massive, often precarious, informal economy. (20, 21). This framework describes a dual labor market where the wage rate in the formal sector may structurally exceed the marginal productivity of labor in the traditional or informal sector (21). The informal sector is officially delineated by the National Statistics Office (NSO) as encompassing employment lacking formal social security protection (11). This segment constitutes a significant portion of the total workforce, historically fluctuating between 40 and 50% (11, 12).

The academic literature consistently identifies this large informal sector as a vital social safety valve (6, 11). Its inherent labor flexibility allows it to absorb workers abruptly displaced from the formal economy during downturns, thereby acting as a critical buffer against widespread, officially recorded unemployment and dampening the potential for significant social instability (6, 11). However, this adaptive, shock-absorbing capacity operates primarily as a subsistence strategy for households facing devastating income losses, especially in the absence of comprehensive and universal formal safety nets (6). This reliance in flexibility from below, while macroeconomically stabilizing in the short term, simultaneously perpetuates profound structural vulnerability at the micro level. Informal workers face severe disadvantages, lacking integration into formal credit systems, adequate social security and access to productivity-enhancing investment and formal healthcare (11, 13).

The crisis transmission mechanism strongly differentiates the institutional requirements for resilience. The 1997 crisis was a classic twin balance of payments and banking shock, transmitted through the formal sector via the debt-equity spiral and currency collapse (22). Conversely, the 2020 exogenous shock successfully bypassed the financially robust system and struck the real economy and the dual structure directly, primarily impacting the labor market and tourism dependent industries (4, 22). This fundamental difference means that while 1997 demanded robust financial protection through macroprudential fortification, 2020 needed effective social protection, such as through direct transfers and institutional bridging of the dual gap. The long-term governance challenge for Thailand remains leveraging the sector's adaptive strengths while eliminating its inherent structural vulnerability and reducing persistent high inequality (10).

3. Policy mismanagement and the onset of the 1997 Asian Financial Crisis (AFC)

3.1 Exuberant liberalization and systemic imbalance

The catastrophic economic collapse of 1997 was the culmination of nearly a decade of rapid yet critically poorly supervised, financial liberalization. A key institutional mechanism facilitating this fragility was the establishment of the Bangkok International Banking Facilities (BIBF) in 1992 (19, 23). The BIBF was intended to foster international banking by encouraging foreign currency denominated loans (out-in loans) into Thailand to meet funding needs and finance domestic development (19). However, this facility rapidly attracted massive volumes of short term, unhedged foreign capital, which primarily financed speculative investment, particularly in the booming real estate sector (23).

This influx of volatile capital masked severe macroeconomic imbalances. The current account deficit swelled, peaking at an unsustainable level of ~ 8% of the GDP in 1994. This deficit was financed predominantly by these volatile capital inflows. Furthermore, Thailand's external debt burden reached 50% of GDP, with an alarmingly high ~ 40% of that debt characterized by short term maturity (1, 24). This highly leveraged structure, combined with the central bank's politically motivated defense of the fixed exchange rate peg against the U.S. dollar, rendered the economy exquisitely susceptible to speculative attack and currency depreciation.

While the enduring crisis is often framed as a government failure to defend the peg, the deeper structural issue lay in the private sector failure of careless lending and borrowing (18). This widespread moral hazard was enabled by lax, scattered and forbearing financial supervision (20). Despite clear macroeconomic warning signs and runs on weak financial institutions starting before the official float (25), regulators engaged in a pattern of forbearance (20). This signaled to both domestic and international investors that the implicit state guarantee on finance company debt was reliable, intensifying moral hazard and encouraging further speculative borrowing right up to the critical juncture. The AFC was, therefore, fundamentally a crisis of state credibility preceding the currency attack itself.

3.2 Currency collapse

The precarious position became terminal mid-1997. By the end of June 1997, net official foreign reserves had plummeted to a level barely covering the nation's short term foreign debt, estimated at 36.5 billion USD (23). This necessitated the forced float of the currency on 2 July 1997 (23).

