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POLITICAL INSTITUTIONS AND ECONOMIC VULNERABILITY UNDER GEOPOLITICAL ENERGY SHOCKS: A SOUTH ASIAN THEORETICAL FRAMEWORK

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ABSTRACT

Geopolitical disruptions in global energy markets have become a major source of economic instability in developing countries. Yet countries with similar exposure to international energy systems often experience markedly different macroeconomic outcomes during periods of price volatility, supply disruptions, and geopolitical conflict. This paper explains this variation by examining how domestic institutional capacity shapes responses to external energy shocks. Drawing on institutional economics, international political economy, and energy geopolitics, the paper develops the Geopolitical Vulnerability–Institutional Capacity (GV–IC) framework. Institutional capacity is conceptualized as a multidimensional construct comprising rule of law, bureaucratic autonomy, policy credibility, and corruption control. The central argument is that geopolitical energy shocks do not produce uniform effects; rather, their consequences are mediated through domestic institutions that determine whether shocks are absorbed, mitigated, or amplified. South Asia serves as an illustrative context for theory development due to its high dependence on imported energy and variation in institutional capacity. By integrating geopolitical and institutional perspectives within a single analytical model, the framework identifies a causal mechanism linking external energy shocks to divergent macroeconomic outcomes. As a conceptual study, the paper provides a foundation for future research on geopolitical risk, institutional capacity, and economic resilience in developing economies.

KEYWORDS: Geopolitical energy shocks, Institutional capacity, Economic vulnerability, South Asia, Energy import dependence.

1. INTRODUCTION

The growing integration of global energy markets has increased the exposure of developing economies to geopolitical disruptions originating beyond their borders. Conflicts in energy-producing regions, economic sanctions, maritime insecurity, and shifts in global power relations can rapidly affect both the availability and cost of energy supplies. For countries that depend heavily on imported energy, such disruptions translate into macroeconomic pressures through higher import costs, inflationary shocks, fiscal imbalances, and exchange-rate instability.

Despite facing similar external shocks, countries often experience divergent economic outcomes. Some are able to manage energy-related disruptions with limited macroeconomic instability, while others face prolonged periods of inflation, fiscal stress, currency depreciation, and external imbalance. Existing explanations emphasize differences in energy dependence, policy responses, or market structure. While important, these factors do not fully explain why countries with comparable exposure often experience significantly different levels of vulnerability.

This variation is particularly evident in South Asia. The region combines high dependence on imported energy with persistent exposure to global energy-market volatility and substantial variation in institutional quality. Countries such as Bangladesh, India, Pakistan, Sri Lanka, and Nepal share several structural constraints, yet their macroeconomic responses to energy-related geopolitical shocks have differed markedly. This raises a central theoretical question: why do similar external energy shocks generate divergent economic outcomes across South Asian economies?

This paper argues that institutional capacity plays a central role in explaining this variation. The ability of states to maintain policy credibility, enforce rules, coordinate administrative responses, and control corruption shapes how external energy shocks are transmitted through the domestic economy. Rather than treating geopolitical shocks as direct determinants of economic outcomes, the paper conceptualizes their effects as being mediated through domestic institutional structures. To develop this argument, the study introduces the Geopolitical Vulnerability–Institutional Capacity (GV–IC) framework, which explains how differences in institutional capacity determine whether external shocks are absorbed, mitigated, or amplified within domestic economies.

1.2. Theory-Building Methodology

This paper adopts a theory-building research design based on conceptual synthesis, drawing on Gilson and Goldberg (2015) and Swedberg (2014). The objective is to integrate insights from institutional economics, international political economy, and energy geopolitics into a unified analytical framework that explains why similar geopolitical energy shocks produce different macroeconomic outcomes.

The theory-building process follows three iterative stages. First, the paper identifies a recurring empirical puzzle: South Asian economies experience divergent crisis outcomes despite facing broadly similar external energy shocks. Second, it conducts a structured review of literature in institutional economics, energy geopolitics, and international political economy, with a focus on work published between 2019 and 2025. This stage is used to extract key explanatory concepts and identify gaps in how existing frameworks treat institutions and shock transmission.

Third, these insights are synthesized through systematic proposition development and mechanism specification, leading to the formulation of the Geopolitical Vulnerability–Institutional Capacity (GV–IC) framework. The resulting model provides a structured account of how institutional capacity shapes the transmission of external energy shocks into domestic macroeconomic outcomes.

The paper is explicitly conceptual and does not involve hypothesis testing or empirical estimation. Instead, it develops a causal architecture intended to guide future empirical research on geopolitical energy shocks and macroeconomic vulnerability. South Asia is used as an illustrative context for theory development due to its high dependence on imported energy and substantial variation in institutional capacity. In line with established theory-building approaches, the region is treated as an analytically informative setting rather than as a case-study design.

2. LITERATURE REVIEW

2.1 Institutions and Macroeconomic Stability

A substantial body of literature demonstrates that institutional quality is a key determinant of macroeconomic stability. Studies such as Aisen and Veiga (2006) show that political instability increases inflation volatility in developing economies, while weak institutional frameworks tend to exacerbate fiscal pressures during periods of economic stress. Brunnermeier (2021) further emphasizes institutional

credibility as a central component of macro-financial resilience, particularly in environments exposed to external shocks.

Taken together, this literature establishes that institutions matter for macroeconomic outcomes. However, much of this work is developed in general macroeconomic contexts and does not explicitly theorize how institutions shape vulnerability under geopolitical energy disruptions.

