

## Impact of Economic and Political Freedom on Economic Growth in Asian Economies

Shabbir Ahmed<sup>1\*</sup> & Hafiz Khalil Ahmad<sup>2</sup>

<sup>1</sup>National College of Business Administration & Economics (NCBA&E) Lahore;

<sup>2</sup>Government College for Women University (GCWU) Sialkot

\*E-mail: [mshabbir714@gmail.com](mailto:mshabbir714@gmail.com)

Received for publication: 01 December 2019.

Accepted for publication: 14 February 2020.

### Abstract

The present study investigates the impact of economic and political freedom on economic growth in Asian economies. Thirty Four Asian countries have been included in empirical analysis over the period of 1995-2018, on annual basis. Two different econometric techniques, fixed effect model and GMM, have been applied to see empirical analysis. Economic freedom has positive and significant influence on economic growth. Political rights and civil liberties have optimistic and considerable influence on economic growth. The impact of human capital is positive and significant. The roles of physical capital and FDI are positive and considerable. The results of GMM are almost identical with the outcomes of fixed effect model. The impression of lagged dependent variable is optimistic and significant. At this juncture, current economic growth is based on the previous year's economic progress.

**Keywords:** Economic Growth, FDI, Fixed Effect, GMM

### Introduction

Economic growth is considered as a core debate of economic philosophy. Higher economic growth rate means more nationwide production, conceivably refined way of life and an improved capability to achieve financial and societal goals (Atkinson and Audretsch, 2008). It is also considered essential for acquiring other goals of economy and society as well. Several countries of the world grew substantially more rapid than others (Mankiw, 1995). Growth rate of certain Asian economies has been higher than growth rate of African and Latin American economies for the last two or three decades. From this time, it is a staple discussion surrounded by economists, social scientists and intellectuals as to why some economies mature so rapidly whereas for others growth depiction is slightly monotonous?

Simple Neo-Classical model of economic growth describes that an economy's growth rate can be achieved by employing its savings rate and growth in labor force, above and beyond its exogenous technological change. Nevertheless, diminishing returns of physical and human capital are the key features instigating lower growth. Ultimately every state or country will have to attain a "steady state" where additional resources can't improve growth. Despite this fact, numerous studies support the Neoclassical growth theory explaining a robust and affirmative affiliation between change in physical resources and long-run growth. Recent studies claim that the Neoclassical growth model may not clarify why "steady states" and output intensities differ among different economies? Cross section growth variation is due to utilization of technology, entrepreneurship and new methods. It also depends upon research and development activities (Griliches, 1979).

According to contemporary studies growth is determined by a large number of endogenous determinants. Empirical research indicates that environmental and institutional aspects are much significant for explaining cross-nations growth differences (Jones, 1987). It is true that all pro-

nouncements are prepared in a certain institutional background. It highlights the significance of institutional elements for economic progress. Social standards and institutes are generally considered as important for explaining as to why some economies have higher growth and others have less growth (Landes, 1998). Nevertheless, in endogenous growth model, institutes have strategic significance over their impacts on social and physical resources. North (1981), Barro (1994) and Mauro (1995) found the need of institutions for long-term economic growth and investment. Among different indicators of institutions, political and economic freedoms are much significant to depict the real picture of any economy. Freedom of whether economic, financial, administrative or civil contributes in economic growth of a nation. Economists and policy makers refer these freedoms as the institutes or formations of a country. From all the times it is apparent that individuals in unrestricted and free societies made comparatively rapid economic progress. While restricted and controlled economic structures proceed towards inaction or deterioration (Kasper, 2002). Economic freedom is a state of affairs in which individuals can perform their economic activities with sovereignty. For this reason it is inferred that individuals have right to produce and consume goods according to their will. They can share their services and transfer their assets to others with liberty. Likewise, economic freedom is considered important for free marketplaces, suitable security of physical assets, autonomy of economic enterprise and liberty from corruption (De Vanssay & Spindler, 1994). Economic liberty does not include independence from any governmental interference. The economic freedom puts emphasis on two essential objectives for the public administration. The primary objective is to deliver infrastructure for the practice of a market economy. This comprises safe property rights, implementation of agreements and unwavering financial regimes among other things. Subsequently, the administration should deliver certain utilities which may not be managed through provision of private sector, such as, national defense, law and order, social services delivery, such as education, health and clean environment etc. For regulation of a marketplace economy, safe property rights, implementation of agreements and stable monetary regimes, economic and political freedom is much essential (Barro, 1994 & Gounder, 2002). Economic theory entitles that economic liberty energizes financial enticement and productive efforts. Economic and political liberties also build the excellence of anthropological and physical capital. So, an empirical investigation is necessary to check the relationship among political freedom, economic liberty and economic growth.

#### ***Objectives of the Study***

This study is intended to achieve the following aims:

1. To estimate the impact of economic freedom on economic growth of Asian Economies
2. To estimate the impact of political freedom on economic growth of Asian Economies
3. To suggest policy endorsements, on the basis of findings of the study.

