

## **Governance and Income Inequality**

**Saima Shafique**

Lecturer

National University of Modern Languages, Islamabad

Ph.D Scholar

**Rashida Haq**

Research Economist

PIDE

**The 22<sup>nd</sup> Annual General Meeting and Conference  
19<sup>th</sup> -21<sup>st</sup> December, 2006**

**Pakistan Institute of Development Economics  
Islamabad**

## **INTRODUCTION:**

Major problems of developing countries are unequal income distribution and low growth rate which affect their welfare aspects. It was implicitly assumed that whenever we achieve target of higher growth rate, benefit of growth would automatically trickle down to the poor. History of developing countries shows that the rich benefited more than the poor as evidenced by rising income inequality during the period of higher economic growth.

The economic policy changes are often triggered by the logic of low level of equilibrium of output level, employment and income distribution. To overcome this low level of equilibrium trap, government often adopt policies so as to achieve high level of income and employment growth and development, and equitable income distribution. Coherent policy instruments are essential to meet these policy targets. Impact of any macro economic policy has been examined by studying its impact on economic growth and income distribution. In recent years policies have been directed toward reducing the level of poverty and inequality through raising quality of life in society by providing efficient and effective governance. This new economic philosophy has resulted in a massive change in the policy orientation of countries; the priority is now centered on issue of governance and focus is now shifted towards a qualitative nature of its growth and development. According to Sen(1983), the realization of human capabilities, that enlarge the range of human choices, is essential for a broader notion and measure of economic wellbeing. The institutional frame work is then considered as one of the essential elements for translating growth and well being into a sustainable process.

The institutional/governance frame work is vital for sustainable economic growth along with other policy factors like government polices to allocate resources for poverty alleviating and reduce economic inequality.

The concept of accommodating other socio-economic indicators along with per capita income growth have taken up a significant amount of attention, since the United Nation (1954) recommended that national income was to be supplemented by a further set of indices, reflecting various constitutions and determinants of aggregate development and wellbeing. The studies by Adelmam and Morris (1967) also examined the interactions among the processes of social, economic and political change with the level and pace of economic development. Early works done by Anderson (1964) and Aaron(1967) showed that there was an inverse relationship between growth and income distribution. One of the significant contributions to the quality of life with some social indicators was proposed by Morris (1979) who constructed the physical quality of life index and later by Dasgupta and Weale (1992).UNDP Human Development Index had brought together the production and distribution of commodities and expansion and use of human capabilities in their measure. All these indices essentially focus on choices as they are based on indicators like life expectancy, educational attainment, per capita income, civil and property rights [Nagar and Basu (2002)]. In some of the most cited studies show relationship between trade policy, economic growth, poverty reduction and income distribution are probably by Dollar(1992), Ben-David(1993),Sachs and Warner (1995),Edward(1998),Frankel and Romar (1999), Dollar(2001) and, Dollar and Kraay (2001). Later empirical work shows that government polices aimed at increasing economic well being would end poverty. Le Blanc (2000) examines the relationship

between economic growth in the macro economy and poverty and finds that this relationship is very sensitive to the distribution features.

Now in some major studies , researchers are showing that the differential performance level across countries is mostly because of the quality of institutional mechanism and other policy level implementation factors. The recent literature on governance proposes that an efficient and effective institutional mechanism is critical in influencing growth and wellbeing in to a sustainable process. The World Bank (1994) defines good governance as the ‘manner in which power is exercised in the management of country economic and social resources. Further the IMF (1996) in its Interim committee meeting identified promoting good governance in all aspects that is social and economic efficiency and growth of the countries. The UNDP (1997) report observes that result of good governance is development that gives priority to poor, advances the cause of women, sustains the environment and creates needed opportunities for employment and other livelihoods. Thus we see the concept of good governance is multifaceted and encompasses different element of the state and the society. Kaufmann *et al* (1999a, 1999b, 2002) indicates a strong causal relationship running from good governance to an increasing level of per capita income and other social outcomes. According to Rodrik (2000) the institutes would work efficiently in which they protect private property and environment, moderate business activity, support macroeconomic stability, provide social insurance and protection, and manage social conflicts are the one where economies could handle differential level of economic development and could achieve sustainable economic advancement.

