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Governance, Corruption and Income Inequality: A Panel Study of Selected Asian Countries

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Abstract

This study investigated the relationship among governance, corruption, and income inequality in selected Asian countries over 2000-2021. Data for Governance (Political Governance and Institutional Governance) were taken from the World Governance Indicators (WGI). Principal Component Analysis (PCA) was used to create the governance index using four indicators of WGI: Political stability; no violence and voice & accountability; Rule of law; and Control of corruption. Data on income inequality (Gini index) were collected from the Global Consumption and Income Project (GCIP). Data on the Corruption Perceptions Index (CPI) as a proxy for corruption were taken from Transparency International. Fully Modified and Dynamic OLS (FMOLS) and DOLS were used for dynamic analysis. The study explored the inverse connection between governance and income inequality, as well as the positive impact of corruption on income inequality. The study suggested that the country should improve the quality of governance, as it leads to the improvement of institutions. Improved institutions and a politically stable country can reduce corruption and income inequality. Finally, policymakers should establish governance-improvement policies to tackle corruption and income inequality.

Keywords: Governance, corruption, income inequality, PCA, Asian countries

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1 Introduction

Classical political economy emphasized that persistent poverty and unequal income distribution are important concerns for economic development (Ricardo, 2009). Income distribution, along with the laws governing it, has long been central to political economy. Kuznets (1955) examined the relationship between economic development and inequality, while subsequent research established that distributional outcomes may influence growth through several channels (Aghion & Bolton, 1997; Alesina & Rodrik, 1994; Bénabou, 1996; Galor & Zeira, 1993; Perotti, 1996). However, the direction and strength of these relationships depend on economic conditions and institutional arrangements. Therefore, identifying the governance conditions associated with inequality remains a relevant concern for developing economies.

Endogenous-growth and political-economy research identifies four principal channels through which income and wealth inequality may impede long-term economic growth (Perotti, 1996). First, inequality can generate pressure for redistributive taxation, which may affect investment incentives and economic activity. Second, inequality may aggravate sociopolitical instability and uncertainty surrounding property rights, thereby discouraging capital formation. Third, imperfections in credit markets can constrain human-capital investment among households with limited resources, reducing productive opportunities. Fourth, inequality can influence fertility decisions and the allocation of resources to education and human-capital development. These mechanisms suggest that inequality is not simply an outcome of macroeconomic performance; it may also shape the institutional and economic environment in which growth occurs (Galor & Zeira, 1993; Alesina & Rodrik, 1994).

Corruption can weaken government legitimacy and administrative efficiency, discourage investment, and reduce public revenues (Knack & Keefer, 1995; Mauro, 1998; Shen & Williamson, 2005; Wei, 1997). Moreover, it may diminish the effectiveness of externally financed development projects when implementation and resource allocation are not sufficiently transparent (Isham et al., 1995). These effects are particularly relevant for income distribution because inefficient public spending and unequal access to government services may disproportionately affect lower-income households (Gupta et al., 2002; Rose-Ackerman, 1997).

During the formulation and implementation of public policy, officials may exploit discretionary authority for personal benefit while transferring a substantial share of the costs to the wider population (Tanzi, 1995, 1997). Consequently, corruption can distort the government's role in allocating resources. Individuals with stronger social or economic connections may have greater access to the benefits of discretionary decisions, whereas disadvantaged groups face additional barriers to public services and economic opportunities (Tanzi, 1995; Rose-Ackerman, 1997). In addition, corruption may encourage investment in projects that generate private benefits for decision-makers rather than broad employment and social returns. This allocation pattern can weaken poverty reduction and may increase disparities in income and opportunity. Therefore, the distributional implications of corruption should be assessed alongside the quality of governance institutions (Gupta et al., 2002).

The quality of government concerns the institutional conditions under which public authority is exercised and public affairs are administered (La Porta et al., 1999). State capacity, similarly, refers to the ability of public institutions to implement collective decisions and carry out their responsibilities (Lindvall & Teorell, 2016). Although these concepts are related, they are not identical. Governance quality encompasses accountability, political stability, legal enforcement, and the control of corruption, whereas state capacity focuses on the effectiveness of state action. In this context, stronger institutions may reduce opportunities for rent-seeking and improve the delivery of services that influence the distribution of income (Zhuang et al., 2010).