#### **Literature Review**

Barro (1994) considered the link between democracy and economic performance. He found that democracy and economic liberty had encouraging impact on economic growth. He also found adverse connection between informal economy and economic progress. Hanke and Walters (1997) discovered positive association between economic liberty and economic performance. Ayal and Karras (1998) revealed that cumulative economic liberty augmented economic progress through growing total factor productivity and augmenting investment accretion. Heckelman (2000) investigated a short-run causal association between economic liberty and economic performances of 147 economies of the world. He used panel data from 1994 to 1997 on yearly bases. He found that inclusive economic liberty increased the economic performance but economic performance might have not increased the volume of economic liberty. Sturm and Haan (2001) investigated the prominence

of economic liberty for economic performance. For econometric analysis they employed OLS and found that change in economic liberty was vigorously correlated with economic performance. But, the level of economic liberty was not allied to economic performance. Ali (2003) found positive link among economic growth and all categories of economic liberty. He discovered that economies having more economic performance were distinguished by strong economic liberty and legal competence, stumpy rates of corruption and effective civil services. Chheng (2005) investigated the joint influence of physical investment and economic liberty on economic progress. The econometric outcomes were acquired by White's heteroskedasticity-consistent matrix tests by using a panel study of fifty economies over 1981-2000. He found that economies that demonstrated economic liberty and sustained physical capital had higher level of economic growth. The inland capital formation and inflow of overseas investment were positively allied with economic progress. Seputiene (2007) examined the connection of economic liberalization and economic progress in three different samples of European Union. He found robust and statistically substantial connection between economic liberalization and economic progress. Kimura (2008) investigated the influence of economic sovereignty on mutual services trade. To realize this objective, he used gravity model, for nine dissimilar sub-sectors between the United States and 28 dissimilar trading associates for the era 1992 to 2003. They explored that the U.S.A. and Japan traded more with states and economies that enjoyed open economic actions. The results were vigorous by using many altered specifications of the gravity model. Saribas (2009) inspected the association between economic growth and economic liberty for forty nine economies of the globe. He used panel data from 1995 to 2004 with annual frequencies. He explored that economic progression was inversely linked with economic liberty.

Mahmood et al. (2010) studied the linkage between economic liberalization and economic progress in five South Asian economies. They used data from 1995-2007 and detected that magnitude of government size had adverse link with output. But, financial liberty, trade liberty, investment liberty, business liberty, liberty of property rights and liberty from corruption had optimistic association with output. Derbel et al. (2011) investigated the association between sub-components of economic autonomy and economic performance. He explored that the linkage between economic autonomy and economic performance was nonlinear for the whole sample. Based on GDP and enrollment ratio they separated the whole sample into two categories. First group was consisted on economies with an initial per capita GDP less than 2080 dollars in 1990. The decline in the magnitude of the government, the enhancement of excellence of the legal structure and the efficiency of the monetary liberty were the categories which exerted optimistic impacts on economic performance. For economies with an initial per capita GDP of higher than 2080 dollars in 1990, there was particularly trade liberty and the lack of regulation on markets influenced optimistic impacts on economic performance. Haidar (2012) investigated the linkage between improvements of business monitoring and economic progress in 172 economies, over the period 2006-2010. He found that business regulatory improvements had affirmative and substantial influence on economic progress of these economies. He also found that usually, business regulatory improvement of each economy would raise 0.15% economic progress. Pour et al. (2013) revealed the impact of economic liberty on economic progress in OPEC economies. For empirical exploration they used panel data of seven selected economies of OPEC over the period 2000-2009. They instigated that an inclusive index of economic freedom was confidently and strongly interrelated with growth. Kilic and Arica (2014) studied association among economic freedom, inflation and economic performance of twenty three upper middle income economies. They explored that economic liberty had encouraging and substantial impression on economic performance of upper middle income economies. On the other side, inflation had adverse and noteworthy impact on economic performance. Overall impact of index of freedom on eco-

conomic progress was encouraging and noteworthy. While, individual impact of some components, such as, size of government and business liberty were insignificant. Remaining elements had optimistic and statistically significant impression on economic growth. Kesikoglu (2015) studied the relationship between economic liberty and economic progress for 11 selected transition economies over the period 1996-2013. He found causal relation from growth to economic freedom for only Albania and Czech Republic and there was no casual relation from economic freedom to growth for the selected 11 transition economies. Haydaroglu (2016) analyzed the impact of overseas investment and economic sovereignty on economic performance of five economies, named as China, India, Brazil, South Africa and Russia. He explored that overall volume of economic liberty had encouraging and significant impression on economic progress. Further, the econometric outcomes specified that FDI was directly and significantly related to economic performance. Ahmad (2017) analyzed the relationship between economic liberty and income dissimilarity in 115 economies of the globe. They applied GMM estimation method and found that economic freedom had progressive influence on income variations in the presence of democratic system.

