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THE ROLE OF POLITICAL STABILITY AND ECONOMIC INEQUALITY FOR SUSTAINABLE GROWTH: ANALYSIS OF SOUTH ASIAN COUNTRIES

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ABSTRACT

The recent economic growth of upper-middle income countries has not helped to lower the inequality of these nations, and the growth episodes of last two decades have not decreased the gap between top and bottom. This lays a big question mark about the generalizability of the Kuznets hypothesis. In this study we focus on the role of inequality and political instability on economic growth, using a simple endogenous growth model including human capital as moderator in the south Asia. We have used panel data of selected south Asian economies. Our estimation procedure is pooled EGLS. Analysis shows that the income inequality obstructs the socio-economic structure of the economy and political stability is crucial with economic growth to overcome the issue of differences between rich and poor. The results indicate that the human capital plays a regressive role in the nexus between inequality and political stability. However, inequality hampers growth; both directly and indirectly. The elasticity coefficients of growth to all the variables are very sensitive to the inclusion and exclusion of the control variables. Our results imply that the policy makers in developing South Asia have to solve the economic puzzle of choices between slow growth leading fairer distribution and the fast growth with more inequality. Current inequality may impede future economic growth through the channels of political instability and restlessness.

Keywords: income inequality, political instability, economic growth, human capital, pooled EGLS
JEL Codes: D63, F63, R11

I. BACKGROUND

In mid of 1950s, Simon Kuznets proposed a law of motion of distribution of wealth using limited data available to him. His synthesis comprised UK and US (self-generated) data and found substantial growth accompanied by a decline in income inequality of both economies during the transition from agriculture to industry course of economic development. The transition leads to inequality because the agriculture income is fairly distributed while the distribution of industrial income at the early stages of development increases the income of the industrial workers. Beyond an edge, the dominance of manufacturing employment will develop income redistribution, because most of the workers earn similar money. This theory proposes an inverted U-shaped relationship between income levels and inequality. Kuznets' hypothesis was studied with more emphasis after the 1970s when the data related issues began to be resolved. With few observation of a handsome number of countries the empirical evidence of cross-sectional data mainly found the Kuznets' Hypothesis valid for the middle-income countries particularly Latin America of 1970s and 1980s. A partial list of studies includes (for example) Kravis (1960), Ahluwalia (1976), Saith (1983), Papanek and Kyn (1986), Campano and Salvatore (1988), Tsakloglou (1988), Ogwang (1994), Eusufzai (1997), Dawson (1997), Lin et. al. (2006), Savvidesa and Stengos (2000), Huang and Lin (2007), Ali and Audi (2016), Arshad and Ali (2016), Audi and Ali (2016), Ali and Bibi (2017), Ali (2018), Ali and Audi (2018), Ahmad et al., (2022), Ali et al., (2022), Ali et al., (2022), Audi et al., (2022), Audi et al., (2021), Audi et al., (2021), Audi et al., (2021), Ali et al., (2021), Ali et al., (2021), Ali et al., (2022). Some most cautious studies did not find vigorous support for Kuznets hypothesis. Notwithstanding its nature, the concept income inequality itself is not new. It stems from the socio-political inequality of the pre-capitalist society. The literature suggests that the developing countries with high inequality grow more slowly due to number of factors including; unemployment, food prices, political instability and fiscal constraints. The relationship between economic growth and inequality of income has drawn huge attention in recent years. The growth experience of many economies with different socio-politico behaviors in terms of economic inequalities has produced a growing string of literature (both theoretical and empirical) trying to explain events of economy-distribution nexus. A fresh wield in the academic

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literature focuses on the technical innovation and its effects on income inequality and economic growth; showing that the initial stage of technological innovation the benefit of growth goes to high-ability individuals, hence growth increases inequality. However, at the later stage of technological innovation as the technologies become accessible the negative impact of growth on inequality diminishes. Thus, inequality decreases growth in poor countries, whereas it promotes growth in rich countries (see for example; Deininger and Squire,1998; Barro 2000).