The consequences were immediate and catastrophic, confirming the twin crisis structure. The exchange rate underwent hyper-depreciation, plunging from 25 baht per U.S. dollar to 56 baht per U.S. dollar within a few months (22, 23). This depreciation immediately triggered widespread corporate and financial insolvency, primarily because firms' foreign currency liabilities soared relative to their domestic currency revenues - the classic debt-equity spiral (22). Compounding the vulnerability was the external competitive environment; the appreciation of the U.S. dollar from mid-1995, particularly against the Japanese Yen, had already worsened the

competitiveness of Thailand's dollar-pegged currency, exacerbating external imbalances and slowing exports in 1996-97 (22). The baht peg, therefore, constrained policy flexibility and amplified these external pressures into a systemic financial crisis. The ensuing institutional collapse required the subsequent closure of 58 finance companies by the Financial Sector Restructuring Authority (FSRA) (23, 25).

4. The procyclical error: IMF conditionalities, policy tightening, and socioeconomic collapse (1997-1998)

4.1 The IMF bailout

In August 1997, Thailand signed and accepted the conditionalities associated with a 17 billion USD bailout package from the International Monetary Fund (IMF) (23, 26). The initial program was designed to restore external confidence by imposing immediate, severe austerity and a regime of high domestic interest rates (6, 26). The institutionalization of pain was perceived as necessary to signal commitment to fiscal prudence and debt service capability to international creditors.

The monetary policy response, driven by IMF conditionalities, constituted a significant policy failure in the short term. Short term interest rates were aggressively increased by approximately 1000 basis points (10 percentage points) from pre-float levels, and these high rates were maintained until ~ the third quarter of 1998 (6, 27). While the explicit goal was to maximize the rollover of short term foreign debt and control inflationary pressures resulting from the currency plunge, this strategy was largely ineffective in deterring capital outflow (6). Analysts noted that a 1000 basis point increase was an insufficient incentive when the exchange rate had depreciated by more than 100 percent against the U.S. dollar (6). Instead, the extremely tight monetary stance severely deepened the recession by curtailing domestic liquidity and economic activity.

Concurrently, fiscal policy was mandated to be contraction facilitating, focusing on deficit reduction through spending cuts (24, 27). This combination of tight money and fiscal austerity amplified the initial financial shock by explicitly preventing the government from deploying domestic countercyclical cushioning (22, 27). While the IMF later acknowledged that the fiscal policy was too tight, attributing the error to an overly optimistic initial forecast (28), the resulting policy bias toward external creditors over domestic welfare became the central political and economic critique of the entire post-crisis recovery effort.

4.2 Socioeconomic costs and the marginalization of informality

The combination of contraction facilitating macroeconomic policy and the collapse of the financial and corporate sectors inflicted immense social costs (4, 6). Official unemployment figures soared, exceeding 5%, marking a profound and socially disruptive rise from the low pre-crisis levels. Furthermore, the lack of a comprehensive social safety net meant that the poverty rate rose sharply, increasing from 11.4% in 1996 to 13% in 1998 (29). Income inequality rose significantly during this period (29, 30).

The informal economy did expand in the immediate aftermath of the AFC, but this expansion occurred solely as a marginalized subsistence strategy for households

experiencing rapid reductions in income (6). Workers displaced from the formal sector had no official unemployment insurance or government transfers and were forced into low productivity, precarious livelihoods merely to survive. This highlights the institutional neglect of the social dimension in 1997; the state's focus on macro-stabilization led to a failure to address the massive micro level social dislocation (6).

Despite the macroeconomic failure of the initial austerity prescription, the IMF program did provide lasting benefit by compelling the state to implement critical structural benchmarks for financial sector reform, transparency, and tax review (26, 27). The mandatory closure of the 58 insolvent finance companies and the subsequent establishment of the Financial Sector Restructuring Authority (FSRA) (23, 25) laid the foundational groundwork for the long term institutional hardening that would follow. The legacy of the IMF intervention was therefore not its short run macroeconomic prescription, but the structural compulsion it provided.

5. Building credibility from above: institutional hardening (1998-2020)

The period immediately following the AFC initiated a profound, two decade long transformation focused primarily on building the necessary credibility from above, a deliberate process of financial insulation from political interference designed to prevent the recurrence of systemic insolvency and external liquidity dependency (6, 17).

5.1 Financial sector restructuring

The immediate crisis required radical institutional intervention to address the soaring levels of Non-Performing Loans (NPLs), which peaked at over 50% of the real estate credit by 1999 (23). The resolution mechanism involved two main bodies: the Financial Sector Restructuring Authority (FSRA), which successfully recovered 271 billion baht (26% of the closed finance companies' assets) by 2002, and the subsequent establishment of the Thai Asset Management Corporation (TAMC) in 2001 (23, 31).