## **Methodology**

### ***Model Specification***

In our model, we introduce the aggregate Economic Freedom Index, political rights and civil liberties in a growth regression explaining the growth rate by comprising other explanatory variables. The succeeding model will be used to explain the impact of economic and political liberty on economic growth of Asian economies.

$$\ln GDP_{i,t} = \beta_0 + \beta_1 EF_{i,t} + \beta_2 PR_{i,t} + \beta_3 CL_{i,t} + \beta_4 SER_{i,t} + \beta_5 \ln GCF_{i,t} + \beta_6 \ln FDI_{i,t} + U_{i,t} \dots \dots \dots (1)$$

### ***Description of Variables***

The variables used in the above model are explained hereunder.

#### ***Gross Domestic Product (GDP)***

Gross Domestic Product Per Capita is the explained variable which is a substitution to estimate economic growth of a country. It has been used in constant 2010 US dollars. To smooth the larger variation of per capita GDP, we have taken its natural log.

#### ***Economic Freedom (EF)***

Economic Freedom is the key explanatory variable in this model which is measured through an index named "Economic Freedom Index". The Index of Economic Freedom is accumulated through investigation of ten precise elements of economic freedom. These elements are property privileges, liberty from corruption, fiscal liberty, government spending, business liberty, labor liberty, monetary autonomy, trade liberty, investment liberty and financial liberty. The value of economic freedom is classified from 0 to 100. The 10 elements are weighted by the same token to acquire a comprehensive economic freedom score. Values of Index closer to 100 indicate more economic freedom and values closer to zero indicate very less economic liberty. The probable impact of economic liberty on economic progress of Asian economies is positive.

#### ***Political Rights (PR)***

Political freedom is arbitrated through two main components. The first component of political liberty is political rights. Political rights are classified into three subsections. These subsections are the procedure of elections, political contribution and working of public administration. The assessment of political rights varies from 1 to 7. Economies having an assessment of 1 delight in inclusive assortment of political privileges. These countries conduct unbiased elections. Contestants

who are voted truly participate in legislation. Political groups are worthwhile and opposition pays a key part and has real influence on public agendas. Economies having an assessment of 7 enjoy no political privileges due to unembellished government domination. These types of countries usually face the issue of civic war. They may have deficiency of effective central public administration and also suffer from extreme inhumanity.

#### *Civil Liberties (CL)*

The second component of political freedom is civil liberties. The civil freedom is categorized into four subclasses. These classes are liberty of communication and faith, privileges to make and participate in unions, practice of laws, individual sovereignty and basic human rights. Like political rights, the assessment of civil freedom varies from 1 to 7. Economies having an assessment of 1 enjoy an inclusive variety of civil rights. People have choice of manifestation, get-together, relationship, learning, and religious conviction. They have recognized and normally unbiased jurisdictional arrangement. Economies having a value of 7 don't enjoy any civil rights. The expected impact of civil liberty insures that economic growth can be raised by providing civil liberty.

#### *School Enrolment Ratio (SER)*

Investment in humans contributes a vigorous role in the growth of an economy. Human capital is a strategic element to upturn the economic growth of an economy (Benhabib and Spiegel, 1994). School enrollment ratio (%) has been used as a measure of general school education. School enrollment ratio is obtained by dividing total school enrollment (5-15 years) to the populace of that **cohort**. This substitution has been recommended in the study of Hassan and Ahmed (2008) and Afzal et al. (2010).

#### *Gross Capital Formation (GCF)*

Gross capital formation (constant 2010 US dollars) has been used as a proxy to approximate the impact of investment or physical capital on economic growth. The original series has been converted into natural log to minimize the variation. Investment is an imperative tool to regulate long run economic growth. It not only generates progressive spillovers by improving technical exploration and physical substructure, but it may also improve economic progression by assembling private investment (Munnell, 1992).

#### *Foreign Direct Investment (FDI)*

Foreign direct Investment is the influx of external investment in home economies. It is considered as a tool of technology and here it is the proxy of technological development. FDI can be reflected as one of the key transmissions of innovative expertise from influential to evolving economies (Borensztein et al., 1998). Foreign direct investment, net inflows (current US\$) has been used to analyze the impact of technological development on economic growth. As all other variables are in natural log, so it has also been transmuted into natural log. Generally it is contended that FDI has positive influence on economic performance of host countries by providing them new skills, technology and employment sources.

**Table 1. List of Countries**

Armenia	Georgia	Kazakhstan	Pakistan	Tajikistan
Azerbaijan	India	Kuwait	Philippines	Thailand
Bahrain	Indonesia	Kyrgyz Republic	Qatar	Turkey
Bangladesh	Iran	Lebanon	Russia	Uzbekistan
Bhutan	Israel	Mongolia	Saudi Arabia	Vietnam
China	Japan	Nepal	Singapore	Yemen
Cyprus	Jordan	Oman	Sri Lanka	

### Data Sources

Panel data of 34 Asian Economies were used for econometric analysis. Data covered the time period from 1995 to 2018, on annual basis. Data were collected from different sources, such as, Heritage Foundation, Freedom House, Penn World Tables and Asian Development Bank (ADB).

