



Institutional Dynamics and Policy Outcomes in China's Belt and Road Initiative

Evidence from Central Asia (2013-2025)

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Abstract: This paper develops a contingent asymmetry framework to explain variation in Belt and Road Initiative (BRI) across Central Asia between 2013-2025. Leaving binary dependency/mutual-gain accounts behind, it demonstrates that the identity of creditors is not the defining factor of vulnerability, but instead, the effects are co-created by the domestic institutional capacity, revenue channels and legally established diplomatic status. In 2025, total China-Central Asia trade amounted to \$106.3 billion - 116% higher than in 2013 - but Chinese debt exposure was only 21% of foreign debt in Kazakhstan, and 52% in Tajikistan. Turkmenistan brings in a unique setup: recognized Positive Neutrality in the UN, high hydrocarbon revenues, believed to have debt-to-GDP of 4%-11% and the absence of publicly documented asset transfers in the restructuring of their debts to be broadly known. The key mediating variable is that of institutional mediation on a domestic level: states that have diversified their funding sources and those that have sovereign sources of revenue and have internationally based regimes of neutrality are more likely to maintain flexibility in their policies. Combining constructivist and materialist approaches to debt architecture with a view of the formation of regional security complexes, this paper hypothesizes the potential existence of portfolio diversification functional complements in diplomatic-legal status and export capacity.

Keywords: *Belt and Road Initiative, Central Asia, institutional capacity, development finance*

Beyond Binary Narratives

The Belt and Road Initiative (BRI) has generated a long-lasting academic debate in between dependency-based readings emphasize structural constraints and institutionalist accounts of mutual gain.¹ Both models do not have full explanations of observable deviation throughout Central Asia where Kazakhstan is a policy flexible state with heavy Chinese involvement, while Tajikistan exhibits markedly higher exposure. This variance is an adaptation in the national institutional arrangements intermediating external funding system.

Central Asia provides a valuable comparative setting for examining BRI- related institutional variation. The first articulation of the Silk Road Economic Belt took place in the region in 2013 and is still referred to as “a pioneer in quality Belt and Road co-operation.”² All five republics have signed cooperation documents with China under the BRI framework, and the Second China-Central Asia Summit (June 2025) further reinforced regional cooperation. The summit identifies priority areas including trade facilitation, green minerals, digital transformation, and connectivity development. The interaction of financing structures and domestic governance capacity and diplomatic posture provides a useful comparative framework for assessing this institutional landscape.

Turkmenistan occupies a unique place in the comparative sphere. Its permanent neutrality is codified in the United Nations General Assembly resolutions A/RES/50/80 (December 12, 1995) and officially institutionalized in its own internal structure under the name ‘Positive Neutrality’ imposing legal, diplomatic as well as strategic on its external economic engagement.³ In contrast to Kazakhstan’s diversified portfolio or Tajikistan’s more limited financing framework, the neutrality framework of Turkmenistan offers an internationally-based institutional buffer that could serve to lessen asymmetric dependencies. Beyond its legal and diplomatic dimensions, Positive Neutrality may also be understood as a form of strategic positioning that facilitates engagement with multiple external partners while preserving flexibility in external economic relations.

This arrangement has started to be conceptualized by recent scholarship. As Lemon and Jardine argue in *Seeing China’s Belt and Road*, it is a set of different forms of hierarchical coordination in the form of infrastructure corridors, and they are mediated by the local political economies.⁴ A combination

¹ Robert O. Keohane and Joseph S. Nye, *Power and Interdependence*. 4th ed. (Boston: Longman, 2011); Sebastian Horn, Carmen M. Reinhart, and Christoph Trebesch, “China’s Overseas Lending,” *Journal of International Economics* 147 (2021): 103–28.

² China Ministry of Commerce, “China-Central Asia Trade Reaches \$106.3 Billion in 2025,” press release, January 20, 2026.

³ United Nations General Assembly, “Permanent Neutrality of Turkmenistan,” Resolution A/RES/50/80, December 12, 1995.

⁴ Edward Lemon and Bradley Jardine, “Securing the Belt and Road and Establishing Hierarchy in Central Asia,” in *Seeing China’s Belt and Road*, ed. Edward Schatz and Rachel Silvey (Oxford: Oxford University Press, 2025), 87–112.

of oil revenues and a neutrality policy enabling engagement with diverse external actors, including Russia, China, Turkey, and Western economies, shapes Turkmenistan's domestic political economy.

The lack of transparency in its data has left Turkmenistan remaining underrepresented in comparative BRI scholarship. The absence of standardized fiscal reporting, including limited public access to external debt figures and project-level financing terms, has produced an empirical vacuum. This article addresses the gap by triangulating across the existing data sources such as IMF Article IV Consultation reports, World Bank estimates, AidData project records, official bilateral communications in the China-Turkmenistan gas partnership that has been established in 2007.⁵

Turkmenistan's Position within China's Central Asian Partnerships

Out of the five republics of Central Asia, Turkmenistan occupies a strategically important position in the energy and infrastructure relationship between China and the region as far as the energy and infrastructure correlation between China and the region is concerned. Turkmenistan is unique in three ways as compared to its neighbors.

