Transforming Bangladesh into a Middle Income Economy
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Edited by
SADIQ AHMED
Preface

Between 1972 and 2003, Bangladesh raised its dollar per capita income fourfold, reduced poverty by more than a third, increased life expectancy by more than 40 per cent, and enhanced gross primary enrolment by over 80 per cent. These remarkable development achievements compare favourably with outcomes in less developing countries. This progress, fighting against many odds in the form of frequent natural calamities and generally poor governance, is a testimony to the resilience and determination of a dynamic young nation and gives hope that with continued determined efforts Bangladeshis can look forward to further gains with development.

The challenges in this twenty-first century are enormous, notwithstanding past progress. The past improvements in performance were obtained from a very low base in 1972 when Bangladesh gained independence. Thus, with a 400 dollars per capita income, Bangladesh is still amongst the poorest country in the world. While the recent average per capita growth of 3.7 per cent is encouraging, even if this were raised to 6 per cent, a difficult challenge, it will take over 40 years of growth at this pace simply to reach the current per capita income level in Malaysia. Nevertheless, Bangladesh can and should aspire to become a middle income nation (using a cut-off level of dollar 1,000 per capita) over the next 20 years. This requires an overall annual growth rate of around 6 per cent, implying per capita growth rate of around 4.7 per cent.

Along with this focus on growth, effort must also continue to ensure that the benefits of growth are more widely shared. While Bangladesh has done well in raising per capita income and improving human development, measured against comparable per capita income countries, its long term performance on poverty reduction is relatively weaker.

What are the policy and institutional reform challenges for higher growth rates? What additional reforms are needed to increase the impact of growth on poverty? The answers to these questions require analysing and understanding past development performance, to look at what worked and what did not work and why. The objective of this book is to contribute to this analysis and understanding of policies and institutions in Bangladesh. The book
draws mostly on research done by current and former World Bank staff working in the South Asia Region. The only exception is the paper written by Syed Ahsan of the University of Concordia in Canada.

The book, a collected volume of papers, is organised thematically to maintain a logical flow. It is organised in four parts. The first part gives a summary of past development performance to provide the context for the detailed analysis in subsequent sections. Thus Part I consists of two papers. The starting paper by Sadiq Ahmed summarises the development achievements of Bangladesh since independence in 1972, identifies in a summary form the main policies and institutional reforms that helped Bangladesh to achieve these outcomes, explains why progress was difficult in a number of areas relating to institutions, and highlights the key challenges moving forward. The paper notes that good progress was made in achieving and preserving a stable macroeconomic environment; initiating the first round structural reforms in areas of trade, agriculture and banking; and in pursuing good human development policies, especially through budgetary allocations. Progress in the area of infrastructure and in improving institutions was weaker. The general governance environment has also become more difficult because of inadequate institutional reforms. Attention must shift to these areas for increasing growth and reducing poverty.

The second paper by Rinku Murgai and Salman Zaidi looks more deeply at the poverty profile and progress during the 1990s. The paper notes the good progress with poverty reduction during the 1990s, following the stagnation in the mid-1980s. The paper, however, also shows that inequality increased during the 1990s. Finally, the paper draws attention to the regional dimensions of poverty, noting that the incidence of poverty varies from a relatively low level of 40 per cent in Barisal to a high of 60 per cent in Rajshahi.

Part II goes deeper into the analysis of GDP growth with a view to identifying ways to accelerate this growth. This consists of five papers. The section starts with a paper by Sandeep Mahajan that looks at the determinants of growth in Bangladesh and identifies associated constraints. The paper observes that productivity improvement has been a key driver of per capita GDP growth in Bangladesh, supported by policy reforms. Thus, policies contributed by maintaining macroeconomic stability, obtaining a sharp decline in population growth, and supporting higher rates of saving and investment. So, the potential for higher growth lies in further policy and institutional reforms.

The next paper by Sadiq Ahmed and Zaidi Sattar looks carefully at the role of trade openness in stimulating growth and reducing poverty. This subject has been a source of considerable debate internationally and in Bangladesh. The paper's main conclusion is that trade openness has been good for growth and poverty reduction. It shows the progress on trade reforms and identifies the agenda for future reforms.
The third paper by Syed Mahmood deals with the all important issue of investment climate for private enterprise. International experience suggests that domestic investment climate can be a serious bottleneck for private investment and growth. The paper looks at the overall investment climate in Bangladesh as compared with competitors, and finds that there are indeed some serious constraints in terms of weak incentive and high cost of doing business that must be addressed in order to spur private investment and growth. Infrastructure constraints in particular are severe.

The next paper by Sadiq Ahmed reviews progress with banking reforms and the challenges moving forward. International experience shows that financial depth and efficiency are important for the growth and competitiveness of the private sector. The paper notes that banking sector has traditionally been very inefficient but recent reforms have considerably improved performance of private banks, which have grown in relative importance as well. However, progress with reforming the public banks has been weak. Although the public banks are no longer dominant, their adverse effects on the banking sector performance remains substantial and must be addressed to put Bangladesh on a stronger growth path.

The last paper in this part looks at the performance of state owned enterprises (SOEs). The paper here, written by Syed Nizamuddin, concludes that overall the SOEs have been a big drag on the economy. While some progress has been made in the recent years, the reform agenda remains substantial. Further progress in reforming SOEs will be necessary to consolidate the gains in macroeconomic stability, by reducing the adverse effects of quasi-fiscal deficits and contingent liabilities, and for improving the investment climate for private enterprises.

Moving on to Part III, the theme here is how to make growth work better for the poor. While over the longer term higher growth is necessary for faster progress with poverty reduction, the distribution of benefits of growth to the poor also matters. Part III has five papers, starting with a paper by Rinku Murgai and Salman Zaidi that analyses the main sources of assets and income for the poor based on the 2000 Household Income and Expenditure (HIES) data. The paper concludes that the poor derive their income from a variety of sources including agriculture and non-farm sources. It also notes that education, family assets, land ownership and availability of infrastructure are all correlated with poverty.

In the following paper, Ndiame Diop reviews the role of agriculture in rural poverty reduction and suggests ways to boost farm productivity and income. The next paper by Forhad Shilpi takes up the subject of non-farm enterprises, identifies past performance and constraints, and suggests policy options for improving the investment climate for rural enterprises. The paper notes that non-farm enterprises have grown in importance in terms of both
employment and income. Yet, the investment climate facing these enterprises can be much improved by enhancing infrastructure and financial services, by improving disaster management, and by improving law and order.

The fourth paper in this part, written by Hassan Zaman, deals with the subject of finance for the poor. Bangladesh is justly famous for its innovative development of a variety of microcredit schemes. These schemes now benefit some 13 million poor households. What factors contributed to this success and what are the emerging challenges facing the industry? The paper describes the evolution of the microfinance industry in Bangladesh, identifies factors that contributed to the scale up progress, summarises evidence concerning the impact on poverty, and identifies key lessons and challenges for the future.

The final paper in this part by Anil Deolalikar concerns the human development dimensions of the MDGs. Bangladesh has performed well by international standards in improving human development indicators. Yet many challenges remain. What are the prospects that Bangladesh will attain by the year 2015 the MDG goals related to human development? The paper looks quantitatively at how likely it is for Bangladesh to achieve MDG targets in the four areas of under-five mortality, child malnutrition, schooling enrolment and completion, and gender disparities, and what will it take to secure these MDGs.

Part IV of the book picks up the theme of reforming public sector to promote growth and reduce poverty. A review of past experience shows that progress with reforming the public sector has advanced the least. Indeed, corruption and weak public sector are the most difficult development challenges facing Bangladesh today. Needless to say, these are interrelated and the corruption problem will be very difficult to tackle comprehensively without reforming the public sector. The required reforms are long term and progress will be slow, but certainly more progress is achievable with strong leadership.

This part has four papers, starting with the one by Syed Ahsan that provides an analysis of the nature of the governance challenge in Bangladesh. The paper also identifies options that will likely help improve governance in the country. The paper correctly notes the political nature of the agenda and observes that associated reforms will need to encompass a wide variety of institutions.