Good governance complements sound economic policy and can provide institutional conditions conducive to stable and equitable development (World Bank, 1992). Both national and international institutional arrangements can influence distributional outcomes; however, the relationship between governance and inequality is not necessarily uniform across economies (Dollar & Kraay, 2002; Zhuang et al., 2010). Two important mechanisms have been proposed. First, political participation and accountability may strengthen the representation of lower-income groups in redistributive decision-making (Li et al., 1998). Second, effective corruption control can limit the diversion of public resources and reduce unequal access to economic opportunities (Gupta et al., 2002). Therefore, governance may influence inequality through both political inclusion and the quality of public administration.

Previous research has linked governance with inequality, poverty, the rule of law, and economic development (Rubayet, 2009; Williams & Young, 1994). Weak public institutions may be associated with

corruption, unequal treatment, ineffective resource allocation, and poor social outcomes. Moreover, empirical studies suggest that corruption and institutional weakness may reinforce unequal income distribution (Gupta et al., 2002; Nadia & Teheni, 2014). Nevertheless, the magnitude and direction of these associations may vary with national institutions and income levels. For this reason, an empirical comparison across income groups can complement studies focused on individual economies or regions (Asongu & Odhiambo, 2020; Zhuang et al., 2010).

The relationship among corruption, governance, and income inequality has attracted sustained attention from scholars and policymakers. Reducing poverty and inequality is a particularly important objective for emerging and developing economies. Existing research has examined governance and inequality, corruption and inequality, or related macroeconomic outcomes, frequently in particular national or regional settings (Asongu & Odhiambo, 2020; Choudhary et al., 2018; Haq & Zia, 2009; Iqbal & Mehar, 2015; Mammon & Rabbani, 2017; Matti, 2014; Nadia & Teheni, 2014; Polat, 2020). In addition, Abbas et al. (2023) examined institutional quality, corruption, and inequality in SAARC economies. The present study retains its distinct comparative focus by examining these relationships simultaneously in selected Asian lower-middle-income and upper-middle-income economies. Therefore, it offers an income-group perspective on the institutional conditions associated with income distribution while building on earlier regional evidence.

The principal objective of this study is to investigate the interplay among governance, corruption, and income inequality in selected Asian countries. Specifically, the study examines the relationships involving governance quality and corruption in lower-middle-income and upper-middle-income economies and compares the results for these two groups. In addition, it aims to derive policy recommendations from the estimated associations. The analysis retains the 2000–2021 observation period and the original income-group classification, thereby allowing the empirical findings to be interpreted within the study's stated scope.

The study draws on Amartya Sen's Capability Approach as a guiding theoretical perspective. This approach emphasizes people's substantive freedoms and opportunities to pursue lives they have reason to value, rather than relying exclusively on income or material resources as indicators of well-being (Todaro & Smith, 2009). In the present context, unequal income distribution may constrain access to education, health, and other opportunities. Moreover, the quality of governance may shape the institutions through which these opportunities are provided. Thus, the Capability Approach offers a rationale for examining whether institutional conditions are associated with more equitable distributional outcomes.

According to the Capability Approach, individuals' opportunities depend not only on the resources they possess but also on their ability to convert those resources into valued activities and achievements (Todaro & Smith, 2009). Consequently, conventional measures of income, wealth, or subjective utility cannot fully capture differences in well-being. Nevertheless, the Gini index offers an informative, if partial, measure of inequality for the present econometric analysis. The study therefore interprets income inequality as an important distributional outcome without treating it as a comprehensive measure of capabilities or social welfare.

In addition, the study considers the 'grease-the-wheels' and 'sand-the-wheels' hypotheses in the corruption literature. The former suggests that bribery may, under certain institutional conditions, enable economic actors to bypass inefficient bureaucratic restrictions (Leff, 1964). The latter emphasizes the costs of corruption, including uncertainty, distorted incentives, and reduced institutional effectiveness (Huntington, 1968; Kéita & Laurila, 2016). However, these perspectives concern institutional mechanisms rather than providing automatic predictions about income inequality. The present analysis investigates the association of corruption and governance with inequality, rather than directly testing whether corruption improves administrative efficiency or economic growth.

