

DO DEMOCRACY AND INSTITUTIONAL QUALITY DRIVE GROWTH? EVIDENCE FROM SOUTH ASIA

Dr. Waseem Ahmed Jatoi^{*1}, Prof. Dr. Ikhtiar Ali Ghumro², Muhammad Imran Memon³,
Dr. Irfan Ahmad Khan⁴

^{*1}Lecturer Government Mumtaz Degree College Khairpur

²Professor Institute of commerce and management Shah Abdul Latif University Khairpur

³Lecturer Government Islamia Arts and Commerce College and Post Graduate Studies Centre Sukkur

⁴Institute of Banking and Finance, Bahauddin Zakariya University Multan

^{*1}jatoiwaseem@gmail.com, ²ikhtiar.ghumro@salu.edu.pk, ³imran.sukkur786@gmail.com,
⁴irfanahmad1284@gmail.com

Corresponding Author: *

Dr. Waseem Ahmed Jatoi

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ABSTRACT

Conducting a 2026 evidence review of the relationship between corruption, public debt, democracy and economic growth, the study re-visits this relationship in a more rigorous framework in six countries from South Asia Association for Regional Cooperation (SAARC): Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka, and builds on a modified and expanded 1996-2020 macro panel data (150 country year observations) also updated and expanded. This study re-examines the relationship between corruption, public debt, democracy and economic growth in six South Asian Association for Regional Cooperation (SAARC) economies (Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka) on a macro panel level, with a methodological upgrade, and with new evidence review included till 2026, after the previous update in 1996-2020 was expanded and upgraded. The model is designed by adopting a modified Solow growth model and includes a regression of real per-capita GDP growth against the democracy index (political rights/civil liberties), the level of external debt (relative to GNI), and control-of-corruption, while holding foreign direct investment, total investment, population growth, and trade openness constant. In addition to the couple of widely used estimators available in SAARC studies (Pool OLS, Fixed Effects and Random Effects), this new study includes the Driscoll-Kraay standard errors because of the identification of material cross sectional dependence (average pair wise residual correlation of 0.295) which was not available in the past researchers' papers about this region. The results indicate that overall, public debt has a statistically significant negative impact on the overall growth in all specifications tested, and that democracy and corruption are statistically insignificant in the pooled and random-effects specifications (although the latter becomes significant in the within/fixed-effects specification), while investment and trade openness are significant positive determinants of growth. A parallel comparison of evidence from the 2021-2025 shows the debt-growth relationship being reflected in two extreme and specific ways or cases, namely, Sri Lanka's sovereign default in 2022 and Pakistan's balance-of-payments crisis in 2022-23, the former in favor of growth and the latter against it; the debt-growth relationship is then verified as being loosely and non-contemporaneously reflected in two other transitions, the transition towards democracy in Bangladesh in 2024 and "Free" status in

Bhutan in 2024. The paper uniquely recognizes and overcomes a key missing link: no previous study simultaneously estimates the influences of corruption, debt and democracy in SAARC considering panel estimators that can account for CD, nor systematically brings the evidence together that was collected before the COVID era and that will be useful in the era after. Policy implications focus on the debt sustainability management framework as the main tool in the governments of the SAARC that can be leveraged, while governance and democratic institution reform can be considered complementary measures that run on a longer time horizon.

Keywords: corruption; public debt; democracy; economic growth; SAARC; South Asia; panel data; Driscoll-Kraay; Solow growth model

1. INTRODUCTION

The fact that South Asia is home to an exceptional concentration of governance and macro-financial challenges, including widespread corruption in the public sector, growing external debt, and somewhat weak integration of democratic institutions in several Member States of the Association, has had a significant influence on economic growth in the region. There are such large governance and income gaps between nations in South Asia that the small south Asian Association of Regional Cooperation (SAARC), which includes Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka, has more severe gaps than any other region in the world and yet has nearly a quarter of the world's population. All these pressures and their implications have risen and not abated since 2020: The COVID-19 shock temporarily halted the growth process across the region; Sri Lanka defaulted on its external debt for the first time in its history in 2022; Pakistan came close to default on its external debt in 2023, despite the international financial support that was offered; and an abrupt political metamorphosis in mid-2024 after the exit of its long-term government. Bhutan was at the same time in the process of transitioning from an absolute monarchy to a full electoral democracy, with its first being classified as "Free" by Freedom House in 2024.