The TAMC was given a broad mandate. It was to manage impaired assets, facilitate debt restructuring, and assist with business reorganization (31). Over its lifespan, the TAMC acquired impaired assets with a book value of 780 billion baht for a transfer price of 256 billion baht. While proponents argued that the centralization under the TAMC helped eliminate the NPL overhang and may have reduced new NPL generation, its operational execution faced substantial critique (31).

Analysis suggested that the TAMC potentially prolonged the overall resolution timeline by accepting assets from pre-existing state owned asset management companies (the Private Asset Management Company and the Sukhumvit Asset Management Company) which were already engaged in restructuring, leading to procedural disruptions and uncertainty (31, 32). Furthermore, a significant structural flaw undermined efficiency: the TAMC was explicitly prohibited from compensating lead asset managers for their asset management activities. This failure to incentivize managers resulted in lead managers focusing narrowly on minimizing their own expected losses under loss sharing agreements, rather than maximizing recovery for the public good. Although the TAMC ultimately reported

profits, transferring 10 billion baht to the Ministry of Finance upon liquidation in 2013 (31), its effectiveness in accelerating broad corporate restructuring remains a contentious point, particularly given that most assets transferred were from state owned institutions (31, 32). The intensive focus on centralizing troubled assets in the initial recovery stages may have served a political function, signaling a unified front to international creditors, and perhaps sacrificing resolution efficiency for perceived international credibility.

5.2 The legislative transformation of the bank of Thailand

A foundational element of institutional hardening involved deep legal and institutional reforms designed to strengthen regulatory oversight and secure the operational independence of the central bank (17).

The 2008 Financial Institution Business Act (B.E. 2551) represented a landmark legislative achievement. It replaced more than a dozen existing laws governing financial institutions and united governance, licensing, and supervision entirely under the purview of the Bank of Thailand (BOT) (32, 33). This clarified the BOT's responsibility as the sole prudential regulator and empowered it to conduct consolidated supervision over financial conglomerates. (34)

This regulatory consolidation was reinforced by a simultaneous 2008 revision to the Bank of Thailand Act (B.E. 2551) (33, 35). This legislation legally secured the central bank's autonomy and independence from the political executive, institutionalizing the financial discipline that was sorely lacking in 1997. The BOT further promoted systemic stability through its "one presence" policy and utilized tax relaxations for mergers, successfully reducing the number of licensed financial institutions drastically, from 83 in 2003 to 38 by 2010 (34, 36).

However, the pursuit of independence did not eliminate external challenges or political scrutiny. While the 2008 Act aimed for monetary and financial stability (35), the necessity of managing massive capital inflows throughout the post-crisis period forced the BOT into costly sterilization interventions to maintain exchange rate stability and prevent undue volatility (37). The need to trade current stability for future inflation control imposed a heavy cost on the central bank's balance sheet, leading to massive operating and capital losses, estimated at 4,320 billion baht by 2010 (37). This exemplifies an inherent tension: codified independence does not insulate the central bank from the high public cost associated with managing external imbalances in an open economy.

5.3 Outcomes: financial insulation by 2019

The composite success of these rigorous reforms resulted in a robust architecture of financial resilience by the close of 2019 (3). Commercial banks consistently maintained a strong average Bank for International Settlements (BIS) capital adequacy ratio of 19.4% (38). This institutional state of readiness represented the finalized foundation of credibility from above, ensuring that the next crisis, regardless of its origin, would not be a financial one (38).

6. Path dependence and the stability dynamism trade-off

The institutional choices made during the recovery phase set a distinct path dependence that significantly influenced Thailand's subsequent economic trajectory. This trajectory, characterized by resilience but constrained dynamism, can be understood through comparison with another economy.

6.1 Thailand versus South Korea's reform paths

The response to the 1997 crisis across East Asia demonstrated a clear divergence in institutional strategy. South Korea, equally severely impacted by the AFC (32, 40), undertook an aggressive, state-led restructuring of its financial and corporate sectors, notably including forceful reforms of the powerful Chaebol conglomerates (39). This decisive, centralized intervention fostered a banking system with a resulting propensity for active, albeit sometimes aggressive, lending behavior (39).