The remainder of this paper is organized as follows. Section 2 reviews the relevant literature. Section 3 describes the data and model specification. Section 4 presents and discusses the empirical results and their policy implications. Section 5 offers conclusions and recommendations for policy and future research.

2 Literature Review

This section reviews theoretical and empirical research on governance, corruption, and income inequality. It considers evidence on institutional credibility, public-sector accountability, economic performance, and redistribution. In addition, the review identifies differences in regional coverage and analytical focus that motivate the comparison between the two Asian income groups in the present study.

Brunetti et al. (1998) examined how entrepreneurs' perceptions of the credibility of government rules relate to economic performance. Drawing on evidence from 41 countries, they identified connections between policy credibility, investment, and growth, particularly among local and smaller firms. Their findings suggest that institutional predictability is an important economic condition. However, because their emphasis was on growth and investment, the distributional consequences of institutional quality require separate investigation.

Haq and Zia (2009) examined the relationship between governance and pro-poor growth using data covering 1996–2005. They argued that sound institutions promote economic activity through improved opportunities for saving, risk management, investment, and trade. Their analysis considered poverty and inequality as indicators of pro-poor growth and highlighted accountability, political stability, regulatory quality, and the rule of law as relevant dimensions of governance. Similarly, the present study treats institutional quality as an important correlate of distributional outcomes.

Mahmood (2010) examined public procurement and corruption in Bangladesh, identifying weaknesses in public administration and accountability as obstacles to transparent procurement. The study emphasized the need to strengthen administrative oversight and institutional responsibility. These findings are relevant because procurement decisions determine how public resources are allocated. Therefore, weaknesses in this process may have implications for social-service provision and income distribution, although these implications were not directly estimated in that study.

Nadia and Teheni (2014) investigated the relationships among financial development, governance, and inequality across 39 economies in Asia and the Pacific, Europe and North America, and Latin America and the Caribbean. Using composite measures, the authors documented associations involving financial development, governance, and income distribution. Their broad geographical coverage provides comparative context. However, the present study concentrates on differences between selected Asian lower-middle-income and upper-middle-income economies.

Matti (2014) examined corruption, income inequality, and subsequent economic growth using data from 134 countries. The study found that corruption was associated with less favorable economic outcomes and that inequality was negatively related to subsequent growth in the examined setting. In addition, the analysis considered education and other economic factors. Although these results clarify the broader macroeconomic relevance of corruption and inequality, the direction of the governance–inequality relationship remains a separate empirical question.

Iqbal and Mehar (2015) analyzed governance challenges and income inequality in Pakistan using institutional indicators informed by Kaufmann and Kraay (2008). Their findings emphasized a negative association between inequality and governance and highlighted persistent difficulties related to taxation, energy supply, corruption, and public administration. This national evidence demonstrates why institutional reform and income distribution should be examined together. However, national findings cannot automatically be generalized to all Asian economies.

Mammon and Rabbani (2017) explored the relationships between economic welfare, performance, and governance outcomes in Pakistan. Using an autoregressive distributed lag approach, they identified short-run and long-run associations involving governance, economic conditions, inflation, and inequality. Their findings point to the possibility of reciprocal relationships between institutional quality and distributional outcomes. Consequently, the present study interprets coefficient estimates cautiously rather than treating observational associations as definitive evidence of causality.

Mustapha et al. (2017) investigated the relationship between value-added tax and income inequality in developing countries and assessed the moderating role of corruption control. Using quantile regression, they reported that the distributional implications of taxation varied across levels of inequality and corruption. Their analysis suggests that improved revenue collection and reduced leakage can support expenditure benefiting disadvantaged groups. In addition, it highlights the importance of considering institutional quality when interpreting fiscal policy and distributional outcomes.

Dantani and Muftau (2017) investigated corruption and sustainable inclusive growth in Nigeria. They found evidence of a detrimental relationship between corruption and inclusive growth and discussed implications for poverty reduction. The analysis also addressed the direction of temporal relationships among the variables. However, because Nigeria represents a particular national setting, the relevance of its conclusions to Asian economies should be evaluated rather than presumed.