The World Development Report (2003) emphasized that for sustainable development in a dynamic world, the institutions need to be improved at many levels, from local to global. Moreover, the World Bank's The Quality of Growth (2000) stressed that there are four factors especially relevant for poverty outcomes; distribution, sustainability, variability, and governance surrounding the growth process

Impact of different policy instruments depends on how effectively public sector performs to achieve these objectives. This phenomenon is also called "Good Governance". Governance means the mechanism of decision making process by which decision is implemented. Economists agree that governance is one of the critical factors explaining the divergence in performance across different countries.

The major objective of this paper is to examine the change that occurred in economic growth and income distribution due to effectiveness of different public policies. In addition, we show how this relationship could have been overlooked by previous studies by introducing Sen (1973) welfare index. Effectiveness of any public policy should be checked by how much it helps to improve welfare of the economy. Either this objective is achieved by increasing economic growth or improving income distribution, so that benefit of prosperity should be enjoyed by all segment of the economy.

## **METHODOLOGY**

Public sector performance depends on how it effects economic growth and income distribution of the economy that is measured by Gini coefficient. Furthermore, different instruments which explain good governance like Voice and Accountability, Political Instability and Violence, Government Effectiveness, Regulatory Burden, Rule of Law and Control of Corruption explains cross-country variations in economic growth and income distribution of the economy. In sensivity analysis of cross-country regression, the most severe difficulty is in isolating the impact of Good Governance indicators from other macro economic variables. However, the complex interaction among Good Governance indicators and other macro economic variables creates difficulties.

The analysis starts from the following Sen Index of welfare(1973).

$$W_t = Y_t + (1 - G_t)^\beta \quad (1.1)$$

Where  $W_t$  is welfare,  $Y_t$  is output, and  $G_t$  is an index of the income distribution.

Also noted that  $\beta$  is the share of income distribution in social welfare.

Taking natural log on both sides and differentiating with respect to time yields the following differential equation to account for growth process.

$$\dot{W}/W = \dot{Y}/Y + (\beta)(1 - G_t)^* / (1 - G) \quad (1.2)$$

Where dot indicate instantaneous rate of change over time.

Equation (1.2) indicates that the growth rate of welfare  $\dot{W}/W$  equals the growth rate of output  $\dot{Y}/Y$  plus the growth rate of one minus Gini coefficient  $\dot{G}/G$ . According to the objective of our study, we first analyze the impact of good Governance on each component of above equation. We can then analyze the impact of good Governance on economic growth. For convenience in empirical analysis, we specify the following linear relationships.

$$\dot{Y}/Y = a_0 + \sum_{j=1}^k b_j P_j + \sum_{j=1}^l c_j E_j + U \quad (1.3)$$

$$1 - \dot{G}/G = \alpha_0 + \sum_{j=1}^k \beta_j P_j + \sum_{j=1}^l \gamma_j E_j + V \quad (1.4)$$

In equation (1.3) and (1.4)  $P_j$ , and  $E_j$  stands for political and economic indicators of good Governance respectively. In equation (1.3)  $a_0$  measures the exogenous component of economic growth attributes to pure exogenous progress,  $b_j (j = 1, \dots, k)$  measures the effect of political factors on economic growth, and  $c_j (j = 1, \dots, l)$  measures the effect of economic indicators on economic growth. Like wise in equation (1.4)  $\alpha_0$  indicates the exogenous growth in Gini coefficient that cannot be attributed to any of the variables in equation, while  $\beta_j (j = 1, \dots, k)$  and  $\gamma_j (j = 1, \dots, l)$  shows the effect of political and economic variables on the growth rate of Gini coefficient. The variables  $U$  and  $V$  represent random growth shocks and the random fluctuations in Gini coefficient.

Finally, model of this study is represented by equation 1.2 to 1.4.