However, Galor and Moav (2004) summarize the theoretical framework on the nonlinear growth-inequality circa during different stages of development with particular emphasis on the role of human capital. In the early stage of industrialization, there is scarce physical capital and the rate of return to human capital is lesser than the rate of return to physical capital and the development process is fuelled by capital accumulation. "In later stages of development, as physical capital accumulates, the skills complement the capital and therefore increase the rate of return to human capital" (Galor and Moav, 2004). Given that human capital is embodied in individuals and investing in it is subjected to diminishing returns; i.e., aggregate returns to the investment it is maximized if this investment is extensively stretched among individuals of a society. This study reviews the idea of endogenous growth discussed in the more recent literature and focuses on new evidence of the socio-economic nexus of selected South Asian (SA henceforth) countries and China. We have used a two-step model involving linkages between political stability, income inequality, and economic growth. The study highlights elusiveness of global practices to combat inequality using comparative statistics. After this background, section 2 reviews the empirical evidence on inequality-stability-growth nexus; section 3 provides the theoretical model along with details of data and methodology used for empirical analysis of this study; whereas section 4 provides the discussion of the results. Section 5 concludes.

II. THE INEQUALITY - POLITICAL STABILITY DEBATE

On the ideological and theoretical ground, the literature has asserted that the main cause of political violence in most societies is economic inequality (Sigelman and Simpson 1977). A highly polarized resource distribution is considered to generate deprivation and hence becomes an important source of dissatisfaction, (Gurr (1970), which results in both organized and mobbed protests, as Alesina and Perotti (1996) narrate: "*A large group of poor, facing a small and very rich group of well-off individuals is likely to become dissatisfied with the existing socio-economic status quo and demand radical changes, so that mass violence and illegal seizure of power are more likely than when income distribution is more equitable."*

High degree of inequality produces circumstances to involve violence or other politically destabilizing activities (Muller 1985; Lichbach 1989; Schock 1996). Comparing different paths of causation, the political instability is found to be the strongest mechanism connecting inequality to growth (Alesina and Perotti, 1996). Many other empirical studies support this expectation, (Sigelman and Simpson 1977; Temple 1998; and Maccullock, 2005). However, the contrasting arguments by several studies also challenged this finding; including, Mitchell 1968, Muller and Weede 1990, and Collier and Hoeffler 2004. This strand of literature does not find the causal relationship between the socio-economic inequalities and the level of political instability, or even if there is any relationship that is negative. Macculloch (2005) sums the empirical literature of about two decades on the relationship between inequality and socio-political conflicts and has generated a diversified array of results, and thus the impact of inequality on conflicts is still in search of consensus.

II.I. THE POLITICAL INSTABILITY – ECONOMIC GROWTH DEBATE

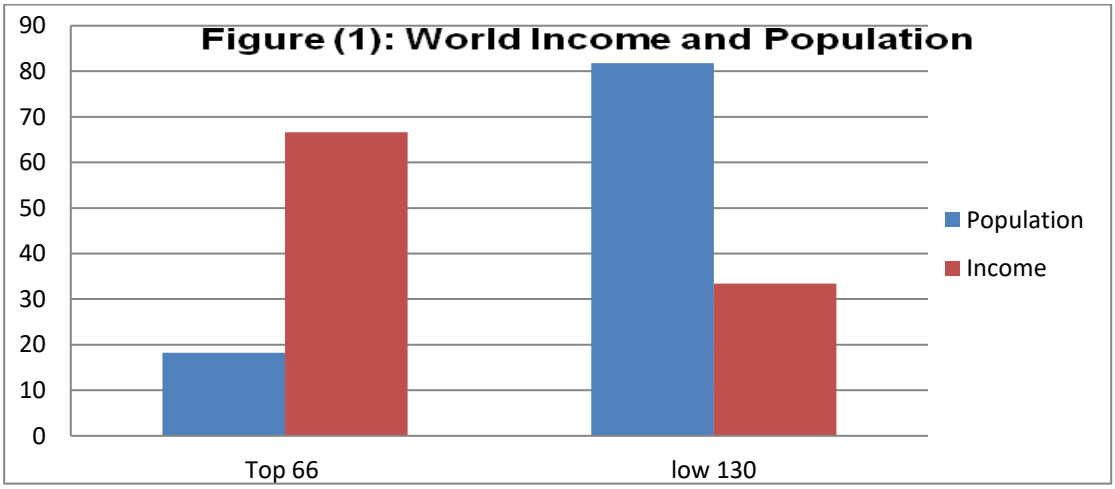
It is thought that there is usually negative effect of political instability on economic growth due to number of reasons, for example; (i) it interrupts the relationship between market activities and labour, which in turn has an adverse effect on labour productivity (Perotti 1996a; Landa and Kapstein 2001); (ii) lack of political stability decreases growth because of its negative influences on investment. This causation pattern has been emphasized by several studies. Communal violence and tried or (few) successful revolutions point out a tendency to discard rule of law; therefore, threatens the established property rights. Additionally, the likelihood of the government being removed from power is higher when societal conflict is extensive. Kuznets (1967: 451), states; *"[…] clearly some minimum of political stability is necessary if members of the economic society are to plan ahead and be assured of a relatively stable relationship between their contribution to economic activity and their rewards."* A huge array of studies has established this belief empirically.

