

Undergraduate Economic Review

Volume 18 | Issue 1

Article 4

2021

The Impact of Democracy on Economic Growth in South Asia

Rijul Alvan Das University of Delhi, alvanrijul@gmail.com

Siddharth --University of Delhi, sidvaldez1234@gmail.com

Follow this and additional works at: https://digitalcommons.iwu.edu/uer



Part of the Economics Commons

Recommended Citation

Das, Rijul Alvan and --, Siddharth (2021) "The Impact of Democracy on Economic Growth in South Asia," Undergraduate Economic Review: Vol. 18: Iss. 1, Article 4.

Available at: https://digitalcommons.iwu.edu/uer/vol18/iss1/4

This Article is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

The Impact of Democracy on Economic Growth in South Asia

Abstract

One of the most fundamental themes that combine the disciplines of political science and economics is the role played by democracy in the economic growth of a country. Does democracy accelerate or hinder growth? The literature is divided on this topic with both sides presenting strong empirical and theoretical views. This paper studies this issue in the context of South Asia. Our theoretical framework brings out the key characteristics that are often highlighted in both sides of the intellectual debate. Using econometric methods and tools such as Pooled, Fixed and Random Effects estimates, we aim to study the relationship between democracy and economic growth in South Asia over the period 1990-2018. After dealing with the often-ignored issue of endogeneity using Instrumental Variables, our results show that democracy has a positive and statistically significant effect on economic growth in the region.

Keywords

South Asia, Democracy, Economic Growth, Inflation, Population, Government Expenditure

Cover Page Footnote

We would like to extend heartfelt gratitude to our Applied Econometrics professor Dr. Lokendra Sharan Kumawat for his mentorship throughout the making of this paper. Without his guidance, this project would not have seen the light of the day. We are also thankful for the suggestions and advice given by our friends and classmates at the Department of Economics, Ramjas College. All errors remain our own.

1. INTRODUCTION

As a system of government, democracy has often been considered to be a preferred way of organising matters as compared to its alternatives. As per a survey, nearly 78% of individuals around the world stated that representative government is a good way to govern their countries, with 66 % stating a preference for 'direct democracy' (Wike et al. 2017). However, there are major concerns regarding the stability of democracies globally. Prominent indicators of democratic quality like the Economist Intelligence Unit's *Democracy Index* or the Freedom House (FH) Index note that there has been a rising trend of declining democratic quality around the world. This is particularly true for countries with fragile institutions such as those based in South Asia. The latest Freedom House report notes that democracy in South Asia is "backsliding" (Maiorano 2020) with India being the only "completely free" country in the region. Other nations are categorised as "partly free". All countries, with the exception of Sri Lanka, have seen a declining trend in their democracy scores since 2013 owing to several internal and regional crises and conflicts. The region is characterised by increasing militarisation and sectarianism (Nepali n.d.) which risks the stability of peace and security. Among others, this constitutes one of the most significant threats to democracy in South Asia. It is one aspect of the region that garnered some attention in the academic space.

The other aspect of South Asia that has received frequent attention is its economic condition. All countries in the region are developing in their economic trajectory. According to data from the International Monetary Fund (IMF), India has the highest GDP on Purchasing Power Parity terms (in 2019) in the region, followed by Pakistan and Bangladesh. The region has enjoyed rapid economic growth in recent years. However, they face severe challenges on several fronts. These include poverty, malnourishment, unemployment among others. Although there exists variation amongst nations themselves, the overall picture of the economic state is rather unsatisfactory. As per estimates from various sources, South Asia is home to a significant proportion of the world's poor (Islam et al., 2021) with India alone accounting for a major chunk of it. Most countries in the region have medium levels of human development¹ as measured by their scores in the annual Human Development Indexes. There are concurrent issues of high population, abysmal health indicators, low literacy, high inequality among many others (For detailed discussions on various aspects of South Asian economies, please see Devarajan and Nabi (2008), Nabi (2010), Lee et al (2017))

¹ The only exception being Sri Lanka which records 'High' level of human development.

Are these 2 aspects of the region highlighted above interrelated? Is the deterioration of democracy in the region associated with lower levels of economic growth? Academic literature from economics and political science has ambiguous and often contradictory results² to offer. The relationship between economic growth and democracy has received frequent attention in various geographical contexts. We investigate this relationship in the context of South Asia, a region consisting of fragile democracies characterised by weak political and economic institutions. This study is important since it would allow us to understand if and how democracy can influence the growth process in the region. To the best of our knowledge, such studies in the context of South Asia are yet to be undertaken.

The rest of the study is organised as follows: Section 2 lays out the theoretical framework behind our study. Section 3 presents a review of literature. Following that, we describe our data and estimation techniques and present an analysis of it. Section 7 contains a discussion regarding our results. The last section concludes.

