

## **Governance and Development: The Challenges for Bangladesh**

*by*

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*“The economics of governance is an unfinished project whose time has come.” It works through three fundamental concepts: governance, adaptation and transaction costs. Williamson (2005).*

The problem of governance is now the overriding aspect of Bangladesh to sustain both economic growth and social development. The paper examines the situation of various governance dimensions in Bangladesh during the period 1996-2004 and analyses these governance dimensions in economic development. The key governance dimensions that have emerged from Principal Component Analysis are political governance, institution dimension and technology dimension. The performance on Bangladesh political governance is found to be deteriorated over the years from 1998 to 2004. Political institutions become dysfunctional during the period due to imperfections prevailing in political markets. Domestic political industries become more inefficient. Political governance of Bangladesh is better than in Pakistan, Sri Lanka and Indonesia but worse in all other Asian economies. In terms of institutions index, Bangladesh score is the lowest of all countries under study. The corruption index in public institution component provides the gloomiest picture although its performance improves marginally over the years. Employing 2SLS and OLS methods, the focal variables: political dimension, institution and ICT are found to be significant when they are linked with gross national product per capita. As the coefficient of public institution is found higher than that of political governance, the effect of public institutions on the economy is greater. Improvement of public institutions and judicial independence at all levels are to be given priority followed by effective parliamentary system.

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## I. INTRODUCTION

The issue of governance is now an overriding aspect of a country to sustain both economic growth and social development. Good governance will lead a country to achieve greater national competitiveness to maintain high rates of economic growth and productivity with sustained employment. More competitive economies tend to be able to achieve higher levels of income for their citizens (World Economic Forum, 2005-2006). Improvements in the behind-the-border barriers to trade, such as weakness in governance and infrastructure, are of more important than tariff concessions to enhance export competitiveness and trade promotion. A growing volume of available literatures suggests that lack of quality governance hinders growth and investment, and aggravates poverty and inequality. In fact, governance problem foils every effort to improve infrastructure, attract investment, and raise educational standards.

There has been concern with regard to governance problems in Bangladesh though GDP growth in Bangladesh has been respectable during 1991-2006, accounting for more than 5 per cent at constant market price of 1995/96 (Appendix Table I). The challenge facing Bangladesh is the weak and deteriorating state of governance (section III). Weak governance poses a major challenge not only to further gains in development but also to sustain economic growth achieved so far. The findings of a recent firm-level survey of common sectors in Bangladesh, Peoples' Republic of China (PRC), Ethiopia and Pakistan indicate that if the investment climate in Bangladesh were to match PRC's then, on average, total factor productivity (TFP) in Bangladesh would be 110 per cent higher, return to capital 80 per cent higher and output growth 3.7 percentage points higher (World Bank 2005). There are certain improvements in some areas of political governance such as peaceful transition to democracy and formation of a non-party caretaker government for impartial handling of national elections.

It is, therefore, necessary to emphasise various dimensions of governance to make a serious dent on poverty and support growth in the country. Though governance can be used in several contexts such as corporate governance, international governance, national governance and local governance, this study focuses on only national governance. The paper aims to examine the current situation of governance of Bangladesh in an international comparison and analyse the different governance dimensions in economic development. The paper will also try to highlight some misgovernance issues in some sectors of the economy. Overall, the evidence presented in the paper indicates that different governance dimensions such as political governance, institutional dimension and technology dimension are significantly and positively related to the increase in per capita income, and the quality of governance in Bangladesh has remained at a low level

as indicated by a cross-country comparison, among South Asia and East Asian countries.

The paper is organised as follows. Section I is introductory providing importance and objectives of the study. Section II presents methodology for constructing governance dimensions. Section III will analyse governance dimensions of Bangladesh compared to other countries. Some misgovernance issues will be highlighted in this section. In section IV, econometric estimation will be made to relate governance with growth. Section V discusses the outlook for meeting governance challenges in Bangladesh. Concluding remarks will be presented in section VI. It may be borne in mind that the paper will not make any detailed policy recommendations other than some general comments on governance dimensions and its applications.

## **II. CONSTRUCTING COMPOSITION OF GOVERNANCE DIMENSION**

As governance is a broad and complicated concept (Appendix I), it is obviously even more difficult to find and agree upon indicators on governance. There is no accepted methodology for quantifying governance indices. Therefore, it could not and should not be standardised or organised around a single deductive logic.

Researchers have used diverse measures to quantify governance dimension, encompassing political stability, political institutions, quality of institutions and social capital that affect economic performance (Chart 1, Roy 2006). The average of six governance indicators of World Bank (such as Voice and Accountability, Political Instability and Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption) is used as proxy for institutions in IMF study (2003), while in another study it is used as quality of governance. Average of the first two dimensions (voice and accountability and political stability) is referred to as political dimension/democratic governance. The economic governance is measured as the average of governance effectiveness and regulatory burden. Rule of law index is used as a proxy for institutional dimensions in some studies, while other studies have used the average of rule of law index and control of corruption for institutions (Chart 1, Roy 2006). We use the governance indicators constructed by the World Bank, and institutional dimension and technology indicators from World Economic Forum (WEF) to measure our governance dimensions. Principal Component Analysis (PCA) is used for illustrative purposes to identify significant governance variables though a limited period of data is available.

## **II.1 Identification of Governance Components by Principal Component Analysis Model**

A Principal Component Analysis (PCA) model is concerned with identification of significant variables which can explain most of the variability in the data set so that the reduced number of variables (principal components) maintain as much of original information as possible.

Let there be  $p$  components in the total system variability. Often much of this variability can be accounted for by a small number  $k$  of the principal components, and there is (almost) as much information in the  $k$  components as there is in the original  $p$  variables. The  $k$  principal components can then replace the initial  $p$  variables. The first principal component accounts for as much of the variability in the data as possible, and each succeeding component accounts for as much of the remaining variability as possible. The mathematical technique used in the PCA to obtain principal components is called eigen analysis. The eigen vector associated with the largest eigen values has the same direction as the first principal component. The eigen vector associated with second largest eigen value determines the direction of second principal component. The method of extraction of principal components is provided in the standard textbooks (Johnson & Wichern 2003, Bhuyan 2005).

The six governance dimensions—Voice and Accountability, Political Instability and Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption—are correlated with each other as observed from the correlation matrix (Appendix Table 2). The PCA is applied among six governance dimensions, which finds the principal components as voice and accountability, political stability, government effectiveness and regulatory quality, in order of significance (Appendix Table 3). The most significant (first principal) component is the voice and accountability and the least significant one is the regulatory quality, which may be ignored as a principal component without losing much information in the study. The variable voice and accountability is highly correlated with regulatory quality and control of corruption. When the voice and accountability governance is not considered in the PCA, political stability is the most prominent, the regulatory quality marginally improved its significance. It is, therefore, worthwhile to make the average of three principal governance dimensions (voice and accountability, political stability and government effectiveness) as political governance. The approach of average provides equal weighting to each index.

As Global Competitiveness Reports of WEF provide information on various sub-components of global competitiveness index as well as of growth

competitiveness index, PCA is fitted on subcomponents of both the indices. PCA on elements of global competitiveness index suggests basic requirements as the first principal component, which contains all institutional sub-components (Appendix Table 4). Institutions, health and primary education, and macro-economy are grouped into basic requirements (Appendix III). For our study, institutional component of basic requirement is of more relevance and important, and hence is selected as a governance dimension for analysis in addition to the political governance.

Applying PCA among sub-components of growth competitiveness, public institutions are found to be the first principal component which has the same direction of higher eigen value associated with eigen vector (Appendix Table 5). But the eigen value of technology sub-index does not have the same direction as of eigen vector even with higher values. The principal components analysis on three subcomponents of technology index (innovation, ICT sub index and technology transfer sub-index), provides the similar result for innovation showing that the eigen vector of innovation sub-index does not have the same direction as the eigen value (though the value is higher). This seems to indicate that institutional effort needs to be given to technology transfer which has high scores (4.10 in 2005/06) but not innovation with low level of scores (1.61 in 2005/06) within technology index. Both ICT sub-index and technology transfer index show the same direction of eigen vectors with eigen values, but the eigen values for ICT sub-index are much larger than technology transfer sub-index (Appendix Table 4). When seven sub indices of growth competitiveness indices other than public institutions are used together in the PCA information and communication technology (ICT) and technology transfer index are found to have the same direction with the eigen values and these are also second and third principal components following the public institutions index. We choose four significant components for the study based on PCA applying to the elements of growth competitiveness index and also that the analysis relates to the longer period of five years, from 2001/02 to 2005/06, compared to that used for global competitiveness indices.

What have emerged from the PCA is briefly the following:

- (a) Political governance appears as the principal element from governance dimension constructed by averaging of three indices: voice and accountability, political stability and government effectiveness.
- (b) Public institutions index emerges as the first principal component in the growth competitiveness index, followed by ICT and Technology transfer sub-index. Within global competitiveness index, all institutions appear as the first principal component. We choose public institutions and all

institutions for our investigations. The corruption index falls into public institution index as recorded in the Global Competitiveness Reports of WEF, and it is highly correlated with political governance dimensions. There are 27 elements used in constructing public institution index, which are grouped into two sub-components: contracts and law, and corruption (WEF 2005-06, Roy 2006). Private institutions have four components: honesty of the corporate sector, accountability, transparency, and charity and social responsibility. There is no separate index available for private institutions in WEF.

- (c) ICT sub-index and technology transfer sub-index appear prominently in the PCA. We will also analyse technology readiness, which specifically relates to those factors which facilitate and enable the technological capacity of a country including information and communication technologies (ICT). Technological readiness deals with the stock of technology available in a given economy, regardless of its original source. It is considered one of the main drivers in national competitiveness. Access to ICT is critical not only for the establishment of an effective and rapid communication system but also for providing an efficient infrastructure for commercial transactions.