First, energy cooperation as Turkmenistan exports approximately 40 billion cubic meters per year of natural gas into China through the system of Central Asia-China pipeline (Lines A, B, C, with Line D in progress) with about 15-20 percent of the entire gas imports into China being through this overland route, an important supplement to maritime options. Comparatively, the energy sales that Kazakhstan exports to China are mainly oil oriented with a higher fluctuating outflow, whereas Tajikistan and Kyrgyzstan lack significant hydrocarbon export capacity.

Second is performance on a contract basis. Turkmenistan has demonstrated consistent contractual performance with Chinese financial institutions. Despite significant volatility in global energy markets between 2020-2023, Turkmenistan maintained continuous debt service to the China Development Bank and Exim Bank. No public record indicates default, rescheduling, or asset transfer in connection with this obligation.

Third, Turkmenistan's UN recognized Neutrality shapes its geopolitical positioning. It means that Turkmenistan does not participate in formal military alliances or bloc-based economic integration. This status contributes to a stable and predictable economic cooperation, as neutrality reduces the likelihood that external security competitions will disrupt bilateral agreements. In this regard, neutrality functions as a framework that supports continuity and predictability in external economic relations

⁵ AidData, *Global Chinese Development Finance Dataset Version 2.0* (Williamsburg, VA: AidData at William & Mary, 2021); International Monetary Fund, "Turkmenistan: 2023 Article IV Consultation," IMF Country Report No. 23/124 (Washington, DC: International Monetary Fund, 2023).

According to the estimates published by the Chinese Ministry of Commerce (2025), Turkmenistan has adhered to long-term contracts regarding supplying natural gas, which demonstrates high contractual reliability of regional partners.⁶ The Second China-Central Asia Summit (June 2025) further strengthened this bond by establishing a China-Central Asia energy development partnership where Turkmenistan has been regarded as one of the main partners in natural gas relations.⁷

There are three contributions from this article. First, it operationalizes a contingent asymmetry framework in which institutional mediation serves as the primary mechanism linking external financing to policy outcomes. Second, the article provides new comparative evidence from Central Asia including a relatively unstudied case of Turkmenistan while acknowledging existing data constraints. Third, it combines both material and ideational perspectives in showing how the structure of neutrality interrelates with revenue structures to determine the bargaining ability.

Research Design and Hypotheses

This study employs a diverse-case-study approach examining the five Central Asian republics between 2013-2025 with methodological control on the exposure of the regions to Chinese financing of infrastructure, the geographic location to the west of China and the commonness of the past institutional heritage in the region after the collapse of the Soviet Union. The institutional capacity, revenue diversification, and diplomatic-legal status have systematic variations in cases, allowing evaluation of the possible mediating role of these variables in the connections between the two variables of debt exposure and policy autonomy. Although Kazakhstan and Turkmenistan both display relatively low levels of debt exposure, they achieve these outcomes through different institutional and economic mechanisms.

H1 (Structural Exposure Hypothesis): Where institutional capacity is comparatively limited, export structures remain less diversified, and external policy buffers are narrower, large-scale external financing may contribute to higher level of financial concentration and increase refinancing sensitivity over time.

H2 (Contingent Opportunity Hypothesis): Developmental performance depends on effectiveness of governance, sovereign revenue generation ability, portfolio structure, and-in the case of Turkmenistan-internationally recognized Positive Neutrality as a strategic and institutional framework.

The contingent asymmetry framework incorporates the material and the ideational variables in a complementary form. Relying on constructivist theory of regional security complex formation, this paper states the results are determined by the combination of external funding framework, nationwide mediating

⁶ China Ministry of Commerce, "Assessment of Central Asian Energy Partnerships: Turkmenistan Performance Review," internal report, summary released March 15, 2025.

⁷ Second China-Central Asia Summit, "Astana Declaration"

institutions, as well as legal-diplomatic framework of permanent neutrality.⁸

Empirical Landscape: Trade, Investment, and Debt (2013-2025)

The trade between China and the Central Asian countries has grown significantly since the establishment of the BRI. Goods trade has also attained its highest level to date, increasing year-on-year by 12 percent to reach a total of \$106.3 billion in 2025, five years after making successive yearly gains. All the five Central Asian states have turned into major trading partners with China.