2. THEORETICAL FRAMEWORK

While intuitively it may seem that democracy and economic growth have a strong positive relationship, empirical studies to this day have not been able to determine a conclusive relationship between the two. For a brief background, see Doucouliagos & Ulubaşoğlu (2008) and Knutsen (2012)

Ludovic Comeau, Jr. (2003) discusses the ambiguity in the relationship between democratic regimes and economic progress. Considerable amount of empirical research states that autocracy can lead to better development. The main reason is that the authoritative leaders of such states are ready to take decisions that may not be in favour of the general public. Democracies, on the other hand, have to take decisions as per popular consensus such as reducing prices, increasing government consumption, etc. Therefore, autocracy can work better as per this line of thought. An example of this can be seen when non-democratic governments, especially military-led ones, enjoy high economic growth at the cost of the poor in society by investing and trading mainly in weapons (Croissant & Wurster, 2013). With autocracies or dictatorships, there wouldn't necessarily be the need to focus on the downtrodden part of the society. Tavares and Wacziarg (2001) in their empirical study displayed a negative relationship between democracy and economic growth. They found that as human capital investment rose, it was at the cost of physical capital accumulation which pushed down economic growth.

² We discuss this in the following sections

Gerring et al. (2005), on the contrary, debunked this claim by establishing that democracies increase economic growth, especially in the long run through the development of human capital through declining fertility rates, education, affordable healthcare, etc. The government has no choice but to ensure that the policies work for the whole economy or else risk losing its authority. The longevity of human capital also ensures that the growth in democracies prevails for a longer run of time. Masaki and van de Walle (2014) found that when Sub-Saharan African countries were transitioning to democracy, there was evidence of lower economic growth. However, over a long period of time, when democracy became more rooted in Sub-Saharan African nations, they enjoyed higher growth compared to when they were autocracies or monarchies. Acemoglu et al. (2019) also found a positive relationship between growth and democracy. Their panel data consisted of over 175 countries from 1960 to 2010. The long time period gave an important perspective on the growth of countries that were initially autocracies before adopting a democratic system. They arrived at the conclusion that when a country transitions to democracy from an autocracy, its GDP increases by almost 20% in the long run. Higher taxation and increase in the production of public goods were provided as the main factors behind this behaviour of GDP.

3. LITERATURE REVIEW

Our discussion in the previous section does not leave us with a definite relationship between democracy and economic growth in the region. However, one must note that there are several other factors that influence the economic growth of a country/region (as measured by its real per capita GDP). Our study includes some of these variables in our analysis. The relationship between our control variables and economic growth is ambiguous in modern economic literature. However, there are empirical findings that do provide reasoning behind such a relationship. This may also be due to the country-level heterogeneity in our sample. Our study includes (i) inflation (ii) population growth and (iii) government expenditure as the main control variables.

The relationship between economic growth and inflation is largely considered to be a negative one with influential studies confirming this (Andres and Hernando 1997; Barro 1995). However, there are some studies that find a positive relationship between the two (Mallick and Chowdhury 2001). Another stream of research points out to the fact that both variables do not have a straightforward linear relationship with each other and witness persistent structural breaks. The results also vary across countries (Nantob, N. 2015). Eggoh and Khan (2014) explain that some economies may enjoy a positive relationship between inflation and growth but *only up to a certain threshold*. This uncertain positive relationship comes into play only when a

country is in its initial stages of development. Otherwise, the long-run story between growth and inflation is that of a negative relationship (Valdovinos 2003). Given this, we expect a *negative* relationship between economic growth and inflation in our study.

According to the Keynesian school of thought, higher government expenditure leads to higher output in an economy. Lahirushan et al. (2007) found that in the long run, government expenditure has a significant and positive impact on economic growth in South Asia. Therefore, it is important in South Asian countries that the government plays an essential role in economic decisions. However, there are risks of corruption and inefficient governance in low-income or developing economies which can reduce the positive impact of government involvement (Wu et al., 2010). Nonetheless, we expect that our study will also show government expenditure to have a favourable effect on economic growth.

The meta-regression analysis of the relationship between population growth and economic growth by Headey and Hodge (2009) tells us that the growth of the young population in a country has a negative effect on economic growth. Increase in young population ends up slowing down the pace of growth even though employable adults do have a positive effect albeit not much very much. South Asian countries have started to face similar problems. This is because South Asian economies don't have the infrastructure to deal with rapidly ageing adults. These adults who are unemployable (but are often dependent on government benefits) reduce the number of employable people which in turn hinders economic growth (Chand, 2018). However, there is little consensus about the relationship between the two as Peterson (2014) states that the effect of population on an economy is also influenced by the country's immigrant, import-export policies and the stage of development they currently are in. Hence, we do not have any *a priori* expectations about the relationship between population growth and economic growth.