2.2 Energy Geopolitics and Global Vulnerability

The energy security literature increasingly conceptualizes energy systems as politically embedded and structurally vulnerable. Vivoda (2019) argues that energy security is fundamentally a geopolitical issue rather than a purely technical one, while Bazilian et al. (2020) highlight the growing exposure of global energy markets to geopolitical disruption and show that oil price shocks disproportionately affect developing economies with limited fiscal space and weaker macroeconomic buffers. Colgan (2021) further documents the rising frequency and intensity of conflict-driven energy shocks.

Despite these advances, this literature largely focuses on the origin and intensity of shocks, while treating domestic institutional structures as secondary or background conditions rather than as core explanatory mechanisms.

2.3 Global Shock Transmission and Political Economy

International political economy provides important insights into how global shocks propagate through interconnected systems. Keohane (1984) conceptualizes interdependence as a structural feature of the global system, while Strange (1988) emphasizes structural power in shaping global economic outcomes. More recent work by Goldthau and Westphal (2019) highlights how fragmentation in global energy governance increases systemic vulnerability.

At the same time, Baccini and Urpelainen (2020) demonstrate that domestic institutions can condition the effects of external economic shocks, suggesting that internal governance structures play a decisive role in shock transmission. However, these insights remain fragmented and have not been integrated into a unified framework that explicitly connects geopolitical energy shocks, institutional mediation, and asymmetric macroeconomic outcomes.

2.4 Recent Advances in Economic Resilience and Institutional Capacity

Recent studies increasingly suggest that a country's ability to withstand external economic shocks is shaped by far more than market dynamics alone. Equally important are the strength of its institutions and the effectiveness of its governance systems. According to Hallegatte, Rentschler, and Rozenberg (2020), resilience is closely tied to the capacity of governments to anticipate disruptions, absorb their immediate effects, and adapt to changing circumstances through sound public policies and capable institutions. In the energy sector, the International Energy Agency (2024) argues that energy security today depends less on the simple availability of resources and more on factors such as policy coordination, supply diversification, and institutional readiness. Evidence from the Russia–Ukraine war further reinforces this perspective. Goldthau and Youngs (2023) show that countries with stronger governance structures were generally better equipped to manage the resulting energy crisis and limit its economic consequences. Likewise, research on the transition toward net-zero economies highlights that adapting successfully to energy-related disruptions requires not only technological change but also strong state capacity and proactive policy intervention (Markard & Rosenbloom, 2023). Taken together, this growing body of literature points to institutional quality as a key factor shaping how geopolitical energy shocks translate into economic outcomes.

2.5 Literature Gap and Emerging Evidence

Despite progress across these three strands of literature, a key theoretical gap remains. Existing research has not yet developed an integrated framework that explains how geopolitical energy shocks are filtered through domestic institutional capacity to produce heterogeneous macroeconomic outcomes across countries.

Recent events have underscored the importance of this gap. The 2022 energy price surge following the Russia–Ukraine conflict exposed significant vulnerabilities in energy-import-dependent developing economies, particularly in South Asia. Rising LNG prices translated into acute fiscal pressures in several importing countries. International Monetary Fund (2023) data further indicate that expanding energy subsidy burdens contributed significantly to fiscal deterioration in economies such as Pakistan and Sri Lanka.

Emerging empirical studies also suggest links between governance quality and exposure to

commodity price volatility, while Taghizadeh-Hesary and Yoshino (2019) show that energy import shocks can transmit into exchange-rate instability in developing Asia. However, these findings remain empirically fragmented and lack a unified theoretical structure that explains institutional mediation across multiple transmission channels.

The GV–IC framework addresses this gap by integrating these insights into a single analytical model that links geopolitical shocks, transmission channels, and institutional capacity in a systematic way.

3. THEORETICAL ROOTS OF THE GV–IC FRAMEWORK

The Geopolitical Vulnerability–Institutional Capacity (GV–IC) framework is grounded in established traditions of institutional theory. Rather than emerging from case-specific observations, it is developed through the synthesis of complementary theoretical perspectives that explain how institutions shape state responses to external shocks. Three intellectual traditions are particularly central: Weberian state-capacity theory, credibility-based approaches to economic governance, and Northian institutionalism.

The first foundation is Weberian state-capacity theory, particularly as developed by Evans (1995). This perspective emphasizes bureaucratic autonomy, administrative competence, and organizational effectiveness as core determinants of state performance. Within the GV–IC framework, these insights explain variation in governments' ability to design and implement coordinated responses during periods of geopolitical energy disruption. Institutional capacity is therefore understood not as the presence of formal structures alone, but as the effective operational capability of the state under stress conditions.

A second foundation comes from credibility-based approaches to economic governance (Rodrik, 2007). This literature highlights that economic outcomes depend not only on policy choices but also on how those policies are perceived by economic actors. Credible and predictable policy environments shape expectations regarding inflation, exchange rates, and investment behavior, thereby reducing uncertainty during crisis periods. The GV–IC framework incorporates this logic through the expectations channel, where institutional credibility moderates the transmission of external shocks.

The third foundation is Northian institutionalism (North, 1990), which conceptualizes institutions as both formal rules and informal constraints that structure political and economic behavior. This perspective is particularly important for explaining why similar formal policy frameworks produce different outcomes across countries. The GV–IC framework builds on this insight by explicitly incorporating the interaction between formal institutions and informal governance arrangements, including patronage networks, discretionary enforcement, and political clientelism.

Taken together, these three traditions provide a layered theoretical foundation for the GV–IC framework. Weberian theory explains variation in administrative capacity, credibility-based approaches explain expectation formation under uncertainty, and Northian institutionalism explains divergence between formal rules and actual institutional performance. Their integration allows institutional capacity to be conceptualized as a multidimensional mechanism through which geopolitical energy shocks are transmitted, filtered, and either absorbed or amplified within domestic economies.