In order to study the impact of good Governance on economic growth and income distribution for South Asian Association For Regional Cooperation (SAARC) countries, the study chooses World Bank “*Aggregate Governance Indicators 1996-2005*” dataset for four countries; Bangladesh, India, Pakistan and Sri Lanka. The study used different indicators of Good Governance like political and economic indicators. In political indicators, the study uses political instability and violence, government effectiveness, regulatory burden, rule of law and control of corruption and in economic indicators, government expenditure on health and education, reserves and inflation rate.

Following, Arellano and Bond (1991), Arellano and Bover (1995), Blundell and Bond (1997), we use system of Generalized Method of Moments (GMM) in which the levels of instruments are used to form the moment conditions for the equation.

Specifically, if the causality problem between Governance and social welfare were not settled before hand, the random term would be correlated with Governance variables. This creates simultaneity bias. Furthermore, since the inter country variation in good Governance indicators is much more prominent than the intra country variation, the above mentioned correlation is mostly confined to country specific random errors. The proposed estimation procedures handle this problem in the following way. First, the country specific effect is eliminated in the equation with first difference. Second, for the equations in levels we use appropriate instrument to tackle this problem. We follow the second method. Given that lagged values are used as instrument in the regression, the model (1.2-1.4) is estimated by GMM procedure, generating consistent and efficient coefficient estimates. The use of GMM is also called for in the light of simultaneity in our equation system 1.2 to 1.4.

## **EMPIRICAL RESULTS:**

The estimates of equations (1.2-1.4) are presented in Tables 1.1 and 1.2.

According to the results of empirical finding, although some good governance indicators improve welfare of the society but it has negative influence on GDP growth rate. In most of the developing countries, government face budget deficit, it has limited resources but unlimited expenditure categories. So in which category government chooses to increase its expenditure; either they give more importance to welfare or GDP growth rate? Government can achieve some of objectives through increasing its expenditure on regulatory measures like equitable income distribution, encouraging domestic product or reducing demand for some products. Which policy government should follow? It depends on the priority of the governments whether they give more weight to GDP growth rate or achieving some other objectives, which can have ever lasting impact on growth rate of the economy. So expenditure to improve public institutions of any country depends on its priorities and efficiency of the government, so in developing countries there is need of strong and efficient government to achieve growth and welfare objective.

**Table: 1.1 The Effect of GDP Growth rate and Gini coefficient on welfare**  
(Dependent variable is growth rate in social Welfare)

<b>Variable</b>	<b>Parameter estimate</b>
<b>Intercept</b>	-1.27 (4.39)*
<b>GDP Growth rate</b>	1.00 (8.32)
<b>1-Gini coefficient</b>	-1.032 (7.58)*
<b>R<sup>2</sup></b>	0.98

Note: the t-values significant at 1%, 5% and 10% levels are indicated by \*, \*\*, \*\*\*

**Table: 1.2 The Effect of Good Governance on GDP growth and Gini coefficient**

(Dependent variables are GDP growth rate and Gini coefficient)

<b>Variable</b>	<b>Parameter estimate of GDP growth rate</b>	<b>Parameter estimate of Gini coefficient</b>
Intercept	-2.29 (-0.76)	-1.07 (-7.53)*
Political stability	-0.22 (-0.76)	0.10 (1.16) ***
Regulatory quality	2.01 (1.70)***	-0.35 (-4.13)*
Rule of law	-5.43 (-3.17)*	-0.34 (-2.82)**
Control of Corruption	5.00 (2.71)**	-0.15 (-2.18)**
Government effectiveness	-1.17 (-0.81)	0.47 (3.36)*
Government reserves	0.24 (2.12)**	-0.03 (-6.79)*
Public expenditure on education	0.25 (1.65)***	-0.005 (-0.72)
Public expenditure on health	0.44 (1.99)***	-0.02 (-1.28)***
Inflation rate	-0.22 (-0.76)	-0.007 (-0.64)
R <sup>2</sup>	0.13	0.60

Note: the t-values significant at 1%, 5% and 10% levels are indicated by \*, \*\*, \*\*\*