II.II. INEQUALITY AND ECONOMIC SUSTAINABILITY

The recent global turmoil has drawn the attention of core economic literature to the point concluding that this fresh wave stems from wide spreading inequality along the globe. The latest data, both estimated and calculated, show that the global inequality has increased from roughly 40.67% to roughly 43.18% ever since 1963 to 2018. Figure (1) illustrates the macro perspective of income inequality: 82% of world population inhibits in 130 countries, own only 33% of world income; whereas, top 66 countries count 18% of world population hold 67% income. The caveat nature

of such increase in unevenness in income and wealth of nations has shown the triviality of political economy.[3] Green (2001) links the sustainability and inequality as; *"Debates over sustainability, both regarding the appropriate national or state policy and the economic development strategies of communities, should consider a third element–social equity. There are two distributional impacts …: income inequality in the region and inequality between rural and urban areas." (page 61, Italic added)*

The underemployment also leads to poverty and income inequality; and becomes an obstacle to sustainable growth. The societies may find areas to support low-wage workers through inexpensive housing facilities, transportation, and social safety nets (Motesharrei et. al. 2014). Moreover, Hemani and Punekar (2015), Ali and Senturk (2019), Senturk and Ali (2021) find that the urbanization although generates growth, but initially leads to an unequal distribution of resources that question the economic sustainability. To cater the issue of rapid urban population growth, Hemani and Punekar (2015) suggest educating the societies at large through socially and economically inclusive approaches, in case of India. Kawamoto et. al (2017) conclude that of technology helps achieving sustainable development goals. The skills and innovation are more relevant for the use of medium to high technology. The Global Economic View (Feb, 2011) considers most of the South Asian economies as next Global Growth Generator (3G) economies. The process of capital accumulation in the past three decades shows that SA, in general, has increased the pace of capital formation, particularly India.



Note: (i) Data source is WDI (as of 2019). (ii) The bottom 130 are the countries with GDP per capita less than $10000.

III. THE MODEL

The background we have just described elucidates that the relationship between economic growth and inequality may be two way: the inequality may affect growth or the growth has an effect on inequality. Similarly, the income inequality also affects the growth indirectly, by affecting political stability first and then political stability has an impact on the growth. We will use the theoretical base forwarded by Galor and Moav (2004) which was comprehensively tested in Bhatti et.al (2013). Nevertheless, we have used different measures of human capital, market distortion and added political stability index (see for example, Geskimo, 2008).[4] The income inequality has a direct effect on political stability and we assume that the causality runs only in this direction. And political stability is also influenced by accumulation of human capital, more in social terms than as economic meanings. However effect of human capital and growth on political stability seems to be with a lag.

$$logP_{it} = \alpha_{1i} + \alpha_{2i}\, logI_{it-1} + \alpha_{3i}\, logH_{it-1} + \alpha_{4i}\, logP_{it-1} + \alpha_{5i}\, logY_{it-1} + \varepsilon_{1t} \qquad (1)$$

$$G_{it} = \beta_{2i}\, logH_{it} + \beta_{3i}\, log\hat{P}_{it} + \beta_{4i}\, logY0_{it} + \beta_{5i}\, logDist_{it} + \varepsilon_{2t} \qquad (2)$$

Here ***P*** is political stability; ***I*** for inequality, ***G*** for economic growth; ***H*** for human capital and ***Y*** stands for real income per capita. ***Y0*** is an initial level of income per capita, we take this series as a constant as of beginning of the sample value of GDP for each country. In growth equation, we have used estimated series of political stability ***($\hat{P}$)***, which depicts the indirect effect of economic inequality on economic growth. This is obtained from the estimation of equation 1. Equation 1 is based on the idea that all the explanatory variables affect the political instability with a lag (at least one as we have assumed here). However, in second equation we do not include lags because their effect is capture by the estimated *P*, and other variables like human capital (H) in equation 2 has dual effect, i.e., lag effect in first equation and current in the second.