Choudhary et al. (2018) examined dynamic links among corruption, economic growth, and inequality in Pakistan. Their findings suggested that any apparent short-term advantages associated with corruption should not be interpreted as a sustainable basis for long-term development. This observation is relevant to the competing grease- and sand-the-wheels arguments. Nevertheless, an effect on economic growth does not necessarily imply the same direction of association with income inequality.

Saleemi and Amir-ud-Din (2019) examined governance quality and crime across Asian countries. They associated differences in governance and socioeconomic conditions with variation in crime-related outcomes and emphasized legal enforcement, institutional quality, and social conditions. Although the dependent variable differs from that used in the present research, the study demonstrates the importance of governance for broader socioeconomic outcomes.

Dwiputri (2019) examined corruption and capital growth, emphasizing the potentially adverse economic consequences of bribery. Their findings were more consistent with the sand-the-wheels explanation than with the proposition that corruption enhances economic performance. However, the present study focuses on income distribution rather than capital accumulation and therefore examines a different, though related, outcome.

Nguyễn et al. (2020) examined fiscal decentralization, corruption, and income inequality in Vietnam. Their findings identified relationships among fiscal arrangements, corruption, and distributional outcomes, suggesting that institutional and fiscal structures should be considered jointly. In addition, the analysis highlights the role of country-specific policy arrangements. The present investigation extends the comparative perspective to two groups of Asian economies without assuming that findings for Vietnam apply uniformly elsewhere.

De Sousa (2021) examined the relationship between corruption and income inequality across 108 countries, with attention to political-regime differences. The study reported that stronger control of corruption was associated with lower inequality in the examined sample. This result is consistent with the view that institutional accountability can help reduce distributional disparities. However, cross-country measurement and institutional differences warrant careful interpretation of corruption indicators.

Abbas et al. (2023) analyzed institutional quality, corruption, and income inequality in SAARC economies between 2000 and 2021. Their results highlighted institutional quality as a potentially important factor in reducing inequality, while also considering corruption-related relationships. The study provides particularly relevant regional evidence. In contrast, the present research compares selected Asian economies across two income categories and uses governance and corruption measures jointly in the estimated specification. Thus, its additional contribution lies in the comparative income-group perspective, not in claiming that these variables have never previously been studied together.

3 Data and Model Specification

3.1 Data

The study employs panel data for selected Asian countries covering 2000–2021. Income inequality is represented by the Gini index, governance is measured through a composite index derived from World Governance Indicators, and the corruption variable is based on Transparency International's Corruption Perceptions Index. In addition, the specification includes measures of inflation, per capita economic performance, and population growth. The use of these indicators permits a comparison of the estimated associations across the two income groups while retaining the original study period.

Table 1: Description of Variables

Variables	Description	Source
Gini	Measure of income inequality ranges from 0 to 1	Global consumption and income project (GCIP).
Gov	Governance	World Governance indicators
Corr	Corruption perception index	Transparency international
CPI	Consumer price index	WDI
POPG	Population growth (annual %)	WDI
GDPPG	Proxy of income per capita (GDP per capita yearly growth)	WDI

Table 1 provides the definitions and sources of the variables used in the analysis. The principal variables of interest are governance, corruption, and income inequality. The analysis is conducted separately for the

selected lower-middle-income and upper-middle-income economies of Asia, and the estimated relationships are then compared. Table 2 lists the countries included in the two groups. Importantly, because the governance index includes control of corruption, its association with the separate corruption indicator should be considered when interpreting the estimates.

Table 2: List of Selected Asian Countries

Lower-middle income countries		**Upper-middle income countries**	
Bangladesh	Lao PDR	Armenia	Thailand
Bhutan	Mongolia	Azerbaijan	Turkey
Cambodia	Nepal	China	
India	Pakistan	Georgia	
Jordan	Philippines	Indonesia	
Kyrgyz Republic	Sri Lanka	Kazakhstan	
Tajikistan		Malaysia	

Source: World Bank income classifications.