The next paper by Sadiq Ahmed focuses on arguably the most important public policy instrument: the role of the budget for growth and poverty reduction. The paper notes that while by and large Bangladesh pursued prudent fiscal management and good overall expenditure allocations, the budget management has fallen short in resource mobilisation, especially tax administration. The budget management is also relatively weak in terms of expenditure planning, assignment of responsibilities by levels of government,
monitoring and evaluation, and financial controls and accountability. While some initial progress has been achieved very recently, these are areas where much more effort will be needed.

In the following paper, William McCarten provides a detailed review of tax performance and suggests ways to improve this performance. The paper argues that a sustained programme of tax reforms, made up of a set of feasible measures, would help Bangladesh improve efficiency, fairness and transparency of the tax system while also raising resources to finance development.

The final paper by Elena Glinskaya, Eric Bell and Zahid Hussain looks more deeply at public spending issues. The paper notes the many positive features of expenditure management in Bangladesh in terms of its positive contribution to human development but also notes the scope for further improvement, especially as regards strengthening the institutional dimensions of expenditure management.

Several people made this task possible. First and foremost, I will like to express my appreciation to all the authors who contributed to the book. In many cases, the work required time off from regular duties and accountabilities at the workplace. This was done cheerfully and on time with minimum prodding. Second, I received very competent research and processing support from Bala Bhaskar Naidu and Joyce Mormita Das, respectively. Both colleagues went out of their line of duty to be helpful and patient in supporting the many requests I made in putting the papers together, checking on data and references, formatting the papers for consistency, and providing other support as called for. My special thanks to both. Finally, it would have been impossible to pull this work together without the understanding and support of my immediate family members. To Nusrat Ahmed, my wife, and our children Asif, Nabila and Saqib, I owe the deepest gratitude for letting me spend long hours on weekends and often weeknights for labouring on this task.

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PART I

Development Performance and Challenges: An Overview
1 Development Performance and Policy Reforms since Independence

Sadiq Ahmed

SECTION I: INTRODUCTION1

Background
In the early 1970s, following independence, Bangladesh faced daunting development challenges. Per capita income was at a low of around 100 dollars, poverty level exceeded 70 per cent, schooling and health indicators were much below the average in South Asia and comparable to those found in Sub-Saharan Africa. Today, after 33 years of independence, the country can boast about some convincing progress with economic development (Table 1.1). Per capita income has expanded by four-fold, human development has progressed impressively, meeting or exceeding average levels in South Asia and much ahead of Sub-Saharan Africa, and the incidence of income/consumption poverty has been reduced to below 50 per cent. Yet, major challenges remain. At 400 dollar, per capita income is low even by South Asian standards; some 53 per cent of the rural population and 37 per cent of the urban population are still poor; and human development indicators are substantially below those in the East Asian economies. Indeed, without stronger efforts, Bangladesh may not be able to achieve all the Millennium Development Goals (MDGs), especially for reduction in income poverty.2 Importantly, against the backdrop of these


2 The millennium development goals or MDGs are defined in UN 2000.
Table 1.1  Selected Development Indicators

<table>
<thead>
<tr>
<th></th>
<th>1970</th>
<th></th>
<th></th>
<th></th>
<th>2002</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bangladesh</td>
<td>South Asia</td>
<td>Sub-Saharan Africa</td>
<td>East Asia and Pacific</td>
<td>Bangladesh</td>
<td>South Asia</td>
<td>Sub-Saharan Africa</td>
<td>East Asia and Pacific</td>
</tr>
<tr>
<td>GNP per capita (US $, current)</td>
<td>120</td>
<td>140</td>
<td>270</td>
<td>160</td>
<td>380</td>
<td>460</td>
<td>450</td>
<td>960</td>
</tr>
<tr>
<td>GDP per capita growth (%) (1973–2002)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>2.2</td>
<td>2.8</td>
<td>–0.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Life expectancy at birth, total (years)</td>
<td>44</td>
<td>49</td>
<td>44</td>
<td>59</td>
<td>62</td>
<td>63</td>
<td>46</td>
<td>69</td>
</tr>
<tr>
<td>Mortality rate, infant (per 1,000 live births)</td>
<td>145</td>
<td>129</td>
<td>141</td>
<td>85</td>
<td>48</td>
<td>68</td>
<td>103</td>
<td>32</td>
</tr>
<tr>
<td>School enrolment, primary (% gross)</td>
<td>54</td>
<td>71</td>
<td>51</td>
<td>89</td>
<td>98&lt;sup&gt;a&lt;/sup&gt;</td>
<td>95&lt;sup&gt;b&lt;/sup&gt;</td>
<td>87&lt;sup&gt;a&lt;/sup&gt;</td>
<td>111&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>School enrolment, secondary (% gross)</td>
<td>19</td>
<td>23</td>
<td>6</td>
<td>24</td>
<td>47&lt;sup&gt;a&lt;/sup&gt;</td>
<td>48&lt;sup&gt;b&lt;/sup&gt;</td>
<td>26&lt;sup&gt;c&lt;/sup&gt;</td>
<td>66&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Notes:  
<sup>a</sup> 2001; <sup>b</sup> 2000; <sup>c</sup> 1996.

challenges, major governance constraints have emerged which might threaten the sustainability of the past progress. Certain developments in the external environment, such as the phase-out of the Multi-Fibre Agreement (MFA) and surge in oil prices, also present significant downside risks. The development challenges for Bangladesh in the new millennium are indeed daunting, but by no means impossible. As the nation has shown, rising from the ruins of a war-devastated economy in the 1970s, with concerted efforts constraints can be overcome and progress with development is very much possible.

What factors have contributed to the gains in development progress achieved by Bangladesh since its independence? What factors constrain progress in the twenty-first century? What will it take for Bangladesh to achieve the millennium development goals and become a middle income country? These are important questions and informed debate will be very useful for the policymakers. Past progress suggests that there have been many positive experiences with policy reforms. The paper will seek to show that much of these reforms have been in areas of relatively easy options where social and political constraints were not binding. Deeper reforms, which involve institutional change and matured political leadership, have been much more hesitant. In some cases, even when some of these reforms were agreed under donor pressure, implementation suffered from lack of political ownership and commitment. Indeed, it is now commonly acknowledged that the fundamental development constraint in Bangladesh is poor governance. The governance problem is not unique to Bangladesh, but certain aspects such as corruption and law and order, unless addressed comprehensively, could substantially slow down investment and growth. Similarly, unless major institutional reforms aimed at improving public service delivery happen, the effectiveness of public expenditures to improve human development will be seriously impaired.

Even so, reforms that were actually implemented yielded encouraging results. These responses have benefited from the dynamism of the people. Thus, while public entities failed to deliver good outcomes, private initiatives, including from the non-governmental organisations (NGOs), performed very well in rice agriculture, garments, human development and other services. Consequently, economic outcomes are better than what one would have expected from the generally weak governance. Thus, Bangladesh sustained an average pace of 2.3 per cent per capita economic growth per annum during 1972–2004. Encouragingly, the growth path shows a significant upward trend, rising from a low of 1.3 per cent in the

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3 For a detailed review of the relationship between poverty reduction and governance in South Asia, see Ahmed 2002.
6 Transforming Bangladesh into a Middle Income Economy

1970s to 3.7 per cent in the 2001-04 period (Figure 1.1). These growth rates compare favourably with the average growth rate found in South Asia and low income developing economies. They also attest to the quality of the people and by implication to the missed opportunities for deeper reforms and institutional change. Thus, with matured political leadership leading to stronger reforms and improved public administration, Bangladesh can achieve much higher rates of economic growth, something comparable with rates achieved in East Asian economies. Along with policies to promote equity, it should be possible for Bangladesh to sharply reduce poverty and achieve the MDGs.

![Figure 1.1 Bangladesh Per Capita GDP Growth, 1973-2004](image)

**SECTION II: DEVELOPMENT PERFORMANCE OVER THE PAST THREE DECADES**

**Initial Situation**

At the time of independence, Bangladesh inherited a war-ravaged economy. Per capita income stood at less than 100 dollars and the incidence of poverty was large, estimated at over 70 per cent. Human development indicators were very low and the anti-female bias was profound. Clearly, Bangladesh faced major development challenges in the early 1970s in terms of a large incidence of poverty as well as the additional burden of rebuilding an economy shattered by the fight for independence. How did it perform over the past three decades or so? This section will review this performance record.

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4 Per capita GDP data is based on revised national accounts data prepared by the Bangladesh Bureau of Statistics.