The theoretical foundations and their respective contributions to the GV–IC framework are summarized in Table 1.

Table 1: Theoretical Roots of the GV–IC Framework.

Theoretical Tradition	Key Insight	Limitation of Standalone Perspective	Contribution to the GV–IC Framework
Weberian State Capacity (Evans, 1995)	Bureaucratic autonomy and administrative competence shape state effectiveness	Limited attention to geopolitical energy shocks	Explains variations in policy implementation and crisis management capacity
Credibility-Based Governance (Rodrik, 2007)	Policy credibility shapes economic expectations and market responses	Focuses primarily on economic governance outcomes	Provides the expectations channel linking institutions to resilience
Northian Institutionalism (North, 1990)	Formal and informal rules structure economic and political behavior	Does not specify shock-transmission mechanisms	Explains institutional dualism and variation in policy effectiveness
GV–IC Framework	Integrates the three traditions	–	Explains how institutional capacity mediates geopolitical energy shocks through multiple transmission channels

3.1. Theoretical Framework: The Geopolitical Vulnerability–Institutional Capacity (Gv–Ic) Model

3.1.1 Core Proposition

The central proposition of the GV–IC framework is that economic vulnerability to geopolitical energy shocks is determined not only by external exposure but also by domestic institutional capacity. Countries facing similar increases in energy prices or supply disruptions may experience sharply different macroeconomic outcomes because institutions shape how external shocks are processed within the domestic economy.

The framework departs from exposure-based explanations that assume a direct transmission from external shocks to economic outcomes. Instead, it conceptualizes institutional capacity as a mediating mechanism that determines whether shocks are absorbed, mitigated, or amplified.

3.1.2 Alternative Explanations and the Distinctive Role of Institutions

While institutional capacity occupies a central position in the GV–IC framework, it is important to recognize that cross-country differences in vulnerability to geopolitical energy shocks may also stem from several other structural and policy-related factors. A broad literature highlights the roles of macroeconomic frameworks, external buffers, and energy market design in shaping how economies respond to external disruptions.

First, monetary policy regimes matter. Countries with credible inflation-targeting frameworks and well-anchored expectations are often better able to absorb the inflationary consequences of energy price shocks through more disciplined policy responses and stronger policy signaling (Taylor, 2000; Mishkin, 2007). Second, the availability of international reserves provides a critical buffer against external imbalances. Higher reserve adequacy helps countries smooth import financing and reduce the likelihood of sudden balance-of-payments crises during periods of global price volatility (Aizenman & Lee, 2007; Obstfeld, Shambaugh, & Taylor, 2010). Third, the structure of domestic energy markets plays a significant role in determining how global price shocks are transmitted to households and firms. Greater market competition, transparent pricing mechanisms, and higher shares of renewables can all reduce the pass-through of external shocks into domestic price instability (Borenstein, 2012; International Energy Agency, 2023). Finally, political and institutional conditions such as electoral cycles, fiscal pressures, and the strength of societal actors can influence the political feasibility of subsidy reforms and crisis management strategies (Rodrik, 1996; Victor, 2009).

The GV–IC framework does not reject these explanations. Instead, it argues that institutional capacity interacts with and conditions their effectiveness. For instance, the success of inflation-targeting regimes depends not only on formal policy design but also on central bank credibility and institutional independence. Similarly, the stabilizing role of foreign exchange reserves is shaped by bureaucratic capacity, transparency, and the efficiency of reserve allocation mechanisms. Energy market reforms are more likely to succeed when supported by strong regulatory institutions and credible enforcement capacity. Even political economy constraints, such as resistance to subsidy reform, are mediated by the state's ability to build trust, compensate losers, and implement policy consistently.

From this perspective, institutional capacity is not simply one explanatory variable among many. Rather, it functions as an underlying condition that shapes how macroeconomic tools, external buffers, and political constraints translate into real-world resilience. By emphasizing these interactions, the GV–IC framework offers a more integrated explanation of why countries exposed to similar geopolitical energy shocks often experience very different macroeconomic outcomes.

3.2 Conceptual Model

The GV–IC framework treats geopolitical energy shocks as exogenous disturbances originating outside the domestic economy. These shocks may arise from oil-price spikes, LNG supply disruptions, geopolitical conflicts, sanctions, or disruptions to major trade routes.

Rather than producing uniform effects, these shocks pass through a domestic institutional filter composed of four interrelated dimensions of institutional capacity. The strength of this filter determines the extent to which shocks are absorbed or amplified before translating into macroeconomic outcomes.

Under conditions of high institutional capacity, governments are able to coordinate policy responses, maintain market confidence, allocate resources efficiently, and implement corrective measures effectively. In such contexts, external shocks are partially absorbed and macroeconomic disruption remains limited. Under moderate capacity, adjustment occurs but with delays and higher

economic costs. Under low institutional capacity, policy inconsistency, weak implementation, and governance failures amplify shock transmission, resulting in severe and persistent macroeconomic instability.

The conceptual structure of the GV–IC framework is presented in Figure 1.

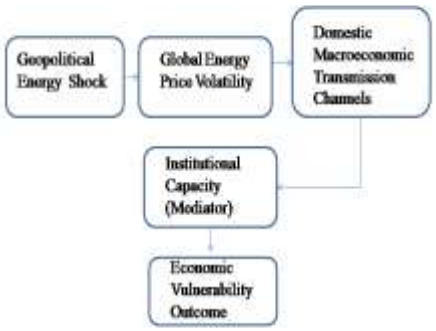

Figure 1. Conceptual structure of the GV–IC framework illustrating institutional capacity as a shock-filtering mechanism between geopolitical energy shocks and economic vulnerability outcomes.