The general form of the model to be estimated is given as below:

$$Y_{i,t} = Z_{i,t} \beta + H_i \alpha + \varepsilon_{i,t} \dots \dots \dots (2)$$

$i$  = cross section dimension,  $t$  = time series dimension

$Y_{i,t}$  = Dependent variable of  $i^{\text{th}}$  cross section in  $t^{\text{th}}$  time period.

$Z_{i,t}$  = Set of Independent variables.

$H_i$  = The heterogeneity, or discrete impact. It should be remembered that  $H_i$  has an intercept term and a group of cross section specific variables. That group of variables may or may not be observed. If we suppose that all these individualities are identified and are obstinate then this model forms a simple Classical Linear Regression Model (CLRM). Econometrically, it can be assessed using only Ordinary Least Square (OLS) method. However, in actual, it is between few and far to find such an ideal condition. Generally, we observe a multifarious position when  $H_i$  is not identified. In this situation,  $H_i$  has an association with  $K_{i,t}$ . In this circumstance, OLS estimates are biased and inconsistent because the model has omitted variables. However, under this condition, the model has following form;

$$Y_{it} = Z_{it} \beta + \alpha_i + \varepsilon_{it} \dots \dots \dots (3)$$

Where  $\alpha_i = H_i \alpha$ , has all those effects that can be observed and it computes an estimable conditional mean. In such a situation, Fixed Effect (FE) Model is suitable for empirical estimations. The Fixed Effect Model reflects  $\alpha_i$  to be cross-section specific intercept in the regression. While applying Fixed Effect we suppose that something within the cross section may have an effect or bias the explanatory or explained variable and it is essential to overcome this. This is the justification in view of the supposition of the correlation between individual's error term and explained variables. We can calculate the net impact of the regressors on the dependent variable. On the other side, if we suppose that the undetected cross section specific effects are not associated with the independent variables then this supposition leads us toward Random Effect Model which can be expressed as below:

$$\begin{aligned} Y_{i,t} &= Z_{i,t} \beta + E[H_i \alpha] + \{ H_i \alpha - E[H_i \alpha] \} + \varepsilon_{i,t} \\ Y_{i,t} &= Z_{i,t} \beta + \alpha + \mu_i + \varepsilon_{i,t} \dots \dots \dots (4) \end{aligned}$$

This is a Linear Regression Model with a compound disturbance term and it specifies that  $\mu_i$  is a country-specific random component like  $\varepsilon_{i,t}$ . In this kind of model, usually, we face the problem of heteroskedasticity. In this situation, diagnostic tests for endogeneity and over identifying restrictions will also not be valid. These issues can be solved up to some extent by using heteroskedasticity-consistent or "robust" standard errors and statistics. Hausman (1978) established a test namely, Hausman Specification Test, to choose between Fixed Effect Model and Random Effects Model. The null hypothesis is that Random effects model is suitable for the estimation of empirical model while the alternative hypothesis is that fixed effect model is appropriate.

In empirical research, one important econometric issue is the measurement error. Measurement error can be said as errors-in-variables or errors-in-regressors. Measurement error causes to fail the assumptions and estimation methods of ordinary least squares (OLS). In the presences of measurement error the coefficient of the estimators of OLS are not efficient and unbiased. Fuller

(1987) suggested a solution to reduce the problem of measurement error. He proposed that it is necessary to estimate the model by knowing measurement error covariance matrix. They also endorse an alternate solution to estimate the model by using supplementary confirmation or repetition data. However, in panel data, each cross-section has more than one observation, which can be used as “partial” replicates for the perseverance of controlling measurement error. Griliches and Hausman (1986) argued that under certain panel data models, valid estimators can be built instead of the prerequisite of knowing the measurement error covariance matrix or supplementary confirmation or repetition data. So, in the above mentioned situation, in panel study, an alternative method can be used which is named as “Dynamic Panel Model”. An extension of panel dynamic model can be written as:

$$X_{i,t} = Z_{i,t} \beta + \vartheta X_{i,t-1} + \epsilon_{i,t} \dots \dots \dots (5)$$

Because there can be a problem of “Endogeneity” in the model due to measurement error, or omitted variables, therefore Such type of model can be estimated with Generalized Method of moments (Arellano and Bond, 1991). GMM is much popular technique in panel data study (Holtz-Eakin and Rosen (1988). They are general estimators designed for circumstances where explanatory variables are not rigorously exogenous and where we have the problems of heteroskedasticity and autocorrelation within entity (Arellano and Bover, 1995). GMM estimators are intended to estimate panel data with certain conditions. These conditions include the following: (1) Number of cross-sections must be greater than the number of time periods in the panel (N>T); (2) The explained or dependent variable should be used as lagged dependent variable; (3) Explanatory variables are usually correlated with previous values and maybe current realizations of the error; (4) One import assumption is fixed individual effects; and (5) Heteroskedasticity and autocorrelation within entities but not across them.