5 The 70 per cent headcount poverty index for Bangladesh is for 1974 and is based on consumption data, see Sen 2000.
Progress with Poverty Reduction and Human Development

Arguably, Bangladesh is the most vulnerable of the South Asian economies in view of its extremely high population density (the highest in the world excluding Singapore) and the high incidence of natural disasters. Poverty incidence data compiled by World Bank staff and national researchers show that there was a substantial deterioration in the poverty situation in the 1970s, followed by rapid progress during 1978–86 (Figure 1.2A, Series A). There was again a worsening of poverty in the 1986–92 period (Figure 1.2B, Series B). More recently (1992–2000), there has been an improvement in the poverty reduction effort (Figure 1.2B, Series B). Given the high concentration of the poor in the rural areas, the national poverty outcome is dominated by the poverty outcome in the rural areas.

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6 Poverty numbers and data sources are provided in Appendices Tables A1.1 and A1.2.

Although the two time series are not comparable, because of definitional and other measurement differences, some broad conclusions can be drawn. First, overall, Bangladesh has made an impressive reduction in poverty since independence. Both the rural poor and the urban poor have benefited from this effort. Second, the reduction in poverty seems to have slowed down since the mid-1980s, due to limited progress with reduction of rural poverty. This conclusion is still valid if one were to exclude the controversial poverty estimate for 1986 that shows a sharp reduction from 1984. Sen (2000) explains the nature of this controversy. Appendix Table A 1.2 shows that the important point is between 1984 and 1996, the incidence of rural poverty seems to have fluctuated between 50 and 60 per cent. Third, urban poverty has fallen faster, even though the pattern reversed between 1996–2000 when urban poverty increased and rural poverty declined. Fourth, the sharp fluctuations in the pattern of poverty outcomes suggest that many of the poor are positioned around the poverty line, leading to vulnerability to shocks especially in rural areas.

Table 1.2 Bangladesh Progress with Human Development 1975–2002

<table>
<thead>
<tr>
<th>Years</th>
<th>Life expectancy (years)</th>
<th>Infant mortality rate (per 1000)</th>
<th>Total fertility rate (%)</th>
<th>Access to drinking water (%)</th>
<th>Adult literacy rate (%)</th>
<th>Primary school enrolment (%)</th>
<th>Secondary school enrolment (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975–77</td>
<td>47</td>
<td>130</td>
<td>6.5</td>
<td>35</td>
<td>26</td>
<td>83</td>
<td>14</td>
</tr>
<tr>
<td>1985–88</td>
<td>51</td>
<td>118</td>
<td>5.5</td>
<td>46</td>
<td>33</td>
<td>59</td>
<td>17</td>
</tr>
<tr>
<td>1997–02</td>
<td>62</td>
<td>48</td>
<td>3.0</td>
<td>97</td>
<td>41</td>
<td>98</td>
<td>47</td>
</tr>
</tbody>
</table>


The picture regarding progress with human development (Table 1.2) shows that since independence Bangladesh made rapid strides from the low base levels in improving primary and secondary school coverage, reducing the population growth rate, improving access to drinking water, reducing infant mortality and raising life expectancy. Indeed, the progress on human development is more impressive than the progress in reducing income poverty and the social indicators are better than average for comparable per capita income countries. The performance in the area of population management is truly remarkable, resulting in a rapid reduction in the rate of population growth from a high of 2.8 per cent per annum in the 1970s to 1.6 per cent per annum in the 1990s. The total fertility rate

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8 Conclusions on poverty trends and directions are not affected by definitional and measurement issues, although levels are affected, see Sen 2000.
declined from a high of over 6.5 per woman in the mid-1970s to 3.0 by 2001. Similarly, the ability to reduce infant mortality from a high of 130 in the mid-1970s to 48 by 2002 is a truly commendable achievement. The remarkable progress achieved by Bangladesh on human development was recently reviewed by Jean Dreze, who compared this performance with India and noted: 'Some of these estimates may not be accurate. Perhaps the ranking would be reversed, in some cases, if exact figures were available. But the general pattern, whereby Bangladesh is now doing better than India in terms of many aspects of social development, is unlikely to reflect measurement errors. The pattern is still the more striking as India used to fare better than Bangladesh in all these respects not so long ago in the early 1970s, when Bangladesh became independent.'

Nevertheless, despite this progress, human development remains a major challenge. Nutrition is a serious problem, with over 60 per cent of the children suffering from malnutrition as compared with 49 per cent for the region and only 11 per cent for lower middle income countries. While access to drinking water has increased, there are serious concerns about its safety due to contamination by arsenic poison. Only 44 per cent of the rural population has access to reasonable sanitation facilities. The adult literacy rate is still very low and secondary school enrolment is still below 50 per cent. Importantly, there are major concerns about the quality of education.

Progress with the Enabling Environment

It is universally acknowledged that long term economic growth is necessary for poverty reduction. The intuition underlying this conclusion is easy to see. Income growth creates the basis for providing productive employment, supports increases in real wages, and helps finance public programmes for poverty reduction. However, it is also well recognised that the pattern of economic growth matters in poverty reduction. In the Bangladesh context, given the strong concentration of the poor in the rural areas and being a labour abundant country, the overall pace of economic growth, the performance of agriculture, and the overall labour intensity of production all matter for reducing income poverty.

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10 See World Bank 1999a.
11 See World Bank 1999b.
13 The paper by Sandeep Mahajan in this volume looks in greater detail on the determinants of growth in Bangladesh.
What are the determinants of rapid, sustainable economic growth? There is a rich body of empirical literature that has analysed the determinants of economic growth. The role of physical and human capital and technology are generally well recognised. More recently, the importance of governance in affecting growth has been noted and emphasised. Governance affects the investment climate, which in turn is a determinant of the level and quality of private investment. The definition and measurement of governance, however, can take a variety of forms and there is no commonly used methodology. The main governance factors most commonly referred to by private investors as a deterrent to private investment in their response to survey questions are law and order, weak infrastructure, bureaucratic hassles and bribery.\textsuperscript{14}

Table 1.3 Bangladesh Progress with the Enabling Environment, 1973–2003

<table>
<thead>
<tr>
<th>Indicators</th>
<th>1973</th>
<th>2003\textsuperscript{15}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth of GDP (% p.a.)</td>
<td>–</td>
<td>4.6</td>
</tr>
<tr>
<td>Growth of per capita GDP (% p.a.)</td>
<td>–</td>
<td>2.3</td>
</tr>
<tr>
<td>GNP per capita ($)</td>
<td>120.0</td>
<td>380.0</td>
</tr>
<tr>
<td>Growth of agricultural GDP (% p.a.)</td>
<td>–</td>
<td>2.4</td>
</tr>
<tr>
<td>Investment rate (% of GDP)</td>
<td>8.7</td>
<td>23.2</td>
</tr>
<tr>
<td>National saving rate (% of GDP)</td>
<td>4.2</td>
<td>23.7</td>
</tr>
<tr>
<td>Domestic saving rate (% of GDP)</td>
<td>3.4</td>
<td>18.2</td>
</tr>
<tr>
<td>External trade (% of GDP)</td>
<td>18.4</td>
<td>32.1</td>
</tr>
<tr>
<td>Total debt/GDP (%)</td>
<td>10.7 \textsuperscript{16}</td>
<td>51.7</td>
</tr>
<tr>
<td>Inflation rate (% p.a.)</td>
<td>–</td>
<td>10.5</td>
</tr>
</tbody>
</table>


Table 1.3 shows the progress with the enabling environment for growth and poverty reduction in terms of a number of key economic variables that affect the pace, pattern and macroeconomic sustainability of growth. Governance issues are taken up later. As we saw earlier, Bangladesh made good overall long term progress in increasing per capita income and that this performance compares favourably with the average per capita GDP growth in South Asia and low-income countries during the 1990s. The analysis of Table 1.3 suggests that the growth performance was based

\textsuperscript{14} World Bank 2003. The link between governance and investment climate is reviewed in the paper on Investment Climate by Syed Akhtar Mahmood in this volume.

\textsuperscript{15} Growth rates refer to changes over the two terminal years.