Table 1: China–Central Asia Trade Growth (2013–2025)

Year	Trade volume (USD, billions)	Annual Growth Rate (%)
2013	43.5	-
2021	49.6	-
2024	94.0	-
2025	106.3	12.0

Trade Composition in terms of trade structure is also distinctive. Exports rose to \$71.2 billion (up 11 percent) led by the machinery, electrical equipment and high-technology products in electric cars, lithium-ion batteries and photovoltaic parts. Imports amounted to 35.1 billion (increased 14 percent) and broadening economic exchange beyond traditional energy cooperation to include chemicals, steel, agriculture goods, and food products. China-Central Asia trade experienced sustained growth of 51.8% by road transport as compared to 19.9% in 2020.⁹

In the case of Turkmenistan, the bilateral trade relationship is focused on natural gas export. A pipeline connecting China and Turkmenistan gas flows, has remained operational since 2009, moves approximately 40 billion cubic meters annually according to long-term supply agreements. This source of income, which is estimated at approximately 6-8 billion annually, constitutes a central component of the external financial location of Turkmenistan.¹⁰

The BRI-related financial activities have led to varied results in terms of debt in the region. According to the IMF-World Bank Debt Sustainability Framework, there is considerable variation across external debt and financial profiles (see Table 2).

Table 2: External Debt Indicators in Central Asia (2023–2024)

Country	External Debt (USD, bn)	Debt-to-GDP (%)	Share of External Debt Owed by China	Chinese Debt (% of GDP)	IMF Debt Sustainability Assessment
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⁸ Timur Dadabaev and A. A. Umarov, "A Constructivist Framework for the Central Asian Regional Security Complex: Identity, Interests and Security Dynamics," *International Affairs* 101, no. 4 (2025): 1237–58.

⁹ UzDaily, "China-Central Asia Mechanism Boosts Cooperation in Trade, Investment, Green Energy, and Digital Economy," January 21, 2026.

¹⁰ International Monetary Fund, "Turkmenistan: 2023 Article IV Consultation," 8–10.

			(%)		
Kazakhstan	162.5	24.5	21	3.5-5.1	Sustainable
Uzbekistan	36.2	35.6	28	10.0	Moderate risk
Turkmenistan	2.8-9.8	4-11	45	4-9	Not Classified (Low-moderate risk)
Tajikistan	6.2	68.0	52	35.4	High Risk / In Distress
Kyrgyzstan	5.1	57.8	46	26.6	High Risk

Sources: World Bank International Debt Statistics (2024); IMF Country Reports (2024); Aid-Data (2021). External debt estimates vary significantly across sources, with official figures suggesting lower ratios than externally derived datasets.¹¹

Table 3: Typology of Debt Exposure and Institutional Mediation in Central Asia

Country	External Debt (% GDP)	Chinese Debt (% GDP)	IMF Classification	Institutional Capacity	Debt Structure	Key Vulnerability	Analytical Type
Kazakhstan	~24–25	~3.5–5.1	Sustainable	High	Diversified, significant intercompany & SOE-linked debt	Hidden/quasi-sovereign liabilities	Capacity-driven resilience
Uzbekistan	~35–36	~10	Moderate Risk	Medium (improving)	Predominantly sovereign & state-backed	Rising borrowing trajectory	Reform-mediated exposure
Turkmenistan	~4–20 (est.)	~5–9 (est.)	Not Classified	Medium (state-centric)	Opaque, hydrocarbon-backed	Data opacity, unverifiable liabilities	Opacity-buffered autonomy
Tajikistan	~68	~35	High Risk / In Distress	Low	Highly concentrated (China-dominant)	Debt concentration, weak exports	Structural dependency
Kyrgyzstan	~58	~26–27	High Risk	Low–Medium	China-heavy, publicly contested	Political volatility in debt management	Politicized vulnerability

To synthesize cross-country variation in debt exposure and institutional mediation, Table 3 provides a structured comparative typology across the five Central Asian states.

Kazakhstan: Diversified Exposure with Hidden Complexity

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<https://www.worldbank.org/en/programs/debt-statistics/ids>
<https://thedocs.worldbank.org/en/doc/6e72b0ded996306fa01f5db7a0c38b19-0050052021/related/IDR2025-Agg-Cty-pgs.pdf>

Kazakhstan represents the most institutionally robust case in the region. Total external debt exceeds \$160 billion, yet the debt-to-GDP ratio remains moderate at approximately 24-25 percent. Chinese exposure is comparatively limited—estimated at roughly \$9.2 billion, or 3.5%-5% of GDP—making it the lowest relative dependence on Chinese financing in Central Asia. This supports its classification as “sustainable” under the International Monetary Fund framework.

However, this apparent resilience is partially qualified by the structure of liabilities. A significant proportion of Kazakhstan’s external obligations consists of intercompany loans and quasi-sovereign debt linked to state-owned enterprises, particularly in the energy sector. These “hidden” liabilities, estimated at an additional 6.5-10 percent of GDP, introduce contingent fiscal risks that are not fully captured in sovereign debt metrics. As a result, Kazakhstan’s profile reflects **high institutional capacity combined with structurally diffused exposure**, rather than pure insulation from external financial pressures.

Uzbekistan: Expanding Borrower with Managed Risk

Uzbekistan occupies an intermediate position, characterized by active borrowing and ongoing economic liberalization. External debt stands at approximately \$36 billion, corresponding to around 35–36 percent of GDP, with Chinese obligations accounting for roughly 28 percent of total external debt (around 10 percent of GDP). The IMF classifies Uzbekistan as facing **moderate risk**, reflecting both its expanding borrowing profile and improving macroeconomic governance.