4. METHODOLOGY

4.1 Model

The purpose of our study is to assess the impact of democracy on economic growth in South Asia. Based on the discussion so far, we estimate the following equation as our baseline econometric model:

$$Y_{it} = \beta_I + \beta_2 democ_{it} + \beta_3 popgrowth_{it} + \beta_4 inf_{it} + \beta_5 govexp_{it} + \beta_6 capform_{it} + \mu_{it}$$
(1)
i= 1,2,3,4,5,6
t=1,2,3,....29

Here, Y stands for the per capita GDP growth rate of country 'i' in year 't'. Similarly, *democ* stands for the country's democracy score, *inf* refers to the rate of inflation. *Govexp* refers to government expenditure and *capform* refers to the gross capital formation. μ refers to the error term. A detailed explanation of the variables used in the equation, along with its sources, is given in section 5.

Initial estimation of equation (1) revealed that dropping the variable *capform* did not have a significant effect on our analysis. For the sake of parsimony, we removed the variable from our study³. Hence, the following model is the one that we use for our further estimation

$$Y_{it} = \beta_I + \beta_2 democ_{it} + \beta_3 popgrowth_{it} + \beta_4 inf_{it} + \beta_5 govexp_{it} + \mu_{it}$$
 (2)

where i,t and the variables have the same meaning as mentioned previously.

4.2 Estimation techniques

We have a panel of South Asian countries from 1990 to 2018. Econometric theory tells us that it is a long panel (N<T). The econometric model specified in equation (2) has been estimated using Pooled OLS, Random Effects Method and Fixed Effects Method. The coefficients β_2 , β_3 , β_4 , β_5 represent partial slope coefficients. They measure the effect of a unit change in the value of an independent variable on the value of the dependent variable *ceteris paribus*.

For our model, pooled estimation technique may not be appropriate. This is because these estimates would club together different cross-section units (South Asian countries, in our context) and end up dismissing the heterogeneity that exists. These countries have very different political backgrounds and circumstances which make it necessary to account for the individual level heterogeneity. This makes the pooled results unbiased or inconsistent. On a similar note, it seems that random effects will also not be an appropriate estimation technique as it is based on the assumption that the sample is drawn randomly from a larger population. However, the countries chosen in our model are not random. Hence, the Random Effects method does not seem theoretically sound for our model.

³ For validity, the results from using capital formation have been included in the Appendix (see A.1)

Intuitively speaking, due to the issues present in estimating our model via the Pooled Method or Random Effects Method, the Fixed Effects method seems to be the most practical one. It takes into account individual-level heterogeneity, which for the purpose of our study seems highly important. Furthermore, econometric theory tells us even if the underlying model is Pooled or Random, fixed-effects estimates are always consistent (Gujarati, 2021). Hence, we believe that the Fixed Effects estimation method is the most appropriate one for our study. In order to test our intuition regarding the most practical estimation technique for our model we run the F-test, Hausman test, and Breusch-Pagan Lagrange Multiplier test (see Appendix A.2).

4.3 Endogeneity concerns

The issue of endogeneity occurs when there is a simultaneous relationship between one of the independent variables with the dependent variable. In other words, there is a reciprocal relationship between the two variables. This makes the estimates calculated highly inconsistent. (Jarvik et al., 2011). The democracy-economic growth literature is full of endogeneity concerns. Previous research shows that in multiple countries, economic turmoil has led to higher levels of democratisation (Gasiorowski, 1995). An empirical study on Sub-Saharan Africa by Narayan et al. (2011) also observed that in some countries an increase in the real GDP leads to better democracy scores. This serves as an affirmation to the existence of reciprocity between democracy and economic growth in a country. The presence of endogeneity in our model makes the estimates so calculated highly inconsistent. Some common corrective measures to deal with endogeneity suggest using GMM estimation or Instrumental Variable (IV) estimation. Our study employs IV estimation to account for the endogeneity of democracy. Media Freedom and State Religion were thought to be suitable instruments.

A free press is the 4th pillar of a robust democracy. It informs citizens about the success or the pitfalls of the government and conveys the demands of the public to their representatives. Many scholars have argued for a positive role played by a country's press in improving the level of democracy in a country (Jha & Kodila-Tedika, 2018, Jebril et al. 2013, Norris 2006). The existence of a state religion implies that a country does not have complete religious freedom. Previous research argues that religious freedom is an essential component of a democracy (Miriam 2020, White and Green 2009). It promotes political participation, social cohesion and stability. Both of these measures make for an excellent instrument. However, we could not use Media Freedom since it is correlated with economic growth (Nguyen et al., 2021). This does not fulfil the fundamental assumption of

instrument exogeneity. Given the paucity of suitable instruments, it was decided to use State Religion as an instrument in our study.