\textsuperscript{16} Refers to 1975.
Development Performance and Policy Reforms since Independence

on an expansion in the rate of investment and supported by greater openness to international trade.17

Exports grew faster than GDP, fueled by a rapid increase in labour-intensive garment exports. Rapid expansion of food production also contributed significantly to higher growth. Importantly, much of this expansion in investment was financed by a rise in domestic and national saving rates.18 Following a brief period of serious macroeconomic instability reflected in high inflation during the early years of independence, Bangladesh was basically able to maintain good macroeconomic management until 1999. During 1999–2001, there was a significant slackening of macroeconomic management, especially fiscal policy. Fortunately, policy actions since then have helped correct this weakening. Macroeconomic management is now back on track.

As against these positive developments, negative factors have been on an average a relatively slow pace of expansion in agricultural value-added (notwithstanding the contribution of food production), an average long term inflation rate that has exceeded the international inflation rate (although the inflation rate was much lower in the 1990s and now in the decade of the 2000), and the rapidly increasing debt/GDP ratio. Even though the debt servicing burden is low due to the high degree of concessionality of loans from official sources, this cannot be assured for the future due to the changing global environment for foreign aid and capital flows. Indeed, during the late 1990s Bangladesh increased exposure to more expensive suppliers credit to finance infrastructure and other development projects.19 An added concern is the vulnerability of the Bangladeshi economy to the phase out of the MFA on 1 January 2005. Notwithstanding progress with trade reforms and the associated expansion of trade, Bangladesh exports remain narrowly focused on garments and a few other export items. Clearly much more needs to be done to diversify the export base.

An important question is how conducive is the investment climate in Bangladesh and in particular what has been the impact of governance on the investment climate? A recent survey of investment climate suggests that access to efficient and reliable infrastructure (power, ports, telecoms, transport) is a major constraint to private investment.20 Importantly, there

17 A detailed empirical analysis of the implications of trade liberalisation and economic deregulation for growth and poverty reduction in Bangladesh is contained in another paper in this volume by Ahmed and Sattar.
18 The saving rate for 1973 is likely to be an underestimate and not directly comparable with data for the 1990s that are based on revised national accounts. Nevertheless, there is little doubt that national saving rate has increased substantially since independence.
19 World Bank 2000b.
20 World Bank 2003a. Also the paper by Syed Mahmood in this volume.
is empirical evidence that poor governance has been an important constraint to private investment and growth in Bangladesh. The most significant problem has been pervasive corruption. Using a cross-country econometric model, one study has concluded that corruption significantly reduces the growth of per capita GDP in Bangladesh.\(^{21}\) Another study has listed the large number of hidden costs (illegal payments), which a private investor has to incur to do business in Bangladesh,\(^{22}\) raising substantially the financial cost of doing business and weakening incentives. The same study also contains a long list of complaints and concerns expressed by the business community relating to over-regulation and bureaucratic hassles that also reduce the incentives for investment. An additional factor adversely affecting business incentives is the frequency of political turmoil and hartals (economywide strikes causing work stoppages). For example, in 1999 hartals disrupted work for as many as 30 working days. Over the period 1995–2000, the total number of workdays lost from hartals is estimated at about 200 days.\(^{23}\)

Overall, the ability of Bangladesh to achieve a per capita income growth rate of 2.2 per cent per annum over the past thirty years and now growing at 3.7 per cent per annum (which is a better performance than the average for all low income economies), despite these significant governance problems, is a testimony to the dynamism of its people. Although the public sector and non-food agriculture have been drag on the economy, a vibrant private sector has emerged. Thus, during the 1990s, the garment exports and private services, particularly construction sector, provided the impetus to this growth of income. Nevertheless, the missed opportunities and waste due to corruption and other governance problems had a tremendous cost in terms of significantly lowering growth from its potential level. For example, the expansion in per capita income in Bangladesh in the 1980s and 1990s (3.0 per cent) still lagged behind the average growth of per capita income in India (4.5 per cent) and substantially behind the East Asian economies (around 6 per cent per annum). Not surprisingly, there has been much better progress with poverty reduction in these economies as compared with Bangladesh.

**Growth and Equity**

The aggregate results, however, hide some of the dynamics of the growth experience in Bangladesh and its implications for income distribution and poverty. A periodic breakdown of the experience is important to understand.

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\(^{21}\) World Bank 2000c.

\(^{22}\) World Bank 1996.

\(^{23}\) World Bank 2000c.
Development Performance and Policy Reforms since Independence

why poverty reduction progress has slowed down since the mid-1980s. The pace and pattern of growth, corresponding to the various poverty progress periods, is shown in Table 1.4. A number of important points emerge from this breakdown. First, the early years of independence (1972–77) that saw a considerable increase in the incidence of poverty also witnessed slow overall per capita income growth and slow growth of agricultural income. In the second phase (1977–86), when a sharp reduction in the incidence of poverty in both rural and urban areas happened, overall per capita growth improved, notably, the pace of growth in agricultural value-added increased, and there was a rapid expansion in the exports of garments. In the third phase (1986–92), rural poverty increased despite an increase in the rate of overall per capita GDP. This happened partly due to a significant reduction in the pace of expansion of agricultural incomes. Urban poverty, however, continued to show a decline, benefiting from the continued good rate of expansion of urban incomes and the contribution of buoyant garment exports. Finally, in the fourth phase (1992–2000), poverty declined in both rural and urban areas, supported by an increase in the rate of growth of overall per capita GDP, an increase in rate of growth of agricultural GDP, the continued strong contribution of garment exports and expansion of non-farm activities. Overall, on a long-term basis, growth and poverty are negatively correlated suggesting that the upward movement of the growth rate of the last few years (2000–04) would likely lower poverty further in 2004. In particular, the pattern of growth is also favourable during the 2000 decade so far, with agriculture, garments and construction all showing solid growth rates.

The breakdown of growth also shows a very important result. The impact of per capita income growth on poverty reduction has varied over time. Table 1.5 shows this result. The responsiveness of poverty to growth slackened considerably in the 1984–96 period. Overall, the responsiveness of poverty reduction to growth has fallen sharply since the mid-1980s. What explains this? Part of the answer is the differential pattern of growth whereby the participation of the poor in the growth process has varied over time. Also, the poverty responsiveness to growth will vary over time.

24 Salman Zaidi and Rinku Murgai show in an accompanying paper in this volume the sources of income for the poor. Evidence suggests that expansion of household income from agriculture and non-farm rural enterprises was an important factor for poverty reduction in the 1990s.

25 As noted earlier, there is some debate about the reliability of the 1986 poverty estimate that shows a marked reduction in poverty between 1984 and 1986. So, the 1986 poverty estimate is excluded from the calculation of growth responsiveness. Indeed, if one were to use 1986 as the base point for measuring poverty reduction since then, the outcome is one of negative progress with poverty reduction in the rural areas.
Table 1.4 Bangladesh Growth Pattern, 1973–2004 (% p.a.)

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</tr>
</thead>
<tbody>
<tr>
<td>Per capita GDP</td>
<td>0.9</td>
<td>1.7</td>
<td>1.6</td>
<td>3.2</td>
<td>3.7</td>
</tr>
<tr>
<td>Agriculture</td>
<td>1.0</td>
<td>4.4</td>
<td>1.8</td>
<td>2.4</td>
<td>2.8</td>
</tr>
<tr>
<td>Garment exports (current $)</td>
<td>–</td>
<td>210²⁶</td>
<td>20</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Construction</td>
<td>2.0</td>
<td>6.5</td>
<td>5.5</td>
<td>8.3</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Source: Data obtained from various World Bank country reports and from World Bank 1993.

Table 1.5 Bangladesh Poverty Responsiveness to Growth²⁷

<table>
<thead>
<tr>
<th>Years</th>
<th>Per capita GDP growth rate (% p.a.)</th>
<th>Reduction in poverty (% p.a.)</th>
<th>Poverty responsiveness (2/1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977–84</td>
<td>2.5</td>
<td>7.4</td>
<td>3.0</td>
</tr>
<tr>
<td>1974–92</td>
<td>1.7</td>
<td>1.9</td>
<td>1.1</td>
</tr>
<tr>
<td>1984–96</td>
<td>2.4</td>
<td>1.0</td>
<td>0.4</td>
</tr>
<tr>
<td>1992–2000</td>
<td>3.1</td>
<td>4.3</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Source: Growth data as in Table 1.4. Poverty data from Appendix Tables.