Chart 1 provides the key features of governance dimensions that have emerged for operational purposes. These are: (i) Political Governance; (ii) Institutions: all institutions and public institutions; and (iii) Technology transfer, ICT index and technological readiness. We will not focus on each of the sub indices of all the three governance dimensions, but will analyse a few of them as much of our focus is on governance. ICT, technology transfer and stock of technology will come up in our discussion as these technology factors facilitate improvement of governance and achieving higher growth. From now, these will be referred to as governance dimensions. The value of political governance varies from  $-2.5$  to  $+2.5$  and it has been rescaled from 0 to 100. The value of other dimensions, institutions, technological readiness, ICT and technological transfer, ranges from 1 to 7 as reported in the Global Competitiveness reports of WEF and does not require further rescaling due to its simplicity.

Some qualifications have to be made in this classification although PCA is applied to identify the variables in order of significance because the concepts of political governance, institutions and technological dimensions may be interrelated. In particular, governance issues provide a common link to all the categories. But they are distinct notions, and ought not to be regarded as one and the same. It is also a kind of synergy among the components; actions on three fronts are needed to realise the synergy. Better political governance affects and leads to stronger institutions and improvements in technological dimensions,

which will influence the formulation and implementation of policies for promoting macroeconomic stability, private sector development (which determines the level and quality of private investment) and human development, resulting in higher economic growth. An important component of the enabling environment for reducing poverty is the macroeconomic sustainability of the growth. Bangladesh was basically able to maintain good macroeconomic management, trade reforms and human development. The area, in which Bangladesh is facing a great problem, lies in improving governance and fragile institutions. This has caused, to a large extent, weak implementation of reforms and worsening of income distribution in the country.

Chart I  
**Governance Dimensions that Have Emerged from PCA**

| Governance Dimensions   | Subcomponents   |
|-------------------------|---|
| Political Governance    | Voice & Accountability<br>Political Stability<br>Government Effectiveness             |
| Institutional Dimension | Public Institutions<br>All Institutions   |
| Technology Dimension    | Information & Communication Technology<br>Technology Transfer<br>Technology Readiness |

**Source:** Author's estimate from PCA.

We use two sources of information provided by World Bank and WEF to compose governance indices (Appendix II for more sources of governance data). World Bank provides six governance dimensions while WEF reports on institution and technology dimensions in its competitiveness indices (Appendix III). Both sources provide international comparative indicators. There may appear to be high correlation between the indicators derived from two sources although the survey questions address related but usually different attributes.

### **III. GOVERNANCE DIMENSIONS IN BANGLADESH: AN INTERNATIONAL COMPARISON**

As observed in the previous section, political governance, institutional and technology governance dimensions have appeared significant from PCA. One has to bear in mind the complications of governance research, given their broad coverage and complexity. Our analysis for governance dimensions pertains to five years covering the period from 1996 to 2004 due to availability of comparable

data. Comparable countries are chosen from South Asia and South East Asia. Some developed countries are also included in our country sample.

### **III.1 Political Governance Dimension in Bangladesh**

Table I reports the indices of political governance from 1996 to 2004 for 17 countries. Within South Asia, political governance of Bangladesh is better than in Pakistan and Sri Lanka but lower than in the other larger economy, India. In comparison to Southeast Asia, Bangladesh did better than Indonesia but significantly worse than the other economies, Malaysia, Thailand, Philippines and Singapore.

The performance of Bangladesh's political governance deteriorates despite having a democratically elected government in power. Over the years, from 1998 to 2004, political governance dimensions portray a dismal picture (Figure 1). There was some improvement in political governance over the period 1996 to 1998. It indicates that the political governance in Bangladesh is a problem and political institutions are becoming increasingly dysfunctional due to imperfections prevailing in political markets. Domestic political industries happen to be more inefficient. Political industries, where entrepreneurs are political leaders, do not perform in a reasonable degree of order. As a consequence, good governance is impeded.

The worsening political governance may be a reflection of popular dissatisfaction with the performance of the government in power. It may be noted that the index of political stability, one element of political governance, goes down by 39 per cent over the period 1998 to 2004 (Appendix Table 7). The adverse result is due to the main influence of the confrontational politics and non-democratic interventions in political life. There were a number of politically related hartals (work stoppages) in the country.

During the latter half of the 1991-96 periods, there was a longer period of strikes to institutionalise a caretaker government to be formed after the tenure of political government for a five-year period, to conduct national elections within three months. An amendment was made to the constitution in 1996 for holding such free and fair elections under a non-partisan, caretaker government. In the fresh election, held under caretaker government, the then opposition the Awami League (AL) came to power in 1996.

The political trouble started again on different political grounds in latter half of 1997 and it continues. The opposition Bangladesh Nationalist Party boycotted parliament and there have been a series of hartals. After 5-year term, national election was held under caretaker government in October 2001. The opposition Bangladesh Nationalist Party (BNP) was elected to power. Political difficulties and



troubles emerged again on a variety of political grounds such as for the reform of caretaker government and the election process. Out of three consecutive elections, the opposition was elected to power twice.

Political governance in Bangladesh is about exercising different types of power—executive, legislative and judiciary. The legislature and judiciary have been relatively weak compared to the executive. The lower levels of judiciary are subject to political patronage and corruption. The parliament has been made ineffective by long series of hartals, parliamentary boycott and street politics. Political hooligans (“Mastans”) backed by powerful political personnel organise hartals, mobilise political money by force, and when necessary kidnap and kill political opponents. They are also utilised to gather votes based on threats over life and property.

Power is centralised in the hands of cabinet and head of the government to exert authority and unjustified power. Organisations such as Accountability Bureau, and the Comptroller General’s office serve more as the agents of the governments in power than autonomous, non-partisan bodies. Political patronage and weak autonomy of the law enforcing agencies have caused these bodies to often serve as instruments of control and sources of harassment of the opposition political parties and the civil society.

TABLE I  
POLITICAL GOVERNANCE ACROSS COUNTRIES, 1996-2004

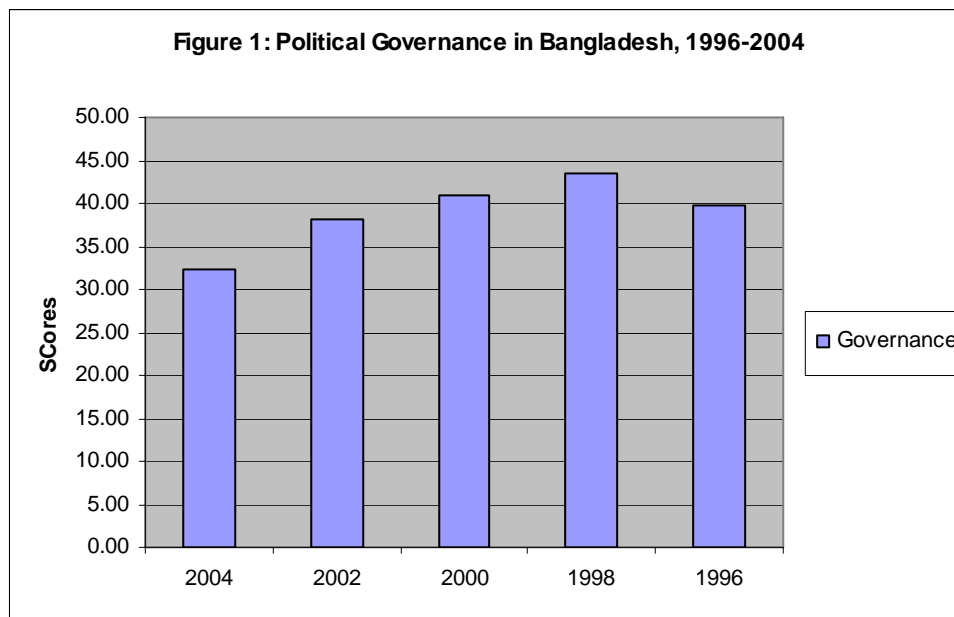
|                            | 2004 | 2002 | 2000 | 1998 | 1996 |
|----------------------------|------|------|------|------|------|
| Bangladesh                 | 32.3 | 38.2 | 40.9 | 43.5 | 39.8 |
| Germany                    | 74.5 | 79.1 | 80.4 | 80.4 | 81.8 |
| Hong Kong                  | 70.0 | 67.7 | 63.1 | 66.1 | 68.0 |
| India                      | 46.1 | 45.6 | 49.9 | 48.0 | 45.8 |
| Indonesia                  | 35.5 | 33.4 | 31.5 | 27.9 | 38.1 |
| Japan                      | 71.2 | 72.2 | 72.1 | 72.5 | 73.5 |
| Korea Republic             | 64.2 | 63.6 | 62.5 | 59.5 | 60.1 |
| Malaysia                   | 56.7 | 56.9 | 55.1 | 56.6 | 63.1 |
| Pakistan                   | 26.9 | 29.8 | 32.2 | 35.4 | 32.7 |
| People’s Republic of China | 40.0 | 42.5 | 43.2 | 41.5 | 43.4 |

TABLE I (Contd.)

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|               | 2004 | 2002 | 2000 | 1998 | 1996 |
|---------------|------|------|------|------|------|
| Philippines   | 41.9 | 46.6 | 50.6 | 54.7 | 51.6 |
| Singapore     | 74.0 | 77.9 | 76.1 | 77.6 | 78.7 |
| Sri Lanka     | 40.7 | 43.2 | 33.2 | 33.8 | 35.1 |
| Taipei, China | 67.5 | 68.9 | 67.6 | 72.6 | 69.9 |
| Thailand      | 53.1 | 56.3 | 54.6 | 53.4 | 54.5 |
| UK            | 76.6 | 78.3 | 80.5 | 82.1 | 80.5 |
| USA           | 73.2 | 71.7 | 78.5 | 78.9 | 80.7 |

**Source:** Kaufmann, Kraay and Mastruzzi (2005).



**Source:** Table I.

### **III.2 The Institutional Dimension of Governance in Bangladesh**

The quality of a country's public and private institutions constitutes the framework within which the economy's main players such as private individuals, firms and governments interact to generate income and wealth (Appendix IV).