In contrast, Thailand's chosen reform path emphasized a predominantly private sector led resolution approach, coupled with intensive prudential supervision. This strategy reinforced a highly conservative, risk-averse lending behavior among Thai commercial banks (39). This difference in institutional path dependence provided profound, albeit unintended, consequences. During the 2008 Global Financial Crisis, while South Korea faced the brink of a second financial crisis, Thailand "weathered the shock easily" (40). The conservatism resulting in timid borrowing by Thai banks, a direct legacy of the 1997 collapse, provided critical insulation by the time the 2020 shock arrived.

The comparative difference highlights that institutional learning is mediated by domestic political constraints. South Korea's aggressive restructuring required significant political will to force change upon entrenched domestic interests (39), while Thailand's more gradual, privately led reform path suggests a limitation in unified political capacity immediately following the crisis, resulting in a system optimized for safety over growth potential.

6.2 The middle-income trap

The institutional hardening, while highly successful in achieving financial stability, extracted a significant cost in terms of economic growth dynamism. The reinforcement of conservative risk-averse behavior, the core of the stability strategy, inadvertently contributed to stagnating productivity and prolonged the struggle against the middle-income trap (40, 41). This defines a profound stability-dynamism trade-off inherent in the post-AFC institutional model.

The most powerful indicator of this trade-off is the collapse in private investment. Private investment fell significantly from over 40% of GDP in 1997 to 16.8% by 2019, representing the weakest rate of growth among regional peers (22, 41). The reformed financial system, while safe and sound, became overly cautious, limiting the credit flow essential for supporting high-growth sectors, innovation, and long term productivity-enhancing capital investment.

This conservative lending approach also perpetuated structural dualism. By emphasizing prudent standards, the financial system restricted access to credit particularly for Small and Medium Enterprises (SMEs) and low income households. A significant percentage of households lacked access to formal credit channels even before the crisis. This

institutional reluctance forced SMEs and vulnerable households to rely increasingly on non-bank or informal financing, which, as will be demonstrated, amplified the fragility of household balance sheets in the post-2020 era (34, 42).

7. Transmission, labor paradox and gendered impact during the 2020 shock

The 2020 COVID-19 pandemic provided the ultimate test of Thailand's reformed institutional architecture. It confirmed the success of the post-1997 structural reforms by demonstrating the complete stability of the financial system but simultaneously exposed the enduring structural fragility of the real economy and the social system (4, 40).

7.1 Bypassing the financial system: the real sector transmission

The COVID-19 crisis operated as an external, real-sectoral demand shock. The robust financial system, protected by strong reserves and capital buffers, was entirely bypassed. The crisis transmission instead struck directly at the economy's structural dependencies, primarily the labor market and tourism dependent sectors (4, 22).

The resulting economic impact was severe, with GDP contracting by 6.1% in 2020 (3). The tourism sector, a cornerstone of the economy responsible for approximately one-fifth of GDP and 20% of total employment (43), was paralyzed by international border closures and domestic lockdowns. Tourism revenues plummeted from 90 billion USD in 2019 to 24 billion USD in 2020 (44). Furthermore, global demand weakness led to a sharp decline in exports (3, 4, 43).

7.2 The labor market paradox and income deprivation

The crucial role of flexibility from below was immediately apparent in the labor market response. The large, adaptive informal economy absorbed much of the labor market shock, acting as the primary buffer and keeping the official unemployment rate artificially low, hovering around 2% (11, 44).

However, this low headline figure masked severe labor market slack, widespread underemployment, and devastating income deprivation (6, 45). The reliance on informality as a survival mechanism meant that traditional labor indicators were insufficient for monitoring the true economic pain. Quantitative analysis estimated that 8.4 million jobs were at risk in Q2 and Q3 of 2020 (44). For workers in hard-hit service and manufacturing sectors, income losses in Q2 2020 were projected to range between 75 to 100% of their normal labor income (44). This collapse of income led to dire social consequences: the number of "economically insecure" individuals, defined as those living below 5.5 USD per day in Purchasing Power Parity (PPP) terms, was projected to almost double, increasing from 4.7 million in Q1 2020 to an estimated 9.7 million in Q2 2020 (6, 44). The expansion of informal livelihoods under these conditions was thus a stark measure of household subsistence.

7.3 The amplified gendered impact in the informal economy

The COVID-19 crisis exposed and dramatically amplified pre-existing gender inequalities, particularly within the informal economy. The informal sector contains ~ 20 million workers, of which 9 million, or 44%, are women. These

women are often concentrated in income-sensitive occupations such as market vendors, shop assistants, massage therapists, domestic workers, and caregivers, all of which rely heavily on consistent daily income streams (11, 12).