3.2.1 Dimensions of Institutional Capacity

Institutional capacity is conceptualized as a multidimensional construct consisting of four interrelated components: rule of law, bureaucratic autonomy, policy credibility, and corruption control.

Rule of law refers to the predictability and consistency of legal and regulatory enforcement. Strong rule-of-law environments reduce uncertainty and facilitate policy implementation during crises.

Bureaucratic autonomy refers to the extent to which public institutions can implement policies based on professional and administrative criteria rather than short-term political pressures. Higher autonomy improves coordination and execution during external shocks.

Policy credibility captures the extent to which economic actors believe that government commitments will be implemented consistently over time. Credible policy environments stabilize expectations and reduce uncertainty.

Corruption control reflects the degree to which resource allocation follows formal rules rather than private interests. Strong corruption control improves the efficiency of fiscal interventions and limits resource leakage during crises.

Together, these dimensions constitute the institutional filter through which geopolitical energy shocks are transmitted into the domestic economy. The theoretical origins and analytical contributions of these dimensions are summarized in Table 2.

Table 2: Institutional Capacity Dimensions: Definitions and Theoretical Roots.

Dimension	Definition	Theoretical Root
Rule of Law	Contract enforcement and regulatory predictability	North (1990)
Bureaucratic Autonomy	Merit-based, depoliticized policy implementation	Evans (1995)
Policy Credibility	Belief that current policies will persist	Rodrik (2007)
Corruption Control	Efficient allocation of rents and resources	Acemoglu & Robinson (2012)

3.3 Operationalization For Future Empirical Research

Although the present study is conceptual, the framework is designed to facilitate future empirical testing. Each institutional dimension can be operationalized through widely used governance indicators that allow cross-country comparison and longitudinal analysis.

Potential empirical proxies include rule-of-law indicators, measures of government effectiveness, assessments of policy and institutional quality, and corruption-control indices drawn from established international datasets. These indicators provide an initial basis for translating the framework into testable empirical models.

The proposed operational measures are summarized in Table 3.

Table 3: Operational Proxies for Empirical Testing.

Institutional Dimension	Possible Empirical Proxy	Data Source
Rule of Law	Rule of Law Index	World Governance Indicators (WGI)
Bureaucratic Autonomy	Government Effectiveness Index	WGI
Policy Credibility	CPIA Policy & Institutions Rating /	World Bank / IMF

	Inflation Expectation Stability	
Corruption Control	Control of Corruption Index	WGI / ICRG

3.4 Non-Linear Institutional Effects

A key feature of the GV–IC framework is that institutional effects are non-linear rather than proportional. Improvements in institutional capacity do not produce uniform reductions in vulnerability. Instead, the framework proposes threshold effects that generate qualitatively different outcomes across institutional regimes.

At high levels of institutional capacity, shocks are largely absorbed through coordinated policy responses and credible crisis management. At intermediate levels, institutions remain functional but responses are slower and more costly. At low levels, institutional weaknesses amplify transmission channels and intensify macroeconomic instability.

These regimes should be understood as theoretical categories rather than fixed empirical thresholds. Identifying precise transition points remains an empirical task for future research.

The proposed threshold logic is summarized in Table 4.

Table 4: Non-Linear Institutional Capacity Threshold Effects (Illustrative).

Capacity Level	Mechanism	Outcome
High	Shock absorption	Temporary inflation, no crisis
Medium	Delayed adjustment	Prolonged but manageable strain
Low	Amplification	Currency crisis, fiscal collapse

Note: The classifications 'high', 'medium', and 'low' are illustrative categories, not fixed empirical cutoffs. Future empirical work may

3.5 Formal Propositions

The causal structure of the GV–IC framework generates four propositions for empirical testing:

P1 (Inflation Transmission): Higher institutional capacity reduces the transmission of external energy-price shocks into domestic inflation.

P2 (External Balance Transmission): Higher institutional capacity weakens the impact of energy-import cost increases on currency depreciation and external-balance deterioration.

P3 (Expectations Stabilization): Higher policy credibility stabilizes inflation and exchange-rate expectations, reducing macroeconomic volatility during external shocks.

P4 (Fiscal Resilience): Lower institutional capacity increases the likelihood that temporary energy shocks evolve into persistent fiscal stress.

Together, these propositions specify the main channels through which institutional capacity shapes economic vulnerability under geopolitical energy shocks.

Table 5. Formal Propositions of the GV–IC Framework.

Proposition	Institutional Dimension	Transmission Channel	Expected Outcome
P1	Institutional Capacity (Overall)	Price Channel	Higher institutional capacity reduces the inflationary effects of energy-price shocks.
P2	Institutional Capacity (Overall)	External Balance Channel	Stronger institutions weaken the transmission from rising energy-import costs to currency depreciation and external-sector instability.
P3	Policy Credibility	Expectations Channel	Greater policy credibility stabilizes inflation and exchange-rate expectations during periods of energy-market volatility.
P4	Institutional Capacity (Overall)	Fiscal Channel	Weak institutions increase the likelihood that temporary energy shocks evolve into prolonged fiscal crises.

3.6. Causal Pathways: From Institutional Capacity to Macroeconomic Outcomes

The four propositions outlined above can be unpacked further by tracing the specific causal pathways through which institutional capacity translates into macroeconomic outcomes. Rather than treating institutions as a single broad condition, each pathway highlights a sequence of mechanisms: an underlying institutional feature, the type of administrative or behavioral response it enables

during a shock, and the macroeconomic consequences that follow.