5. DATA

As a region, South Asia comprises 8 states. Our study, however, constitutes a panel that includes 6 South Asian countries- Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka. Due to the unavailability of data on key parameters over a long time frame, Afghanistan and Maldives have not been considered for our analysis. The time period of our analysis is 1990-2018.

We make use of publicly available secondary data. For economic indicators (per capita GDP, inflation, population growth and government expenditure), we have used annual data from the World Bank Database. Data on *Democracy Score* has been taken from the Polity5 Annual Time Series (1946-2018) published by the Centre for Systemic Peace. For State Religion, we use a binary variable to distinguish between countries that are secular and those which are not. Table 1 provides a detailed description of each variable. For descriptive statistics, please see Appendix A.4.

Table 1: Variable description

Variable	Indicator	Туре	Description
Per Capita Gross Domestic Product (GDP) Growth Rate		Dependent Variable	It measures the per capita GDP growth rate annually of the selected countries.
Democracy Score	democ	Explanatory Variable	It measures the presence of institutionalised democracy in a country from a range of 0-10. Here 0 is the least democratic a country can be and 10 shows a perfect democratic functioning in the country.
Population Growth	popgrowth	Control Variable	It shows the annual population growth rate (%). Here the population refers to all the people residing in a country irrespective of their legal status.
Inflation	inf	Control Variable	Inflation here is measured with respect to the consumer price index(annual) Therefore it shows the percentage change in the cost to an average consumer in acquiring a certain basket of goods and services.
Government Consumption Expenditure	govexp	Control Variable	This form of expenditure has been expressed as a percentage of GDP. It shows the government's expenditure in procuring goods and services. It also includes expenditure made for national defense.
State Religion		Instrumental Variable	State religion is defined as government sanctioned establishments of a religion. In our research, it's a dummy variable. A score of 0 is allotted when the country has state religion and 1 otherwise.

6. ESTIMATION RESULTS AND ANALYSIS

Table 2: Regression results using Pooled, RE and FE methods

Method→ Variable ↓	Pooled Method estimates	Fixed Effects estimates	Random Effects estimates
Intercept	5.496587**** (0.759433)	-	5.268629 **** (0.910818)
democ	-0.010541	-0.140588*	-0.070116
	(0.059725)	(0.077851)	(0.068183)
inf	-0.083855**	-0.057205	-0.064976*
	(0.039548)	(0.039060)	(0.039012)
popgrowth	-1.328492 ****	-1.133181****	-1.182027****
	(0.229575)	(0.303958)	(0.267150)
goxexp	0.095893**	0.205298**	0.111862**
	(0.037598)	(0.097940)	(0.055125)
Adjusted R ²	0.19881	0.05744	0.11782
F-value	11.7322	4.88569	-

Source: Authors' Calculation⁴ using R

Based on the discussion in section 4.2, we have estimated equation (2) using all the 3 methods. The results from the estimation are mentioned in Table 3. We notice that all 3 estimations suggest that democracy has a *negative* impact on economic growth in the region. However, except for the Fixed Effects method, the impact is statistically insignificant. The control variables are statistically significant and as per their *a priori* expectations. We conducted several diagnostic tests to choose between the Pooling Method, Random Effects and Fixed Effects Method for our study. The results are mentioned in Appendix A.2. The test results conclude that the *Fixed Effects* method is statistically the most appropriate estimation method for our model. This goes in line with our intuition of *Fixed Effects* being the most appropriate method as noted in section 4.

 $^{^4}$ * implies significant at 10%| ** implies significant at 5%| *** implies significant at 1%|**** implies significant at 0.1 %

However, we must remember that these estimations do not take into account the endogeneity of democracy. Consequently, these results are suspect to bias and inconsistency. To solve that, we employ Instrumental Variable (IV) estimation. The estimates from IV address the endogeneity concern raised in section 4.3. We use a binary instrument (State Religion)⁵ in our study. Hence, the results mentioned in Table 3 are to be considered as the main findings of our study and are all that is required for the purpose of statistical inference and conclusion.