[3] World's Average inequality during 1972 – 2012 based on the dataset of 149 countries is 41.89.
[4] To converse space and avoid reproduction, we are only confined to the details of final equations of the model and their linkages.

III.I. DATA AND VARIABLES

Panel data on inequality did not become available until the 1990s. The first large-scale dataset was assembled by Deininger and Squire (1996, 1998), with sufficient observations to studying the typical path of inequality within the economies. They (Deininger and Squire) used the estimates of Gini from many separate studies on inequality in each individual country for constructing a large number of time series observations. Using these data, literature has found little or no support for Kuznets curve controlling country fixed effects (Higgins and Williamson (1999), Barro (2000) and also Deininger and Squire (1998). Barro (2008) found some support for the Kuznets curve, but it was because of the regressions with the inclusion of country fixed effects, i.e., Barro was using common cross-sectional patterns. However, by including fixed effects, coupled with the quadratic trend in the income, it became insignificant. Thus it concludes that trends in income levels explain very little of the trends in the inequality over time.

In this study, for empirical evidence, we have used panel data of 5 South Asian economies, spanning 1990 to 2020 via different sources. The real GDP per capita series is obtained from *Penn world* table 10.0. A unique measure of inequality series with complete information is available in Estimated Household Inequality Dataset.[5,6] Barro and Lee (2018) index of human capital per person is based on years of schooling; and that of Psacharopoulos, (1994) depends on returns to education. An important variable of this study, *Market distortion* is described by Price level of capital formation, (price level of USA GDPo in 2005=1). This variable summarizes the exogenous shocks to demand and supply forces of a market. Using the data from World governance Indicators' dataset, we picked up the political instability/stability indicator and used extrapolation measures for missing values. We added a constant = 2.90 in all observations to make it a uni-directional variable because the lowest was -2.81 for Pakistan in 2011. Through this exercise, we can define lowest values being the more unstable and highest value being the politically most stable economy.

IV. METHODOLOGY

To analyze the model expressed above we use pooled EGLS (estimated GLS) method in two steps: First, we estimate equation (1) to get estimated series of political stability; and second, we use this estimated series of political stability in the estimation of equation (2). This two-step estimation procedure confirms that the inequality affects the growth rate of GDP through two ways; (i) its instantaneous effect on political stability and, (ii) its contemporaneous effect on economic growth, directly. The series are tested for stationarity and the used-form of variables does not contain unit-root. Log of all data is used with exception of GDP growth rate. Sample countries include Bangladesh, India, Nepal, Pakistan and Sri Lanka. Bhutan and Maldives are excluded from this empirical analysis due to unavailability of data.

V. RESULTS

The stationarity adjusted pooled data are used to estimate the model. As discussed previously we used two steps pool estimation because inequality generally reduces the political security of an economy with lag; including the previously attained human capital level. This idea relates to the phenomenon that the more aware human being may rise for their rights in an organized way in an unfair economy. Results reported in Table (1) indicate that Human Capital (HC) and inequality both have a negative effect on the political stability. It may be inferred that today's inequality may lead to unrest in the future political environment. The unemployment channel may have more influence on the relationship between HC and growth. However, as predicted the GDP per capita increase political stability. The negative effect of human capital brings the idea of increased unemployment of skilled/ educated population may generate political instability.

In next step, five different models of GDP growth rate are estimated. In all these models the log of estimated political stability series ($\widehat{\boldsymbol{P}}$) is used. This process captures the indirect effect of inequality on growth. Results are presented in Table (2). The positive and strong impact of human capital on the economic growth is observed in all models except the one which includes market distortion and excludes initial GDP level. In last model, the inclusion of contemporaneous inequality has shown a positive relationship of the inequality confirming that inequality in South Asia has rather generated their major growth profile in the recent past. The example in this regard is India. India with an inequality of 49.65 in 1990 peaked 52.35 in 2003 and 51.66 in 2012. This period is marked as the highest growth period of India. These growth generating economies had to sacrifice fair distribution thus paying the price of high growth. Our analysis confirms that the top economies of South Asia in terms of volume and population are still in the earlier phase of Kuznets curve (i.e., increasing inequality with an increase in growth[7]).