Based on the poverty line and the distribution around that poverty line. Nevertheless, evidence suggests that there has been rising inequality in both urban and rural areas in Bangladesh (see Figure 1.3). The incidence of inequality has been higher in urban areas than in rural areas.²⁸

²⁶ This high growth rate reflects an increase from a very low base of only dollar 3.0 million in June 1981.

²⁷ Due to non-comparability of the various poverty series, the estimates of responsiveness are computed as follows. For 1977–84, series A in Appendix Table A1.1 is used; for 1974–92, series B is used. For 1992–96 and 1984–96, poverty data in Appendix Table A1.2 is used.

²⁸ Salman Zaidi and Rinku Murgai look in greater detail on this growth, inequality and poverty relationship in an accompanying paper in this volume.
Participation and Social Development

Achieving rapid economic growth and macroeconomic stability are important elements of a sound development strategy. Ensuring broad participation in the growth process is very important to ensure equitable distribution of this growth. The evidence of rising income inequality in Bangladesh is a matter of concern. Is rising inequality of income an indication of barriers to social mobility? Has the Bangladesh social and political environment evolved to allow broad-based participation in growth and development?

One important element of this is the progress with improving the gender balance. In much of South Asia, women and girl child tend to fare quite badly relative to men and boy child. These are not only reflected in such indicators as access to education and income opportunities, but also in terms of basic indicators dealing with health and mortality. A particular strong indicator of the gender bias is the ratio of female to male. Dreze and Sen have argued that there is strong medical evidence that, given similar care, women tend to have lower age-specific mortality than men do. So, a female to male ratio of below one is an indicator of the anti-female bias of the social policy. Summers also makes a strong case why investment in the girl child makes very good economic sense.

Bangladesh has made remarkable progress in reducing gender discrimination (Table 1.6). Apart from the rapid progress in increasing enrolment of girls in primary and secondary schools, reaching parity by 2001, the increase in the ratio of female to male from a pretty low level to around the same level as in advanced western countries is an indication of the strength of the progress in reducing the anti-female bias in the country. This is particularly notable because of the overall difficult social environment for women in South Asia.

Table 1.6 Bangladesh Progress with Reduction in Anti-Female Bias

<table>
<thead>
<tr>
<th>Indicators</th>
<th>1972</th>
<th>1980</th>
<th>1990</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female–male ratio</td>
<td>0.91</td>
<td>0.92</td>
<td>0.93</td>
<td>0.99</td>
</tr>
<tr>
<td>Female literacy (% of male)</td>
<td>35.6</td>
<td>43.1</td>
<td>53.4</td>
<td>62.4</td>
</tr>
<tr>
<td>Female primary school enrolment (% of male)</td>
<td>50.0</td>
<td>61.6</td>
<td>86.6</td>
<td>101.5</td>
</tr>
<tr>
<td>Female secondary school enrolment (% of male)</td>
<td>30.0</td>
<td>33.1</td>
<td>50.7</td>
<td>109.9</td>
</tr>
</tbody>
</table>


29 Dreze and Sen 1995. See also Summers 1992.
30 Summers 1992. See also World Bank 2001a for evidence from international experience on the importance of gender balance for promoting development.
A second element affecting broad-based participation is ethnic balance. There are three main dimensions of this ethnic question: relationship with the Biharis, the relationship with the inhabitants of the Chittagong Hill Tracts (CHT), and relationship between Muslims and Hindus. During the early years of independence, the integration of the Bihari community with the mainstream Bengali community was a major issue. This, fortunately, proved to be a transitory problem. The immediate hardship and life threatening risks to the Bihari community after the independence of Bangladesh was brought to a reasonably quick resolution. Those who chose to migrate to Pakistan were allowed to leave, subject to acceptance by Pakistan. Those who opted to stay gradually got assimilated in the main society. Episodes of Bengali–Bihari tension since the mid-1970s have been rare. Regarding the inhabitants of the CHT, there have been major difficulties in terms of conflict with the mainland settlers, leading to armed revolt by the CHT inhabitants. The government of Bangladesh had to deploy military force to contain this insurgency. In 1997, a peace accord was signed with the CHT inhabitants, which by and large seems to be holding. Another ethnic dimension relates to religion, particularly the relationship between the majority Muslims and the largest minority group of the Hindus. Again, following a large number of migrations to India during the war of independence, the general atmosphere has been one of peaceful coexistence. Reports of discriminatory policies and practices on grounds of religious beliefs are uncommon in Bangladesh. Overall, except in the case of the CHT problem, Bangladesh has been fortunate to avoid any prolonged period of ethnic conflict and tensions. This is a major social achievement in Bangladesh and successive governments should take credit for maintaining this harmony.

In addition to investment in human capital, social capital mobilisation through the enabling role of the non-governmental organisations can be a major determinant of achieving broad-based participation. In Bangladesh, the strong role of the civil society has provided an important outlet for people's participation in economic and social decision-making. World-class NGOs, such as Grameen Bank, Brac and Proshika have provided opportunities for many ordinary citizens, who normally would have been by-passed by the government institutions, to participate in economic and social programmes thereby uplifting their economic status and contributing to the country’s development.\footnote{There have been reports of loss of life and property immediately after 1972; also those who left for Pakistan may have lost property or other assets. See also, Khan 1983.}

\footnote{The dynamic role of these and some other NGOs are well-known internationally. Useful reviews of the positive role of NGOs are available in World Bank 1996a; World Bank 2000d; Khandker 1996 and Khandker and Pitt 1998.}
Progress with Management of the Natural Environment

It is difficult to provide a quantitative framework of progress here. However, available evidence suggests that, by and large, progress has been limited.\(^{33}\) In the area of disaster management, resulting from frequent floods and cyclones, there has been an improvement in providing cyclone precautionary information. Also, better shelter and other mitigating measures have helped reduce the loss of life. Better management of food distribution and provision of relief supplies has similarly reduced the loss of life from floods. Positive examples of this are the effective management of the 1998 and 2004 floods. In both instances, governments have been able to minimise losses of life and there were no reports of famine or health epidemics, unlike the situation in 1974. While this is a commendable achievement, progress with longer term flood control and mitigation measures has been more limited.\(^{34}\) Other water related problems concern riverbank erosion and water drainage, which also remain serious problems. Generally, the vulnerability of the poor to the adverse effects of natural disaster still remains serious, especially in the rural areas due to loss of income from agriculture affected by the floods.

An especially serious concern that has emerged in Bangladesh is water and air pollution. Water pollution is causing widespread illness and death due to waterborne diseases and toxicity. One study estimates that up to 80 per cent of all illnesses in Bangladesh are related to waterborne diseases.\(^{35}\) The overall adverse health effects of poor water quality, sanitation and hygiene are estimated in the order of 3.6 million disability adjusted life years (DALY) with an associated financial cost of 2–4 per cent of GDP.\(^{36}\) More recently, arsenic poisoning of the groundwater has emerged as a serious health risk for Bangladesh.

Air pollution has gotten worse over the years, especially in the urban areas. Available evidence shows that the air pollutant levels in Dhaka – the capital city of Bangladesh – are substantially higher than the WHO standards. One estimate puts the loss of life from air pollution at 15,000 per year.\(^{37}\)

Many factors have contributed to the sharp deterioration in water and air quality in Bangladesh, including rapid and unplanned urbanisation without adequate capacity to provide basic urban services; heavy

\(^{33}\) Good reviews of the environmental management issues and progress in Bangladesh are available in World Bank 1991 and World Bank 1997a.

\(^{34}\) See World Bank 1998.

\(^{35}\) See World Bank 1997a.