Table 3: Regression results after allowing for the endogeneity of democracy

Variable	Estimate	t-statistic	p-value
intercept	3.91943 (0.99410)	3.943	0.000****
democ	0.23906 (0.11291)	2.117	0.035**
inf	-0.10827 (0.04254)	-2.545	0.012**
popgrowth	-1.33843 (0.24118)	-5.550	0.000****
goxexp	0.13895 (0.04268)	3.255	0.001***

Source: Authors' Calculation⁶ using R

Results from Table 3 show that, after allowing for the endogeneity of democracy, we find a *positive* effect of democracy on economic growth in South Asia. Additionally, the effect is statistically significant at a 5 percent level of significance. An increase of one unit in the democracy score of the country leads to an average *increase* in the per capita GDP of the country by 0.24 percent *ceteris paribus*. Similar interpretations can be made for our control variables. Inflation and population growth have a negative effect on economic growth whereas government

⁵ a) Variable is not prone to bias or inconsistency as we reject null hypothesis of weak instruments with a p-value of 3.08e-15

b) We reject the null hypothesis that both OLS and IV give consistent estimators in our model using the Wu-Hausman test. With a p-value of 0.00491, only IV estimation gives consistent estimators.

 $^{^6}$ * implies significant at 10%| ** implies significant at 5%| ***implies significant at 1%|****implies significant 0.1 %

expenditure has a positive effect. All the variables in our model are statistically significant.

7. DISCUSSION

Our results show that democracy has a positive effect on economic growth in South Asia. This result is unique when one considers economic growth in Asia as a whole. Largely, the relationship between the two in Asia has been negative. Previous research shows that non-democracies (such as authoritarian governments or dictatorships) in the region experience impressive economic growth for a considerable period of time. For instance, countries like Singapore, South Korea and others grew rapidly when they were non-democracies (Jain 2020). A key reason behind this phenomenon has been their ability to safeguard *economic* freedoms regardless of the state of *political freedoms* in the countries. The former is more crucial than the latter while attracting foreign investments (Mathur and Singh, 2011). This dichotomy between previous research and our study shows that the relationship between the two cannot be generalised for the entire continent. There are features unique to South Asia that account for this positive effect.

There are several mechanisms through which greater democracy can bring economic growth to the region. We focus on three crucial ones in this paper. First, greater civil and political liberties lead to better financial sector development (Ghardallou 2016, Huang 2010, Girma 2008). Such development not only helps in increasing the level of capital stock in the economy but also allows for the optimal utilisation of financial resources in the most productive sectors of the economy. This increases the availability of finance to small and medium-sized enterprises which significantly generate employment in emerging economies such as those in South Asia (World Bank, (2017)). Anwar and Cooray (2012) show how greater political freedom and better governance in South Asian countries can cause an increase in their per capita GDP through the aforementioned channel of financial sector development.

The next channel through which democracy in the region may ensure higher economic prosperity is by holding the ruling government accountable for their fiscal spending. For instance, military spending is a major expenditure in South Asian countries. As per *Stockholm International Peace Research Institute*, India alone spends nearly \$73 billion on its military. All South Asian countries, however, except Sri Lanka, have witnessed a fall in military spending as a percentage of their GDP. This allows them to enjoy peace dividends as they are able to invest these funds towards better education and healthcare (Wijeweera & Webb, 2011). It

becomes necessary, therefore, for the leaders in these countries to take financial decisions in a way that enables the economically deprived groups to benefit from their policies. Therefore, the democratic nature of South Asian countries ensures that fiscal spending is geared towards enhancing economic growth.

A final mechanism which we believe is responsible for the positive relationship between growth and democracy is via greater regional co-operation. Political science literature tells us that democracies are less likely to instigate violence against other countries and more likely to forge inter-state harmony (Remmer 1998). Consequently, cooperation for mutual benefit across countries rises. One such manifestation of such cooperation in the South Asian context is the creation of the South Asian Association for Regional Co-operation (SAARC). Member states engage in cross-border trade, infrastructural development and promotion of regional peace. Despite having troubled *political* relationships with each other, such *economic* cooperation amongst the member countries has been a crucial driving force in the prosperity enjoyed by the region (Rahman, Khatri and Brunner 2012)

8. CONCLUSION

The primary objective of this research endeavour was to understand the effect of democracy on economic growth in South Asia. This was an essential research question that previous literature had not yet attempted to answer. The uniqueness of the region lies in its history of shared cultures, values, history and institutions. Our study uses reliable data and sophisticated econometric tools to answer this question. We find that, after accounting for the endogeneity between the two, democracy has a positive and statistically significant effect on economic growth in the region. An improvement in the quality of democracy leads to better economic growth in South Asia. These results are unique considering the fact that when one looks at the continent of Asia as a whole, non-democratic regimes have performed better as compared to their democratic counterparts. We offer 3 plausible mechanisms through which democracy can spell out its positive effects: (i) financial development (ii) fiscal accountability and (iii) regional cooperation. Our study calls for enhancing the quality of democratic presence in the region, thereby allowing for greater economic prosperity by increasing growth.