These women-dominated occupations were immediately devastated by mobility restrictions and lockdowns (46). Data showed that women in both formal and informal employment faced larger reductions in working hours compared to men, resulting in an 8% point gender gap in reduced working hours (12, 46). Analysis of working conditions in Bangkok confirmed that groups dominated by women were the worst affected, with some reporting median earnings of zero in mid-2021 (46).

Compounding the economic shock, women overwhelmingly shouldered the increased burden of unpaid domestic and care work due to school closures and family illness during the pandemic (47). This heightened responsibility further limited their capacity to engage in paid labor, exacerbating their disadvantages in the labor market and potentially reversing limited gains in gender equality (12, 47). This severe, gendered impact confirmed that the reliance on flexibility from below was highly efficient for maintaining macro stability (low official unemployment) but generated severe micro level instability and acted as a powerful amplifier of existing social inequalities. Addressing this impact necessitated structural reforms that prioritized universal social protection and inclusive economic policies that explicitly accounted for unpaid care work (12, 40, 47).

8. Policy response, synthesis, and validation of hybrid resilience

The policy response to the 2020 crisis represents the most critical and positive evidence of Thailand's institutional evolution and learning curve. It constitutes a paradigm shift from the reactive, procyclical austerity of 1997 to a proactive, domestically driven, countercyclical stance (40).

8.1 From procyclical austerity to countercyclical inclusion

The robust financial buffers and central bank independence – the solidified credibility from above established post-1997 – provided the necessary fiscal and monetary policy space to act decisively without triggering capital flight or external liquidity concerns (6,17, 33).

Policy coordination was seamless and aggressively expansionary. The Bank of Thailand deployed liquidity injections and interest rate cuts, while fiscal policy led with a massive countercyclical stimulus package totaling approximately 1.56 trillion baht, equivalent to 15% of GDP (4). This massive package was funded domestically, primarily through planned borrowing via short and long term debt sales, a stark reversal from the externally constrained financial dependence of 1997 (4).

8.2 Direct transfers and digital inclusion

The state successfully operationalized the institutional "Hybrid Bridge" by temporarily formalizing support for the structurally vulnerable informal sector. The government authorized direct digital transfers of 5,000 baht per month to informal workers and farmers. Overall, the economic relief package, worth

approximately 1 trillion baht, benefited around 44 million citizens (4, 46).

Digital transfer schemes, such as "Rao Chana" and "Rao Chana Plus," facilitated the rapid deployment of funds directly to previously "invisible" formal workers. These programs subsidized the cost of goods for millions, with Rao Chana Plus alone projected to boost Q4 GDP in 2020 by an estimated 0.3 to 0.4% (46). This process of registering and delivering aid to the flexible labor base represents a *de facto* preliminary step toward permanent formal inclusion, providing a crucial administrative blueprint for future social protection initiatives (46).

8.3 SME liquidity support mechanisms

Targeted liquidity support was critical for Small and Medium Enterprises (SMEs), many of which already faced credit constraints due to the stability-dynamism trade-off inherent in the post-1997 financial system. Measures included soft loan programs offered by specialized financial institutions, which provided approximately 160 billion baht in assistance, and SME loan guarantees provided by the Thai Credit Guarantee Corporation, offering a total guarantee limit of 170 billion baht for existing operators (48).

While credit guarantee support was generally found to improve SMEs' opportunities in loan applications (48), institutional evaluation revealed significant complexities in the operational efficiency of the programs during the crisis. The assessment of SME promotion programs indicated that the actual product or output was considered "poor" in 2020, partly attributed to the dynamics of the pandemic (48). Furthermore, robust impact assessments often struggled to compare the effectiveness of these specific liquidity injections against the effect of simply spending a similar budget amount on other types of general stimulus. This highlights the institutional challenge of maximizing the efficiency of targeted, micro level support even when macro policy intention is clear.

8.4 Validation of the hybrid resilience model

The immediate socioeconomic outcomes validated the efficacy of the 2020 response. Fiscal transfers were instrumental in containing the potential rise in poverty, successfully limiting the rate to 6.3% by 2021 and preventing a projected higher rate 7.4% (45).