\(^{36}\) World Bank 1997a.

section i: environmental problems

concentration of the urban poor living in subhuman conditions; unplanned industrial locations with inadequate emission control standards, monitoring and enforcement; poor management of industrial and household wastes; inappropriate use of pesticides; and the use of two stroke engines in the transport sector. Generally, the citizens' awareness of environmental hazards to health has been as limited as the attention given to proper management of the environment by the government.

section iii: progress with policy reforms

development outcomes are the results of the underlying policy and institutional environment. by and large, bangladesh has pursued a development strategy that can broadly be classified as market oriented, although the mixture of state controls and state-owned enterprises relative to private sector enterprise has varied over time.

except for the early years of independence, bangladesh has relied on economic growth and human development as the main instruments for poverty reduction. since 1975, this focus on growth and human development has remained dominant in spite of the many changes in government. correspondingly, the experiment with a controlled economy, comprising of state ownership and management of production and price controls, was short-lived and was basically reversed after the fall of the first government in 1975. over the years since then, deregulation, liberalisation and focus on private enterprise have proceeded at different pace and pattern.

to be effective, a market-based development strategy requires that policies and institutions are supportive of efficient functioning of markets. government regulations need to provide an adequate enabling environment, so that competition from domestic and international enterprises leads to efficient allocation of resources based on demand. forces of demand and supply determine prices. market failures are corrected by government regulations to protect public interest. distribution problems due to uneven initial conditions are resolved through proper state interventions, including regulations, taxation and public investment. clearly, the role of the government is critical for achieving desired development outcomes even in a market-oriented economy, albeit the nature of this role is vastly different from a socialistic economy where resource allocation, distribution and pricing are all determined by the government.

for analytical convenience, we will classify the policy framework for a market-based economy, such as in bangladesh, under four categories:

- macroeconomic policies
- policies for private sector development
It is important to note that this classification is somewhat artificial because policies in each category are often interrelated. In particular governance issues provide a common link to all categories. So, in the discussions, we will highlight the interrelationships whenever these are particularly important.

**Macroeconomic Management**

This was a problem area in the early years of independence of Bangladesh, but to a large extent became an area of strength after the late 1970s. Although some worrisome signs of strain on the macroeconomic balances emerged in the late 1990s, this was quickly corrected. So, on balance, after the difficult first few years of independence, macroeconomic management has been generally prudent allowing Bangladesh to reduce the pace of inflation, preserve the competitiveness of the real exchange rate, maintain positive real interest rates but without driving them too high, maintain low debt servicing ratio, and keep the fiscal cost of debt to a manageable level. Sound macroeconomic management has been a key contributor to growth performance in Bangladesh. The main problem areas though have been very low tax effort and the poor quality of public spending, both have adverse implications for poverty reduction.

**Exchange rate policy**

Over the longer term, the management of the exchange rate has been a positive aspect of Bangladesh economic management. The long term trend in real exchange rate is shown in Figure 1.4. A rapid pace of inflation in the 1972–75 period caused a sharp appreciation in the real exchange rate. This was reversed by 1980, and then was accompanied by a noticeable depreciation of the real exchange rate over 1980–85, aimed at securing the competitiveness of the real exchange rate. Since then to 1999, the real exchange rate showed a gentle upward drift indicating a slightly depreciating pattern. The management of the exchange rate suffered somewhat during 2000–01 from an appreciating trend. This has now been corrected with a switch to a flexible exchange rate system.\(^38\) Overall, by

\(^{38}\) This major policy shift happened in late May 2003 despite substantial opposition from various intellectual groups and private business who feared instability. Not surprisingly, the response so far has been quite predictable with no destabilising influence. Critics did not recognise that exchange rate management was backed by a fiscal correction and substantial improvement in monetary policy management.
aligning nominal exchange rate to reasonably competitive levels and avoiding significant periods of real exchange rate appreciation, Bangladesh was able to preserve export competitiveness to a significant degree.\textsuperscript{39} This was an important factor underlying the good performance of the export sector, contributing positively to growth and poverty reduction.\textsuperscript{40} At the same time, by allowing a significant expansion in exports, this substantially increased the debt-servicing capacity of the economy, enabling the maintenance of a low debt-servicing ratio.

**Monetary policy**

In the 1970s, the management of monetary policy was a problem area for Bangladesh. Rapid monetary expansion, much in excess of the growth of real GDP, along with structural problems associated with a war-ravaged economy fueled a rapid pace of inflation in the early to the late 1970s, which hurt the poor considerably. Since late 1970s, the management of monetary policy improved significantly over the years and the pace of monetary expansion became more disciplined. Along with the sharp improvement in food supply, good monetary management contributed to a substantial slowdown in the pace of inflation to single digits in the 1990s (Table 1.7).

**Table 1.7 Money, Growth and Inflation**

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<tr>
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<tbody>
<tr>
<td>Rate of growth of GDP</td>
<td>3.7</td>
<td>3.8</td>
<td>4.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Rate of monetary growth (M1)</td>
<td>15.8</td>
<td>12.5</td>
<td>12.0</td>
<td>14.0</td>
</tr>
<tr>
<td>Rate of inflation (CPI)</td>
<td>19.3</td>
<td>10.4</td>
<td>5.4</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Source: IMF and World Bank country reports.

\textsuperscript{39} One important concern though is the substantial appreciation of the Bangladesh currency vis-à-vis India, a major competitor, thereby adversely affecting Bangladesh's export competitiveness. See Ahmed and Sattar 2003.

\textsuperscript{40} See Ahmed and Sattar 2003.
Fiscal policy

Although overall macroeconomic management has been good, the management of parts of fiscal policy has been weak (see Table 1.8). The main problems have been a low tax to GDP ratio and poor quality of spending, partly reflecting corruption in public spending. While fiscal deficits have generally been restrained, periodic outbursts of fiscal indiscipline have also happened. Expenditure management issues are discussed in greater detail in the review of the sectoral policies and in the section on human development.

Table 1.8  Fiscal Developments in Bangladesh (per cent of GDP)

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<tbody>
<tr>
<td>Fiscal deficit</td>
<td>0.8</td>
<td>1.6</td>
<td>5.8</td>
<td>5.1</td>
<td>4.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Interest cost</td>
<td>0.2</td>
<td>0.5</td>
<td>1.0</td>
<td>1.6</td>
<td>1.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Tax revenue</td>
<td>3.2</td>
<td>5.2</td>
<td>7.2</td>
<td>8.1</td>
<td>8.3</td>
<td>8.9</td>
</tr>
<tr>
<td>Total revenue</td>
<td>3.8</td>
<td>6.6</td>
<td>6.8</td>
<td>9.0</td>
<td>10.2</td>
<td>10.4</td>
</tr>
<tr>
<td>Defence spending</td>
<td>0.5</td>
<td>0.9</td>
<td>1.5</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Data obtained from various government publications and World Bank country reports. Also, World Bank 1993.

When Bangladesh became independent in 1972, it inherited a very difficult fiscal situation but also a number of advantages. These advantages related to low debt obligations and low military spending. By and large, while Bangladesh benefited from these initial conditions, it failed to fully capitalise on them. On the positive side, Bangladesh restrained defence spending and maintained a good balance between military and social spending. The relative priority given to social spending has served Bangladesh well and contributed to the notable progress made in human development over the past years. Yet, the ability to increase public spending on health and education to levels necessary to address the remaining substantial gap in human development noted earlier has been constrained by the very low tax effort (only 8.9 per cent of GDP – the lowest in the region). Tax compliance has been a serious problem in Bangladesh – estimated at only 6 per cent, the lowest in the region.\textsuperscript{41} Large fiscal deficits in the late 1990s also emerged as a worrisome development. While the interest cost of debt is still small, this is only because of the past dominance of concessional foreign assistance, the continued availability of which is by no means assured. The growing debt to GDP ratio, rising from 11 per

\textsuperscript{41} See Ahmed 2002. A detailed review of tax performance and tax administration issues is contained in the paper by William McCarten in this volume.
cent in 1975 to 52 per cent in 2003, is an indication of the creeping effects of large external borrowings to finance the fiscal deficits. Efforts are now underway to reduce fiscal deficit by a combination of expenditure cutbacks and revenue mobilisation measures.

**Policies for Private Sector Development**

Following the early years of experimentation with a socialist pattern of economic management, Bangladesh embarked upon a more market-based economy. The incentive policies for private sector became the key determinant of economic growth. The pace and pattern of liberalisation and deregulation varied considerably in scope and significance by sectors and over time. Progress with deregulation and liberalisation advanced most in the area of trade policy, following the big push in the early 1990s. Deregulation in the industrial sector has been of mixed effectiveness because of the inability to address many of the deep-rooted governance problems of this sector. Liberalisation in agriculture, focused mostly on the input markets, yielded good results for rice production. Deregulation in the area of infrastructure has not advanced much, although encouraging beginning has been made recently in reforming the financial sector.