In our study, we have used both public institutions index and all institutions index (includes both private and public together). We now benchmark the institutional scores of Bangladesh compared to the countries under study. Table II provides performance of public institution indices for different countries over three years from 2003/04 to 2005/06. Bangladesh's score is the lowest of all the countries including South Asian and East Asian countries although improves very marginally during the period 2004/05 to 2005/06. Similar results are observed in the performance of all institutions (Figure 2 & Appendix Table 8). The lowest performance index on public institution aspect serves as a grimy remainder of the governance problems in which the country is enmeshed. A government works through public institutions to deliver services. When the public institution component is classified into contracts and law, and corruption subcomponents, the result does not seem to improve. As can be seen, the performance on contract and law declines over the years 2003/04 to 2004/05 and then marginally increases in 2005-06 (Appendix Table 9). The corruption index in public institution component provides the gloomiest picture although its performance improves marginally over the years (Appendix Table 10). The Transparency International (TI) rates Bangladesh as the most corrupt country in the world for five consecutive years, over 2001-2006, due to the institutional problems.

Corruption is partly a reflection of underlying weak institutions. Corruption is often defined as the use of public office for private gains. There are cases of abuse of private office for private gains (corporate scandals in USA and Europe, excess export subsidy drawn in Bangladesh from government etc.). Different indices of corruption from different sources are likely to be correlated. Corruption mostly originates in large government procurements, purchases and in the provision of public service delivery programs. There is a need to do favour to private financiers for financing party and electoral activities. Corruption acting like a tax reduces foreign direct investment, has adverse effects on economic growth by lowering incentives to invest, and disproportionately burdens the poor. There are also cases of foreigners who themselves are involved to provide bribery. The annual rate of procurement is estimated about 10 per cent of GDP (around \$3 billion) in Bangladesh (Ahmed 2002). In Bangladesh, as other countries, the problems of nepotism and perverse client-patron relationships and bribery, deprive the most efficient firms.

There is a plenty of evidence of corruption in the provision of public services in Bangladesh. TIB study (2005) based on nation-wide household survey in 9 sectors in Bangladesh provides information on the incidence of corruption as a consequence of the weak public institutions. It has been found that an average Bangladeshi paid Taka 485 taka per year as bribes. The bribes paid by households for 25 service categories within the 9 sectors (education, health, land administration, police, judiciary, electricity, taxation, local government- shalish & relief, and pension) are Taka 6,796 crore.

There are institutional problems in the education service at the primary and secondary level (for example) in course of implementation of Stipend Scheme, as have been pointed out (Unpublished Background paper of first PRSP, GOB). In some cases it is found that some non-deserving families are included in the list of beneficiary students and getting benefits depriving some genuine poor. In some cases misappropriation of funds has been found. The country still cannot ensure quality education, although there is significant improvement in primary schools enrollment compared to other developing countries. Government has to set basic education standard in Madrasha (religious education system) as in other schools. Quality graduate is not produced. The young people aged between 14 and 18 are easily attracted to extremism due to lack of quality education. Unfair means at public examinations have been reduced to a large extent as a necessary drive for quality education.

The institutional problems in the public health service provision result in poor quality of services indicated by staff absenteeism, inadequate attention given by doctors, non-availability of medicines and supplies, long waiting time, poor maintenance of equipment and unhygienic conditions. In public health facilities, there is widespread incidence of collection of unofficial user fees in hospital admission and other health related service delivery. In most facilities, fees are widespread and almost institutionalised. In some cases, especially surgical cases, fees can be as much as 10-12 times the expected amount of official fees. The poor patients pay the unofficial fees although the quality of public care is very poor (Mahmud 2004).

Efficiency in the utilisation of ports can contribute significantly to the efficiency and competitiveness of the economy as well as reducing trade costs, thereby enhancing exports competitiveness. The weak institutional issues relating to the infrastructure situation are with operational problems resulting in inefficiencies indicated by low productivity and high cost in port operation (GOB 2004, 2005). The main operational problems relate to poor service delivery, poor security, slowness in trade facilitation (lengthy custom formalities, customs hassels, etc.), complications in submitting and clearing documents (lengthy and

cumbersome procedures in the process clearance, submission of documents to many desks, etc.), problems in auctioning unclaimed goods by customs. The vessel and container turn around time is very high compared to regional ports, thus increasing operational cost for the users, especially the shipping companies during the period under study. In land port, the situation is not different either.

TABLE II  
PUBLIC INSTITUTIONS, 2003-04 to 2005-06

|                        | 2005-06 | 2004-05 | 2003-04 |
|------------------------|---------|---------|---------|
| Bangladesh             | 2.55    | 2.47    | 2.48    |
| Germany                | 6.04    | 6.21    | 6.10    |
| Hong Kong              | 5.58    | 6.22    | 6.03    |
| India                  | 4.52    | 4.45    | 4.26    |
| Indonesia              | 3.58    | 4.12    | 3.63    |
| Japan                  | 5.84    | 5.88    | 5.30    |
| Korea Republic         | 4.78    | 4.81    | 5.03    |
| Malaysia               | 5.36    | 5.06    | 5.12    |
| Pakistan               | 3.31    | 2.87    | 3.67    |
| PR China               | 4.41    | 4.39    | 4.33    |
| Philippines            | 3.30    | 3.21    | 3.29    |
| Singapore              | 6.25    | 6.21    | 6.28    |
| Sri Lanka              | 3.34    | 4.08    | 3.70    |
| Taipei, China          | 5.47    | 5.56    | 5.55    |
| Thailand               | 4.88    | 4.71    | 4.97    |
| United Kingdom         | 5.98    | 6.23    | 6.01    |
| USA                    | 5.77    | 5.74    | 5.71    |
| Total No. of Countries | 117     | 104     | 102     |

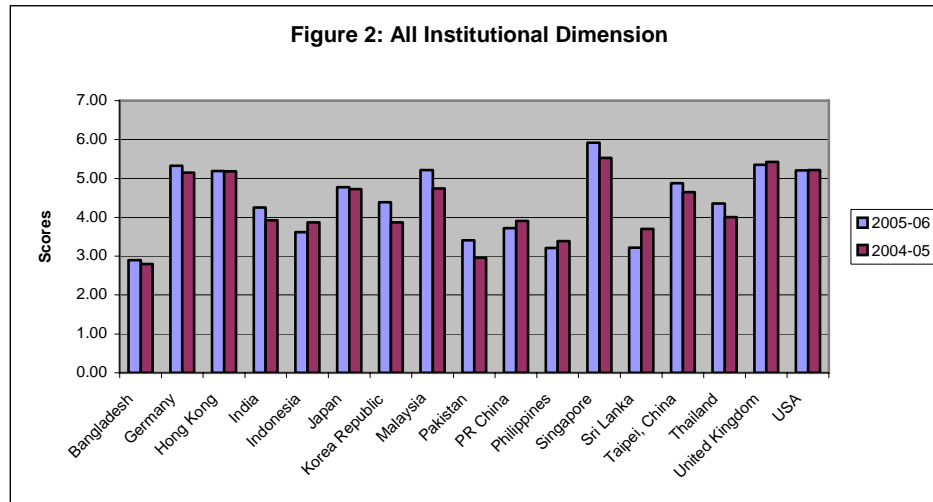
Source: World Economic Forum, Global Competitiveness Reports (Various Years).

On the whole, the institutional problems associated with public service delivery are severe. Poor political governance impacts badly on the institutions and vice versa. The worsening institutions affect negatively the government delivery programs, and generate corruption and slower economic growth. In Bangladesh, NGOs participate in the delivery of social programs, thereby mitigating to a great extent the low efficiency and high corruption of public service delivery. Public-private partnership with NGOs is a great potential in Bangladesh for effective use of limited public resources.

### III.3 Technology Dimension of Governance

Technology dimension can play an important role in enhancing both political governance and institutional governance dimension. The application of new technologies, particularly computers and software applications, has been a major factor driving productivity growth in recent decades. It is observed that information and communication technologies (ICT) appear most prominently when

all variables of governance dimensions are used together in the principal component analysis (Section II). We recognise that ICT dimension is more relevant to our study focusing on governance, but governance issues are there in two other sub-dimensions: technology transfer and technological readiness. ICT is seen as an umbrella term for a range of technological applications such as computer hardware and software, digital broadcast technologies such as radio and television, telecommunications technologies such as mobile phones, and electronic information resources such as the world-wide web.



**Source:** Appendix Table 8.

Table III provides ICT dimensions across countries for the period 2002/03 to 2005/06. Bangladesh's position is below that of its neighbours and other countries under study in all of the technology related indices, including ICT dimension (Roy 2006). It is observed that ICT dimension for Bangladesh declines over the period, 2003/04-2005/06, after an increase from 2002/03 to 2003/04. The weak public institutions have an adverse effect on country's ICT and other technology related dimensions. This also reflects that the country's exports are produced by low level of technology. Bangladesh obtains lowest scores on export sophistication among South Asian and East Asian countries (Roy 2006). Its scores fall by 11 points, while its share of exports at the lowest sophistication level increases. The low scores of export sophistication indicate specialisation in low technology products. One may point out that the country is specialising in low-level technology

products. The country's current respectable growth rate may not be sustained as per unit price of exports may decline in the long run. The ICT policy of the government of Bangladesh is to build a countrywide ICT-infrastructure to enhance democratic values and norms, and governance for sustainable economic development.