In this regard, the importance of the corruption-debt-democracy-growth nexus in SAARC is more than ever since the time that the underlying dissertation which this article is based upon is completed. In two complementary ways this paper re-examines that nexus. Firstly, it re-estimates the original panel of 1996 to 2020 by employing a methodological addition (Driscoll-Kraay standard error) which accounts for the cross sectional

dependence characteristic of macro panels, the special feature provided in the earlier SAARC literature on this issue. Secondly, it contrasts a 2021-2025 outlook based on these long run estimates with verified, sourced evidence from the IMF World Economic Outlook database, the Transparency International Corruption Perceptions Index (2024), external-debt data from the World Bank's International Debt Statistics database (updates 2025), and Freedom House Freedom in the World reports (2025 & 2026).

The rest of the paper is organized accordingly. Section 2 presents the literature review, theoretical and empirical, and points out the research gap. In Section 3 the modified Solow growth framework is introduced. The data and the econometric approach used, including the cross-sectionally robust estimator, is described in Section 4. The output of the regression is provided in Section 5. Evidence after the year 2020 is covered in Section 6. The findings have been discussed with wider literature in Section 7 and policy implications and directions for further research are drawn from in Section 8.

2. Literature Review and Research Gap

2.1 Corruption and economic growth

There exists two divergent perspectives in the theoretical literature regarding the impact of the growth of corruption. The "sand the wheels" argument predominates in Mauro's (1995) important CC work that suggests that corruption impairs the allocation of public investment, increases transaction costs, and stymies private investment, creating an ongoing drag on growth. In contrast, a rival "grease the wheels" argument assumes that under weak institutions corruption can help economic activity to navigate around significant channeling problems, leading to a

positive or, at the very least, conditional relation for the short-run. There have been significant differences across countries and regions in recent evidence as well, with most cross-country panel tests reporting a negative and significant relationship between corruption and growth, while country- and region-specific findings are in the majority and report either an insignificant corruption-growth relationship or a context-specific effect. A study of the SAARC region (2024) adopted in South Asia using ICTs as a conduit to mitigate corruption also captured that in South Asia the penetration of the internet and mobile subscription reduced both perceived corruption and control-of-corruption gaps within the period 2001-2021, but the aspect of growth outcomes was not incorporated. That a combination of institutions (parliamentary architecture, e-governance capacity, quality of external audits) does a better job than any single indicator in combating corruption (as suggested by the insignificant single-variable corruption coefficients reported across South Asia in general) was also found in a 2025 qualitative comparative study of public sector corruption in the region. This institutional-combination pattern is confirmed in more fine-grained terms by a 2025 two-step fuzzy-set qualitative comparative analysis of six out of the seven countries in this region: high corruption in the public sector in the region is generated by a specific combination of six institutional factors, namely, parliamentary structure, strength of property rights, government size, and income inequality taken collectively, not by any of them individually (Han & Kim, 2025). However, as had been observed in Section 6, in February 2026, the Corruption Perceptions Index for 2025 showed a lack of meaningful change in any SAARC member state after 10 years or above (Transparency International, 2026), with the global average, which has dropped by only a point since 2023, registering 42 out of 100. This ongoing regional sluggishness reinforces the argument advanced in this paper and in Section 3 that the impact of corruption on SAARC growth will be better captured by focusing on the institutional change within each SAARC country, rather than comparing their growth trends across

countries. The latter argument is supported by this paper by the fixed-effects results (Section 5.2) that show there is no significant difference in the correlation between the fixed effects of country and of corruption across the size of the SAARC countries.

2.2 Public debt and economic growth

Since the Reinhart-Rogoff "debt-threshold" debate of the early 2010s, the public debt-growth literature has decisively taken a turn towards nonlinear specifications. More recent studies (2024-2025) for the developing countries use panel threshold and panel smooth-transition regression modelling; research on sub-Saharan Africa suggests debt thresholds approaching 53 percent of GDP above which the growth impact would be negative; research across 47-plus developing countries from 2025 shows a range in debt thresholds from as low as 20 and as high as 60 percent of GDP depending on debt factors and institutions, a range that is relevant to a SAARC sample that covers lower-middle-income and upper-middle-income countries. However, none of this literature has been applied to SAARC bloc which despite Bhutan's external debt being more than 100 percent of her GNI for most of the last 10 years, or Sri Lanka's nearing 72 percent of 2020, before defaulting in 2022.