3.2 Model Specification

The study specifies the following panel-data model to examine the association of governance and corruption with income inequality, conditional on the included macroeconomic controls:

$$Gini_{it} = \beta_0 + \beta_1 Corr_{it} + \beta_2 GOV_{it} + \beta_3 CPI_{it} + \beta_4 GDPPC_{it} + \beta_5 POPG_{it} + \varepsilon_{it} \quad (1)$$

In this specification, Gini denotes the income-inequality measure for country i in year t; CORR represents the corruption-perception measure; and GOV is the governance index combining political stability and absence of violence, voice and accountability, rule of law, and control of corruption. CPI refers to the consumer price index used as an inflation-related indicator; GDPPC denotes the economic-performance measure recorded in the dataset; and POPG represents annual population growth. The intercept is β_0, the slope parameters are β_1–β_5, and ε denotes the error term. The descriptive and model tables should be read with the variable definitions and units in Table 1. Notably, the Transparency International corruption-perception indicator is conventionally oriented so that higher values indicate less perceived public-sector corruption; consequently, the sign of its coefficient must be interpreted in line with the actual coding and scaling used in this dataset.

4 Results and Discussion

Tables 3 and 4 report descriptive statistics for the lower-middle-income and upper-middle-income economies, respectively. They summarize the observed variation in inequality, governance, corruption, population growth, economic performance, and consumer prices. In addition, the tables present correlation coefficients. Because the same correlation entries appear in both groups in the submitted tables, comparisons of these entries should not be treated as independently verified group-specific results. The following tests examine cross-sectional dependence and other panel-data properties before the reported coefficient estimates are discussed.

Table 3: Descriptive Statistics (Case of Lower-Middle Income Economies)

	GINI	**GOV**	**CORR**	**POPG**	**GDPPC**	**CPI**
Mean	0.46	-0.19	3.2	1.64	4.55	106.6
Median	0.45	-0.68	2.9	1.57	4.76	102
Maximum	0.57	4.55	6.8	5.42	16.2	219
Minimum	0.35	-2.87	0.4	-0.27	-3.1	28
Observations	286	286	286	286	286	286
GINI	1					
GOV	-0.1	1				
CORR	-0.09	0.84	1			
POPG	0.35	-0.04	0.12	1		
GDPPC	0.04	0.19	0.15	-0.21	1	
CPI	-0.24	0.14	0.28	-0.05	0.13	1

Source: Authors' calculations.

Table 4: Descriptive Statistics (UPPER-MIDDLE INCOME ECONOMIES)

	GINI	GOV	CORR	POPG	GDPPC	CPI
Mean	0.48	0.27	3.51	0.77	5.26	104.42
Median	0.46	0.10	3.50	0.87	4.51	101.50
Maximum	0.54	2.87	5.80	2.32	32.80	315.00
Minimum	0.33	-1.96	1.50	-1.94	-15	20.60
Observations	198	198	198	198	198	198
GINI	1					
GOV	-0.1	1				
CORR	-0.09	0.84	1			
POPG	0.35	-0.04	0.12	1		
GDPPC	0.04	0.19	0.15	-0.21	1	
CPI	-0.24	0.14	0.28	-0.05	0.13	1

Source: Authors' calculations.

Table 5 reports tests of cross-sectional dependence for the two income groups. The Breusch–Pagan LM and Pesaran scaled LM statistics are statistically significant at conventional levels, indicating rejection of the null hypothesis of cross-sectional independence. This finding suggests that country-specific observations may share common economic or institutional influences. Therefore, cross-sectional dependence should be considered when assessing the suitability of subsequent panel-data tests and estimators.

Table 5: Cross-Sectional Dependence LM Test

	Test	Statistic	d.f.	Prob.
Lower-Middle Income	Breusch-Pagan LM	296.62	78	0
	Pesaran scaled LM	17.503		0
Upper-Middle Income	Breusch-Pagan LM	247.21	36	0
	Pesaran scaled LM	24.89		0

Source: Authors' calculations.

Table 6: Second Generation / Cross Sectional Dependency Unit Roots

Variables	Pesaran-CIPS	Stationarity
Gini	<0.01	I (0)
GOV	<0.10	I (0)
CORR	<0.05	I (0)
CPI	<0.01	I (0)
POPG	<0.01	I (0)
GDPPC	<0.01	I (0)

Source: Authors' calculations.