In the price channel, for instance, one key pathway operates through policy credibility (P1a). When governments maintain high credibility, they are able to pre-commit to automatic fuel pricing rules rather than resorting to ad hoc interventions. As a result, external energy price shocks are transmitted more transparently into domestic prices, without significant policy delays. Because economic agents trust the consistency of the policy framework, inflation expectations remain anchored, and price increases tend to be temporary rather than self-reinforcing. A closely related mechanism within the same channel involves corruption control (P1b). Where corruption is effectively contained, subsidy systems are more accurately targeted and payments are disbursed in a timely manner. This reduces leakage and prevents resources from being diverted to non-eligible groups. Consequently, the fiscal cost of compensation remains manageable, limiting the need for deficit monetization and reducing secondary inflationary pressures.

The external balance channel operates through bureaucratic autonomy (P2). In contexts where central banks and related financial authorities enjoy a high degree of operational independence, foreign exchange reserves can be managed strategically rather than under political pressure. This allows policymakers to smooth adjustment during periods of external stress instead of exhausting reserves in a disorderly manner. Exchange rate depreciation therefore tends to be gradual and managed, helping to stabilize the external account and avoid sudden balance-of-payments crises.

A third pathway runs through expectations, shaped by the strength of the rule of law (P3). When legal and regulatory frameworks are credible and consistently enforced, economic actors perceive the policy environment as more predictable. This reduces incentives for precautionary capital flight or excessive foreign currency hoarding. As a result, both exchange rate and inflation expectations remain more firmly anchored, even in the presence of external shocks.

Finally, the fiscal channel reflects the combined effects of multiple institutional weaknesses (P4). When corruption control is weak, bureaucratic autonomy is limited, and policy credibility is low, governments often resort to politically motivated expansions of energy subsidies during crises. These subsidy commitments quickly exceed available budgetary resources, forcing recourse to central bank financing. The resulting monetization of deficits fuels inflationary pressures, accelerates currency depreciation, and increases the likelihood of a full-scale external crisis.

Taken together, these pathways make clear that institutional capacity is not a single abstract factor but a bundle of distinct mechanisms operating at different stages of shock transmission. For empirical analysis, this implies that the GV–IC framework should be tested not only through aggregate institutional indices but also through the specific channels and interactions outlined above.

3.7. Mechanism: Shock Transmission Architecture

The explanatory contribution of the GV–IC framework lies not only in identifying the importance of institutional capacity but also in specifying how geopolitical energy shocks are transmitted into macroeconomic outcomes. The framework therefore develops a channel-specific transmission architecture that links external shocks to domestic vulnerability through interconnected economic processes operating within institutional constraints. The overall transmission structure is presented in Figure 2.

Figure-2: Channel-specific transmission architecture illustrating how distinct institutional dimensions intervene at different stages of macroeconomic shock propagation.

3.7.1 Multi-Layer Transmission Model

The GV–IC framework conceptualizes geopolitical energy shocks as propagating through four interconnected transmission channels: price, external balance, fiscal, and expectations. Although analytically distinct, these channels interact dynamically and can reinforce one another over time.

The price channel operates through increases in energy import costs, which feed into domestic inflation and overall price levels. The external balance channel emerges when rising import bills place pressure on current-account balances and foreign-exchange reserves. The fiscal channel reflects the growing burden of energy subsidies and related government expenditures required to stabilize domestic markets. The expectations channel captures behavioral responses by firms, households, and investors as they revise expectations regarding inflation, exchange-rate stability, and future economic conditions.

The principal causal pathways associated with these channels are summarized in Table 6.

Table 6: Multi-Layer Transmission Channels and Causal Pathways.

Channel	Causal Path
(1) Price Channel	Oil/LNG price ↑ → Import cost ↑ → Domestic inflation ↑
(2) External Balance Channel	Import bill ↑ → Current account ↓ → FX reserves ↓
(3) Fiscal Channel	Subsidy burden ↑ → Fiscal deficit ↑ → Public debt ↑
(4) Expectations Channel	Inflation ↑ & Reserves ↓ → Depreciation expectation ↑ → Capital flight ↑

Taken together, these channels illustrate how a single geopolitical energy shock can generate multiple and mutually reinforcing forms of economic vulnerability. The framework therefore treats vulnerability as a cumulative process rather than the outcome of a single transmission mechanism.

3.7.2. Institutional Filtering Mechanisms

Transmission channels do not operate independently of domestic institutions. Instead, institutional capacity intervenes at multiple points in the transmission process, shaping whether economic pressures are absorbed, delayed, or amplified.

Different dimensions of institutional capacity are more influential in different channels. Policy credibility stabilizes expectations and moderates inflation dynamics. Bureaucratic autonomy enhances the effectiveness of external-balance management, particularly in foreign-exchange allocation and reserve policy. Rule of law strengthens predictability in economic decision-making and reduces uncertainty across agents. Corruption control improves the efficiency and targeting of fiscal interventions.

Rather than functioning as a single aggregate variable, institutional capacity operates through these channel-specific mechanisms. This interaction provides the basis for explaining why countries with similar external exposure may nevertheless experience divergent macroeconomic outcomes.

The relationship between transmission channels, institutional dimensions, and intervention points is summarized in Table 7.

Table 7: Institutional Filtering Mechanisms by Transmission Channel (Integrating Propositions P1–P4).

Channel	Primary Proposition	Institutional Dimension	Intervention Mechanism
Price	P1	Policy credibility	Automatic pricing formulas vs. ad hoc subsidies
External balance	P2	Bureaucratic autonomy	Central bank independence in FX intervention
Expectations	P3	Rule of law	Policy transparency and contract enforcement
Fiscal	P4	Corruption control	Budget discipline and targeted subsidy delivery

By specifying how institutions interact with particular transmission channels, the framework moves beyond generalized claims that "institutions matter" and instead identifies the mechanisms through which institutional capacity shapes economic resilience under geopolitical energy shocks.