GMM provides efficient estimates in the presence of heteroskedasticity. GMM has grown into a very prevalent instrument among empirical academics due to its wide range of application (Blundell and Stephen (1998). Effectual GMM carries the benefit of consistency in the existence of random heteroskedasticity nevertheless at the price of possibly limited sample size. The GMM estimators are usually applied to correct the biasness affected by endogenous variables. For the reason that there can be an issue of “Endogeneity” in the model as one of the explanatory variables (Investment) is also part of Per Capita GDP. In our study, we have applied system GMM presented by Blundell and Bond (1998). System GMM has supremacy above difference GMM (Roodman, 2009).

**Results and Discussion**

***Econometric Analysis***

As we used panel data therefore we have to decide whether fixed effect or random effect model should be used. The Hausman test is useful to choose between the fixed and random effect models. We applied the Hausman test on the null hypothesis that random effect model is appropriate for our data set. The results of Hausman test are presented in Table 2 below.

For Table 2: Null Hypothesis: Random effect model is appropriate

**Table 2: Hausman Test Results**

<b>Regressions</b>	<b>Chi-square statistic</b>	<b>Chi-Sq. D.F</b>	<b>Probability</b>
Regression 1	27.904007	4	0.0000
Regression 2	27.792488	5	0.0000
Regression 3	27.128897	5	0.0001

Regressions	Chi-square statistic	Chi-Sq. D.F	Probability
Regression 4	24.367604	5	0.0134
Regression 5	26.759210	6	0.0002

The results in Table 2 indicate that the null hypothesis is rejected at 1 percent level of significance in all the five specifications. Therefore we used the fixed effect model.

For Table 3: Dependent variable: lnGDP Per Capita

**Table 3: Fixed Effect Model**

Independent Variables	1	2	3	4	5
EF	0.278 (13.600)*		0.264 (12.069)*	0.251 (11.436)*	0.252 (11.510)*
PR		0.605 (2.065)**	0.2126 (1.84)***		0.606 (2.293)**
CL		0.1943 (4.914)*		0.494 (3.148)*	0.124 (3.434)*
SER	0.830 (2.243)**	0.3505 (4.593)*	0.111 (1.545)	0.1308 (1.82)***	0.121 (1.69)***
Ln(GCF)	0.171 (5.1907)*	0.161 (4.260)*	0.155 (4.5897)*	0.161 (4.8888)*	0.189 (5.401)*
Ln(FDI)	0.033 (0.974)	0.0986 (2.66)*	0.044 (1.287)	0.0436 (1.278)	0.0268 (3.627)*
Constant	-0.08261 (-0.278)	1.801 (5.608)*	0.169430 (0.519)	0.3320 (1.030)	0.240 (0.744)
R-squared	0.38	0.27	0.39	0.39	0.40
Adjusted R-squared	0.35	0.23	0.36	0.36	0.37
N	650	650	650	650	650

**Source:** Authors' own calculations.

Note: \*, \*\* and \*\*\* indicate level of significance at 1 percent, 5 percent and 10 percent, respectively. The t values are in parentheses.

In Table 3 the dependent variable is per capita GDP and independent variables are economic freedom, political rights, civil liberties, school enrollment ratio (proxy for human capital), gross fixed capital formation (proxy for physical capital or investment) and Foreign Direct Investment (proxy for technological improvement). Five different specifications have been estimated to check the impact of economic and political freedom on economic growth.

In our first regression, economic freedom has positive and statistically significant impact on economic growth. Quantitative interpretation specifies that 1 unit increase in economic freedom will lead to 0.27 percentage increase in per capita GDP. School enrollment ratio also has significant and positive association with per capita GDP. Its coefficient shows that 1 percentage point increase in school enrolment ratio will lead to 0.83 percent increase in per capita GDP. Gross capital formation has positive and substantial impact on economic growth. The coefficient of gross capital formation describes that 1 percent increase in gross capital formation will lead to 0.17 percent increase in per capita GDP. Foreign direct investment has positive impression on economic growth but this impression is not statistically significant. In the second specification, we analyzed the impact of political freedom (without the inclusion of economic freedom) in the growth regression. Both indicators of



political freedom, namely, political rights and civil liberties have substantial and positive impression on economic growth. Quantitative interpretation explains that 1 unit increase in political rights and civil liberties will increase per capita GDP by 0.6 percent and 0.19 percent, respectively. Like the first regression, school enrollment ratio, has significant connotation with per capita GDP. Its magnitude shows that 1 percentage point increase in school enrollment ratio will cause GDP to increase by 0.35 percent. Physical capital has positive and substantial impact on economic growth. Its coefficient shows that 1 percent increase in physical capital will lead to 0.16 percentage increase in per capita GDP. Foreign direct investment has positive influence but on contrary to regression (1), in this regression, it has significant role to boost per capita GDP.