**Trade policies**

Despite a late start, by and large, progress with trade policy reforms has been an area of strength for Bangladesh. It has made steady progress in the 1990s in reducing trade barriers, both tarif and non-tariff (see Table 1.9).\(^4\)

Thus, the maximum tariff rate was sharply cut back from a high of about 350 per cent in 1992 to 25 per cent at present. The unweighted average tariff rate came down from 94 per cent in 1989 and 57 per cent in 1992 to

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</thead>
<tbody>
<tr>
<td>Average CD (unweighted)</td>
<td>57</td>
<td>22</td>
<td>22</td>
<td>17</td>
<td>16</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>Average protective tax</td>
<td>61</td>
<td>74</td>
<td>26</td>
<td>27</td>
<td>22</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Top CD rate</td>
<td>350</td>
<td>50</td>
<td>45</td>
<td>37</td>
<td>32</td>
<td>30</td>
<td>25</td>
</tr>
</tbody>
</table>

*Source*: Estimates based on customs data.

\(^4\) The Trade paper by Ahmed and Sattar in this volume reviews trade policy issues in greater detail.
13 per cent at present. The number of banned items has been substantially cut back. As a result, nominal and effective rates of protection have been reduced noticeably. In addition, special bonded warehouses and export processing zones have provided a big boost to the exports of the garments industry, taking advantage of preferential access to markets through the MFA. Owing to these trade reforms and good exchange rate management, the anti-export bias has been substantially reduced and the efficiency of domestic production has increased. Overall, progress with trade policy reforms has been an important factor in supporting the expansion of exports (Figure 1.5) and economic growth in Bangladesh. Nevertheless, there is still a substantial unfinished agenda and trade protection remains high by world standards. This is partly because Bangladesh has continued to use a large number of supplementary duties and other forms of trade protection, but also because other countries in the developing world have moved faster with trade reforms. So, proceeding with the next phase of trade reforms, including reduction in the dispersion of tariffs and elimination of most other remaining trade bans, will be important for securing a further increase in the efficiency of domestic production, promoting export diversification and increasing the rate of economic growth.

**Industrial policy**

After the massive nationalisation of the industrial sector in 1972, there has been a slow process of privatisation during the 1980s and the 1990s.

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43 See World Bank 1996.
44 See Sattar 1997 and World Bank 1999c.
45 See Ahmed and Sattar 2003. The concern that the expansion of garment exports was mainly due to favourable access to markets from the MFA and that this will be lost once the MFA phase out happens in 2005, is overstated. It is true that the MFA created a favourable environment for garment exports, but supply response was greatly facilitated by incentives. Bangladesh has favourable cost competitiveness in the low-end of garment products it exports, especially from cheap labour.
46 See World Bank 2003b.
Progress with industrial deregulation, however, gained momentum since the 1980s. Nevertheless, a number of quasi-controls still remained as of late 1990s, requiring business enterprises to seek permits, certifications, etc., before they can import machinery and equipment for setting up and running manufacturing enterprises. For example, the CCI&E still issues import permits for banned/restricted items, and the BOI issues permits for importation of machinery at concessional rates of tariff. More importantly, even though the number of procedures involved with starting business in Bangladesh has been sharply reduced, the implementation of these procedures takes a long time due to inefficiency and corrupt practices. Not surprisingly, the overall response of the manufacturing sector to this deregulation effort has been weak. The main exception has been the garments subsector, where deregulation has been most intense, and it benefited substantially, contributing handsomely to poverty reduction through higher incomes and employment for the poor. The reason for the weak supply response from the non-garments enterprises is the combined effects of remaining regulations and high transactions cost of doing business, deep-seated governance problems of the nationalised large-scale manufacturing sector, problems in the financial sector, weak infrastructure, and law and order problems.

The policy of nationalisation of the early 1970s left a very difficult legacy of labour militancy, overemployment, corruption, and management inefficiency, all contributing to heavy financial losses and a severe overhang of debt in the industrial sector from which the country is yet to recover. Despite past efforts to reform the public enterprise sector, there is still a large involvement of the public sector in the management of industrial enterprises, many of which are in the red and do not have a ready market for privatisation due to the overhang of indebtedness and labour problems. For example, the consolidated losses of state-owned manufacturing enterprises stood at taka 7 billion in 1999, increasing from around taka 6 billion in 1998. As well, the depth of the manufacturing sector remains low owing in a large part to inadequate foreign investment. Indeed, Bangladesh is amongst the lowest recipient of foreign direct investment in

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47 See Bakht and Rahman 1998 for a detailed analysis of the industrial sector constraints and performance. The paper by Syed Mahmood in this volume provides a detailed review of the constraints faced by Bangladesh enterprise sector.

48 The paper by Syed Nizamuddin on Public Enterprises in this volume provides a detailed review of public enterprise performance and reform strategy.

49 The deficits of the consolidated state-owned non-financial enterprises stood at taka 8 billion in 1999. Total SOE debt stood at taka 470 billion or around 27 per cent of GDP as of June 1997.
South Asia, except Nepal. Among the negative factors for low foreign investment and shallowness of the industrial sector have been corruption, poor infrastructure, poor law and order situation, and political instability.\textsuperscript{50}

Fortunately, there is now a renewed effort to reform the state enterprises. Significant progress has been made over the 2002–04 period in stemming the loses of publicly owned manufacturing sector through a combination of reforms including privatisation, closures and downsizing. Data suggests that manufacturing enterprises losses have come down from taka 8 billion in 1998 to taka 2 billion in 2004. The government has also taken steps to reduce the social cost of these actions by providing adequate compensation to retrenched labour.

\textit{Agricultural policies}

Bangladesh began with a heavy dose of controls over both the product and input markets for agriculture. Deregulation in agriculture started in early 1980s.\textsuperscript{51} This involved liberalisation of the fertiliser and irrigation equipment markets, and the reform of the public marketing of food grains. While much of the reform focused on agricultural inputs, on the output side the main noteworthy reform was the abolishment of most forms of food rationing and the monopoly in the import and export of food grains. The overall effect of this deregulation was positive, contributing to an expansion in agricultural productivity and value-added.\textsuperscript{52} Much of the positive impact happened in rice production – the dominant agriculture activity. Deregulation enabled rapid adoption of the high-yielding varieties (HYV) of rice, causing paddy production to increase at a faster pace than population and Bangladesh achieved rice self-sufficiency by the early 1990s.

Yet, the agriculture sector did not show overall dynamism in terms of long term growth and diversification. The performance of the agriculture sector is heavily dependent upon the contribution of rice, which seems to have become constrained by slowdown of demand due to low income elasticity of demand and the slowdown of the population growth rate. Given the importance of agriculture for poverty reduction, it has been a subject of considerable analysis, debate and discussion. The upshot of the main results of this intensive research is provided below\textsuperscript{53}:

\textsuperscript{50} World Bank 2003.
\textsuperscript{52} Abdullah and Shahabuddin 1997; Ahmed 1998.
\textsuperscript{53} A good summary of these issues is contained in Abdullah and Shahabuddin 1997; Mahmud 1998; and Faruqee 1998.
• Despite progress, agriculture continues to suffer from many controls over output pricing, marketing, and input supply; removal of these controls will benefit farm production and value-added.
• Deregulation has focused mostly on input markets; on the demand side, low expansion of the pace of domestic demand and inadequate export orientation continue to limit the incentives for production;
• Diversification of agricultural production away from the heavy reliance on rice is important to raise agricultural value-added; this in turn will require policies to boost domestic demand along with policy support for pushing agricultural exports.
• The prospects for non-rice agriculture exports are also limited by the relatively low productivity. So, policies for promoting technological progress in non-rice agriculture are very important.
• Inadequate agricultural infrastructure is another constraint on farm production and productivity.
• Overall water management and flood control policies are deficient, suffering from serious management problems, including O&M.
• Land markets function inefficiently due to inadequate land administration policies, including the inadequacy of the legal process for land tenure arrangements and land sales.54
• Finally, the inadequacy of the farm credit market remains a constraint on farm production.