3.7.3 Illustrative Example: Hypothetical Energy Price Shock in Two Countries

To clarify how the GV–IC framework operates in practice, consider a simple hypothetical scenario

involving a sharp external shock: a 50 percent increase in global LNG prices triggered by a geopolitical disruption along major export routes. Two developing, energy-import-dependent countries face this same shock under broadly comparable external conditions, yet their domestic outcomes diverge significantly due to differences in institutional capacity.

Country A represents a setting of relatively high institutional capacity, marked by strong bureaucratic autonomy, credible macroeconomic policy institutions, and effective control of corruption. In response to the shock, the central bank quickly signals a clear inflation-targeting stance, helping to stabilize expectations. The finance ministry activates a pre-established automatic fuel pricing mechanism, while targeted cash transfer programs cushion the impact on low-income households. Although inflation rises in the short term, it remains broadly anchored, and exchange rate depreciation occurs in a controlled and orderly manner. Fiscal pressures increase modestly due to partial compensation measures, but overall macroeconomic credibility is preserved, and international credit ratings remain stable. As a result, the economy experiences only a brief and limited slowdown.

Country B, by contrast, reflects a low institutional capacity environment characterized by weak bureaucratic autonomy, limited policy credibility, and widespread corruption risks. In this case, the government delays necessary fuel price adjustments, leading to the rapid accumulation of unsustainable subsidy arrears. Financial markets respond with heightened uncertainty, triggering capital outflows and exchange rate pressures. The central bank's limited credibility fails to anchor inflation expectations, while administrative bottlenecks in foreign exchange allocation contribute to the emergence of parallel market premiums. As fiscal deficits widen and policy uncertainty deepens, credit rating agencies downgrade sovereign risk, eventually culminating in a balance-of-payments crisis that necessitates external financial assistance. The resulting economic contraction persists over multiple periods, accompanied by lasting structural scarring.

This comparison highlights a central implication of the GV–IC framework: identical external shocks can produce sharply different macroeconomic trajectories depending on the quality of domestic institutions. More specifically, the framework helps identify how particular dimensions of institutional capacity—such as bureaucratic autonomy, policy credibility, and corruption control—interact with key transmission channels, including prices, external balances, fiscal responses, and expectations, to shape divergent economic outcomes.

3.8. South Asia As A Theory-Building Context

South Asia provides an analytically useful context for illustrating the GV–IC framework. The region combines three features that are particularly relevant for theory building: high dependence on imported energy, shared exposure to global energy-market shocks, and substantial variation in institutional capacity across countries.

Although South Asian economies face broadly similar geopolitical and market pressures, they differ significantly in governance quality and institutional effectiveness. This combination of common exposure and institutional heterogeneity makes the region suitable for examining how differences in institutional capacity may shape vulnerability outcomes under comparable external shocks.

Importantly, this section is not intended to provide empirical validation of the framework. Instead, South Asia is used as an illustrative setting to demonstrate the theoretical implications of the GV–IC model. The examples presented should therefore be interpreted as stylized theoretical expectations rather than empirical findings.

Table 8 summarizes these stylized expectations.

Table 8: Stylized Institutional Variation and Theoretical Vulnerability Outcomes in South Asia.

Country	Illustrative Institutional Capacity	Theoretical Vulnerability Expectation
Bangladesh	Moderate-Low	Elevated inflationary pressure with moderate resilience
India	Moderate-High	Greater shock absorption capacity
Pakistan	Low	Higher risk of prolonged macroeconomic instability
Sri Lanka	Fragile/Declining	Greater likelihood of shock amplification
Nepal	Low with external remittance buffers	Delayed transmission and partial buffering effects

The central implication is straightforward: if external exposure alone determined outcomes, countries facing similar energy shocks would be expected to display broadly similar macroeconomic responses. In practice, however, significant variation is observed across South Asia. The GV–IC framework explains this divergence by emphasizing institutional filtering capacity.

From this perspective, vulnerability is not solely a

function of external shocks but is shaped by the domestic institutional mechanisms through which those shocks are processed. The South Asian illustration therefore serves as a structured demonstration of the framework's core logic: similar geopolitical energy shocks can produce divergent macroeconomic outcomes because institutional capacities differ across countries.

3.9. Extending the Framework beyond South Asia

Although South Asia offers a useful point of departure due to its combination of shared exposure to energy shocks and marked differences in institutional capacity, the GV–IC framework is not confined to this regional setting. Its central proposition—that institutional capacity shapes how geopolitical energy shocks are transmitted into macroeconomic outcomes—has broader applicability across energy-import-dependent developing regions where institutional heterogeneity is pronounced.

Sub-Saharan Africa, for instance, provides a compelling comparative setting. Countries such as Kenya and Ghana display relatively stronger governance performance while facing energy import dependence comparable to several South Asian economies (Kojima & Trimble, 2021). Latin America likewise exhibits meaningful variation in institutional capacity among energy-importing states, including Chile, Peru, and Brazil, alongside diverse geopolitical and regional energy interdependencies (Arellano-Yanguas, 2023). In Southeast Asia, economies such as Vietnam, the Philippines, and Thailand further illustrate how differences in institutional strength shape national energy security outcomes under external price and supply shocks (Shi, 2024).

Taken together, these cases suggest that the GV–IC framework can be meaningfully extended beyond South Asia. Future empirical work should therefore test its propositions across multiple regional contexts to assess its external validity more rigorously. Because the framework is formulated in sufficiently general terms, such cross-regional applications are not only feasible but also essential for strengthening the empirical foundation of the institutional mediation argument.