In the third regression, economic freedom and political rights have positive and significant impact on per capita GDP. In this regression, 1 unit increase in economic freedom will lead to 0.26 percent increase in per capita GDP. While, 1 unit increase in political rights will increase per capita GDP by 0.21 percent. School enrollment ratio, gross capital formation and FDI have positive impact on per capita GDP. Econometric outcomes reveal that 1 percentage point increase in school enrollment ratio and 1 percent increase in physical capital will lead to 0.11 and 0.15 percent increase in per capita GDP in that order.

In the fourth specification, economic freedom and civil liberties have positive and significant impact on economic growth. The coefficient of economic freedom shows that 1 unit increase in economic freedom will lead to 0.25 percent increase in per capita GDP. The coefficient of civil liberties shows that 1 unit increase in civil liberties will increase per capita GDP by 0.21 percent. School enrollment ratio also has significant and positive association with per capita GDP. Its coefficient shows that 1 percentage 0.21 percent in school enrolment ratio will lead to 0.13 percent 0.21 percent increase in per capita GDP. The impact and significance of the remaining variables, such as gross capital formation and foreign direct investment on per capita GDP are similar to the results of third regression. Econometric outcomes reveal that 1 percent increase in gross capital formation and foreign direct investment will increase per capita GDP by 0.16% and 0.043%, respectively.

Last regression, includes both types of freedoms, economic as well as political. The impact of economic freedom on per capita GDP is positive and significant. Its coefficient shows that 1 unit rise in economic freedom will increase per capita GDP by 0.25 percent. The impact of both indicators of political freedom, political rights and civil liberties has positive and statistically substantial impact on economic growth. Their econometric results show that 1 scale rise in political rights and civil liberties will increase per capita GDP 0.6 percent and 0.12 percent in that order. School enrollment ratio, gross fixed capital formation and FDI have positive and noteworthy impacts on per capita GDP. Results show that 1 percent increase in school enrollment ratio, gross fixed capital formation and FDI will grow per capita GDP 0.12, 0.18 and 0.026 percent, in order.

In all specifications, economic freedom has positive and significant role to boost up economic growth of Asian economies. Our results are similar to those of various previous studies, such as Johnson and Lenartowicz (1998) and Altman (2008). Political rights have been used in three specifications. In all these specifications it has positive and significant role to increase economic growth. Like political rights, civil liberties also have positive and significant role to raise economic growth. In nut shell, political freedom has positive and substantial role to enhance economic growth. Our results strengthen the results of earlier studies, such as Barro (1994) and Farr et al. (1998). In almost all specifications the role of school enrollment ratio is significant and positive. Gross capital formation, in all regressions has positive and noteworthy impact on economic growth. Foreign direct investment has positive impact in all specifications but it is significant only in two regressions. It is significant when it is analyzed with both components of political freedom. Guerin and Manzocchi

(2009) put forward that political stability is essential to desire the positive impact of foreign direct investment on economic indicators. The R-squared of specifications (1-5) are 0.38, 0.27, 0.39, 0.39 and 0.40. The values of R-squared indicate the fitness of all specification included in the model.

In Table 4 Dependent Variable is (lnGDP).

**Table 4: Economic Growth and Freedom (GMM Results)**

Independent Variables	1	2	3	4	5
Lag of GDP	0.953 (5.83)*	0.929 (5.48)*	0.942 (5.72)*	0.946 (5.75)*	0.942 (5.71)*
EF	0.301 (12.42)*		0.265 (10.82)*	0.277 (11.04)*	0.264 (10.75)*
PR		0.109 (3.89)*	0.118 (8.24)*		0.882 (3.39)*
CL		0.498 (1.37)		0.142 (7.56)*	0.474 (1.41)
SER	0.180 (3.35)*	0.239 (4.13)*	0.115 (2.12)**	0.164 (3.01)**	0.125 (2.29)**
Ln(GCF)	0.420 (5.02)*	0.645 (6.79)*	0.583 (6.81)*	0.501 (5.88)*	0.569 (6.56)*
Ln(FDI)	0.0353 (0.90)	0.0681 (1.58)	0.0581 (1.48)	0.117 (2.87)**	0.079 (1.88)***
Constant	0.272 (5.96)*	0.146 (2.68)***	0.126 (2.6)***	0.111 (2.18)**	0.111 (2.19)**
N	650	650	650	650	650

**Source:** Authors' own calculation

Note: \* \*\* and \*\*\* indicate level of significance at 1 percent, 5 percent and 10 percent, respectively. The t-values are in parentheses.

In table 4 we have estimated the model with the help of generalized method of moments (GMM). All specifications of table 4 have been re-estimated. The results of GMM are approximately like the results of fixed effect model. The impact of lagged explained variable is positive and substantial in regressions (1-5). Here, current level of per capita GDP is determined by previous year's per capita GDP. Economic growth is a long-run phenomenon, as a result, a lot of time is required to achieve it. Subsequently, outcome of lagged explained variable has noteworthy impact on economic growth. The coefficients of lagged GDP show that 1 percent increase in previous years will increase per capita GDP of current year by 0.95%, 0.92%, 0.94%, 0.94% and 0.94%, respectively.