APPENDIX

A.1. Results after taking Gross Capital formation⁷ as a control variable

Method→ Variable									
<u></u>	Pooling	RE	FE	Pooling	RE	FE	Pooling	RE	FE
Intercept	3.630624 (0.9326)***	3.776021 (1.0761)***	-	3.232170 (0.8198)***	3.261299 (1.0360)**	-	1.4136585 (0.72500)* .	1.8387554 (1.00224)* .	
democ	-0.010132 (0.0566)	-0.090412 (0.0676)	-0.148693 (0.0767) *	-0.020887 (0.0574)	-0.100106 (0.068194)	-0.178019 (0.0766)*	-0.017092 (0.060078)	-0.1079215 (0.07083)	-0.1760176 (0.07900)*
capform	0.067288 (0.0160)***	0.068811 (0.0212)**	0.076593 (0.0265)**	0.078267 (0.0204)***	0.068351 (0.0234)**	0.075275 (0.0255)**	0.1099809 (0.01971)***	0.0902617 (0.02329)***	0.0926589 (0.02601)***
popgrowth	-0.937040 (0.2450)***	-0.834869 (0.2820)**	-0.754233 (0.3051)*	-0.864217 (0.2494)***	-0.824555 (0.2876)**	-0.854402 (0.3084)**	-	-	-
inf	-0.038890 (0.0397)	-0.029076 (0.0395)	-0.022896 (0.0401)	-	-	-	-0.001889 (0.041)	-0.0107320 (0.04029)	-0.0099098 (0.04033)
govexp	-	-	-	-0.024731 (0.0481)	0.031701 (0.0665)	0.164947 (0.0967).	-0.065126 (0.04922)	-0.0014334 (0.06854)	0.1017769 (0.09620)
Adjusted R ²	0.246	0.14371	0.078793	0.24305	0.13725	0.093025	0.18929	0.092813	0.050949
F-Value	15.121	-	5.94926	14.8876	-	6.68598	11.0983	-	4.57183

Source: Authors' calculation⁸ using R

⁷ Gross capital formation (as % of GDP) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories. Data is taken from World Bank database.

 $^{^8}$ * implies significant at 10%| ** implies significant at 5%| ***implies significant at 1%|****implies significant 0.1 %

A.2. Choosing a suitable estimation technique

F-Test (Pooled OLS v/s Fixed Effects)

*H*₀: Both Pooled OLS and Fixed Effects methods give consistent estimators.

H_a: Fixed Effects method gives consistent estimators.

Hausman Test (Fixed Effects v/s Random Effects)

 H_0 : Both Fixed Effects and Random Effects methods give consistent estimators.

Ha: Fixed Effects method gives consistent estimators

Breusch- Pagan Lagrange Multiplier test (Pooled OLS v/s Random Effects)

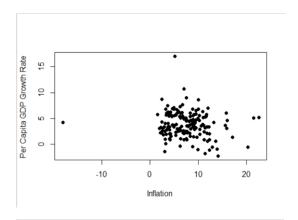
*H*₀: Both Pooled OLS and Random Effects methods give consistent estimators.

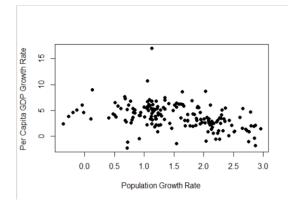
H_a: Random Effects method gives consistent estimators.

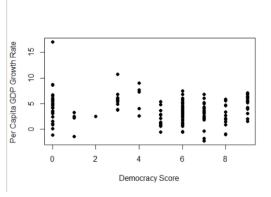
Type of test→ Significance ↓	F-test (Pooled Regression v/s Fixed Effects)	Breusch- Pagan Lagrange Multiplier test(Pooled Regression v/s Random Effects)	Hausman Test (Random Effects v/s Fixed Effects)	
P-value	0.001998	0.01208	6.59e-08	
statistic	3.9708 (<i>F-statistic</i>)	6.2996 (Chi-Square Statistic)	76.464 (Chi-Square Statistic)	
Appropriate Model	Fixed Effects	Random Effects	Fixed Effects	

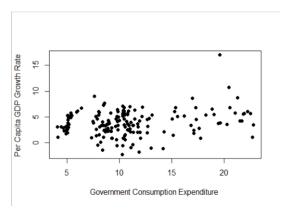
Source: Authors' calculation using R

A.3.Scatterplots









A.4. Descriptive Statistics

Variable	Mean	Standard Deviation	Maximum	Minimum
Democracy Score	5.229885057	2.927648347	9	0
Inflation	7.478074671	4.260993974	22.56449553	-18.10863013
Population Growth	1.530753787	0.727781194	2.955562318	-0.362660467
Government Consumption Expenditure	10.90492086	4.611710503	22.78158252	4.053250168