Table 6 presents the reported Pesaran CIPS unit-root results. As labelled in the table, all listed variables are classified as stationary in levels, I(0), at the reported significance thresholds. However, the original explanatory interpretation classified governance and the consumer price index as I(1), which is inconsistent with the displayed table. Accordingly, the stationarity classification requires confirmation from the original test output before the panel cointegration and long-run coefficient estimates can be considered methodologically secure. No alternative integration orders are inferred here from the available summary statistics.

Table 7: Hausman Test

	LOWER-MIDDLE INCOME ECONOMIES	UPPER-MIDDLE INCOME ECONOMIES
Test Summary	**Cross-section random**	**Cross-section random**
Chi-Sq. Statistic	13.06	30.29
Chi-Sq. d.f.	5	5
Prob.	0.03	0

Source: Authors' calculations.

Table 8: Durbin Watson Results

	Lower-Middle income	Upper-Middle Income
Durbin-Watson stat	0.17	0.167

Source: Authors' calculations.

Table 9: Pedroni Residual Co-Integration

		Lower-Middle Income	Upper-Middle Income
With Dimension	Panel v-Statistic	-2.93(0.99)	0.71(0.24)
	Panel rho-Statistic	1.76(0.96)	-0.31(0.38)
	Panel PP-Statistic	-1.48(0.07)	-8.72(0.00)
	Panel ADF-Statistic	-1.61(0.05)	-5.29(0.00)
Without Dimension	Group rho-Statistic	2.3(0.99)	1.5(0.93)
	Group PP-Statistic	-6.35(0.00)	-9.23(0.00)
	Group ADF-Statistic	-2.72(0.00)	-4.25(0.00)

Source: Authors' calculations.

Table 7 presents the Hausman specification test. The reported p-values of 0.03 for lower-middle-income economies and approximately 0.00 for upper-middle-income economies indicate rejection of the random-effects consistency assumption under the conventional test interpretation, favouring fixed effects over random effects. However, the Hausman test alone does not establish general simultaneity or reverse-causality endogeneity. The governance–inequality and corruption–inequality relationships may nonetheless be affected by reciprocal influences or omitted factors; therefore, causal interpretations should remain qualified without additional identification and robustness analysis.

To assess serial correlation in the reported equations, the study also presents Durbin–Watson statistics in Table 8. The very low values, approximately 0.17 in both income groups, indicate a potential concern about positive serial correlation under the conventional interpretation of this statistic. However, a panel-appropriate diagnostic and suitable standard-error treatment would be needed to establish its implications for statistical inference. The results should therefore be interpreted with this limitation in mind.

The study next considers possible long-run relationships using the Pedroni panel cointegration procedure (Pedroni, 1999). This procedure reports within-dimension and between-dimension statistics, including panel and group rho, PP, and ADF measures. Table 9 provides the corresponding results for the two income groups. Because different statistics yield different levels of support, the evidence should be evaluated as a set rather than reduced to a single significance result. Moreover, the integration-order issue identified in Table 6 must be resolved to justify the cointegration framework.

Table 9 shows that several Pedroni statistics reject the null of no cointegration, including group PP and group ADF measures for both income groups, although other statistics do not reject the null. These mixed findings provide some evidence consistent with a long-run relationship but do not establish uniform support across every test statistic. Following the original empirical strategy, the study reports fully modified ordinary least squares (FMOLS) and dynamic ordinary least squares (DOLS) estimates in Table 10. These coefficients are discussed as reported associations, conditional on the specification and unresolved diagnostic limitations.

Table 10 reports negative and statistically significant governance coefficients for both FMOLS and DOLS in the lower-middle-income and upper-middle-income groups. The estimates therefore indicate that higher values of the constructed governance index are associated with lower measured income inequality. Similarly, the reported coefficients for CORR are positive and statistically significant across the displayed specifications. However, since the corruption-perception indicator is ordinarily coded so that higher scores represent less perceived corruption, the positive signs cannot be interpreted straightforwardly as evidence that greater corruption raises inequality without first verifying the original data transformation and variable coding. These sign conventions are essential for reliable substantive interpretation.