**Table 1.3: Effects on Growth Rate of Economic Welfare**

<b>Variable</b>	<b>Quantity channel</b>	<b>Quality channel</b>	<b>Total effect</b>
Political stability	-0.22	0.10	-0.12
Regulatory quality	2.01	-0.35	1.66
Rule of law	-5.43	-0.34	-5.77
Control of Corruption	5.00	-0.15	4.85
Government effectiveness	-1.17	0.47	-0.7
Government reserves	0.24	-0.03	0.21
Public expenditure on education	0.25	-0.005	0.24
Public expenditure on health	0.44	-0.02	0.42
Inflation rate	-0.22	-0.007	-0.22

Mostly all expenditure increase welfare and GDP growth rate in the economy, but those expenditures, which generate employment opportunities and have forward linkage, influence the growth strongly than the others. In our analysis expenditure on regulation, law and order and control of corruption help to improve income distribution and output growth rate of the economy. Whenever there is equitable income distribution welfare of the society improves. So there is need to have strong government that implement policies and increase expenditure for the welfare and GDP growth rate of the economy. When GDP growth rate increases, per capita income also increases, but this is not the only objective of good governance. There is need to transfer fruit of prosperity to all segment of the society that reduces entrance in poverty. When government expenditure on

education and health sector increases, it improves human capital and helps to increase employment opportunity in the economy that in turn reduces inequality from the economy and improves welfare of the society. As population growth rate is high in this region of SAARC countries, when labour force participation rate increases then income also increases because of proper utilization of under utilized resources of the economy and helps to increase demand for goods and services. It also helps to increase output in the economy because demand creates its own supply and benefit of output goes at gross root level. When reserves ratio increases in the economy it shows that there are unutilized resources in the economy and effect welfare of the economy negatively by increasing income inequality.

Whenever there is political stability in the country which leads to improvement in law and order conditions then there is favorable environment for local and foreign investment. When investment opportunities increase it generate employment opportunities and help to improve output growth rate in the economy. As most of the developing countries face budget deficit and whenever expenditure on law and order increases, it shows crowding out of productive public expenditure and effect income growth rate negatively.(Reserves show that there is trade surplus and government have enough resources to finance and help to improve output growth rate). Political stability and government effectiveness has strong impact on output growth rate and to remove inequality from the economy because these factors not only attract local investment but also foreign direct investment. But in this specific sample, even if government sector is stable, there is still a lot of corruption and crowding out and misutilization of expensive resources. That is why stable and efficient sector has no role to boost output growth.

When output level is low the investment is also at low level and major problem of unemployment cannot be solved and therefore, income distribution remains worse.

we are now in a position to derive the effects of good Governance variables on economic welfare because some categories affect GDP growth positively while its impact on welfare is negative and vice versa. In order to analyze the effects of good Governance variables on economic welfare, we substitute the estimated equations 1.3 and 1.4 in the estimated equation 1.2. The result is presented in Table 1.3.

According to Table 1.3, we first examine the effects of good Governance on GDP growth rate and then its effects on Gini coefficient. Impact of regulation and control of corruption on output growth dominate as compared to its impact on distribution of income and help to improve welfare of the economy. When expenditures are diverted to improve law and order condition, there occurs large crowding out of productive public expenditure, and welfare of the economy decreases because our sample consists of those countries that have limited resources and unlimited utilization. While economic indicators, that show condition of the governance like reserves, government expenditure on health and education, has positive impact both on output growth and income distribution, and helps to improve welfare of the society.

## **CONCLUSION:**

This study is an attempt to analyze the effects of a set of Good Governance instruments on economic welfare. The study considers both the quantity and quality channels through which a Good Governance instrument could affect economic welfare. The quantity channel here refers to growth in the stock of output, while the qualitative

channel means to improve income inequality in the economy. The empirical analysis is based on data for four SAARC countries for period 1996 to 2005. The empirical results lead us to a number of interesting conclusions that are discussed below.

Government sector play very important role in this specific sample but efficiency of public sector is poor. Although resources are limited and countries face budget deficit but still large public sector has no strong impact to increase output which can improve the welfare of the economy, as there is large misallocation of resources and corruption in public sector. So the need of time is to increase efficiency of public sector as it is possible only by increasing efficiency of public institutions, minimizing corruption and crowding out of resources.