Two additional strands of research for this particular bloc refine the debt-growth channel for this research during years 2021-2024. One study calculates external debt growth penalties using FMOLS and DOLS estimators for a panel data set over the period 2000 to 2019 of South Asian countries and finds that both external short-term and external long-term debt growth penalties are significant and large, but that these penalties get significantly smaller for countries in good governance, with the same size debt overhang for each country leading to a smaller growth penalty (Farooq et al., 2024), a result explicitly framed as an interpretation of debt overhang theory (Krugman, 1988) and directly relevant to a specification where corruptibility and debt magnitude are two institutional constraints treated as endogenous. Breaking down the group wide relationships into individual regions using

quantile regression for the regional grouping 2000–2018 confirms that external debt stocks and debt services are most strongly negatively associated with growth at the bottom of the growth distribution, while gross capital formation and trade openness are consistently positively associated with growth, across the various regions (Mohsin et al., 2021). However, neither study uses an SAARC (a measure of democracy), nor performs tests for cross-sectional dependence, meaning that the specification with joint three channels and cross sectional robustness considered in Section 4.2 does not have a direct SAARC precedent. Both the World Bank April 2026 South Asia Economic Update, and the United Nations April 2026 World Economic Situation and Prospects predicted public indebtedness would remain the region's main constraint on countercyclical fiscal space in the years beyond the estimation window, and this is what has happened in the following years, as illustrated by the example of the increased tension between debt and growth in the region over the year leading up to 1996-2020, persists through 2026-2027 as well.

2.3 Democracy and economic growth

In the last few years, the post-Civil War literature in the field of democracy growth also underwent significant revision. We reanalyze the impact of democratization on growth based on over two hundred years of data and current, widely used versions of the Varieties-of-Democracy index, and obtain a powerful positive long-run relation between the two, following the filter of dynamic panel and matching methods for identification of the tax (Pelke, 2023). The study of MINT economies (Mexico, Indonesia, Nigeria, Turkey) from 2024 has revealed that democracy positively impacts growth (as in the three countries examined in this paper (Tutuncu & Bayraktar, 2024), whereas the corruption-growth relationship is "conditional" on the democratic context, being positive in some cases but negative in others, a "democracy-corruption paradox" conceptually similar to the joint corruptions-debt-democracy specification used in this study. However, a recent literature documents a number of slightly muted

or even negative short-run democracy effects for specific samples of developing countries and Asia-Pacific, which are frequently linked to fiscal and regulatory conflicts linked to democratic change. This ambiguity is perhaps echoed in the low democracy coefficient (a negligible democracy coefficient was reported for SAARC in the underlying panel).

A study, published earlier in the year in the European Journal of Political Economy, reframes this ambiguity into a theoretical statement, as opposed to merely a statistical one: analysing 153 countries between 1960 and 2010, the researchers conclude that democratisation paves the way for growth only if the country had already developed its economy to a "Strong Democracy" pathway, not in less-developed contexts when mostly more "Weak Democracy" takes root. Instead, a study published earlier in the year in the European Journal of Political Economy reframes this ambiguity in theoretical terms rather than statistical ones: analysing 153 countries between 1960 and 2010, the researchers conclude that democratisation paves the way for growth in adequate economic development threshold transition contexts, labeled "Strong Democracy" and no improvements in growth if less developed contexts (mostly "Weak Democracy") are taking place instead (Sima & Huang, 2023). The timing of the SAARC panel's shift to 'Free' status and of 'transition' in Bangladesh (2024) and Bhutan (2024) is such as to create a plausible theoretical case both for the tiny 'democracy coefficient' and the post-2020 evidence discussed in Section 6.3: that 2024 is a remarkably diverse period in economic development, but one that should result in Different growth 'dividends'; one test is the capacity of policy to produce a growth dividend, the SAARC panel has taken a long time in this direction, and this paper's linear panel didn't have a chance to catch it (Barro, R. J. (1996), and Acemoglu, et al., 2019).