TABLE III  
ICT DIMENSION OVER THE PERIOD, 2002/03 – 2005/06

|                | 2005/06 | 2004/05 | 2003/04 | 2002/03 | Average<br>2003-06 |
|----------------|---------|---------|---------|---------|--------------------|
| Bangladesh     | 1.73    | 1.81    | 1.86    | 1.71    | 1.80               |
| Germany        | 4.63    | 5.77    | 5.71    | 5.51    | 5.37               |
| Hong Kong      | 5.23    | 6.06    | 5.94    | 5.97    | 5.74               |
| India          | 2.33    | 2.84    | 2.87    | 2.38    | 2.68               |
| Indonesia      | 2.04    | 2.98    | 2.91    | 2.22    | 2.64               |
| Japan          | 4.75    | 5.79    | 5.63    | 5.50    | 5.39               |
| Korea Republic | 5.23    | 5.74    | 5.88    | 5.4     | 5.62               |
| Malaysia       | 3.56    | 4.69    | 4.84    | 4.43    | 4.36               |
| Pakistan       | 2.21    | 2.66    | 2.50    | ...     | 2.46               |
| PRC            | 2.48    | 3.46    | 3.42    | 2.88    | 3.12               |
| Philippines    | 2.42    | 3.21    | 3.06    | 2.85    | 2.90               |
| Singapore      | 5.40    | 6.16    | 6.21    | 6.02    | 5.92               |
| Sri Lanka      | 1.94    | 2.63    | 2.37    | 2.34    | 2.31               |
| Taipei, China  | 5.51    | 6.03    | 6.35    | 5.86    | 5.96               |
| Thailand       | 2.70    | 3.78    | 3.70    | 3.29    | 3.39               |
| UK             | 4.98    | 5.80    | 6.15    | 5.71    | 5.64               |
| USA            | 5.72    | 6.07    | 6.50    | 6.09    | 6.10               |

**Note:** ICT index comes from Growth Competitiveness Index.

**Source:** WER, Global Competitiveness Reports.

#### IV. GOVERNANCE DIMENSIONS AND GROWTH IN BANGLADESH

In the 19th century, many thought that specialisation and division of labour was the engine of growth. In the 20<sup>th</sup> century, the driving force for economic growth was considered to be investment in physical capital and infrastructures (Barro 1991). Later, human capital, technological progress (whether created by the country or copied from advanced economies) and governance are considered central determinants of economic growth (Barro 1997).

##### IV.1 Available Empirical Studies

There are quite a few attempts to link perceptions of governance with development outcomes across countries. Barro's studies suggest that better

maintenance of the rule of law, market distortions and political stability affect economic growth (Barro 1991, 1997).

Mauro's study (1995) found a negative significant association, in both a statistical and an economic sense in his cross-country study, between bureaucratic efficiency (proxy for corruption) and investment, as well as growth. A one-standard-deviation improvement in the bureaucratic efficiency (corruption) index is associated with a 1.3 (0.8) percentage point (absolute) increase in the annual growth rate of GDP per capita. For Bangladesh, a one-standard-deviation increase in the bureaucratic efficiency index corresponds to a rise of its investment rate by almost five percentage points, and its yearly GDP growth rate would rise by over half a percentage point. Rahman Kisunko and Kapoor (2000) extend the pioneering work of Mauro (1995) covering data in the 1990s (1991-97). Using a cross-country econometric model, this study has shown that corruption significantly reduces the growth of per capita GDP in Bangladesh, and if corruption in Bangladesh could be reduced to levels existing in economies like Poland, during the 1990-97 period, Bangladesh could have increased its annual average per capita growth rate by more than 2 per cent.

IMF empirical study (2003:Aron 2000), using geographic variables as instruments, found that governance has a statistically significant impact on GDP per capita across ninety-three countries and the governance explain nearly 75 per cent of the cross country variations in income per head. Hurther and Shah study (2005) have found that there is a high correlation between governance quality and per capita income. The positive correlation between the 10-year economic growth rate and governance quality supports the argument that it is an important determinant in economic development. Since the highest income countries have generally not had the highest growth rates over the last decade, the positive correlation between higher growth and better governance suggests that good governance improves economic performance rather than vice versa.

Kaufmann and Kraay (2002) found direct casual effect from better governance to higher per capita income across countries pertaining to 175 countries for the period 2000/01. Negative causal effect is found as well from per capita income to governance, implying that improvements in governance are unlikely to occur merely as a consequence of development. The simple correlation coefficient between per capita income and quality of governance is strongly positive since the strong positive effects of governance dominate the correlation result. Using the technique of non-sample information (out-of-sample technique) through the Unobserved Component Model, the authors do not find positive feed back from higher income to better governance outcomes (Kaufmann and Kraay 2002). Two hundred years ago, per capita incomes were not very different across countries.



The recent research attributes a substantial part of vast differences in long run growth to huge historical differences in governance quality.

#### IV.2 Estimation Methods

Available evidence as presented above (section V.1) suggests that income is determined not only by capital and labour but also by governance dimensions. There is a positive feedback from better governance to higher income growth and not vice versa (Kaufmann and Kraay 2002, 2003). Accordingly, income ( $Y_1$ ) is estimated by governance dimensions ( $Y_2$ ) employing OLS method (equation 1). The three governance dimensions (political governance, institutional governance and ICT dimensions) are not assessed together by OLS method to see the extent of their effects on per capita income because the estimated equation may have problems of multicollinearity and endogeneity bias. The governance dimensions are estimated separately by OLS method to link with income. Political governance has been regressed on other two dimensions for illustrative purposes.

$$Y_1 = f(Y_2) \quad \dots \quad (1)$$

As a matter for further illustration, we have also used two-stage least squares (2SLS) method to avoid any inconsistent and inefficient estimates that may be arisen if governance ( $Y_2$ ) might be affected by income ( $Y_1$ ). The general effect of quality of governance on the level of income is then measured using those estimated coefficients of governance dimensions. The 2SLS equations for each governance dimension are expressed as follows:

$$Y_2 = f(\text{lag } Y_2, X_1, X_2, u_1) \quad \dots \quad (2)$$

$$Y_1 = B_1 + B_2(\text{estimated } Y_2) + \dots + u_2 \quad \dots \quad (3)$$

Where,  $Y_1$  = GNP per capita at PPP,  $Y_2$  = Governance dimension,  $X_1$ =Gross Capital formation (GCF) and  $X_2$  = Secondary school enrollment (SSE) used as proxy for human capital.

Political governance dimension is regressed first on lag value of political governance dimension, gross capital formation (GCF as % of GDP) and secondary school enrollment (SSE), and subsequently, per capita income is estimated using equation (3). Similarly, public institution dimension is regressed first on lagged value of public institutions, GCF and SSE, and ICT dimension, first regressed on lag value of ICT, SSE and GCF.

### IV.3 Data and Results

As stated earlier, data availability in governance research for longer periods remains a great problem. We have used recent available data<sup>1</sup> to estimate the equations. Table IV reports regression results for the relationship between GNP per capita and each of the three governance dimensions using both OLS and 2SLS methods. As expected, each of the governance measures is highly correlated with per capita GNP across country, suggesting that good governance improves income per capita. The focal variables, political governance, institutional dimension and ICT are found to be both economically and statistically significant. The direction of causality between GNP per capita and governance dimensions has remained unchanged with the application of both OLS and 2SLS methods. But the coefficients of focal variables, ICT, political governance and all institutions improve marginally but decline for public institutions when 2SLS method is applied.

The coefficient of political governance dimension in 2SLS is significantly positive, and estimated to be .061. Comparing Bangladesh and Malaysia, it is seen that political governance score for Malaysia is found to be 56.73 in 2004 while that for Bangladesh is 32.33 in the same year (Table I). Literally speaking, if political governance improves to the level of Malaysia, GNP per capita would increase by about 4.6 USD at PPP per year holding other things constant.

Similarly, the impact of public institutions on GNP per capita has been assessed with the application of both OLS and 2SLS methods. The public institutions have been found to be significant and positive. Public institutions dimension for Malaysia is higher (5.36), than for Bangladesh (2.55) in the year 2005/06 (Table II). If the quality of public institutions could be improved to the level of Malaysia, Bangladesh GNP per capita would have increased by about USD 11 at PPP in one year. The coefficient of public institutions is found much higher than that of political governance. The coefficient of public institutions is estimated to be .85 while that for political governance is .061. The result indicates that better public institutions will have much greater impact on the Bangladesh economy compared to other governance dimensions, although the three governance dimensions under study are interrelated. As mentioned in section V.2, performance of Bangladesh on public institutions shows a dismal picture. Judicial independence is number one element of public institutions and Bangladesh position with respect to independence of judiciary is lower compared to other countries (Figure 3).

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<sup>1</sup> Data are mainly used from World Bank (2005) other than governance dimensions.

The ICT dimension has been found positive and significant, in both OLS and 2SLS estimations, to indicating that ICT has positive influence on GNP per capita. The estimated coefficient of ICT is observed to be lower than that for public institutions but higher than political governance. When the political governance dimension is assessed for its relation with public institutions dimension and ICT, public institutions and ICT dimension have positive and significant influence to improve political governance, and all institutions have greater effect on political governance. It can be safely said that the improved performance on public institutions will bring greater significant impact on overall improvement of governance dimension as well as higher growth in the economy, although they are interrelated.