A.5. Correlation Matrix

11.0. 0011	Clation Water			
Variable	democ	inf	popgrowth	govexp
democ	1	-	-	-
inf	0.148615104	1	-	-
popgrowth	0.020587568	-0.066753638	1	-
govexp	-0.276092163	-0.025516057	-0.07429657	1

Source: Authors' calculation using R

REFERENCES

Wike, R., Simmons, K., Stokes, B., & Fetterolf, J. (2017). *Globally, Broad Support for Representative and Direct Democracy*. Pew Research Center's Global Attitudes Project. https://www.pewresearch.org/global/2017/10/16/globally-broad-support-for-representative-and-direct-democracy/

Islam, T. T., Newhouse, D., & Yanez-Pagans, M. (2021). International Comparisons of Poverty in South Asia. *Asian Development Review*, *38*(1), 142–175. https://doi.org/10.1162/adev a 00161

Tavares, J., & Wacziarg, R. (2001). How democracy affects growth. *European Economic Review*, 45(8), 1341–1378. https://doi.org/10.1016/s0014-2921(00)00093-3

Gerring, J., Bond, P., Barndt, W. T., & Moreno, C. (2005). Democracy and Economic Growth: A Historical Perspective. *World Politics*, *57*(3), 323–364. https://doi.org/10.1353/wp.2006.0002

Croissant, A., & Wurster, S. (2013). Performance and persistence of autocracies in comparison: introducing issues and perspectives. *Contemporary Politics*, *19*(1), 1–18. https://doi.org/10.1080/13569775.2013.773199

Comeau, L. (2003). Democracy and growth: a relationship revisited. Eastern Economic Journal, 29(1), 1-21. https://www.jstor.org/stable/40326455

Acemoglu, D., Naidu, S., Restrepo, P., & Robinson, J. A. (2019). Democracy Does Cause Growth. *Journal of Political Economy*, 127(1), 47–100. https://doi.org/10.1086/700936

Masaki, T., & van de Walle, N. (2014). The impact of democracy on economic growth in sub-Saharan Africa, 1982–2012. *WIDER Working Paper*. Published. https://doi.org/10.35188/unu-wider/2014/778-3

Jarvik, E., Binstock, R. H., & George, L. K. (2011). *Handbook of Aging and the Social Sciences*. Elsevier Gezondheidszorg.

Anwar, S., & Cooray, A. (2012). Financial development, political rights, civil liberties and economic growth: Evidence from South Asia. *Economic Modelling*, 29(3), 974–981. https://doi.org/10.1016/j.econmod.2012.02.009

Eggoh, J. C., & Khan, M. (2014). On the nonlinear relationship between inflation and economic growth. *Research in Economics*, 68(2), 133–143. https://doi.org/10.1016/j.rie.2014.01.001

Nantob, N. (2015). Income inequality and inflation in developing countries: An empirical investigation. Economics Bulletin, 35(4), 2888-2902.

Lahirushan, K. P. K. S., & Gunasekara, W. G. V. (2015). The impact of government expenditure on economic growth: A study of Asian countries. *International Journal of Humanities and Social Sciences*, 9(9), 3152-3160.

Wu, S. Y., Tang, J. H., & Lin, E. S. (2010). The impact of government expenditure on economic growth: How sensitive to the level of development? *Journal of Policy Modeling*, 32(6), 804–817. https://doi.org/10.1016/j.jpolmod.2010.05.011

Headey, D. D., & Hodge, A. (2009). The Effect of Population Growth on Economic Growth: A Meta-Regression Analysis of the Macroeconomic Literature. Population and Development Review, 35(2), 221–248. https://doi.org/10.1111/j.1728-4457.2009.00274.x

Iftikhar, M., Najeeb, F., Mohazzam, S., & Khan, S. (2017). Sustainable energy for all in South Asia potential, challenges, and solutions (No. id: 12275).

Chand, M. (2018). Aging in South Asia: challenges and opportunities. *South Asian Journal of Business Studies*, 7(2), 189–206. https://doi.org/10.1108/sajbs-09-2017-0103

Peterson, E. W. F. (2017). The Role of Population in Economic Growth. SAGE Open, 7(4), 215824401773609. https://doi.org/10.1177/2158244017736094

Maiorano, Diego. 2020, The State of Democracy in South Asia. *Institute of South Asian Studies Brief No.757. National University of Singapore.*https://www.isas.nus.edu.sg/papers/the-state-of-democracy-in-south-asia/

Devarajan, S., & Nabi, I. (2006). Economic Growth in South Asia: Promising, Unequalising, Sustainable? *Economic and Political Weekly*, 41(33), 3573–3580. http://www.jstor.org/stable/4418586

Nabi, I., Malik, A., Hattari, R., Husain, T., Shafqat, A., Anwaar, S., & Rashid, A. (2010). Economic growth and structural change in South Asia: miracle or mirage?