The trajectory achieved demonstrates the conclusive validation of the Hybrid Resilience model. National stability was achieved through the synthesis of credibility from above (which provided the fiscal space and policy autonomy) and flexibility from below (which provided the necessary labor market shock absorption). The deliberate policy response served as the required institutional bridge, enabling a coordinated mitigation effort that contained social dislocation far more effectively than the outright neglect observed in 1997 (6, 40). The institutional evolution is clearly demonstrated by comparing key policy parameters of the two crises, shown in Table 1.

Table 1. Comparative macroeconomic indicators and policy: 1997 AFC vs 2020 COVID-19

Policy Parameter	Pre-Crisis State (1996-1997 Q1)	Initial Policy Response (1997-1998)	Pre-Crisis State (2019-2020 Q1)	Initial Policy Response (2020)
Crisis Origin	Endogenous (Financial/ Internal)	N/A	Exogenous (Real Sector/ External)	N/A
Current Account Balance (% GDP)	Deficit (8%)	N/A	Surplus (7%)	N/A
Monetary Policy	Fixed Exchange Rate Peg	Extreme Tightening (High rates, procyclical)	Floating Exchange Rate	Aggressive Easing (Liquidity, rate cuts)
Fiscal Policy	Surpluses	Contractionary (IMF Mandated Austerity)	Low Public Spending (21% GDP)	Countercyclical (15% GDP Stimulus)
Financial System Resilience	Fragile (Weak Supervision/ Liquidity Attack)	Collapse (NPLs > 50%)	Resilient (Strong Buffers/ Capital)	Insulated (Managed NPLs)

This comparison underscores the profound reversal in governance philosophy, showing that the structural investment in financial credibility allowed for maximal countercyclical intervention when the real economy was threatened.

9. Enduring structural pathologies and the imperative of inclusive institutionalization

Despite the success of the Hybrid Resilience model in mitigating the 2020 shock, Thailand continues to face deep seated structural issues that impede long term growth and inclusive resilience. These enduring problems have been likened by the bank of Thailand Governor to a "chronic disease," characterized by declining growth potential, high inequality, and endemic debt (41, 50).

9.1 Shifting risk pathology to household debt

The institutional hardening post-1997 successfully resolved the systemic corporate debt crisis, but the pathology of risk accumulation did not disappear. It relocated and internalized, shifting decisively to the household sector (51, 52). This relocation of systemic risk represents an institutional blind spot. The intense focus on strengthening the central bank and commercial banks inadvertently neglected the regulation of retail and unsecured lending, where competition and prolonged low interest rates fueled dangerous accumulation (51, 52).

Household debt has surged to historically high levels, reaching 86.7% of GDP by 2023 and peaking at ~ 91.3% of GDP during the height of the pandemic (52, 53). This ratio places Thailand among the highest globally (53). The high debt burden contributed significantly to delaying the country's post-pandemic recovery by constraining consumption (54).

The vulnerability profile of this debt is particularly concerning. A large share consists of unsecured loans, with credit card and personal loans accounting for 28% of total loans (52, 55). Credit card loans recorded the

highest Non-Performing Loans (NPL) ratio at 4.6% in Q3 2024 (52, 55). Overall, 64% of loan accounts classified as NPLs were credit card and personal loans as of September 2024 (52, 55). The deterioration of household credit is broad-based; auto loans, for instance, recorded the highest special mention loan ratio at 15.7% in Q3 2024, indicating substantial deterioration in debt serviceability (52, 55). Critically, this vulnerability is concentrated among younger cohorts: 26% of debtors aged 25–29 have at least one account classified as an NPL (52, 55). For vulnerable households, the Debt Service Ratio (DSR) currently exceeds half of their monthly income (55), severely limiting the effectiveness of future monetary policy stimulus and creating a modern, internal equivalent of the 1997 unhedged foreign debt vulnerability.

The severe and systemic nature of this debt pathology has forced official policy recognition. The Bank of Thailand has declared that addressing the high household debt is a primary concern (50, 56).

9.2 Policy response to the debt crisis post-2020

In response to the identified systemic risk, a key institutional mechanism under discussion is the establishment of a specialized asset management company designed to manage low value debts. This proposed national asset management company is distinct from the 1997 TAMC in its focus: it is designed to purchase small-scale debts, specifically those under 100,000 baht, with the goal of assisting 2-3 million vulnerable retail debtors (56, 57).

This mechanism is essentially a social stability measure that directly reflects the Hybrid Resilience philosophy. By using this institutional capacity to address a widespread social crisis exacerbated by micro level fragility, the asset management company aims to help vulnerable small commercial groups regain access to credit and stimulate immediate job creation and consumption (56, 57), representing a coordinated effort between the Bank of Thailand, the Ministry of Finance, and the Thai Bankers' Association.