Unlike Kazakhstan, Uzbekistan’s exposure is more directly tied to sovereign and state-backed borrowing, particularly in infrastructure, industrial modernization, and energy development under the Belt and Road Initiative framework. Nevertheless, strong growth rates and gradual institutional reforms—especially in fiscal management and currency liberalization—provide a stabilizing counterbalance. Uzbekistan thus represents a case of **managed exposure**, where rising debt levels are offset by increasing governance capacity and economic diversification.

Turkmenistan: Low Debt with High Opacity

Turkmenistan presents a structurally distinct model. Official figures suggest external debt levels as low as approximately 4.1 percent of GDP, while external estimates place the range between 4 and 20 percent, reflecting persistent data opacity. In absolute terms, debt estimates vary widely (approximately \$2.8-9.8 billion), underscoring the absence of transparent fiscal reporting. Consequently, the IMF does not assign a formal debt sustainability classification, designating the country as “not classified.”

Despite this uncertainty, structural indicators point toward low external vulnerability. Hydrocarbon export revenues generate stable foreign currency inflows, while official policy emphasizes minimal reliance on external borrowing and the absence of domestic sovereign debt since 2022.

Combined with its UN-recognized neutrality, this creates a unique configuration of low observable debt exposure but limited data verifiability, positioning Turkmenistan outside conventional risk frameworks.

Tajikistan: High Concentration and Structural Vulnerability

Tajikistan represents the most exposed case in the region. With external debt at approximately \$6.2 billion-equivalent to around 68 percent of GDP-and more than half (approximately 52 percent) owed to Chinese creditors, the country faces acute financial concentration risks. Chinese debt alone constitutes over one-third of GDP (around 35 percent), placing Tajikistan in the IMF category of high risk of debt distress.

This vulnerability is compounded by limited export diversification, narrow fiscal capacity, and high dependence on remittances. Debt restructuring episodes, including maturity extensions and renegotiations with Chinese lenders, reflect ongoing repayment pressures. Tajikistan thus exemplifies structural dependency within asymmetric interdependence, where limited institutional capacity constrains policy autonomy.

Kyrgyzstan: Politicized Debt and Institutional Constraints

Kyrgyzstan shares several characteristics with Tajikistan but differs in its domestic political dynamics. External debt stands at approximately \$5.1 billion (around 58 percent of GDP), with Chinese creditors accounting for roughly 46 percent of total external debt and approximately 26-27 percent of GDP. The IMF classifies Kyrgyzstan as high risk, reflecting both debt levels and fiscal fragility.

However, unlike Tajikistan, debt outcomes in Kyrgyzstan are strongly mediated by domestic political contestation. Public opposition has influenced negotiations with Chinese lenders, including the rejection of proposed asset-based arrangements such as land leases. This introduces an additional layer of uncertainty, where institutional weakness is partially offset-but also complicated-by political responsiveness. Kyrgyzstan therefore represents a case of high exposure combined with politicized debt management, producing volatile but not entirely deterministic outcomes.

Incidents of debt restructuring throughout the region indicate context-specific and not homogeneous results (see Table 4).

Table 4: Selected Debt Restructuring and Refinancing Cases

Country	Year	Creditor	Sector	Restructuring Terms	Outcomes
Tajikistan	2020	China Exim Bank	Energy/Transport	Maturity extension; interest rate adjustment	Limited operational
Kyrgyzstan	2017	China Exim Bank	Transport	Partial principal adjustment	No asset transfer
Kyrgyzstan	2021	China	Energy	Maturity extension	Proposed land

		Development Bank			lease not implemented
Turkmenistan	2019	China Development Bank	Gas Infrastructure	Commercial-refinancing (market-based terms)	No change in ownership or control

Notes: Focuses on publicly documented cases; terms reflect disclosed or triangulated estimates.

Sources: Parks (2022); Aid-Data Project Records; IMF Country Reports.

The case of Tajikistan illustrates how higher debt concentration and limited export diversification may increase vulnerability to refinancing pressures and external financial dependence. The Kyrgyzstan example shows how domestic political contestation can shape negotiations with external creditors, particularly through public resistance to proposed land-lease arrangements associated with debt management discussion. Turkmenistan's 2019 refinancing of gas infrastructure loans with the China Development Bank proceeded through commercially negotiated arrangements without publicly documented changes in ownership or operational administration.¹²

Turkmenistan's Hydrocarbon-Backed Model: Low Debt, Sustained Policy Flexibility

The external debt profile of Turkmenistan differs from broader regional patterns. Macroeconomic indicators further reinforce this position: Turkmenistan's GDP reportedly exceeded \$68 billion in 2024, with growth sustained at approximately 6.3 percent, supported by hydrocarbon export revenues. Recent official statements indicate external debt levels as low as approximately 4.1 percent of GDP, although external estimates place the range higher (up to 20 percent), reflecting persistent data opacity. Even under upper-bound estimates, Turkmenistan remains within the lower debt range in Central Asia. Several structural factors may help explain this relatively low level of external debt exposure. First, gas export revenues provide a relatively stable source of foreign currency earnings, which may reduce reliance on additional external borrowing. Second, infrastructure development has frequently been financed through sovereign revenue resources alongside selective external borrowing, reflective a relatively cautious fiscal approach. Official statements further indicate the absence of domestic sovereign debt since 2022, reinforcing the characterization of an exceptionally conservative fiscal posture. Third, Turkmenistan's neutrality framework may facilitate balanced economic engagements with multiple external actors—including Russia, China, Turkey, Iran, European markets—thereby potentially reducing excessive dependence on any single external financing source.¹³