TABLE IV  
REGRESSION RESULTS BETWEEN PER CAPITA INCOME  
AND GOVERNANCE DIMENSIONS

Dependent Variable: (Ln GNP per Capita at PPP)

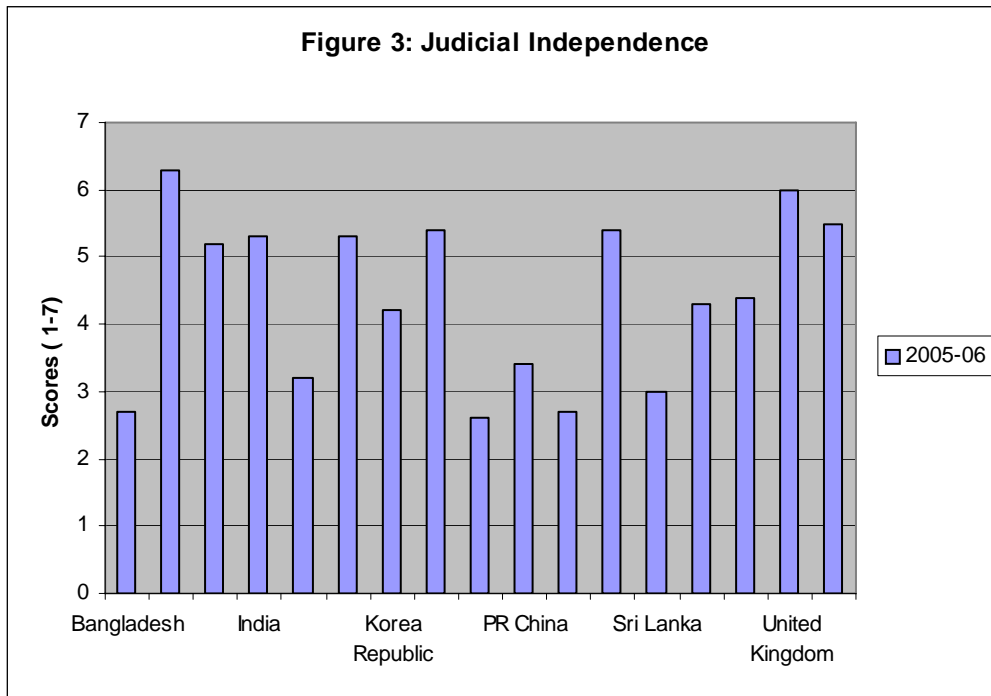
|                     | Political Governance |       | Public Institutions |       | ICT   |       |
|---------------------|----------------------|-------|---------------------|-------|-------|-------|
|                     | 2SLS                 | OLS   | 2SLS                | OLS   | 2SLS  | OLS   |
| Coefficients        | 0.061                | 0.06  | 0.85                | 0.94  | 0.71  | 0.68  |
| t-values            | 16.08                | 11.68 | 8.2                 | 9.03  | 13.23 | 17.63 |
| Constant            | 5.7                  | 5.72  | 5.06                | 5.08  | 31.34 | 6.3   |
| t-values            | 25.89                | 19.01 | 10.03               | 11.16 | 5.8   | 37.57 |
| Adj-R square        | 0.94                 | 0.91  | 0.84                | 0.81  | 0.96  | 0.95  |
| No. of Observations | 16                   | 16    | 16                  | 16    | 16    | 16    |

**Notes:** GNP per capita at PPP ( $Y_1$ ) is the average of two years 2003 and 2002, while political governance dimension is the average of five years from 1996 to 2004, and public institutions, the average of scores for the period, 2003/04 to 2005/06. Lag of political governance is for the year 1996, lag of public institutions for the year 2003/04, lag of ICT for 2002/2003, and lag of all institutions for 2004/05.

TABLE V  
REGRESSION RESULTS BETWEEN POLITICAL GOVERNANCE AND OTHER  
GOVERNANCE DIMENSIONS

Dependent Variable: (Political Governance)

|                     | Public Institutions | All Institutions |
|---------------------|---------------------|------------------|
| Coefficients        | 0.37                | 0.49             |
| t-values            | 1.58                | 1.74             |
| ICT                 | 0.46                | 0.47             |
| t-values            | 2.51                | 2.89             |
| Constant            | 3.92                | -1.28            |
| t-values            | 0.5                 | 0.13             |
| Adj-R square        | 0.87                | 0.87             |
| No. of Observations | 16                  | 16               |



Source: World Economic Forum.

## **V. SUMMARY AND OUTLOOK: MEETING GOVERNANCE CHALLENGES**

### **V.1 Summary of Findings**

The Bangladesh experiences on governance performance reveal mixed results as outlined throughout the sections. The quality of political governance, institutional and ICT dimensions are found to remain at a low level. Per capita income is positively related to governance dimensions. Bangladesh has some success in political governance due to holding of three successive national elections under caretaker government, presence of an active civil society and assertive position of Supreme Court. Alongside this, many governance failures are observed, mainly due to imperfect competition and non-democratic intervention in political markets as well as within political industry, which are not functioning in a reasonable degree of order. Governance failure contributes to high tax evasion and poor recovery of non-performing loans, at present 25 per cent of total loans. Poor ADP utilisation is partly due to implementation failure, which is related to some extent with governance failures, among other reasons. The institutional problems result in corruption and poor quality of public service delivery such as education, health, issuance of passport and infrastructure (port for example) during the period under study.

### **V.2 Outlook: Political Governance**

The main barriers that have emerged to hinder development in political governance are to be removed to facilitate to increase in political accountability. Political governance may be developed through a process of debate and consultation.

- (a) Eliminate non-democratic intervention in the political markets to achieve good national governance:

Rules of the game must be allowed to operate in political institutions. Bureaucracy cannot be politicised. Politics of confrontation and non-democratic interventions are to be reduced in a process of consultation. Radical Islamic Party emerged with coordinated bomb blasts throughout the country in 2005 may be brought to justice and subsequently to normal political activity.

- (b) Political accountability may be increased through:
  - (i) Effective Parliamentary System: The parliament cannot be paralysed; and be made to play effective control over administration.
  - (ii) Office of the Ombudsman: The Ombudsman Act is to be enforced to play an important role for ensuring political governance.

- (iii) Independent Anti-corruption Commission: Anti-corruption commission set up by the government is to be allowed to function independently.
- (iv) Effective media to perform vigilance functions: Distribution of government advertisements to the media should not be used to control media.
- (c) To mitigate political corruption, there is a opinion to introduce allocations in the national budget to reduce dependence on private financiers, and to support democratic politics (Sobhan 2004). Then it would not be necessary to correct financing irregularities in public procurement bidding (source of political corruption).

### **V.3 Outlook: Institutional Dimension**

- (a) The main institutional weakness relates to poor quality of public service delivery, which generates bureaucratic corruption. Institutions lack resources to meet growing demand. Within the resource constraint, the institutions can be made more effective for efficient use of resources. In this context, a few sectors may be highlighted.
- (b) Independence of judiciary at all levels must be established: Law should not be subject to government.
- (c) Privatisation versus affordability of the poor for public service delivery: The bureaucratic corruption may be privatised through institutionalisation of corruption. The poor are taking the service at a higher price. Private health care service has emerged in response to growing demand. There are problems of effective regulatory system on quality control, affordability and accountability in private health care service. In hospitals, some units may be given to the private sector on experimental basis (Mahmud 2004).
- (d) Primary health care service may be kept under government control. Its service may be improved involving local representatives in the management. Partnership between government and NGO with encouragement from international organisations such as UNICEF, WHO have made possible reductions in infant mortality and success in child immunisation programme, but the pace of improvement has slowed down; without improvement in institutional governance dimension, there would be problems in the provision of quality health service.
- (e) In ports, wider participation of the private sector for development and operation, along with institutional/organisational reforms in the port, may improve efficiency.

- (f) Restructuring management of the primary schools to include the local people may help to improve quality education in primary education, and to increase further enrollment by targeting poor students under stipend scheme. Primary education stipend scheme provides cash assistance to poor families if they send their children to primary school.
- (g) Increasing the number of issuing authority (creating competition in the market) to issue passport may reduce open corruption.
- (h) It may be recalled that the impact of public institutions dimension has much greater effect on per capita income and consequently on social development indicators. Emphasis need to be given to improvement of public institution, which may led to improvement in other governance dimensions though they are interrelated.

#### **V.4 Outlook: Prioritisation of Governance Dimensions**

Governance issues provide a common link to all governance dimensions. Good political governance leads to better public institutions and improvements in technology dimensions. It is wise to take actions on three fronts to realise the synergy. It is important to recognise that there are macro and micro level issues in each of the governance dimensions. There may be trade-offs of priorities among distinct governance actors: politicians might give priority to those governance concerns as to increase satisfaction among their supporters; donors to efficient management and use of public resources; bureaucrats may favour technocratic solution to those concerns which require greater social engagement; investors to those that eliminate troublesome government bureaucracies and improved security of their property; and poor people to the availability of public services and their personal security.

In this study, the effect of public institutions on the economy is greater. When the question of prioritisation of governance dimensions comes, emphasis is to be given on improvement of public institutions. Judicial independence at all levels may be given first priority followed by effective parliamentary system, and cooperation and dialogue between two main political parties. Then it might be possible to resolve trade-offs, to a great extent, among the different actors of governance.

### **VI. CONCLUDING REMARKS**

The study underscores the importance of certain governance dimensions to achieve higher development outcomes. Our results on the performance of Bangladesh for governance dimensions of political governance, institutional governance and ICT dimensions portray an unfavourable situation. Weak

governance is not a conducive environment for entrepreneurs for long-term investment. Bangladesh has made improvements during the 1990s in the quality of macroeconomic management in terms of exchange rate stability, reduced inflation and balance of payment position. Improvements in macroeconomic policies and worsening governance are both observed in the Bangladesh economy. There are some governance successes at both macro and micro levels: (a) in political governance, holding three successive free elections under caretaker governments, (b) making ban on the use of polythene bags, and (c) reduce cheating in public examinations. From the perspective of the economy as well as the investors, the improvement of governance and macroeconomic policies should not be separated. Otherwise, there will remain a risk that the country's growth may not be increased/sustained and the poverty problem will remain substantial for few decades.