4. DISCUSSION: THEORETICAL CONTRIBUTIONS

4.1. Reframing Institutions in the Context of External Shocks

The GV–IC framework contributes to institutional theory by shifting attention from long-run development outcomes to short- and medium-term resilience under external shocks. Much of the institutional economics literature has focused on institutions as drivers of economic growth, development trajectories, and long-term prosperity (North, 1990; Acemoglu & Robinson, 2012). While these contributions are foundational, they offer limited insight into how economies respond to sudden geopolitical disruptions.

This paper extends that literature by conceptualizing institutions not only as determinants of development but also as mechanisms of crisis management and shock absorption. From this perspective, institutional capacity shapes how external energy shocks are translated into inflationary pressures, fiscal imbalances, exchange-rate instability, and broader macroeconomic vulnerability. Institutions therefore operate as resilience structures that condition economic adjustment during periods of geopolitical uncertainty.

4.2 Integrating Geopolitics, Institutions, and Political Economy

A second contribution is the integration of three literatures that have largely developed in parallel. Energy geopolitics focuses on the origins and nature of energy-related shocks, highlighting the role of conflict, strategic competition, sanctions, and supply disruptions in generating market volatility. Institutional economics examines how domestic governance structures shape economic performance, while international political economy explains how external shocks propagate through interconnected global systems.

The GV–IC framework integrates these perspectives into a single analytical model. Energy geopolitics identifies the sources of shocks, international political economy explains the transmission channels, and institutional capacity accounts for the variation in macroeconomic outcomes across countries facing similar external conditions. By linking these previously separate strands of scholarship, the framework offers a more unified explanation of economic vulnerability in energy-import-dependent developing economies.

Table 9: Intellectual Foundations of the GV–IC Framework.

Literature Stream	Core Insight	Limitation in Existing Literature	Contribution within the GV–IC Framework
Energy Geopolitics	Geopolitical events generate energy supply and price shocks	Limited attention to domestic institutional mediation	Identifies the origins and characteristics of external shocks
Institutional Economics	Institutions shape economic performance and policy effectiveness	Focuses primarily on long-term development outcomes	Explains how institutional capacity mediates shock outcomes
International Political Economy	Global interdependence transmits external shocks across economies	Limited integration with energy-specific vulnerabilities	Explains the channels through which geopolitical energy shocks affect domestic economies
GV–IC Framework	Integrates the three perspectives	—	Explains how geopolitical energy shocks generate asymmetric macroeconomic vulnerability through institutional mediation

4.3. Institutional Dualism and Shock Absorption in South Asia

The framework also highlights the role of institutional dualism, a feature particularly relevant in many South Asian contexts. Formal institutions—such as laws, regulatory systems, and official policy frameworks—often coexist with informal systems of patronage, clientelism, and discretionary political influence. While conventional governance measures tend to focus on formal institutions, actual crisis responses are frequently shaped by the interaction between formal and informal structures.

This dualism has important implications for shock absorption. Informal interventions can weaken institutional effectiveness across multiple transmission channels. Fiscal adjustment may be constrained by patronage-based exemptions, external-balance management may be influenced by political interference in foreign-exchange allocation, and policy credibility may be undermined when economic actors expect discretionary rather than rule-based decision-making. As a result, countries with similar formal institutional profiles may exhibit very different levels of resilience during periods of geopolitical stress.

4.4 Advancing Existing Explanations of Economic Vulnerability

The framework further advances the literature by moving beyond aggregate conceptions of governance quality. Existing studies show that institutional quality influences economic outcomes during commodity price cycles and external shocks, but institutions are often treated as broad moderating variables without specifying the mechanisms through which they operate.

The GV–IC framework offers a more differentiated explanation. It argues that distinct dimensions of institutional capacity affect different transmission channels of geopolitical energy shocks. Policy credibility shapes inflation expectations and energy-pricing dynamics; bureaucratic autonomy influences foreign-exchange management and crisis response; corruption control affects the allocation of scarce fiscal resources; and rule of law determines the consistency and predictability of policy implementation. As a result, countries with similar overall governance indicators may still experience markedly different crisis trajectories, depending on which institutional dimensions are most relevant to the dominant transmission channels.

This channel-specific perspective provides a more precise explanation of asymmetric vulnerability and establishes a foundation for future empirical work on how institutional components interact with external geopolitical shocks.

4.5. Scope Conditions And Boundary Assumptions

Like all theoretical frameworks, the GV–IC model operates within specific scope conditions that define the contexts in which its explanatory logic is expected to hold. The framework is primarily designed for energy-import-dependent developing economies exposed to external geopolitical energy shocks and characterized by variation in institutional capacity.

The model is most applicable under four conditions. First, economies must exhibit a high degree of dependence on imported energy, as low dependence reduces the macroeconomic relevance of external energy shocks. Second, exchange-rate regimes must allow at least partial adjustment, whether through managed or flexible systems, since rigid pegs can suppress key transmission mechanisms. Third, fiscal space must be sufficiently constrained so that governments cannot fully neutralize external shocks through counter-cyclical intervention. Fourth, the framework is most relevant in democratic or hybrid political systems where

institutional effectiveness, credibility, and accountability meaningfully shape policy responses and economic expectations.

The scope conditions and their theoretical rationale are summarized in Table 10.

Table 10: Scope Conditions and Boundary Assumptions.