It was commonly assumed that if government achieve objective of output growth then it has to sacrifice welfare aspect by making income distribution worse off and vice versa. According to empirical finding of this paper there is positive relation between output growth and improved income distribution of the economy. The output growth will increase income generating activities in the economy that reduce unemployment rate which is major problem of developing countries. When public sector tackles this problem then output growth and income distribution improves in the economy. Whenever government increases its expenditure in productive and efficient way, it achieves both objectives side by side and increase welfare of the society.

## REFERENCES

Anderson, T.W. (1984). *An Introduction to Multivariate Statistical Analysis*. 2nd Edition. John Wiley and Sons. New York.

Arellano, M. and Bond, S. (1991), "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations", *Review of Economic Studies*, 58: 277-297.

Arellano, M. and Bover, O. (1995), "Another look at the Instrumental Variable Estimation of Error Component Models", *Journal of Econometrics*, 68: 29-52.

Blundell, R. and Bond, S. (1997), "Initial Condition and Moment Restrictions in Dynamic Panel Data Model", University College London, Discussion Paper in Economics: 97-107.

--Xavier Sala -I- Martin. (1992). 'Convergence', *Journal of Political Economy*, 100, 2,223-251.

Bassanini, A., S.Scarpetta, and P.Hemmings. (2001). 'Economic growth: The role of policies and Institutions. Panel Evidence from OECD countries' *Economics Department working papers No. 283. OECD*, Paris.

Ben-David, D (1993). 'Equalising Exchange: Trade Liberalisation and Income Convergence', *Quarterly Journal of Economics*, 108/3.

Dasgupta, P., and M. Weale. (1992). 'On Measuring the Quality of Life', *World Development*, 20,1, 119-131.

Dollar, D. (1992). 'Outward-Oriented Developing Countries Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976-85'. *Economic Development and Cultural Change*, April, 523-544.

Dollar, D., and A.Kraay (2001). 'Trade, Growth, and Poverty. *World Bank, Policy Research Working Paper # 2199*.

Edwards, S. (1998). 'Openness, Productivity and Growth: What do we really know?' *Economic Journal*, 108, 383-398

Frankel, J. and D. Romer (1999). 'Does Trade Cause Growth?', *American Economic Review*, 89/3, 379-399.

Government of India (various years). *Planning Commission*, New Delhi.

Kaufmann, D., A.Kraay, and P.Z-Lobaton. (1999a). 'Aggregating Governance Indicators', *World Bank Policy Research Working Paper, #2195*, Washington, DC.

Nagar, A.L, & Sudip Ranjan Basu. (2002). *Weighting Socio-Economic Indicators of Human Development: A Latent Variable Approach*, in Ullah, A. *et al* (eds.) *Handbook of Applied Econometrics and Statistical Inference*, Marcel Dekker, New York, USA.

Rodrik, D .(2000) 'Institutions for high-quality growth: What they are and how to acquire them', *WP#7540*, NBER.

Sachs, J. and A. Warner (1995). 'Economic reform and the Process of Global Integration'. *Brookings paper on Economic Activity.*, 1, 1-118.

Sen, A.K. (1973). 'On Economic Inequality'. Oxford University Press.

Sen, A.K. (1983). 'Development: Which way now'. *Economic Journal*, 93, December.

United Nations. (1954). *International Definition and Measurement of Standards and Levels of Living*. New York, United Nations.

UNDP (1990- present). *Human Development Report*. New York, Oxford University Press.

World Bank (various years). *World Development Report*. Oxford University Press.

World Bank (2000). *The Quality of Growth*. Oxford University Press, New York.

World Bank 2005a. *Governance Indicators: 1996-2004*. Washington DC: World Bank. Available HTTP:  
<http://info.worldbank.org/governance/kkz2004/tables.asp>

World Bank 2005b. *World Development Indicators 2005 CD-ROM*. Washington DC: World Bank.