9.3 The fiscal constraint and investment shortfall

Compounding the household debt problem is the nation’s struggle with low economic growth, constrained by stagnating productivity and chronically low investment, preventing a successful exit from the middle-income trap (41, 49). This structural issue is inextricably linked to low capacity for public expenditure (49).

Thailand’s level of public spending, averaging 21% of GDP, is significantly lower than that of both structural peers (31%) and aspirational peers (28%) (49). This low fiscal resource mobilization severely limits the state’s capacity to finance both universal welfare coverage and necessary productivity enhancing investments. Crucially, growth enhancing spending, defined as expenditure on human capital, infrastructure and research and development, accounts for only 26% of total public expenditure, a share that has declined over the past decade and is lower than that in the OECD countries (49). Furthermore, efficiency losses necessitate strengthening public investment management to ensure that capital investment aligns with structural reform objectives.

9.4 The policy imperative: institutionalizing informality

The central long term challenge facing Thailand is the pivot from reactive crisis mitigation to proactive resilience building through the rigorous process of institutionalizing informality (11). This involves integrating the adaptive functions of informal systems into formal policy frameworks without sacrificing operational flexibility (11). Achieving truly inclusive resilience requires a multifaceted reform agenda consisting of fiscal reform for universal welfare, labor and social protection reform, and human capital and gender specific investment.

Fiscal reforms are necessary to significantly broaden the tax base and mobilize sufficient resources to finance universal welfare coverage (49). Simplified tax mechanisms, such as simplified lump-sum or turnover-based assessments (Proposed PTRs), must be implemented to reduce administrative burdens and compliance costs, thereby facilitating the voluntary transition of informal businesses into the formal tax system.

Labor legislation must be rapidly adapted to protect the rights of informal workers, particularly within the rapidly growing platform economy (11). Universal social protection must be unlinked from specific employment status, ensuring coverage for all citizens (11). The coverage gap for informal sector workers remains significant, with only 15 percent of the estimated 21.2 million informal workers making voluntary contributions to the Social Security Fund (SSF) in 2018 (11). Effective social dialogue involving informal worker organizations is essential for successful policy design and implementation (11).

Public spending composition must shift decisively toward growth-enhancing expenditures (41). This includes addressing learning losses exacerbated by the pandemic (63), upskilling workers most affected by labor market disruptions, and enhancing women's labor participation (41, 47). Policies must explicitly address the institutionalized gender gap by recruiting and training care workers and engaging in large-scale campaigns to adjust social expectations regarding the sharing of unpaid care and domestic work (47, 55).

These long-term structural adjustments represent the continuous evolution of governance initiated by crisis, moving toward a framework where social protection and gender equity are recognized as vital, productivity-enhancing pillars of sustainable economic resilience.

10. Future trajectories for resilience: A dynamic trade-risk mitigation reserve

The institutional learning demonstrated by Thailand in navigating the 1997 and 2020 crises, moving from a fragmented system to one exhibiting Hybrid Resilience, has primarily focused on stabilizing the domestic financial system and integrating informal economic capacity, However, as the global economic environment shifts toward multipolarity and protectionism, future institutional resilience must expand its mandate to mitigate external, non-financial vulnerabilities, specifically those related to supply chain disruption and trade tariffs (56). To proactively manage this emerging risk profile, the establishment of a novel financial architecture is proposed: a Dynamic Trade-Risk Mitigation Reserve. This mechanism represents the logical next phase of institutional adaptation, translating past lessons

in countercyclical financial management into a strategic response to deglobalization.

10.1 Design and governance

The Dynamic Trade-Risk Mitigation Reserve is structured as a mandatory, ring-fenced reserve fund established and managed by export dependent national governments like Thailand, but deployed through a regional financing body, such as the Asian Development Bank (ADB) or a newly designated regional commerce fund. This shared regional governance is crucial as it leverages the credibility and scale of multilateral institutions, providing the necessary distance from domestic political cycles to maintain fiscal prudence, akin to the policy autonomy granted to the Bank of Thailand post-1997.