[5]Estimated Household Income Inequality Data Set (EHII) - is a global dataset, derived from the econometric relationship between UTIP-UNIDO, University of Texas. http://utip.gov.utexas.edu/data.html

[6] The data for 2019-20 were generated by authors to increase the number of observations for inequality variable up to the size of other variables.

[7] Though we do not estimate the Kuznets hypothesis here, however this slack interpretation may assumedly be valid.

Table 1: Estimated Model of Political Stability

Dependent Variable: PS	Methodology: Pooled EGLS (Cross-section SUR)		
H(-1)	-0.40*(0.083)	R-Sq.	0.99
I(-1)	-0.059*(0.028)	F-Stat	1634.854
P(-1)	1.04*(0.02)	D.W.	1.99
Y(-1)	0.036**(0.02)	RSS	222.462
_BGD—C	0.197		
_IND--C	0.208		
_LKA--C	0.490		
_NPL--C	0.120		
_PAK—C	0.011		

Note: (i) Standard Errors are in the parenthesis; (ii) data are in log forms; (iii) The coefficients are statistically significant at 5% (*) and 10 %(**) level of significance.

Table 2: Estimated Growth Model

	Model 1	Model 2	Model 3	Model 4	Model 5
	G	G	G	G	G
Variables	Methodology: Pooled EGLS (Cross-section SUR)				
H	1.924*(0.8467)	3.413*(0.765)	3.085*(0.735)	-2.209*(0.712)	1.41*(0.514)
I					0.301*(0.119)
Y0	-2.25*(0.321)	-1.093*(0.218)	-0.881*(0.241)		
$\hat{P}$	1.74*(0.32)	1.74*(0.28)	1.39*(0.65)	1.17*(0.246)	1.37*(0.25)
Dist	5.11*(0.671)	8.93*(1.801)		4.05*(0.467)	- -
C	20.958*(2.880)		5.988*(2.015)	7.36*(1.082)	- -
R^2	0.36	0.20	0.11	0.31	0.13
F-statistic	32.91	18.77	9.70	35.266	- -
DW Stat	1.72	1.74	1.65	1.71	1.72
RSS	228.180	237.8	238.795	238.8972	239.520

Note: Standard errors in the parentheses. (*) significant at 5%.

It is evident that initial level of per capita GDP has put restraint to economic growth, i.e., the growth has not long memory and the initial economic conditions become irrelevant in the presence of prevailing socio-economic factors. Nevertheless, the response is severe in the presence of market distortion; lowers in the absence of it. The elasticity of market distortion (i.e., the price level of investment) is positive and very high. Thus the attainment of human capital and the fluctuation in the macroeconomic conditions result in higher growth. So, both human and physical capitals are major contributors to growth in SA. We hypothesized in this study that the income and the estimated political stability (that is affected by inequality and other economic factors of the previous period) has a positive and relatively robust effect on the economic growth.

VI. CONCLUDING REMARKS

In this study, we have emphasized the effect of income inequality and political stability on economic growth for the case of South Asia economies. We have used a two-step effect of inequality on growth; its effect on political stability with a lag and then the effect of political stability on the economic growth, and second effect directly on the growth. The results indicate that the human capital plays a regressive role in the nexus between inequality and political stability. However, inequality hampers growth: both directly and indirectly. The elasticity coefficients of growth to all the variables are very sensitive to the inclusion and exclusion of the control variables. Our analysis suggests many direct and indirect linkages between the three main variables: Growth, inequality and Political stability. We can conclude that the South Asia economies which are considered to be next global growth generators have, however, paid the price of growth which they acclaimed for last two and half decades. Their human and social capital in the shape of inequality has been an alarming condition for future prospects. This analysis also suggests that the policy makers developing South Asia have to solve the economic puzzle of choices between slow growth leading fairer distribution and the fast growth with more inequality. Current inequality may affect future sustainability in economic growth through the channels of political instability and restlessness. So, the policy mix in this regards should be deliberately used with well thought inclusive structure as suggested by the earlier literature, too.

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