The IMF's 2023 Article IV Consultation reports comparatively moderate public external debt levels and notes cautious approach toward additional borrowing. Hydrocarbon revenues have functioned

¹² AidData, *Global Chinese Development Finance Dataset*; International Monetary Fund, "Turkmenistan: 2023 Article IV Consultation," 12–15.

¹³ Lemon and Jardine, "Securing the Belt and Road," 94–97.

as an important stabilizing buffer against external economic fluctuations while supporting continuity in contractual obligations and moderating refinancing pressures. The available evidence therefore supports plausible institutional relationships rather than definitive causal conclusions.

Data Limitations and Methodological Transparency

In this study, several data-availability constraints affect the scope of empirical analysis in this study, particularly in the case of Turkmenistan.

First, there is limited publicly available macroeconomic and fiscal data constrain comprehensive empirical verification. Turkmenistan limits systematic empirical assessment regular comprehensive external debt data and project-specific financing conditions, with the available estimates based on biased disclosure and external institutional ratings.

Second, limited public access on contract-level information by many people severely limits conditionality of analysis and restructuring. Unlike certain neighboring cases within the region, project-level arrangements with the Chinese financial institutions are not publicly available.

Third, triangulation across available datasets remains methodologically constrained. The analysis should therefore be interpreted as definitive plausible institutional patterns rather than establishing definitive causality. Sources including AidData, IMF reports and World Bank statistics provide useful partial coverage, although the broader empirical picture remains incomplete in certain areas, particularly for Turkmenistan.

These limitations suggest that the analysis should be interpreted as an inference based on institutional plausibility rather than as a definitive casual demonstration. The argument can thus be understood as the discovery of possible mechanisms between institutional design and policy outcomes and not in the determination of causality.

Institutional Mediation: Governance Capacity and Mechanism Tracing

The variation in the ability to organize contractual arrangements across the region is an observable measure of autonomy in policymaking (see Table 5).

Table 5: Dispute Resolution Mechanisms in Selected BRI Projects

Country	Project type	Dispute Resolution Mechanism	Legal/Strategic Implication
Kazakhstan	Transport Corridor	International Arbitration (ICC)	High neutrality; strong investor protections
Turkmenistan	Gas Infrastructure	Domestic legal jurisdiction	Emphasis on sovereign legal frameworks under neutrality
Kyrgyzstan	Transport	Hybrid (Domestic +	Intermediate institutional balance

	projects	international)	
Tajikistan	Energy projects	Bilateral arbitration	Relatively narrower flexibility

Notes: Mechanisms reflect contractual norms rather than a single project; ICC = International Chamber of Commerce.

Sources: Parks (2022); contract datasets; secondary legal analyses.

Kazakhstan's use of International Chamber of Commerce (ICC) arbitration mechanisms, particularly following its accession to the World Trade Organization in 2015, contributes to greater predictability and procedural neutrality in dispute resolution processes.¹⁴ Turkmenistan's preference for domestic legal jurisdiction, consistent with its Positive Neutrality strategy reflects an emphasis on sovereign legal authority in external economic engagements. This approach is broadly consistent with Turkmenistan's neutrality-based diplomatic framework, which emphasizes sovereign decision-making and nationally administered legal processes in external economic relations. Available evidence indicates continuity in contractual and economic cooperation arrangements, while detailed negotiation records are not publicly available, the observed outcomes including uninterrupted gas deliveries and refinancing without asset transfers are consistent with the stated principle of Turkmenistan's Positive Neutrality framework. The causal mechanism between the institutional design and policy flexibility takes place in three-step transmission:

1. Diplomatic-Legal Buffer: Non-membership in formal regional security blocks may reduce security-linked bargaining pressures in external economic negotiations, which implies that permanent neutrality is recognized, means that security-related considerations should not be as relevant in economic negotiations.

2. Revenue Autonomy: The exports of hydrocarbons create predictable inflows of foreign currency and reduce dependence on concessional or sovereign-guaranteed borrowing and ease the strain on refinancing.

3. Contractual Bargaining Capacity: (1) + (2): The availability of alternatives to the borrowing state grows and, as a result, allows negotiating the conditions of commercial refinancing, preserving domestic jurisdiction during the process of resolving the dispute, avoiding the provisions of the transfer of the property.