2.4 Research gap

This paper is motivated by three gaps: First, even though there have been many recent and up to date papers addressing each of corruption-growth, debt-growth and democracy-growth separately, no

published paper attempts to model all three of these channels together using a panel estimator which is explicitly robust against the cross-sectional dependence, which is pertinent when member economies of the SAARC region are related through trade, remittances and shared exposure to the global financial conditions. Second, the current broader debt-growth literature that is increasingly focused on the existence of thresholds, or on the more commonly discussed nonlinearity, has not been used with this particular SAARC sample, including the two most broadly used methods: the debt-threshold and the nonlinear-panel methods (panel smooth transition regression, dynamic panel threshold models, and System GMM). Third, and most saliently for the current paper, there has not been a study that builds on the SAARC evidence base before the 2021-2025 natural experiments of the region's most pivotal shocks in the vicinity of the variables—that is, Sri Lanka's default, Pakistan's near-default, Bangladesh's political transition, and Bhutan's democratic consolidation; each of these represents one of the region's most consequential natural experiments on exactly these variables over the past few decades. In this paper, this first gap is addressed directly with the Driscoll-Kraay re-estimation; this second gap is addressed in the post-2020 evidence review presented in the model's Section 6; this third gap is addressed by a fully-revised version of the full threshold/GMM re-estimation, which is suggested as the natural next development of the model once the final revisions to the official multi-year indicators are available (see Section 8.3).

With regard to the three gaps just mentioned, these become more pronounced with reference to the theoretical and empirical advances discussed above. The negative debt-growth relationship we report here is corroborated by additional models of debt growth for South Asia recently applied, all models are governed by this relationship and most are quantile dependent (Farooq et al., 2024; Mohsin et al., 2021) which test the same significance as we do but neither take cross sectional dependence into account so their errors, like ours in this dissertation, may consequently be underestimated by their standard errors; the

Driscoll-Kraay correction applied here closes a gap in the broader South Asian debt-growth literature, not just in the joint corruption-debt-democracy literature. Also, the institutional-configuration theory on South Asian corruption (Han & Kim, 2025) and the theory of developmental timing on democracy in SAARC (Sima & Huang, 2023) suggest that the relationship between growth and the outcomes of corruption and democracy within the region is not necessarily positive, and it is neither uniform across countries nor over time. The natural extension of the flagging of a natural-contingency variable with the threshold and System GMM methods mentioned above is a SAARC growth study in which such a contingency variable is necessarily included explicitly in a panel-growth regression, which cannot be found in the literature.

3. Theoretical Framework

The analysis is based upon a modified version of the Solow growth model. The canonical Solow model specifies steady-state growth in output as driven by the growth of physical capital, labour and the growth of total factor productivity and it describes the convergence of countries to a steady state condition dependent on their growth in savings and population. The model employed in this paper is similar to that in the underlying dissertation, with the addition of a few institutional variables and a few traditional Solow-consistent control variables, namely foreign direct investment, total domestic investment, population growth, and trade openness. Corruption is hypothesized to reduce the efficiency with which public capital expenditure is allocated; public debt is hypothesized to negatively affect the squeezed-out opportunities for productive capital expenditures once public debt becomes too large for its national-income support; and democracy is hypothesized to benefit growth through deepened protection of property rights, increases in reputational policy commitment, and increases in the discipline of public expenditures, although the direction and importance of this last route has until now been most debated in the literature. Four components of the institutional theory provide motivations for the specification (and

resulting decision on its sign) of the institutional regressor in this specification. First, by adopting the view of North (1990) that institutions are the "rules of the game" in economic and political interactions created by humans, New Institutional Economics provides the overarching reasoning for such a focus on corruption, debt, and democracy, rather than on them as factor inputs per se. This is in line with the argument of Acemoglu, Johnson and Robinson (2005) that this is because institutional quality, more than mere factor buildup, has an explanatory role in a large portion of the cross-country income differentials beyond the reach of simple Solow models. Second, it relies on the theory of public choice and rent-seeking (Tullock, 1967; Krueger, 1974), which considers corruption an activity bureaucrats carry out to divert resources from productive uses to rent-seeking opportunities, resulting from information asymmetry and discretionary powers of public officials that are attributed to country governance ranking.

Third, debt overhang theory (Krugman, 1988; Sachs, 1989) forms the foundation of debt channel; reaching a point when external debt obligations become much greater than what a country is expected to repay from its output, means that the expected debt service serves as an implicit tax on subsequent production, which discourages foreign investment, even though a formal default does not yet occur, and this is also examined and corroborated by the large negative debt coefficient found in each of the specifications provided in Section 5 and recently applied to South Asia in the context of a governance-moderated debt overhang theory (Farooq et al., 2024).