To face the challenge of good governance, Bangladesh needs to formulate and effectively implement its governance policies to improve institutional governance dimension alongside political governance and technology governance dimensions taking account of higher growth and halving poverty by 2015. The Bangladesh first Poverty Reduction Strategy paper recognises the challenges of governance weakness across sectors and highlights good governance as a major thrust. The reforms to improve governance need to have a strong support from government, civil society, media, industrialist and the local elites.

It is our hope that the main political parties in Bangladesh will undertake measures to improve the governance performance to attain higher economic growth. We need to break the vicious circle of bad governance, slow economic growth and poverty alleviation.

#### REFERENCES

- Acemoglu 2003: Daron Acemoglu, "Root Causes, A Historical Approach to Assessing the Role of Institutions in Economic Development," *Finance & Development*, June.
- Acemoglu, Johnson and Robinson 2002: Daron Acemoglu, S. Johnson, and J.A. Robinson, "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution," *The Quarterly Journal of Economics*, November, pp.1231-1294.
- Acemoglu, Daron et al. 2002: Daron Acemoglu, S. Johnson, J. Robinson and Y. Thaicharoen, "Institutional Causes, Macroeconomic Symptoms: Volatility, Crises and Growth," Working Paper 9124, National Bureau of Economic Research.



- Ahmed 2002: Sadiq Ahmed, *The Politics of Reforms in South Asia, Bangladesh and Pakistan*, South Asia Region, Internal Discussion Paper, Report No. IDP – 184, October, The World Bank.
- Asian Development Bank 1995: *Governance: Sound Development Management*, August.
- Aron 2000: Janine Aron, “Growth and Institutions: A Review of the Evidence,” *The World Bank Research Observer*, Vol. 15, No. 1, February, pp.99-135.
- BBS 2006: *Statistical Yearbook of Bangladesh-2004*, Dhaka.
- Barro 1991: Robert J. Barro, “Economic Growth in a Cross Section Countries,” *The Quarterly Journal of Economics*, May.
- \_\_\_\_ 1997: *Determinants of Economic Growth, A Cross-Country Empirical Study*, Massachusetts Institute of Technology, The MIT Press, Cambridge, Massachusetts, London, England.
- Bhuyan 2005: K.C. Bhuyan, *Multivariate Analysis and Its Applications*, Central Publishing House, India.
- Government of Bangladesh 2004: Pro-poor Governance and PRSP: A Strategic Review of Key Concerns and Agenda for Governance Solutions, Prepared for Government of Bangladesh, A Background Paper, July (Unpublished).
- \_\_\_\_ 2005: *Unlocking the Potential, National Strategy for Accelerated Poverty Reduction*, Planning Commission, General Economics Division, October.
- Huther and Shah 2005: Jeff Huther and Anwar Shah “A Simple Measure of Good Governance,” in Anwar Shah (edited) *Public Service Delivery*, World Bank.
- Johnson & Wichern 2003: Richard A Johnson. & Dean W. Wichern, *Applied Multivariate Statistical Analysis*, Pearson Education, Fifth Edition, Prentice-Hall of India Private Limited.
- Kaufmann and Kraay 2003: Daniel Kaufmann and Aart Kraay, “Governance and Growth: Casuality Which Way? Evidence for the World,” in brief, February.
- \_\_\_\_ 2002: Daniel Kaufmann and Aart Kraay, “Growth without Governance,” *Economica*, 3(1):169-229.
- Kaufmann, Kraay and Mastruzzi 2005: Daniel Kaufmann, Aart Kraay and Massimo Mastruzzi, *Governance Matters IV: Governance Indicators for 1996-2004*, World Bank Policy Research Working Paper 3630, The World Bank, June.
- Keefer and Khemani 2005: Philip Keefer and Stuti Khemani, *Democracy, “Public Expenditures, and the Poor: Understanding Political Incentives for*

- Providing Public Services,” *The World Bank Research Observer*, Vol. 20, No.1, Spring.
- Mahmud 2004: Simeen Mahmud, “Health and Population, Making Progress under Poverty,” *Economic and Political Weekly*, September 4.
- Mauro 1995: Paolo Mauro, “Corruption and Growth,” *The Quarterly Journal of Economics*, August.
- McCawley 2005: McCawley Peter *Governance in Indonesia: Some Comments*, ADBI Research Policy Brief No. 17, Governance, Tokyo.
- \_\_\_\_\_ 2004: Comments on “Democratic Governance in the Asia-Pacific,” A paper presented in the International Workshop on Asian Democratic Governance, held in Tokyo 26-27 March at United Nations University.
- North 1990: Douglass C. North, *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, New York.
- \_\_\_\_\_ 1991: “Institutions,” *Journal of Economic Perspectives*, Vol. 5 (Winter), pp. 97-112.
- Rahman, Kisunko and Kapoor 2000: Aminur Rahman, G. Kisunko and Kapil Kapoor, “Estimating the Effects of Corruption, Implications for Bangladesh,” Policy Research Working Paper 2479, The World bank, South Asia Region, November.
- Roy 2006: Dilip Kumar Roy, “Governance, Competitiveness and Growth: The Challenges for Bangladesh,” ADB Institute Discussion Paper No. 53, Asian Development Bank Institute, Tokyo, August.
- \_\_\_\_\_ 2005: *Corruption in Bangladesh: A Household Survey*, Dhaka.
- Sobhan 2004: Rehman Sobhan, “Challenging Bangladesh’s Crisis of Governance: An Agenda for a Just Society,” Conference Address, Bangladesh Economic Association, December.
- Weinstein 2006: Michael A. Weinstein, Industrial Riots Reveal Bangladesh’s Crisis of Governance, PINR, [http://www.pinr.com/report.php?ac=view\\_printable&reportid=500&language\\_id=1](http://www.pinr.com/report.php?ac=view_printable&reportid=500&language_id=1).
- Williamson 2005: Oliver E. Williamson, *The Economics of Governance*, AEA Papers and Proceedings, Richard T. Ely Lecture, Vol. 95, No. 2, May
- World Bank 2005a: *Bangladesh, Growth and Export Competitiveness*, Report No. 31394-BD, May 4.
- \_\_\_\_\_ 2005b: *World Development Indicators*, 2005.
- World Economic Forum, *The Global Competitiveness Report*, Different Years, 2001-2 to 2005-2006, Palgrave, Macmillan.

## **APPENDICES**

### **Appendix I: Concept on Governance**

The topic of governance is very broad and of great complexity. It is referred to as “study of good order and workable arrangement,” (Williamson 2005). In the broadest sense, governance concerns performance of the government including public and private sectors, global and local arrangements, formal structures and informal norms and practices, spontaneous and intentional systems of control. In the simplest sense, governance means the process of decision-making and the process by which decisions are implemented (or not implemented). In the public policies, governance is considered to encompass all aspects of the exercise of authority in the management of the resource endowment of a state and the manner in which the power is exercised. Government is one of the actors in governance. All other actors such as media, lobbyists, international donors, multinational corporations except the military are grouped together as part of the "civil society." The quality of governance is determined by the impact of this exercise of power on the quality of life enjoyed by the citizens.

Asian Development Bank (1995) identifies four basic elements of good governance (which McCawley calls democratic governance) such as accountability, participation, predictability and transparency. According to McCawley (2005), the most important elements of governance are the following:

1. The processes by which governments are chosen, monitored and changed
2. The systems of interaction between the administration, the legislature, and the judiciary
3. The ability of government to create and to implement public policy
4. The mechanism by which citizens and groups define their interests and interact with institutions of authority and with each other.

Within national governance, McCawley (2004) categorises governance issues at the macro and micro levels. The macro level includes constitution, the overall rule of government itself (size and resources) and relationship between legislature, the judiciary and the military, while micro issues of governance are on government departments, commercial firms, social institutions and civil society affairs (such as the media, think tanks, and non-government organisations). The major contribution of McCawley's paper (2005) in the governance literature lies in explaining the political process within the framework of structure-conduct-performance paradigm. (McCawley 2005). The political process might be seen as an “industry.” Political leaders as entrepreneurs take risks and lead the parties (firms) in the national political industry. Political process will maintain acceptable and effective

balances of power among the administration, the legislature, and the judiciary. Domestic political industries must be efficient and productive to realise outcomes. Political markets could benefit from competitive arrangements, selection of the chief executives of the organisations, and regulatory controls.

Imperfections in political markets will create high distortions and impede good national governance. Low-income voters make up a large share of the electorate in many poor developing countries and democratisation might be expected to benefit them. Imperfections in political markets are greater in some countries than in others with respect to diverting resources by politicians to political rents and private transfers. Keefer and Khemani (2005) identify three political market imperfections that undermine the role of elections in guaranteeing accountable and responsive government. The distortions are generated due to information asymmetries, social polarisation and non-credibility of political promises. There is some evidence for the role of mass media in spreading and coordinating information among the electorate and thereby improving political accountability.

Dreze and Sen (1996, reprinted in Keefer and Khemani 2005) have examined the contrasts outcome in basic health and education between the northern state of Uttar Pradesh and southern state of Kerala in India. The two states have almost identical per capita income and poverty rates, but dramatically different outcomes in health and education. One important part of the answer would seem to lie in the dynamics of political competition rather than in differences in the political institutions themselves. In states like Uttar Pradesh, the Congress party did not confront vigorous competition from other credible and well-organised parties. In Kerala, competition was between two credible parties, the Congress and the Communists. Both parties make promises to serve high quality social services. Among three parties in Uttar Pradesh, BJP appeals to upper class Hindus, Samaj party to backward castes, Samawadi party to marginalised religious groups and castes. The contrast between Kerala and Uttar Pradesh demonstrates that the sheer endurance of democracy is no guarantee that political market imperfections will disappear.

## **Appendix II: Sources of Governance Data**

The data on governance is inherently subjective. It is useful to collect data on governance perceptions, because for example, perceptions may often be meaningful than objective data, especially when it measures public faith in institutions.