Economic freedom in all specifications has positive and significant association with economic growth. In all specifications, 1 unit increase in economic freedom will lead to 0.30%, 0.26%, 0.27% and 0.26% percent increase in per capita GDP, respectively. Political rights has positive and significant impact in all regressions. In all regressions, 1 unit increase in political rights will increase per capita GDP by 0.10%, 0.11% and 0.88%, respectively. Civil liberty has positive impact in all specifications. In three different regressions, 1 unit increase in political rights will increase per capita GDP by 0.10%, 0.11% and 0.88%, respectively.

School enrollment ratio and gross capital formation have positive and considerable impact on economic growth like the previous analysis. In all regressions, 1 percentage point increase in

school enrollment ratio will increase per capita GDP by 0.18%, 0.23%, 0.11%, 0.16% and 0.12%, respectively. Similarly, in all regressions, 1 percent increase in gross capital formation will increase per capita GDP by 0.42%, 0.64%, 0.58%, 0.50% and 0.56%, respectively. The role of FDI is positive in all specifications under GMM approach. In these specifications, 1 percent increase in FDI will increase per capita GDP by 0.035%, 0.068%, 0.058%, 0.11% and 0.079%, respectively. The outcomes of GMM talk over that both economic and political freedom are suitable engines of economic growth of Asian economies.

### Conclusion

In modern times, economic and political freedom is a subject of hot consideration among economists, policy makers and researchers. Economic liberty is the essential privilege of all persons to regulate their economic activities (Chkareuli, 2017). People with the privileges of economic and political independence can make better personal and national decisions. The present study highlights this hot issue theoretically and empirically. Panel data of 34 Asian economies for the time period 1995 to 2018 has been used for empirical investigation. Two different econometric techniques have been applied to see empirical analysis. Fixed effect model has been used on the basis of Hausman Test. The results of all regressions indicate that economic liberty has positive and significant impact on economic progress. In all specifications, Political rights and civil liberties have considerable positive impact on economic progress. The results of GMM model are almost identical with the outcomes of fixed effect model. In dynamic panel model, economic freedom, political rights and civil liberties have positive and significant effect on per capita GDP. The impact of lagged dependent variable is positive and significant in all regressions. At this juncture, recent economic growth is based on former year's economic growth. The study suggests that economic liberty and political liberty provide a sound environment to attract the local and overseas investors. It is the duty of every government to provide more political rights to their citizens in the form of free, unbiased and nondiscriminatory elections. Public representatives should truly rule and political assemblies should be rational and competent in legislation. The opposition should contribute a significant part and has real supremacy. These polices will strength political rights and real democracy. There should be liberty of expression and belief, rights to join and make private associations. At the same time government should provide rule of law and private sovereignty to individuals. It will strengthen civil liberties and good political environment as well, which will ultimately increase economic growth.

### References

- Afzal, M., Farooq, M. S., Ahmad, H. K., Begum, I., & Quddus, M. A. (2010). Relationship between school education and economic growth in Pakistan: ARDL bounds testing approach to cointegration. *Pakistan Economic and Social Review*, 48(1) 39-60.
- Ahmad, M. (2017). Economic freedom and income inequality: Does political regime matter? *Economies*, 5(2), 1-28.
- Ali, A. M. (2003). Institutional differences as sources of growth differences. *Atlantic Economic Journal*, 31(4), 348-362
- Altman, M. (2008). How much economic freedom is necessary for economic growth? Theory and evidence. *Economics Bulletin*, 15(2), 1-20.
- Arellano, Manuel and Olympia Bover (1995). Another look at the instrumental variable estimation of error-component models. *Journal of Econometrics*, Volume 68(1), 29-51.