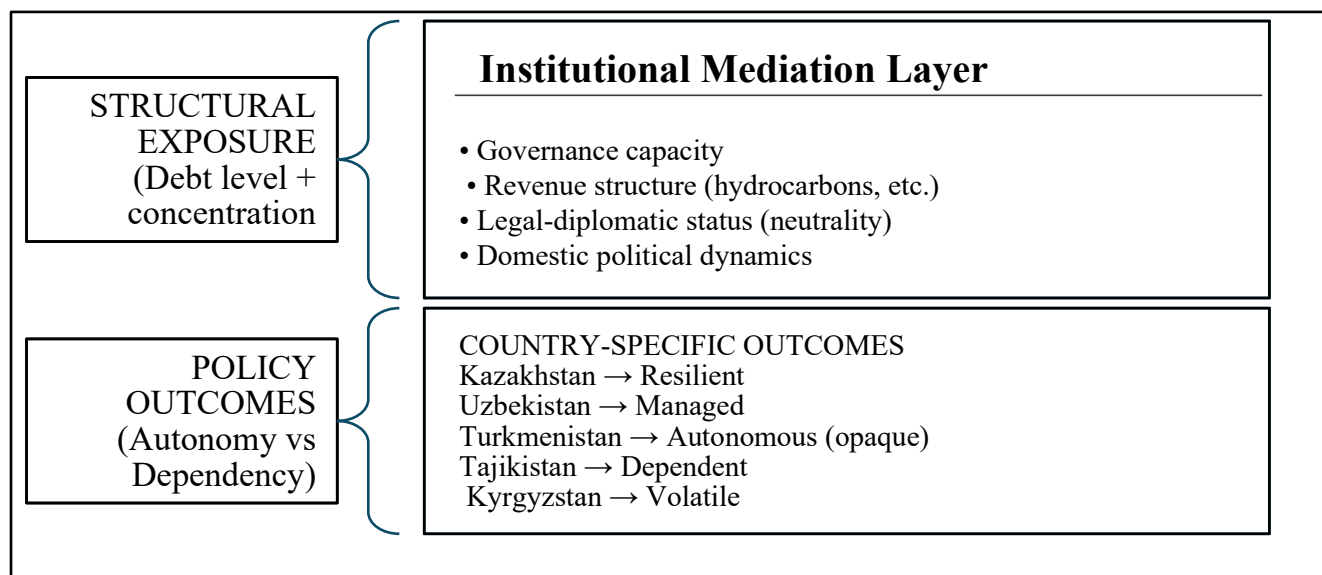
According to this mechanism, Positive Neutrality functions not only as a diplomatic principle but also as an institutional framework that facilitates balanced external engagement and supports the preservation of policy flexibility. In this context, Positive Neutrality may also be understood as a strategic positioning mechanism. Rather than aligning with exclusive security or economic blocs, the neutrality framework enables engagement with multiple external partners while preserving flexibility in diplomatic

¹⁴ Anna Gelpern et al., "How China Lends: A Rare Look into 100 Debt Contracts with Foreign Governments," Working Paper (Washington, DC: Peterson Institute for International Economics, 2023).

and economic decision-making. This positioning does not eliminate structural asymmetries, but it may broaden the range of available policy options and reduce dependence on any single external relationship. In combination with material revenue capacity, it contributes to sustaining policy flexibility under conditions of asymmetric interdependence.

The empirical support for this mechanism varies across its constituent components. Evidence regarding role of revenue autonomy is comparatively robust and is reflected in assessments by international financial institutions. By contrast, the contribution of Positive Neutrality is less directly observable and is assessed primarily through patterns of institutional practice, diplomatic conduct, and the continuity of external relations. Available evidence concerning contractual outcomes and economic cooperation provides a limited but relevant basis for analysis. Consequently, the proposed mechanism should be understood as analytically credible and broadly consistent with observed patterns, while acknowledging that further empirical research would be required to assess the relative contribution of individual factors with greater precision.

Contingent Asymmetry Framework: Institutional Mediation and Policy Outcomes in Central Asia



This diagram summarizes the contingent asymmetry framework, illustrating how external financing interacts with institutional mediation to produce differentiated policy outcomes across Central Asia.

Material-Ideational Interaction: Co-Shaping Sovereign Capacity

The Turkmenistan case illustrates interdependence between material and ideational variables. Hydrocarbon revenues decrease dependence on external financing, while the UN-recognized Positive Neutrality framework provides a stable and internationally recognized framework for external

engagement. Beyond its diplomatic and legal dimensions, neutrality also functions as a form of strategic positioning by supporting balanced relations with multiple external actors and preserving flexibility in international economic cooperation. Collectively, these factors may create a constructive dynamic: revenue autonomy can strengthen negotiating leverage, which in turn supports more favorable financing terms and help preserve fiscal policy flexibility.

A counterfactual consideration reinforces this interpretation. Without hydrocarbon revenues, neutrality alone would offer fewer material resources to support policy flexibility. Conversely, without neutrality, hydrocarbon-rich states might face different forms of external pressure. The interaction—rather than either factor—presents a challenge to the static conceptualizations of asymmetric interdependence where structurally constrained and evolving agencies of the state are regarded as analytically distinct considerations.¹⁵ Instead, it supports a more integrated framework in which institutional design and material capacity jointly shape outcomes.