Several organisations such as the Economist Intelligence Unit (EIU), the World Governance Survey (WGS), International Country Risk Guide (ICRG), the Freedom House Index (FHI), World Economic Forum (WEF), World Bank (WB),

Transparency International (TI), Polity Data Base, and The Wall Street Journal and the Heritage Foundation (WSJ-Heritage 1997) attempted to quantitatively “measure” the overall “quality” of governance in individual countries. The variables used to measure indicators as a proxy for governance do not conform to uniformity (Roy 2006).

The Economist Intelligence Unit is primarily concerned with indicators related to economic development. International Country Risk Guide deals with the issues of interest to business corporations and potential investors. Scholars and practitioners frequently use the Freedom House Index (FHI) and Polity datasets to measure the level of democracy in a given country, but these deal only with a specific set of civil freedoms and political rights. Transparency International constructed numeric indices of the extent of corruption in the private sector and state. The indices ranged from a value of zero for a country perceived to be totally corrupted to a value of 10 for a country perceived to be totally clean.

World Bank reports perceptions of governance based on several hundred variables for a large number of countries (Kaufmann, Kraay and Mastruzzi 2005). A total of six dimensions of governance indicators has been constructed based on 352 individual variables taken from 37 different sources, produced by 31 different organisations (Kaufmann, Kraay and Mastruzzi 2005). These are now recognised as worldwide governance indicators. The six dimensions of governance indications are: Voice and Accountability, Political Instability and Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. The aggregate indicators are oriented such that higher scores correspond to better governance outcomes. The Global and Growth Competitiveness Surveys of WEF provide institution and technology scores of individual countries as subcomponents of competitiveness index (Appendix III).

The WGS constructed indicators of governance based on thirty indicators using five point response scale: as either very high, high, moderate, low or very low but their scores are highly correlated with World Bank indicators. The Wall Street Journal and the Heritage Foundation compiled indices of the overall economic policy environment pertaining to ten indicators. The index takes a value from one to five with lower values indicating a policy environment more conducive to economic growth. An overall index of the quality of the national economic environment was derived from the average of the ten WSJ-Heritage policy index (Roy 2006).

### **Appendix III: Governance Indices from Global Competitiveness Reports of World Economic Forum and Concept on Competitiveness**

There are two types of indices available in the World Economic Forum's Global Competitiveness Reports: one is Growth Competitiveness Index and the other is The Global Competitiveness Index. The main components of Growth Competitiveness Index are: Technology index, public institutions index and macro-environment index. Global Competitiveness Index consists of also three components built on nine pillars of competitiveness, each of which is critical to productivity and competitiveness in national economies, and the three components are: basic requirements index, efficiency enhancers index, and innovation and sophistication factor index. The indices of Global competitiveness index are composed into sub-indexes as follows:

Basic requirements sub index (stage 1: factor-driven)

- Institution
- Infrastructure
- Macroeconomy
- Health and basic education

Efficiency enhancers sub index (stage 2: efficiency driven)

- Higher education and training
- Market efficiency
- Technology readiness

Innovation and sophistication factor sub index (stage 3: innovation-driven)

- Business sophistication
- Innovation

It is observed that institution sub-index exists in both Growth and Global Competitiveness indexes, which are of more relevant to our Governance concept. The concept of competitiveness remains multifaceted and always needs simplification and judgment. Competitiveness is used in the literature in different ways. A country's real exchange rate (i.e. relative price and/or cost indices expressed in some common currency) is used to assess external competitiveness. Intuitively, it is defined as a country's share of world market for its products. This makes world economy a zero sum game because one country gains at the expense of others.

The productivity of the entire economy matters for the standard of living, not just the traded sector. Many nations can improve their prosperity if they can improve productivity. That is why World Economic Forum (WEF) uses a broader definition of 'Competitiveness' that links to the concept of productivity. It is stated as "We think of competitiveness as that collection of factors, policies, and

institutions which determine the level of productivity of a country and that, therefore, determine the level of prosperity that can be attained by an economy” Global Competitiveness Report, 2005-2006, p. 3). If the assumptions of Hecksher-Ohlin model are relaxed to allow for greater realism with respect to such as scale economies, differentiated products, technological gaps, uncertainty, large firm with market power, etc., trade become a non-zero sum game, where all parties gain from trade specialisation. The country has to achieve competitive capabilities (competitiveness) to realise that benefits. Competitiveness indices can be used to benchmark national performance and to evaluate the shortcomings of their economies.

There are some economists such as Paul Krugman, Sanjay Lall, and John Weiss who differ with World Economic Forum on concept of competitiveness index. To them, competitiveness means essentially the capability (in a broader concept) of firms which can compete at the international level. But firms do not act in isolation. So competitiveness lies in the effectiveness with which countries promote the development of technological and managerial capabilities. Market imperfections are common in technology and innovation, the main drivers of national competitiveness. In this context, they do not differ with national competitiveness index.

The methodology to estimate competitiveness index was first developed in 2001 by Jeffrey Sachs and John McArthur and the index is called the Growth Competitiveness Index. There is an improvement in the methodology in the construction of competitiveness index over the years since Jeffrey Sachs and John McArthur developed in 2001. Since then, the WEF has been publishing (i) Growth Competitiveness Index (GCI) which refers to the aggregate or macroeconomic determinants of productivity and (ii) Business Competitiveness Index (BCI) which captures the microeconomic components of productivity. There is another difference between the BCI and GCI. BCI captures the “static” or “level” determinants of productivity of a country, while the GCI is supposed to capture its “dynamic” or “growth.”

WEF followed a unified approach in 2004-05 that captures both the microeconomic and macroeconomic foundations of competitiveness in a single index, called Global Competitiveness Index. The ability of firms to prosper depends, among other things, on the efficiency of the public institutions, the excellence of the education system, and the overall macroeconomic stability of the country in which they operate. On the other hand, an excellent macro environment does not guarantee national prosperity unless firms create valuable goods and services using efficient methods and processes at the microeconomic level.

The GCI uses a combination of hard data (e.g. university enrollment rates, inflation performance, the state of the public finances, the level of penetration of new technologies such as mobile telephones and the internet) and data drawn from the WEF's Executive opinion survey. World Bank data on corruption, regulatory quality, and the rule of law overlap with some of the areas covered in the competitiveness survey. The correlation between WEF's competitiveness indicators and the World Bank data is high.

#### **Appendix IV: Concepts on Institutional Governance**

Institutions are defined extensively in the literature. At one end, the notion of institution is to establish the "rules of the game." North defined it as "the formal and informal constraints on political, economic, and social interactions" (North 1990). From this perspective, "good" institutions are viewed as establishing an incentive structure that reduces uncertainty and promotes efficiency, thus contributing to stronger economic performance. Good institutions (quality of private and public institution) lead to higher incomes, stronger growth, and lower volatility in GDP growth. Institutions are also defined as the "humanly devised constraints that structure human interactions." In that context, the institutional hypothesis is about human influences. According to this view, some societies have good institutions that encourage investment in machinery, human capital, and better technologies, and consequently, achieve economic prosperity (Acemoglu *et al.* 2002). The interaction between institutions and the opportunity to industrialize during the nineteenth century played a central role in the long run development. A country's institution may be deeply rooted in its history and culture. Acemoglu *et al.* (2003) argued that current institutions are basically manifestations of past institutions, which prevailed over time. But current institutions significantly affect development, and are fundamental to development process.

The economic literature has mainly focused on public institutions. Available empirical research confirms the importance of public institutions as key determinants of the current level of GDP per capita. But private institutions are not less important elements in the creation of wealth. Quality and transparency of private institutions are crucial for economic efficiency. Regarding the public sector, factors such as the strength of the property rights environment, the prevalence of crime and its impact on business costs are all of critical importance. Private business cannot be carried out efficiently in an economy where property rights are poorly defined. Lack of transparency and corruption undermines business confidence and entails misallocation of resources resulting in a welfare loss to society.



## APPENDIX TABLES

APPENDIX TABLE 1  
GROWTH RATE OF GDP BY SECTORS

| Name of Sub-Sector                       | 1991/92-<br>1994/95 | 1994/95-<br>1997/98 | 1997/98-<br>2000/01 | 2000/01-<br>2003/04 | 2003/04-<br>2005/06 |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| Agriculture and Forestry                 | -0.43               | 3.06                | 5.22                | 2.33                | 3.50                |
| Fishing                                  | 7.73                | 7.99                | 4.55                | 2.55                | 3.78                |
| Manufacturing                            | 11.7                | 6.66                | 4.87                | 6.44                | 9.47                |
| Construction                             | 8.26                | 8.88                | 8.68                | 8.32                | 8.31                |
| Wholesale and Retail Trade               | 5.51                | 5.34                | 6.74                | 6.42                | 6.91                |
| Hotel and Restaurants                    | 4.98                | 5.48                | 6.86                | 6.99                | 7.29                |
| Transport, Storage and<br>Communications | 3.99                | 5.45                | 6.63                | 6.54                | 7.95                |
| Other services                           | 3.7                 | 4.11                | 4.09                | 5.33                | 5.23                |
| GDP at Constant Market Price             | 4.53                | 5.08                | 5.36                | 5.31                | 6.29                |

**Note:** GDP at constant market price of 1995/96 in Tk.

**Sources:** (i) *Statistical Yearbook of Bangladesh*, 2004.

(ii) *Monthly Statistical Bulletins Bangladesh*, May 2005 & April 2008.