The mechanism consists of three key sections. Firstly, a mandatory reserve contribution: exporting forms above a specific revenue threshold would be required to contribute a percentage of their anuual pre-tax profits to the reserve. This contribution is structured not as a standard operating expense, but as a liability reserve, similar to social security contributions or a contingent capital requirement. The percentage would be determined based on the firm's level of export concentration e.g., a higher rate for firms whose exports exceed (say) 50 percent reliance on a single major importer. This ensures that firms most exposed to tariff risk contribute proportionally to the collective insurance pool. Next, a regional fund deployment: the aggregated national contributions would be placed into a centrally managed regional reserve account. This regional pooling offers diversified investment management, enhanced total reserve liquidity, and the ability to leverage regional peer-to-peer political pressure to uphold the fund's mandate.

Lastly, a counter-tariff subsidy provision: in the event that a major importing country levies substantial, targeted tariffs that result in confirmed revenue losses for contributing firms, the reserve is activated. Subsidies are dispersed directly to the affected exporters, calculated to offset a defined percentage of the lost revenue, thereby preventing immediate liquidity crises and systemic damage to the export sector (58).

10.2 The dynamic diversification incentive

The most innovative element of the Dynamic Trade-Risk Mitigation Reserve is its dynamic subsidy structure, designed to promote institutional learning and strategic market diversification efforts, creating a powerful incentive to adapt rather than relying solely on a defensive cushion.

The subsidy is "ramped up" based on measurable progress in securing new, less tariff-exposed markets. For instance, the initial subsidy may cover 30% of verifiable lost revenue. However, for every x% reduction in reliance on the tariff imposing country, or for every new market secured that contributes y% to annual revenue, the subsidy coverage increases.

This dynamic structure operationalizes the concept of flexibility from below - the adaptive capacity of the informal - by providing a financial signal. It ensures that public funds are used not just for stabilization, but also for structural realignment and/or transformation. By financially rewarding private sector adaptation, the reserve forces exporters to

accelerate their search for new markets, or manufacture products for new markets, ultimately reducing the country's collective trade concentration risk and institutionalizing a more robust, hybrid form of external resilience.

The Dynamic Trade-Risk Mitigation Reserve, therefore, serves as a mechanism of preemptive institutional learning, using mandatory corporate savings and regional governance to transform a passive risk hedge (subsidies) into an active diversification accelerator.

11. Conclusion

The trajectory of Thailand's response capacity across the 1997 Asian Financial Crisis and the 2020 COVID-19 pandemic defines a powerful narrative of profound institutional learning and maturation (6, 40). The AFC served as a devastating reckoning, forcing structural reforms that successfully insulated the financial system, resulting in a condition of financial stability and policy autonomy by 2020 (6, 40). The COVID-19 crisis, an exogenous shock testing the real sector, validated these foundational institutional reforms by providing the necessary fiscal and monetary space for an aggressive, domestically funded, countercyclical response, a fundamental, positive reversal of the disastrous procyclical austerity of 1997 (6, 40).

The central theoretical contribution derived from this comparative analysis is the indispensable necessity of the Hybrid Resilience model for governance in dualistic emerging economies. This framework moves beyond conventional definitions of resilience that focus narrowly on formalized state capacity or market stability. It emphasizes the dynamic, co-dependent relationship between formalized state capacity (credibility from above), represented by the central bank's independence and macro financial buffers, and the profound adaptive capabilities of societal structures (flexibility from below), embodied by the informal labor market (6, 40). Thailand's experience demonstrates that the policy success of the 2020 response lies in the state's capacity to bridge these two spheres, deploying digital mechanisms to temporarily formalize support for the flexible labor base, thereby containing social dislocation far more effectively than was possible in the fragile state of 1997 (6, 40).

However, the structural pathologies, including the relocation of systemic risk to unsecured household debt and the chronic constraint imposed by low public investment and persistent inequality, underscore that Thailand's path to resilience is structurally incomplete (41). Moreover, enduring stability requires institutional learning to be continuous and forward-looking. The successful navigation of the two crises proves that Thai policy institutions are capable of the proactive adaptation to the volatile global system. This capacity must now be directed toward external structural risks. The Dynamic Trade-Risk Mitigation Reserve mechanism institutionalizes strategic external resilience by leveraging the principle of 'credibility from above' to incentivize 'flexibility from below'. Ultimately, a complete framework for hybrid Resilience demands both integrated domestic resilience and strategic external resilience. By embracing this dynamic evolution, Thailand can secure its economic autonomy and cement its position as a resilient emerging economy against the full spectra of modern global economic threats.

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