Vanderhill, Joireman, and Tulepbayeva argue that China's economic engagement in Central Asia does not necessarily produce corresponding changes in public perceptions among local populations. Based on survey data, media analysis, protest data, and demographic mapping, their results show that historical factors and perception associated with cross-border ethnic relations can have an impact on the attitudes of the population.¹⁶

Turkmenistan is a unique variant of such regional dynamic. This distinction is partly explained by Turkmenistan's limited geographic proximity to China, relatively small presence of cross-border ethnic linkages associated with Xinjiang, and the predominantly commercial character of bilateral gas cooperation. Public discourse in Turkmenistan generally emphasizes infrastructure development and economic outcomes rather than broader ideological narratives surrounding external engagement.

In this respect, non-material forms of influence remain difficult to evaluate systematically due to existing data limitations. Consequently, economic engagement appears to be shaped primarily by contractual and financial structures, within which Turkmenistan's institutional arrangements remain particularly significant. This dynamic is compatible with and extends the contingent asymmetry framework.

Forward Projections: Scenario Analysis and Stress Testing

The Second China-Central Asia Summit (June 2025) led to the adoption of 55 cooperation documents, among which is a Treaty on Eternal Good-Neighborliness and an Action Plan on High-

¹⁵ Keohane and Nye, *Power and Interdependence*, 23–45.

¹⁶ Rachel Vanderhill, Sandra F. Joireman, and Roza Tulepbayeva, "In the Shadow of the Dragon: Chinese Soft Power in Central Asia," *International Affairs* 101, no. 4 (2025): 1441–61.

Quality Cooperation in BRI.¹⁷ Six priority areas were identified namely, unimpeded trade, industrial investment, connectivity, green minerals, agricultural modernization, and people-to-people exchanges. An energy development relations partnership was also developed with China and Central Asia, with the intentions to increase cooperation in the whole energy value chain.¹⁸

Three analysis scenarios are projected through 2030 to test the resilience of the contingent asymmetry framework (see Table 6). These projections are based on IMF baseline scenarios, summit implementations assumptions, and sector-specific transition schedules. They should therefore be interpreted as indicative analytical estimates rather than predictive forecasts.¹⁹

Table 6: Scenario Projections for China–Central Asia Engagement (2024–2030)

Indicator	Baseline Scenario (H2)	Decarbonization Adjustment Scenario	Geopolitical Realignment Scenario
Trade volume by 2030 (USD, bn)	115-125	95-105	100-110
Share of Renewable in BRI Energy Finance (%)	25-30	35-40	20-25
Turkmenistan Gas Revenue stability	High	Moderate adjustment (post-2035)	Stable with price negotiations
Policy Autonomy Index (Composite)	Maintained	Conditional Adjustment	Moderately constrained

Notes: Projections based on IMF baseline growth trajectories, IEA energy scenarios, and 2025 summit commitments. The Policy Autonomy Index is a composite analytical construct combining debt exposure, legal control, and revenue independence (author's framework).

Sources: IMF (2024); World Bank (2024); IEA (2025); China–Central Asia Summit documents (2025).

Scenario 1: Baseline Trajectory (H2 Holds). Under this scenario, sustained moderate growth, a stable neutrality framework and diversified regional partnerships may allow Turkmenistan to maintain relatively low debt exposure and high policy flexibility. Chinese financing would remain primarily commercial in character, while dispute-resolution processes would continue to operate largely within domestic legal frameworks.

Scenario 2: Decarbonization Adjustment. China's domestic energy transition may accelerate over the coming decades, while demand growth for natural gas could stabilize during late 2030s under broader decarbonization trends. Under such conditions, Turkmenistan's hydrocarbon-based revenue structure may experience gradual adjustment, potentially increasing the relative importance of external financing. In contexts where institutional mediation weakens, factors associated with H1- particularly

¹⁷ Second China-Central Asia Summit, "Astana Declaration."

¹⁸ International Monetary Fund, "Turkmenistan: 2023 Article IV Consultation," 5

¹⁹ Projection methodology: Scenario baselines extrapolate IMF/WB trend data weighted by summit implementation capacity; decarbonization timelines align with International Energy Agency, "Net Zero by 2050: A Roadmap for the Global Energy Sector" (Paris: IEA, 2025); geopolitical stress indicators draw on regional security complex theory (Dadabaev and Umarov, "Constructivist Framework").

financial concentration and refinancing pressures-could become more prominent. Nevertheless, long-term upstream investments in Galkynysh gas field by CNPC. Together with existing production-sharing arrangements and established energy cooperation frameworks, may continue to provide elements of economic stability and contractual continuity.²⁰

Scenario 3: Geopolitical Realignment. Local or broader geopolitical realignments may place additional pressure on the Turkmenistan framework of Positive Neutrality. If external actors seek to reinterpret neutrality within an evolving regional security environment, additional diplomatic complexities may emerge. At the same time Turkmenistan's absence of formal alliance commitments has historically contributed to continuity in its external relations, suggesting that its neutrality-based approach would be more likely to adjust incrementally to moderate external pressures than to undergo a fundamental transformation. Given the country's geographic position at the intersection of multiple regional dynamics, neutrality has functioned not only as a diplomatic principle but also as a strategic framework for maintaining balanced external relations, reducing exposure to alliance-based security competition, and supporting regional stability.