APPENDIX TABLE 2  
CORRELATIONS MATRIX AMONG SIX GOVERNANCE  
INDICES OVER 5 YEARS, 1996-2004

| Variables                         | var1   | var2   | var3   | var4   | var5   | var6 |
|-----------------------------------|--------|--------|--------|--------|--------|------|
| Voice and Accountability ( Var 1) | 1      |        |        |        |        |      |
| Political Stability (Var 2)       | 0.87   | 1      |        |        |        |      |
| Government Effectiveness (Var 3)  | 0.7231 | 0.7206 | 1      |        |        |      |
| Regulatory Quality (Var 4)        | 0.9442 | 0.7711 | 0.7613 | 1      |        |      |
| Rule of Law (Var 5)               | 0.7468 | 0.8928 | 0.5364 | 0.7509 | 1      |      |
| Controll of Corruption (Var 6)    | 0.9793 | 0.8523 | 0.5756 | 0.9047 | 0.7744 | 1    |

**Source:** Own estimates.

APPENDIX TABLE 3  
**PRINCIPAL COMPONENT ANALYSIS ON SIX GOVERNANCE DIMENSIONS**  
 (Principal components: 4 components retained)

|                                 |             | var1          | var2   | var3   | var4   |
|---------------------------------|-------------|---------------|--------|--------|--------|
| Dimensions                      | Eigen value | Eigen Vectors |        |        |        |
| Voice and Accountability (Var1) | 4.957       | 0.436         | 0.012  | -0.366 | -0.240 |
| Political stability (Var2)      | 0.524       | 0.421         | -0.149 | 0.421  | -0.548 |
| Government Effectiveness (var3) | 0.375       | 0.352         | 0.816  | 0.312  | -0.006 |
| Regulatory Quality (var4)       | 0.144       | 0.424         | 0.147  | -0.350 | 0.600  |
| Rule of Law (var 5)             | 0.000       | 0.388         | -0.471 | 0.528  | 0.474  |
| Control of Corruption (var 6)   | 0.000       | 0.423         | -0.259 | -0.436 | -0.239 |

**Source:** Own estimates.

APPENDIX TABLE 4  
**PRINCIPAL COMPONENT ANALYSIS ON THREE ELEMENTS  
 OF GLOBAL COMPETITIVENESS INDEX**  
 (Principal components: 1 component retained)

|                             |             | var1          | var2 | var3 |
|-----------------------------|-------------|---------------|------|------|
|                             | Eigen value | Eigen Vectors |      |      |
| Basic requirements (var 1)  | 3.00        | 0.577         |      |      |
| Efficiency enhances (Var 2) | 0.00        | 0.577         |      |      |
| Innovation Factors (Var 3)  | 0.00        | 0.577         |      |      |

**Source:** Own estimates.

APPENDIX TABLE 5  
**PRINCIPAL COMPONENT ANALYSIS ON THREE COMPONENTS OF  
 GROWTH COMPETITIVENESS INDEX**  
 (Principal components: 3 components retained)

|  |             | var1          | var2    | var3     |
|--|-------------|---------------|---------|----------|
| Dimensions                             | Eigen value | Eigen Vectors |         |          |
| Technology subindex: innovation (Var1) | 1.74757     | -0.50583      | 0.68855 | 0.51965  |
| Public Institution (Var2)              | 1.05194     | 0.71887       | 0.00348 | 0.69513  |
| Macroeconomic Environment Index (var3) | 0.20049     | 0.47682       | 0.72518 | -0.49674 |

**Source:** Own estimates.

APPENDIX TABLE 6  
**PRINCIPAL COMPONENT ANALYSIS ON TECHNOLOGY SUB-INDICES OF  
 GROWTH COMPETITIVENESS INDEX**  
 (Principal components: 3 components retained)

| Dimensions |             | var1          | var2    | var3     |
|------------|-------------|---------------|---------|----------|
|            | Eigen value | Eigen Vectors |         |          |
|            | 2.27275     | -0.53486      | 0.73161 | 0.4227   |
|            | 0.61665     | 0.64125       | 0.02571 | 0.76691  |
|            | 0.1106      | 0.55021       | 0.68124 | -0.48289 |

**Source:** Own estimates.

APPENDIX TABLE 7  
**POLITICAL GOVERNANCE SCORES FOR BANGLADESH, 1996-2004**  
 (Principal components: 4 components retained)

| Governance Dimensions    | 2004  | 2002  | 2000  | 1998  | 1996  |
|--------------------------|-------|-------|-------|-------|-------|
| Voice and Accountability | 36.20 | 38.60 | 43.20 | 46.60 | 43.40 |
| Political Stability      | 25.20 | 37.00 | 39.00 | 41.40 | 39.40 |
| Government Effectiveness | 35.60 | 39.00 | 40.60 | 42.40 | 36.60 |
| Political Governance     | 32.33 | 38.20 | 40.93 | 43.47 | 39.80 |

**Source:** World Bank (2005), Roy (2006).

APPENDIX TABLE 8  
**ALL INSTITUTIONAL DIMENSION, 2005-06 & 2004-05**

| Country        | Institution Scores |         | Average   |
|----------------|--------------------|---------|-----------|
|                | 2005-06            | 2004-05 | (2004-06) |
| Bangladesh     | 2.90               | 2.80    | 2.85      |
| Germany        | 5.33               | 5.15    | 5.24      |
| Hong Kong      | 5.19               | 5.18    | 5.19      |
| India          | 4.25               | 3.92    | 4.09      |
| Indonesia      | 3.62               | 3.87    | 3.75      |
| Japan          | 4.78               | 4.73    | 4.76      |
| Korea Republic | 4.39               | 3.87    | 4.13      |
| Malaysia       | 5.22               | 4.74    | 4.98      |
| Pakistan       | 3.41               | 2.96    | 3.19      |
| PR China       | 3.72               | 3.91    | 3.82      |
| Philippines    | 3.21               | 3.39    | 3.30      |
| Singapore      | 5.92               | 5.53    | 5.73      |
| Sri Lanka      | 3.22               | 3.7     | 3.46      |
| Taipei, China  | 4.88               | 4.65    | 4.77      |
| Thailand       | 4.35               | 4.01    | 4.18      |
| United Kingdom | 5.35               | 5.43    | 5.39      |
| USA            | 5.21               | 5.22    | 5.22      |

**Source:** WEF, Global Competitiveness Reports.

APPENDIX TABLE 9  
PUBLIC INSTITUTIONS: CONTRACTS AND LAW SUBINDEX, 2003-04/2005-06

|                        | 2005-06 | 2004-05 | 2003-04 | 2002-03 |
|------------------------|---------|---------|---------|---------|
| Bangladesh             | 2.88    | 2.76    | 2.93    | 2.93    |
| Germany                | 5.88    | 5.89    | 5.80    | 5.64    |
| Hong Kong              | 5.16    | 5.74    | 5.65    | 5.53    |
| India                  | 4.78    | 4.67    | 4.65    | 4.48    |
| Indonesia              | 3.66    | 3.91    | 3.63    | 2.8     |
| Japan                  | 5.24    | 5.26    | 4.57    | 4.56    |
| Korea Republic         | 4.53    | 4.54    | 4.72    | 4.72    |
| Malaysia               | 5.30    | 4.91    | 4.95    | 4.59    |
| Pakistan               | 3.23    | 3.06    | 3.46    | n.a.    |
| PR China               | 3.74    | 4.02    | 3.81    | 4.18    |
| Philippines            | 3.32    | 3.16    | 3.20    | 3.14    |
| Singapore              | 5.88    | 5.86    | 5.89    | 5.78    |
| Sri Lanka              | 3.21    | 3.88    | 3.57    | 4.67    |
| Taipei, China          | 4.88    | 4.95    | 5.03    | 4.61    |
| Thailand               | 4.48    | 4.42    | 4.88    | 4.49    |
| United Kingdom         | 5.62    | 5.96    | 5.67    | 5.85    |
| USA                    | 5.27    | 5.28    | 5.42    | 5.50    |
| Total No. of Countries | 117     | 104     | 102     | 80      |

**Source:** World Economic Forum, Global Competitiveness Reports.

APPENDIX TABLE 10  
**PUBLIC INSTITUTIONS: CORRUPTION SUBINDEX, 2003-04/2005-06**

|                        | 2005-06 | 2004-05 | 2003-04 | 2002-03 | 2001-02 |
|------------------------|---------|---------|---------|---------|---------|
| Bangladesh             | 2.22    | 2.19    | 2.04    | 2.20    | 2.13    |
| Germany                | 6.19    | 6.52    | 6.39    | 6.06    | 5.98    |
| Hong Kong              | 5.99    | 6.70    | 6.42    | 6.24    | 6.38    |
| India                  | 4.26    | 4.23    | 3.86    | 3.43    | 3.67    |
| Indonesia              | 3.49    | 4.32    | 3.64    | 2.99    | 3.35    |
| Japan                  | 6.44    | 6.50    | 6.04    | 5.97    | 6.29    |
| Korea Republic         | 5.04    | 5.08    | 5.34    | 5.20    | 4.41    |
| Malaysia               | 5.42    | 5.22    | 5.28    | 5.29    | 4.97    |
| Pakistan               | 3.39    | 2.69    | 3.88    | n.a.    | n.a.    |
| PR China               | 5.08    | 4.75    | 4.84    | 5.19    | 4.46    |
| Philippines            | 3.28    | 3.26    | 3.39    | 3.07    | 3.51    |
| Singapore              | 6.62    | 6.56    | 6.68    | 6.55    | 6.56    |
| Sri Lanka              | 3.48    | 4.28    | 3.84    | 4.48    | 4.03    |
| Taipei, China          | 6.07    | 6.17    | 6.08    | 5.89    | 5.98    |
| Thailand               | 5.28    | 5.00    | 5.06    | 4.86    | 4.19    |
| United Kingdom         | 6.33    | 6.51    | 6.35    | 6.54    | 6.42    |
| USA                    | 6.27    | 6.21    | 6.01    | 6.01    | 6.38    |
| Total No. of Countries | 117     | 104     | 102     | 80      | 75      |

**Source:** World Economic Forum, Global Competitiveness Reports (Various Years).