- Arellano, Manuel and Stephen Bond (1991), Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277-297.
- Atkinson, R. D. & Audretsch, D. B. (2008). Economic doctrines and policy differences: Has the Washington policy debate been asking the wrong questions? *Information Technology and Innovation Foundation*. Accessed from <http://www.itif.org/EconomicDoctrone.pdf> on 30-11-2019.
- Ayal, E. B., & Karras, G. (1998). Components of economic freedom and growth: An empirical study. *The Journal of Developing Areas*, 32(3), 327-338.
- Barro, R. J. (1994). *Democracy & Growth* (No. w4909). National Bureau of Economic Research
- Benhabib, J., & Spiegel, M. M. (1994). The role of human capital in economic development evidence from aggregate cross-country data. *Journal of Monetary economics*, 34(2), 143-173.
- Blundell, R., & Stephen B. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115-143.
- Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth? *Journal of international Economics*, 45(1), 115-135.
- Chkareuli, V. (2017). The Role of Government to Create “Effective Freedom”—The Fundament for Economic Development. *International Journal of Innovation, Management and Technology*, 8 (4), 293-298.
- Chheng, K. (2005). *How do economic freedom and investment affect economic growth*, EconWPA, Macroeconomics, no. 0509021.
- Derbel, H., Abdelkafi, R., & Chkir, A. (2011). The Effects of Economic Freedom Components on Economic Growth: An Analysis with a Threshold Model. *Journal of Politics and Law*, 4(2), 49-60.
- De Vanssay, X., & Spindler, Z. A. (1994). Freedom and growth: Do constitutions matter? *Public Choice*, 78(3), 359-372.
- Farr, W. K., Lord, R. A., & Wolfenbarger, J. L. (1998). Economic Freedom, Political Freedom, and Economic Well-Being: A Causality Analysis. *Cato Journal*, 18(2), 247-262.
- Fuller, W. (1987). *Measurement Error Models*. John Wiley, New York.
- Guerin, S. S., & Manzocchi, S. (2009). Political regime and FDI from advanced to emerging countries. *Review of World economics*, 145(1), 75-91.
- Gounder, R. (2002). Political and economic freedom, fiscal policy, and growth nexus: some empirical results for Fiji. *Contemporary Economic Policy*, 20(3), 234-245.
- Griliches, Z. (1979). Issues in Assessing the Contribution of Research and Development to Productivity Growth. *Bell Journal of Economics*, 10(1), 92-116.
- Griliches, Z., & Hausman, J. A. (1986). Errors in variables in panel data. *Journal of Econometrics*, 31(1), 93-118.
- Haidar, J. I. (2012). The impact of business regulatory reforms on economic growth. *Journal of the Japanese and international economies*, 26(3), 285-307.
- Hanke, S. H., & Walters, S. J. (1997). Economic freedom, prosperity, and equality: A survey. *Cato Journal*, 17(2), 117-146.
- Hassan, S., & Ahmed, H. (2008). Education's contribution to the economic growth of Sub-Saharan Africa. *Southwestern Economic Review*, 35, 175-189.
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the econometric society*, 46(6), 1251-1271.
- Haydaroglu, C. (2016). The Effect of Foreign Direct Investment and Economic Freedom on Economic Growth: The Case of BRICS Countries. *Research in World Economy*, 7(1), 1-10.
- Openly accessible at <http://www.european-science.com>

- Heckelman, J. C. (2000). Economic freedom and economic growth: a short-run causal investigation. *Journal of Applied Economics*, 3(1), 71-91.
- Holtz-Eakin, D., W. N., & H. S. Rosen. (1988). Estimating vector auto regressions with panel data. *Econometrica Journal of the Econometric Society*, 56(6), 1371-1395.
- Johnson, J. P., & Lenartowicz, T. (1998). Culture, freedom and economic growth: do cultural values explain economic growth?. *Journal of World Business*, 33(4), 332-356.
- Jones, E. L. (1987). *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia*. Cambridge University Press.
- Kesikoglu, F. (2015). Economic Freedom and Economic Growth: A Panel Causality Analysis for selected Transition Economies. *The Macro-theme Review a multidisciplinary journal of global macro trends*. 4(3), 183-190.
- Kasper, W. (2002). *Economic freedom and development: An essay about property rights, competition and prosperity*. Dat & Partners Logistics.
- Kilic, C., & Aric, F. (2014). Economic Freedom, Inflation Rate and their impact on Economic Growth: A Panel Data Analysis. *Romanian Journal of Economic Forecasting* 17(1), 160-176.
- Kimura, F. (2008). How Does Economic Freedom Affect International Trade in Services? *Journal of Korea Trade*, 12(3), 1-28.
- Landes, D.S. (1998). *The Wealth and Poverty of Nations*. Norton, New York.
- Mahmood, K., Azid, T., Chaudhry, I. S., & Faridi, M. Z. (2010). Impact of economic freedom on economic growth: The case of some selected SAARC member countries. *International Research Journal of Finance and Economics*, 52(1), 7-16.
- Mauro, P. (1995) Corruption and Growth. *The Quarterly Journal of Economics*, 110(3), 681-712
- Mankiw, G. (1995). The Growth of Nations. *Brookings Papers on Economic Activity*, 26(1), 275-326.
- Munnell, A. H. (1992). Policy watch: infrastructure investment and economic growth. *Journal of economic perspectives*, 6(4), 189-198.
- North, D. C. (1981) *Structure and Change in Economic History*. Norton
- Pour, A.M., Samimi, A.J. and Refaei, R (2013), *Economic Freedom and Economic Growth: The Case Of OPEC*. *Journal of Human and Social Science Research*, 1(1), 63-71.
- Roodman, D. (2009). How to do xtabond2: An introduction to difference and system GMM in Stata. *Stata Journal*, 9(1), 86-136.
- Saribas, H., (2009). Ekonomik Ozgurlukler ve Ekonomik Büyüme İlişkisi: Bir Panel Veri Analizi. *Finans Politik & Ekonomik Yorumlar*, 46(538), 7- 16.
- Seputiene, J. (2007). The evolution of economic freedom and its relationship with economic growth in the European Union. *Social Research*, 2(10), 161-168.
- Sturm, J. E., & De Haan, J. (2001). How robust is the relationship between economic freedom and economic growth? *Applied Economics*, 33(7), 839-844.