Working Paper 10/0859. *International Growth Centre*. https://core.ac.uk/download/pdf/17011.pdf

Lee, J.-W. L., Mehrotra, S., Francisco, R., & Wie, D. (2017). *Human Capital Development in South Asia: Achievement, Prospects and Policy Challenges*. Asian Development

Bank.

https://www.adb.org/sites/default/files/publication/385696/hcd-sa.pdf

Remmer, K. L. (1998). Does Democracy Promote Interstate Cooperation? Lessons from the Mercosur Region. *International Studies Quarterly*, 42(1), 25–51. http://www.jstor.org/stable/2600816

Andres, H., & Hernando, I. (1997). Does Inflation Harm Economic Growth? Evidence for the OECD. *National Bureau of Economic Research Working Paper 6062*. https://www.nber.org/papers/w6062

Fernández Valdovinos, C. G. (2003). Inflation and economic growth in the long run. *Economics Letters*, 80(2), 167–173. https://doi.org/10.1016/s0165-1765(03)00085-5

Barro, Robert J. (1995). Inflation and Economic Growth. *National Bureau of Economic Research Working Paper 5326*. https://www.nber.org/papers/w5326

Mallik, G., & Chowdhury, A. (2001). Inflation and Economic Growth: Evidence from Four South Asian Countries. *Asia-Pacific Development Journal*, 8(1), 123-135. Can be accessed at:

https://www.unescap.org/sites/default/files/apdj-8-1-ResearchNote-Mallik-and-Chowdhury.pdf

World Bank Group. (2017). *Financial Development*. World Bank. https://www.worldbank.org/en/publication/gfdr/gfdr-2016/background/financial-development

Ghardallou, W. (2016). Does democratic transition spur financial development? *Journal of Financial Economic Policy*, 8(4), 499–513. https://doi.org/10.1108/jfep-10-2015-0063

Girma, S., & Shortland, A. (2007). The Political Economy of Financial Development. *Oxford Economic Papers*, 60(4), 567–596. https://doi.org/10.1093/oep/gpm040

Nepali, Rohit Kumar. n.d.Democracy in South Asia. *International Institute for Democracy and Electoral Assistance*.

Doucouliagos, H., & Ulubaşoğlu, M. A. (2008). Democracy and Economic Growth: A Meta-Analysis. *American Journal of Political Science*, 52(1), 61–83. https://doi.org/10.1111/j.1540-5907.2007.00299.x

Knutsen, C. H. (2012). Democracy and economic growth: A survey of arguments and results. *International Area Studies Review*, 15(4), 393–415. https://doi.org/10.1177/2233865912455268

Nguyen, J., Valadkhani, A., Nguyen, A., & Wake, A. (2021). Press Freedom and the Global Economy: The Cost of Slipping Backwards. *Journalism Studies*, 22(4), 399–417. https://doi.org/10.1080/1461670x.2021.1873822

Gasiorowski, M. J. (1995). Economic Crisis and Political Regime Change: An Event History Analysis. *American Political Science Review*, 89(4), 882–897. https://doi.org/10.2307/2082515

Narayan, P. K., Narayan, S., & Smyth, R. (2011). Does democracy facilitate economic growth or does economic growth facilitate democracy? An empirical study of Sub-Saharan Africa. *Economic Modelling*, 28(3), 900–910. https://doi.org/10.1016/j.econmod.2010.11.004

Jha, C. K., & Kodila-Tedika, O. (2018). Does Social Media Promote Democracy? Some Empirical Evidence. *SSRN Electronic Journal*. Published. https://doi.org/10.2139/ssrn.3277152

Jebril, N., Stetka, V., & Loveless, M. (2013). *Media and Democratisation: What is Known about the Role of Mass Media in Transitions to Democracy*. Reuters Institute for the Study of Journalism, University of Oxford. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2017-11/Media%20and%20Democratisation.pdf

Norris, Pippa. 2006. The Role of the Free Press in Promoting Democratization, Good Governance and Human Development. Accessible at: https://www.humanrightsinitiative.org/programs/ai/rti/articles/undp_rti_2006/annex3_background_paper.pdf

Hunter-Henin, M. (2021). Why Religious Freedom Matters for Democracy: Comparative Reflections from Britain and France for a Democratic "Vivre Ensemble" (Hart Studies in Comparative Public Law). Hart Publishing.

Cristofori, R., & Ferrari, S. (2013). Current Issues in Law and Religion: Volume IV (The Library of Essays on Law and Religion) (1st ed.). Routledge.

Gujarati, D. N. (2021). *Basic Econometrics, 4th Edition* (4th ed.). Tata McGraw Hill.