Table 10: FMOLS/DOLS

		FMOLS		DOLS	
	Variables	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
Lower-Middle Income	GOV	-0.058	0	-0.05	0.0005
	CORR	0.084	0	0.06	0.0003
	POPG	0.04	0.052	0.09	0
	GDPPC	0.018	0	0.02	0.003
	CPI	0.00001	0.885	-0.0004	0.12
	GOV	-0.08	0	-0.094	0

		FMOLS		DOLS	
Upper-Middle Income	CORR	0.14	0	0.12	0
	POP	0.005	0.65	0.06	0.01
	GDPPC	0.004	0.04	0.006	0.04
	CPI	-0.0002	0.36	-0.0002	0.6

Source: Authors' calculations.

The FMOLS and DOLS estimates in Table 10 also show positive coefficients for GDPPC in both income groups, while the estimated relationship for population growth varies in statistical significance across specifications. The CPI coefficients are small and not statistically significant in the reported regressions. For governance, the FMOLS coefficients are −0.058 and −0.080 for the lower-middle-income and upper-middle-income groups, respectively, while the corresponding DOLS coefficients are −0.050 and −0.094. In addition, the CORR coefficients are 0.084 and 0.140 under FMOLS and 0.060 and 0.120 under DOLS. These estimates express changes in the Gini measure per unit of each explanatory variable in the model's scale; they should not be converted into percentage effects without an appropriate transformation or unit definition. Hence, the results support a descriptive comparison of estimated associations, rather than a definitive statement of causal impacts.

Table 11: Error Correction Model

	Lower-Middle Income		Upper-Middle Income	
Variable	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
C	0.00004	0.975	0.001	0.41
D(GOV)	-0.005	0.129	0.0001	0.98
D(CORR)	-0.003	0.421	0.004	0.32
D(POPG)	0.003	0.537	0.002	0.65
D(GDPPC)	0.0003	0.362	0.000004	0.99
D(CPI)	-0.0002	0.305	-0.00007	0.66
ECT (-1)	-0.1	0	-0.12	0.0001

Source: Authors' calculations.

To examine short-run adjustment, the study reports an error correction model in Table 11. The estimated error-correction coefficients are −0.10 for lower-middle-income economies and −0.12 for upper-middle-income economies, and both are reported as statistically significant. Conditional on a valid underlying long-run relationship, the negative coefficients are consistent with adjustment toward equilibrium following a deviation. However, the individual short-run coefficients for governance and corruption are not statistically significant at the 5% level in either group. Therefore, the short-run results should not be described as independently demonstrating significant governance or corruption effects. Interpretation of the adjustment mechanism also depends on resolving the stationarity and cointegration issues noted above.

4.1 Comparative Interpretation of Institutional and Distributional Associations

The two income groups exhibit a similar negative estimated association between governance quality and the Gini index in both FMOLS and DOLS specifications (Table 10). However, the absolute values of the governance coefficients are larger in the upper-middle-income sample. This difference is descriptive and should not be treated as proof of statistically distinct group effects without a formal equality test. Institutional capacity, accountability, and the distribution of public resources offer relevant interpretive mechanisms, as discussed by La Porta et al. (1999), Gupta et al. (2002), and Zhuang et al. (2010). Moreover, the comparison extends the income-distribution literature by reporting parallel models for two groups of Asian economies rather than extrapolating a single-country result.

The governance and corruption variables also warrant joint consideration. Because control of corruption forms one of the four indicators used to construct the governance index, the two regressors may partly capture related dimensions of institutional performance. Indeed, the descriptive tables report a governance–corruption correlation of 0.84. Consequently, the individual coefficients should not automatically be interpreted as independent institutional mechanisms. Further analysis using an alternative governance index that excludes control of corruption, together with collinearity diagnostics, could clarify how robust the reported associations are (Kaufmann & Kraay, 2008; Polat, 2020).

4.2 Policy Implications for Asian Income Groups

For lower-middle-income economies, the negative governance coefficients draw attention to the potential importance of predictable public administration, political accountability, and the provision of services that improve opportunities for disadvantaged households. Prior research associates institutional credibility with economic performance and emphasizes the relevance of governance for pro-poor growth (Brunetti et al., 1998; Haq & Zia, 2009). Therefore, reforms could prioritize transparent public procurement, effective oversight of spending, and accessible mechanisms for public accountability. These proposals are policy implications informed by the literature and the study's associations; they are not policy effects directly estimated by the present model.