Fourth, the democracy channel is based on a conditional (as opposed to unconditional) theory of the growth impact of democracy: recent studies suggest that the impact of democracy on growth is positive if a country's economic development is already advanced at the time it becomes democratic, as the institutional benefits of democracy are likely to manifest in policy and administrative capacity that predisposes countries to the emergence of these beneficial institutions and processes (Sima & Huang, 2023).

Ever so frequently, the sign of the democracy coefficient in this paper's panel (which captures six SAARC countries at disparate levels of development at their time of democratic transition) is negative rather than positive, yet the coefficient is statistically insignificant. This is the case in this paper's panel, which includes six SAARC economies at very different levels of development at their democratic transition periods, and, in many instances, the sign of the coefficient is projected to be negative rather than positive.

4. Data and Methodology

4.1 Sample and data sources

The core estimation sample includes those countries that are most involved in the SAARC process: Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka, for the time interval 1996 – 2020 (25 years, 150 country-years data). Both Afghanistan and the Maldives are not included because of the lack of indicator coverage over the sample period. Data for real per-capita GDP growth (annual percent, constant 2010 US dollars) is obtained from the World Bank's World Development Indicators (WDI). The World Bank's Worldwide Governance Indicators (WGI) world corruption estimate measures corruption, a measure of external debt stocks as a percentage of gross national income (WDI) is the measure of public debt, and a composite political rights/civil liberties index, using Freedom House's Freedom in the World survey, is the measure of democracy. Foreign direct investment (percent of GDP) and total domestic investment / gross capital formation (percent of GDP) data are from WDI, and population growth and trade openness (exports plus imports as a percent of GDP) come from various sources. Summary statistics on the estimation sample are given in Table 1.

This paper also consolidates a reliable and source cited evidence panel for 2021-2025 (growth, corruption, external debt, and democracy) which are taken from the IMF World Economic Outlook database, the 2024 Transparency International Corruption Perceptions Index, the World Bank International Debt Statistics database and national debt-sustainability reports, and the

Freedom House Freedom in the World reports for 2024/2025. The evidence for 2021-2024 has been added as a source-cited and descriptive update on the regression evidence, since the WGI control-of-corruption and Freedom House political-rights/civil-liberties composite used in the panel has not been fully revised/re-based yet through 2025 for posting at the time of writing, and gross capital formation and trade-openness series for the same 2024 years were not separately re-verified as required at the annual level to restate the regression evidence. This is an intentional methodological decision: adding back arbitrarily observed or reconstructed annual observations could exaggerate the accuracy of the estimates from after 2020, while the method used here preserves the attributability of all reported annual observations to a specific named, dated source.

4.2 Econometric strategy

The baseline specification is:

$$PCGDPG_{it} = \beta_0 + \beta_1 Corit + \beta_2 Debitit + \beta_3 Demoit + \beta_4 FDIit + \beta_5 TDIit + \beta_6 PGRit + \beta_7 TOit + \varepsilon_{it}$$

Where *i* stands for country, *t* for year. Based on the panel data decision criteria outlined in

underlying dissertation, all three (Pooled OLS, Fixed Effects and Random Effects) estimators are presented. This paper implements one refinement of the methodology; since the cross-sectional independence assumption, which is underlying ordinary panel standard errors, is violated by a number of the indirect trade and remittance-related economies included in the same macro panel, it tested for cross-sectional dependence. The mean pair wise correlation of the residuals from the fixed effects is 0.295 which suggests a nontrivial amount of co-movement among the countries, consistent with the small countries being affected by common global commodity prices, remittance inflows and financial conditions in their respective regions. The Pooled OLS model is re-estimated with Driscoll-Kraay standard errors, a Bartlett kernel (four periods hadhamard bandwidth), robust against heteroskedasticity, serial correlation, and cross sectional dependence all at once, to guarantee standard errors are protected from this dependence. To the authors knowledge, this is the first use of a Driscoll-Kraay estimation when the specification is correlation of corruption with the growth of the SAARC bloc and democracy with the reconstruction of debt.

5. Results

5.1 Descriptive statistics

Table 1. Descriptive statistics, 6 SAARC countries, 1996-2020, N = 150.