Condition	Rationale
substantial dependence on imported energy	Otherwise shock transmission is negligible
Flexible or managed exchange rate regime	Fixed regimes (e.g., hard peg) suppress the price channel
Weak counter-cyclical fiscal space	Otherwise the fiscal channel is muted by external buffers
Democratic or hybrid regime	Authoritarian resilience logic may differ (state capacity vs. repression)

Accordingly, the framework does not seek to explain vulnerability dynamics in energy-exporting economies, highly resource-rich states, or countries operating under hard-currency pegs or dollarized monetary systems. Similarly, the mechanisms proposed here may not fully capture resilience patterns in highly centralized authoritarian regimes, where crisis management may rely on different combinations of state capacity, coercive authority, and political control.

4.6. Limitations And Avenues For Future Research

Several limitations should be acknowledged. First, the GV–IC framework remains conceptual and has not yet been subjected to systematic empirical testing. Future research could examine the proposed relationships using panel data analysis, comparative case studies, or natural experiments focused on specific geopolitical energy shocks.

Second, endogeneity is a key concern. While the framework treats institutional capacity as a determinant of vulnerability, prolonged energy crises may also weaken institutional effectiveness over time, creating potential reverse causality. Future empirical work should address this issue using appropriate identification strategies, including historical institutional indicators or instrumental variable approaches.

Third, the framework separates the four dimensions of institutional capacity for analytical clarity. In practice, however, these dimensions are likely to interact. For example, improvements in corruption control may strengthen policy credibility, while bureaucratic autonomy may enhance fiscal response capacity. Exploring these interaction effects is an important direction for future research.

Finally, the framework introduces conceptual thresholds for institutional capacity, but these remain theoretically defined rather than empirically calibrated. Future studies should identify context-specific thresholds using methods such as structural break analysis or regime-switching models.

4.6.1 A Roadmap for Empirical Testing of the GV–IC Framework

Future research on the GV–IC framework can move forward through several complementary empirical strategies, each capturing a different dimension of how institutions shape responses to energy shocks.

One starting point is large-N panel analysis. A dataset covering roughly 50 to 80 energy-import-dependent developing countries over the period 2000–2025 would allow researchers to formally test the core relationship between shocks, institutions, and macroeconomic outcomes. A baseline specification could model vulnerability as a function of energy shocks, institutional capacity, and—most importantly—the interaction between the two, alongside standard control variables and country and time fixed effects. The key term here is the interaction between shocks and institutional capacity. If the framework holds, this coefficient should be negative and statistically significant, indicating that stronger institutions reduce the macroeconomic impact of energy shocks. In practical terms, vulnerability could be captured through indicators such as inflation volatility, exchange market pressure, or shifts in fiscal balances following major energy price movements.

A second approach relies on quasi-experimental designs such as synthetic control methods and event studies. Episodes like the 2022 LNG price surge following the Russia–Ukraine conflict offer a natural laboratory for comparison. By constructing synthetic counterparts for countries with different levels of institutional capacity, researchers can more cleanly isolate how institutional differences shape adjustment paths under otherwise similar external shocks. Event studies, in turn, can track how key macroeconomic variables evolve before and after shocks, allowing for a clearer view of the timing and persistence of adjustment across institutional contexts.

A third, more qualitative strategy involves carefully selected comparative case studies combined with process tracing. Pairing countries that face similar external exposure but differ in

institutional strength—for example, Bangladesh and Vietnam, or Kenya and Tanzania—would allow researchers to unpack the causal mechanisms in greater detail. This approach is especially useful for testing the specific channels outlined in the framework (P1a–P4), which are often difficult to disentangle using purely quantitative methods.

Finally, future work can strengthen causal identification by using instrumental variable techniques to address endogeneity concerns around institutional capacity. Potential instruments include historically rooted factors such as colonial legal origins, early state formation trajectories, or other long-run determinants of governance quality like settler mortality or the timing of bureaucratic development. A two-stage least squares approach would then help isolate the causal effect of institutions on vulnerability to energy shocks.

Empirical analysis can draw on a wide range of established data sources, including the World Bank's World Development Indicators, the IMF's International Financial Statistics, the Worldwide Governance Indicators, the International Country Risk Guide, and global energy datasets such as those from the U.S. Energy Information Administration and BP's Statistical Review of World Energy.

Building on the theoretical propositions, future research should focus on a set of clearly testable hypotheses. These include the expectation that the impact of energy price shocks on inflation declines as institutional capacity improves (H1); that bureaucratic autonomy specifically dampens exchange rate responses to rising energy import costs (H2); that stronger policy credibility helps stabilize inflation expectations even beyond short-term monetary policy actions (H3); and that corruption control is the most important determinant of fiscal resilience in the aftermath of energy shocks (H4).

5. CONCLUSION

This paper develops the Geopolitical Vulnerability–Institutional Capacity (GV–IC) framework to explain why countries exposed to similar geopolitical energy shocks often experience divergent macroeconomic outcomes. The central argument is that institutional capacity mediates the transmission of external shocks into domestic economic vulnerability. Rather than producing uniform effects, geopolitical energy disruptions are filtered through domestic institutional structures that determine whether shocks are absorbed, mitigated, or amplified.

The framework identifies four transmission channels—price, external balance, fiscal, and expectations—and shows how different dimensions of institutional capacity influence each channel. In doing so, it integrates insights from energy geopolitics, institutional economics, and international political economy into a single analytical model of economic vulnerability.

More broadly, the study contributes to a growing literature that views institutions not only as determinants of long-run development but also as key sources of resilience during external crises. By emphasizing the mediating role of institutional capacity, the GV–IC framework offers a structured explanation for asymmetric macroeconomic outcomes in energy-import-dependent developing economies.

As a theory-building contribution, the framework provides a foundation for future empirical research. Testing the proposed mechanisms across countries and shock episodes remains an important next step in understanding how institutional capacity shapes economic resilience in an increasingly volatile geopolitical environment.

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