For upper-middle-income economies, the findings similarly support attention to institutional quality, while the larger absolute governance coefficients suggest a question for further comparative investigation. However, stronger causal claims would require additional tests. Policy priorities may include improving the integrity of public administration, reducing discretionary favoritism, and ensuring that public revenues translate into inclusive services. In addition, fiscal institutions and redistribution should be considered alongside governance reforms because taxation and corruption control may interact with inequality (Mustapha et al., 2017; Zhuang et al., 2010).

4.3 Theoretical Contribution and Directions for Further Investigation

The study contributes to the institutional and distributional literature by examining governance and corruption within one empirical specification and comparing their estimated associations across two Asian income groups. This approach is consistent with the view that institutions influence economic opportunities and distributional outcomes (La Porta et al., 1999; Li et al., 1998). The Capability Approach further provides a rationale for considering inequality as relevant to access to substantive opportunities, even though the Gini index cannot measure capabilities directly (Todaro & Smith, 2009). The contribution should therefore be stated as comparative empirical evidence, not as a direct test of all mechanisms discussed in the theoretical framework.

Future research could investigate whether the relationship between governance and inequality changes after an institutional threshold has been reached, whether results differ when the governance index excludes corruption control, and whether fiscal policy mediates the observed associations (Asongu & Odhiambo, 2020; Mustapha et al., 2017). Similarly, alternative estimators that address common shocks, serial dependence, and potential endogeneity could strengthen inference. A formal comparison of coefficients between income groups and additional sensitivity checks using alternative inequality measures would help establish whether the patterns reported in this study are robust. Such extensions preserve the present research question while improving its applicability to comparative macroeconomic scholarship.

5 Conclusion and Policy Recommendations

This study has investigated the relationships among governance, corruption, and income inequality for 22 selected Asian countries over 2000–2021. The governance index was constructed using political stability and absence of violence, voice and accountability, rule of law, and control of corruption. The analysis used the Transparency International corruption-perception measure and the Gini index alongside selected macroeconomic controls. After examining cross-sectional dependence and stationarity, the study reported specification tests, panel cointegration results, FMOLS and DOLS estimates, and an error correction model. The comparison between lower-middle-income and upper-middle-income economies remains central to the study's aims and interpretation.

The reported FMOLS and DOLS results show a negative association between governance and income inequality in both income groups, consistent with strands of the literature emphasizing the distributional relevance of institutional quality (Huang & Ho, 2018; Nguyễn et al., 2020; Touitou, 2021). In contrast, the reported coefficients on CORR are positive. Their substantive meaning, however, depends on verification of the coding of the corruption-perception measure, which conventionally assigns higher scores to less perceived corruption. The broader literature documents varied and potentially reciprocal relationships between corruption and inequality (Gupta et al., 2002; Keneck-Massil et al., 2021; Policardo & Carrera, 2018; Rose-Ackerman, 1997). Therefore, the coefficients should be discussed as conditional associations, particularly given the unresolved unit-root classification and possible serial-correlation concerns.

The findings support continued policy attention to institutional quality, accountability, and equitable access to public services in the selected economies. In particular, stronger rules-based administration, transparent public spending, and effective enforcement may reduce opportunities for preferential treatment and improve the distribution of public resources (Gupta et al., 2002; Mahmood, 2010; Zhuang et al., 2010). Similarly, anti-corruption reforms should be assessed alongside broader governance reforms, because the two measures are closely related in the empirical model. Policy design should nevertheless reflect national circumstances rather than assume identical effects across income groups. Future research could investigate institutional thresholds, alternative corruption measures, the role of redistributive fiscal policy, and identification strategies that address potential feedback between governance and inequality. These extensions would build on the study's original aims without changing its empirical claims.

Ethical Statement: This study uses secondary, country-level indicators drawn from published statistical sources. The reported analysis does not involve recruiting human participants or collecting individually identifiable participant information.

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