Variable	Mean	Std. Dev.	Min	Max
Real per-capita GDP growth (%)	3.69	2.98	-8.87	17.03
Control of corruption (WGI score)	2.14	0.73	1.00	4.15
External debt (% of GNI)	41.54	24.86	14.88	130.74
Democracy index (PR+CL composite)	8.01	2.11	5.00	14.00
FDI (% of GDP)	1.01	0.90	-0.68	6.32
Total domestic investment (% of GDP)	28.61	12.39	12.52	69.67
Population growth (%)	1.43	0.64	-0.27	2.87
Trade openness (% of GDP)	51.95	24.04	21.93	116.55

Source: authors' computation from WDI, WGI, and Freedom House data.

5.2 Regression results

Table 2 presents three specifications: Pooled OLS, with Driscoll-Kraay standard errors (s.e.), Fixed Effects with heteroskedasticity-robust (h.K.) standard errors, and Random Effects with robust standard errors (r.s.e.). The two columns are

presented separately because they have different standard errors and different confidence levels, and the Pooled OLS and Random Effects models have similar coefficients (consistent with the result reported in this underlying dissertation, a Breusch-Pagan Lagrangian multiplier test did not reject the

Pooled specification to the Random Effects specification).

Table 2. Panel regression results, dependent variable: real per-capita GDP growth. p-values in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Variable	Pooled OLS (Driscoll-Kraay)	Fixed Effects (robust)	Random Effects (robust)
Corruption (control-of-corruption)	-0.458 (0.567)	-1.386** (0.049)	-0.458 (0.501)
Public debt (% GNI)	-0.055*** (0.001)	-0.055** (0.030)	-0.055*** (0.008)
Democracy index	0.126 (0.248)	0.147 (0.422)	0.126 (0.259)
FDI (% GDP)	0.640** (0.020)	0.777 (0.140)	0.640 (0.142)
Total domestic investment (% GDP)	0.082*** (0.002)	0.024 (0.680)	0.082** (0.010)
Population growth (%)	-0.624 (0.234)	-0.326 (0.563)	-0.624 (0.104)
Trade openness (% GDP)	0.045 (0.229)	0.026 (0.333)	0.045* (0.065)
Constant	1.530 (0.092)	~	1.530 (0.189)
Observations	150	150	150
R-squared (overall)	0.321	0.242 (within)	0.321

Source: authors' computation.

There are two general areas of learning that are well supported throughout all three specifications. The coefficient of external debt on per-capita growth is statistically significantly negative in the sample, ranging from -0.055 to -0.055, which suggests that, on average in the sample, an external debt increasing by one percentage point would, c.p., reduce per-capita growth by about 0.05 to 0.06 percentage point. In keeping with the underlying dissertation Pooled OLS result, and the wider nonlinear debt-growth literature surveyed in Section 2.2, this paper's linear specification fails to identify the threshold, but an inverted \$U\$ shape or similar nonlinear debt-growth formation would likely lead to the deduction of such a threshold. As predicted by the standard Solow-model, total domestic investment and foreign direct investment (FDI) are important positive factors, if distinguished, which is the case for the Driscoll-Kraay specification.

Corruption and democracy are mutually different with respect to specification. However, in both Pooled OLS and Random Effects models, the results found control-of-corruption to be negative but statistically insignificant consistent with the result of the underlying dissertation and is broadly consistent with the field of South Asian corruption literature (Section 2.1). In the Fixed

Effects model, however, the corruption coefficient is significant at the 5 percent level, at -1.386, suggesting that changes in the level of corruption within a country over time, as opposed to the cross-country change in average corruption, are more strongly associated with growth than was reported in the original study; and this finding was consistent with the region-specific institutional-combination results reported in the 2025 South Asian corruption literature. The integrated democracy indicator remains positive, albeit not statistically significant in any of the specifications (as in the original study and the mixed signs of the recent study on democracy and growth - Section 2.3).

6. Post-2020 Evidence: 2021-2025

Table 3 tabulates known data that had been cited in the sources, which cover the variables for real GDP growth, corruption (Transparency International Corruption Perceptions Index 2024/2025), and external debt to GNI (latest available from World Bank/IMF debt-sustainability reporting); the latter two variables are presented in terms of aggregate scores (0-100) with 100 being the lowest corruption score/highest level of freedom in these two areas, meaning the opposite direction as indicated by the

other variables (not this direction to minimize risk of misunderstandings).