These scenarios suggest that the implementations of contingent asymmetry remain dependent on the continued performance of institutional and structural buffers. The analytical value of the framework lies in its ability to identify threshold conditions under which changes in revenue-generation capacity, regional security dynamics, or diplomatic positioning may influence the balance between policy flexibility and external exposure.

Conclusion

This paper has developed a contingent asymmetry framework to explain integrating both material and constructivist perspectives provides a more comprehensive explanation of variation in BRI outcomes across Central Asia. Case of Turkmenistan provides a focused illustration. Five conclusions follow.

To begin with, there are significant gains in terms of trade and connectivity. The expansion of China-Central Asia trade to approximately \$106.3 billion in 2025- representing growth of roughly 116% since 2013- indicates substantial regional economic integration.

Debt outcomes also vary according to domestic institutional capacity and revenue structures. The fact that Kazakhstan's relatively managed its interdependence, Tajikistan has high profile of exposure and Turkmenistan has low-debt, relatively high-policy-flexibility configuration point to the fact that for creditor identity alone does not determine outcomes. Diplomatic status (UN-recognized neutrality) and revenue capacity (gas exports) can serve as functional complements to portfolio diversification.

²⁰ China Ministry of Commerce, "Assessment of Central Asian Energy Partnerships."

Institutional mediation, including governance arrangements, contractual framework, revenue structures, and internationally recognized sovereignty principles-plays a central role in shaping how external financing influences policy flexibility and economic management, Turkmenistan's preference for domestic dispute-resolution mechanisms and its neutrality-centered diplomatic approach illustrates how institutional design may contribute to continuity in external economic relations.

The soft power dimension highlights limits to the translation of economic engagement into broader influence. Economic cooperation does not necessarily produce parallel shifts in public perception, particularly where historical or social factors shape local reception. Turkmenistan's differentiated position-linked to geographic distance, demographic factors, and commercially oriented engagement-illustrates how ideational and material variables interact.

Central Asian States demonstrate varying forms of agency within asymmetric structures. Kazakhstan's diversification strategy, Uzbekistan's pragmatic multisector engagement, and Turkmenistan's neutrality-based strategic positioning reflect different pathways through which states exercise agency within broader structural constraints. These cases suggest that policy outcomes are shaped not only by external conditions but also by the institutional and diplomatic mechanisms through which states manage asymmetric relationships.

An important area for future research concerns the ways in which Positive Neutrality contributes to policy flexibility and external economic engagement under conditions of asymmetric interdependence. The findings of this study suggest that Turkmenistan's internationally recognized policy of Positive Neutrality has provided a stable diplomatic framework that supports balanced external relations, continuity in economic cooperation, and the preservation of sovereign decision-making. At the same time, these outcomes appear to be reinforced by complementary factors, including hydrocarbon revenue capacity, state-conducted economic management, and the country's geopolitical positioning. Given current data limitations, it remains difficult to assess the precise relative contribution of each factor. Addressing this question would require more extensive fiscal and contractual data, as well as broader comparative analysis across countries with varying institutional, economic, and geopolitical conditions. Such comparisons would help assess how Positive Neutrality interacts with other structural factors in shaping policy. Such comparative inquiry would contribute to a more refined understanding of how Positive Neutrality and other structural factors jointly support policy flexibility and economic resilience

This framework extends theories of asymmetric interdependence by emphasizing institutional mediation-particularly the interaction between domestic governance arrangements and internationally recognized neutrality frameworks -as an intervening factor between structural conditions and policy outcomes. It emphasizes the interactive aspect of material capacity and institutional design in determining the bargaining dynamics.

These findings suggest that successful external economic engagements depend not only on financial resources but also on institutional capacity, diversified partnerships, and respect for established sovereignty frameworks. From China's perspective, Turkmenistan represents a relatively stable energy partner in the region, supported by long-term energy cooperation, contractual continuity, and a diplomatic approach informed by its internationally recognized policy of Positive Neutrality

Comparative analysis in Central Asia remains constrained by uneven data availability and availability and limited standardization across cases. This study highlights the importance of combining multiple sources of evidence, particularly in contexts where official fiscal, contractual, and project-level information is not consistently accessible. Future research would benefit from a broader collection of primary-source materials, greater incorporation of legal and diplomatic sources in the Turkmen language, and the use of diverse qualitative evidence, including archival documents, official records, and export interviews where feasible. Such approaches would strengthen the empirical foundation of research, improve comparative validity, and contribute to a more comprehensive understanding of the relationship between institutional arrangements and policy outcomes in the region.

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