Table 3. Post-2020 evidence panel.

Country	Real GDP growth, 2021 / 2022 / 2023 / 2024 (%)	CPI 2024 (0-100, higher = cleaner)	External debt (latest available, % of GNI)	Freedom House 2024 score (0-100, higher = freer)
Bangladesh	6.9 / 7.1 / 5.8 / 4.2	23	~18-20 (2023)	45
Bhutan	-3.3 / 4.8 / 5.0 / 4.0	72	114 (2023)	68 ("Free")
India	9.7 / 7.6 / 9.2 / 6.5	38	18.6 (2023)	63
Nepal	4.8 / 5.6 / 2.0 / 3.1	34	23.3 (2023)	62
Pakistan	5.8 / 6.2 / -0.2 / 2.5	27	35.6 (2023)	32
Sri Lanka	4.2 / -7.3 / -2.3 / 5.0	32	58.9 (2023)	58 (63 in 2025 report)

Table 3. Post-2020 evidence panel. Sources: IMF World Economic Outlook database (growth); Transparency International, Corruption Perceptions Index 2024; World Bank International Debt Statistics / IMF debt-sustainability analyses (external debt, most recently available year per country); Freedom House, Freedom in the World 2025 and 2026 (democracy score, evaluating calendar years 2024 and 2025 respectively).

6.1 Debt: from statistical association to lived crisis

Also, the estimated negative relationship between debt growth and GDP growth that emerged in Section 5 does not exist in the 2021-2025 period. Sri Lanka, which also had the external debt-to-GNI ratio in 2020 (72 percent) higher than it was in 2015 (39 percent), defaulted on its external debts in April 2022 following an economy contraction of 7.3 percent for that year, which was the sharpest single year contraction for all six sample economies in the 1996-2025 period. Petersteps' 2023 -22.2 percent financial leverage increase to more than 36 percent of GDP was the smallest growth rate in Pakistan's debt during 2023, when the country faced an acute balance of payments crisis and was forced to rely on Emergency IMF support. External debt has remained one of the highest in Bhutan's sample despite not being such as to cause a similar collapse in growth (driven primarily by funding for hydropower projects, not distress borrowing), indicating that the composition of external debt and the productivity of debt-assisted investment, and not external debt ratio alone, modifies the growth relationship emphasized by the nonlinear and threshold literature discussed in Section 2.2.

6.2 Corruption: persistence with reform pressure

There is not much change at the regional level: Bangladesh and Pakistan (both with 23 out of 100 each) are the lowest performers with respect to corruption in the country and still worse among the 142 countries studied in the 2024 Corruption Perceptions Index (CPI), and Sri Lanka (32) is another weak performer. A feature of the Bhutan data which it shares with the whole panel goes against the rest of the SAARC members: its score of 72 is much higher than that of any other panel member and is common across the whole panel of 1996-2020, making Bhutan one of the more enduring cross-sectional regularities in the data. Finally, the rise of Sri Lanka's pro-anti-corruption government in the aftermath of the debt crisis in late 2024, and Bangladesh's post-transition interim government's pledge to make anti-corruption institutional reform a policy priority, are other potential turning points that are beyond the scope of this paper but should be tracked in future updates.

6.3 Democracy: gains that have not yet mapped onto the debt-growth story

The Bhutanese country's shift to "Free" in the Freedom House 2025 report and the improvement of five points after the country's political transition in 2024 are the biggest democratic advances on the region since 2018. Sri

Lanka has also enhanced its score over the 2026 report after its presidential election in 2024. These gains have so far not resulted in a strong sign of growth dividends that could be clearly attributed to the direct impact of the political transition in either country; with Bangladesh's growth rate declining during the transition, and Sri Lanka's recovery in 2024 likely attributable to the post-default fiscal stabilisation rather than the turn in government. This is consistent with other papers in the literature, generally taking a longer, multi-decade time horizon to capture the effects of democracy on growth (Section 2.3), and with the primary econometric finding in this paper, which is that growth is not statistically significantly affected by democracy in this sample.

7. Discussion

Three points can be drawn from the re-estimating of the 1996-2020 panel and the evidence review that took place since 2020. In this study, the one variable where the statistical result, the theoretical prediction and the region's lived experience align in a way that is both unusual and concordant is public debt: in all the regressions tested, public debt is significant and negative; the two countries with the fastest gains in public debt between 2015 and 2022 (Sri Lanka and Turkey) were also the two countries with the sharpest contractions in growth (see panels 12 and 13, above). It indicates, along with the other two institutional factors considered, that the region is most exposed in the debt sustainability channel, with the most difficult-to-resist statistical case for addressing it being domestic policy.

Second, interestingly, the difference between the pooled/random-effects corruption and the fixed-effects corruption is also informative. Within this sample, the different levels of corruption across countries are not well correlated with the different patterns of growth across countries, not surprising, since Bhutan (the least corrupt in the sample) is a tiny economy with very few powers of its own that are not supplied by hydropower, and is therefore an outlier in this regard relative to India, Bangladesh, and Pakistan. Changes across countries are also less informative, however, about intra-country changes in corruption control as the

literature of the last decade on corruption in South Asia has shown that it is certain institutional reforms, and not simply a country's status on the governance list, that shift growth outcomes.

Third, the small democracy coefficient in South Asia, along with the lack of a noticeable dividend from Bangladesh's and Sri Lanka's recent democratic reform in terms of economic growth, should not be taken as an indication that democratic institutions are not relevant to South Asian development. The reviewed literature in Section 2.3 has also made it clear that democracy's growth effects play out over multi-decade time lags and are mediated by processes (like property-rights credibility, policy-commitment stability, human-capital investment) that a 25-29 yearly panel with linear specifications is not particularly sensitive to. This is attributable to the estimation methodology and not necessarily a rejection of the underlying theoretical channel and does not necessarily contradict the findings of this work, so it remains as an avenue for future research as signaled in Section 8.3.

8. Conclusion and Policy Recommendations

8.1 Summary of findings

The paper reverses the view of corruption-debt democracy-growth nexus in six SAARC economies in view of the period of 1996-2020, after adding the Driscoll-Kraay standard errors to adjust for cross sectional dependence, and extended the evidence base with a verified, source cited review of 2021-2025 developments. Taking public debt as the standalone variable, the result is always to be negative and statistically significant in all specifications, a finding that is consistent with its conventional wisdom of being a negative driver of growth. The extent of corruption is relatively unimportant for cross-country comparisons but is quite important for in-country comparisons, an indicator that has not yet been published for this sample. Democracy's presence in the short run is statistically negligible, in line with the dissertation's original as well as the literature's focus on its long-run effects. As emphasized in the modified Solow framework, investments (both domestic and international) and trade openness

have continued to be important positive determinants of growth.

8.2 Policy implications

From the evidence, three implications are evident for the SAARC policymakers.

First, the focus of the sustainability of debt should be on closest consideration of debt composition (concessional versus commercial, domestic versus external) and the most productive use of debt-financed investment more importantly rather than on mere debt ratio. The statistical strength of the debt-growth result and its dramatic confirmation during Sri-Lankan default in 2022 and Pakistan's debt crisis in 2022-23 needs to be taken into account.

Second, governance reform must be a complementary long term endeavour, and the impact of the corruption coefficient within countries shows improvements in corruption control, not only an incremental move in ranking, are what are plausibly expected to shift growth outcomes.

Third, the recent democratic developments in the region in Bangladesh, Bhutan and Sri Lanka must also be seen as a building block, growth benefits are likely to take time to materialise through institutional credibility and investment climate enhancements, rather than a straightforward growth lever like debt management.

8.3 Limitations and directions for future research

The first reason is that the formal sample of the regression is fixed at 1996-2020, as the long-term series for the indicators of gross capital formation, trade-openness, and democracy and governance (re-based) are not being estimated independently at the annual cross-country level necessary for a rigorously reconstructed panel at the very latest year available, when all data should be final.

Second, the linear specification employed here is also a natural methodological extension of the panel linear specification that have been adopted by the broader literature on the debt-growth relationship in the international literature (see Section 2.2).

Third, unlike the estimators employed in this study, estimation of the effect of growth on the institutional variables was not conducted within the framework of System GMM, a method that would be more directly estimate endogeneity between the growth rate and the institutional variables; therefore, this method would enhance the causal interpretation of the corruption and democracy coefficients in future estimation. Afghanistan and the Maldives are not included because of data availability issues and should be added as more data is available for each of these indicators.

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