Infrastructure policies
Progress with infrastructure policy reforms has been weak in Bangladesh. Much of the infrastructure provision (power, telecommunications, railways, ports, road-network) and maintenance has been in the public sector. Except for bus services, where an active private sector has operated, incentives for attracting private investment in infrastructure have been inadequate and a proper regulatory framework for private provision of infrastructure has been lacking. Consequently, substantial deficiencies in the quality and quantity of infrastructure services have prevailed, thereby increasing the cost of doing business in Bangladesh. Most serious problems have been in the power sector. Difficulties in the power sector have included huge losses, supply constraints, low reliability of service and corruption.55 Thus, power losses, estimated in the range of 35 to 50 per cent of output during the 1990s, were to a large part a reflection of power theft and poor collection of power bills.56 Power sector's financial losses were estimated at taka 5.6

54 See World Bank 2000d.
55 See World Bank 1998a.
56 Official estimates for power losses are 35 per cent. However, more detailed scrutiny suggests that these losses may be as large as 50 per cent.
billion in 1999. Recently, faced with acute power shortage, Bangladesh has sought to attract foreign private investment in power generation. Some efforts have also been made to improve performance by improving billing collection, reducing power losses and price adjustments. Overall, the agenda for sector reforms has to go much further to ensure efficient and affordable power supply. Ports in both Chittagong and Chalna have been plagued with inefficiencies and labour problems, resulting in high shipping costs. For example, the cost of moving a container through Chittagong is estimated at dollar 600 as compared with norms of dollar 150–300 in neighbouring country ports. Ports in both Chittagong and Chalna have been plagued with inefficiencies and labour problems, resulting in high shipping costs. For example, the cost of moving a container through Chittagong is estimated at dollar 600 as compared with norms of dollar 150–300 in neighbouring country ports. $^{57}$ Railways has suffered from serious financial losses and poor service. Inland waterways have not been adequately regulated, causing serious safety hazards. In all these areas serious reforms have been lacking.

Telecommunications network has been inadequate, inefficient and expensive. $^{58}$ Recently, competition from private wireless providers has improved availability and lowered service cost. However, the scope for further improvement is enormous. Progress in expanding the road network has been more encouraging, including a rapid expansion in private bus operators. Yet, road traffic has remained seriously congested, and has suffered from unduly high incidence of accidents and poor maintenance.

Financial sector policies

Historically, this has been another major area of concern. Public banks with seriously infected portfolios have dominated the banking sector. Even in the private banks, the portfolio infection has been pretty high. Due to weak management, constant political interference, and problems of corruption and directed lending. As of 2000, the four Nationalised Commercialised Banks (NCBs), holding 63 per cent of the industry’s net assets, were technically insolvent, with the ratio of their non-performing loans to total loans estimated at 46 per cent. The court system could not be relied upon to protect creditor rights, which further damaged lender incentives and contributed to misallocation of credit. While the issue of non-performing loans is fundamentally a problem of political economy, there were many associated management problems in Bangladesh relating to the inadequacy of the legal framework for banking control, banking supervision, inefficient management and overstaffing in public banks, and poor service standards in many banks, particularly in public banks. $^{59}$

$^{57}$ See World Bank 1998.
$^{58}$ See World Bank 1998.
$^{59}$ See paper by Sadiq Ahmed on banking reforms in this book.
Reform efforts over the past several years have sought to improve the regulatory and legal environment. Much of this initial effort was focused on the private banks. More recently, over the past two years, attention has been given to the public banks. These efforts are now yielding results. Thus, the share of non-performing loans in both private banks and NCBs is declining sharply, especially in private banks, and the share of private banks in total deposit and lending is rising (Table 1.10). Thus private banks now account for 49 per cent of deposits as compared with 34 per cent in 2000. Importantly, their share of net advances has accelerated to 52 per cent as compared with only 37 per cent in 2000. Related institutional reforms are also progressing well. The regulatory framework has improved and the capacity as well as effectiveness of the Central Bank in supervising banks has improved. Progress has also been made towards the application of international standards of loan classification and provisioning. Overall, the efficiency and soundness of the banking sector is better now than 3-4 years ago. Nevertheless, the vulnerability of the banking sector remains a concern and continued efforts are needed to complete the long term goal of establishing a market-based banking sector.60

One area of the financial sector where better long term progress has been made in Bangladesh concerns the management of the interest rate. Figure 1.6 shows the trend in real deposit rates. In the early years, rapid inflation along with control over interest rates, caused deposit rates to become highly negative until 1975. High inflation of the early 1980s also caused deposit rates to become negative. However, since 1983, deposit

<table>
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<th>Table 1.10 Banking Sector Performance</th>
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<td>FY</td>
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<tr>
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<td>2000</td>
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<td>2001</td>
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<td>2002</td>
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<tr>
<td>2003</td>
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<td>2004</td>
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Source: Data from Bangladesh Bank.

60 A review of South Asian experience with banking reforms and the case for a market-based system as opposed to regulations system is contained in Ahmed, Ramachandran and Uy 2002.
rates have remained largely positive. They fluctuated a bit though, reflecting yearly variations in inflation rates. Following years of control, interest rate policy was gradually deregulated in the 1990s. Recent reforms of government saving instruments have further reduced distortions and also helped calm the fear of rising real interest rates by reducing the cost of deposit mobilisation that is closely linked to returns on government saving instruments. So, the reform of taxes on financial instruments, the proper management of returns on long term government debt instruments (saving certificates, etc.) and the maintenance of positive real interest rates have all played an important role in spurring financial saving while reducing the bias against the stock market. Thus, the ratio of broad money (M2) to GDP surged from a low of only 20 per cent in 1980 to 40 per cent in 2003.

Policies for Human Development

Emphasis on human development has been a hallmark of the development strategy in Bangladesh. In addition to stronger funding support through the budget (Table 1.11), a notable feature of the Bangladesh experience is a successful partnership between the government and the NGOs in the delivery of basic human services. Indeed, this aspect of the Bangladesh experience with human development has important positive lessons for other South Asian countries. In particular, this has facilitated good progress with reducing the anti-female bias of development policy.

Successive governments in Bangladesh placed strong emphasis on funding human development through the budget while also involving NGO participation, mainly through donor funding, for service delivery. As a result, significant increase in budgetary funding over the depressed levels
Table 1.11 Public Spending for Human Development in Bangladesh

<table>
<thead>
<tr>
<th>Spending priority (% of GDP)</th>
<th>1972</th>
<th>1990</th>
<th>2001</th>
<th>2003</th>
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</thead>
<tbody>
<tr>
<td>Human development</td>
<td>1.9</td>
<td>2.4</td>
<td>4.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Defence spending</td>
<td>0.5</td>
<td>1.4</td>
<td>1.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Ratio of human to defence spending</td>
<td>3.8</td>
<td>1.6</td>
<td>3.1</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Source: Data collected from various Ministry of Finance publications.

of the early years of independence happened. Even so, the level of funding has been inadequate relative to needs due to a severe public resource constraint imposed by the weak tax effort. As well, cost recovery policies for higher levels of education and tertiary health services have been inadequate. Even though the overall effectiveness of public spending on human development has been better than in other South Asian countries, especially Pakistan, there is still significant scope for improving the efficiency and equity of these services.

Population management policies

For Bangladesh, a particularly notable area of policy success in human development has been the population control programme. A combination of education, social marketing of population control materials, and technical advice based on family health workers meshed into an effective delivery system has enabled Bangladesh to sharply cut back the rate of population growth, declining from 2.8 per cent in the early 1970s to 1.4 per cent in the late 1990s. Correspondingly, the fertility rate has been cut back from 6 in 1975 to only 3 in 2003. Prevalence of the contraceptive rate is amongst the highest in the developing world (Figure 1.7). Partnership between government, private sector NGOs and the donor community has also been exemplary. Arguably, this is amongst the most important policy success in the field of human development and shows that a concerted effort coupled

![Figure 1.7 Contraceptive Prevalence Rate 1999–2001](image)

61 See Barkat et al., 1997 for a review of the population control progress in Bangladesh.
with strong partnership with concerned agents can provide the basis for attaining the desired goals of human development in Bangladesh and other South Asian countries.

**Health policy reforms**

Progress with health reform policies in Bangladesh has been mixed. Since independence there has been a gradual increase in public spending on health. Yet, at only 1 per cent of GDP, public spending on public health services is grossly inadequate. Given this tight resource situation, careful spending priorities are essential. On the positive side, emphasis on child immunisation and control of communicable diseases has yielded very good results leading to a substantial reduction in infant mortality.\(^6\) Partnership with NGOs has been instrumental. As well, there has been progress in regulating the pharmaceutical industries and import of drugs to ensure affordability of basic medicines and to improve public safety of drug usage. Even so, the agenda on the health side remains daunting, reflected in low life expectancy and still high rates of child and maternal mortality rates. Of particular concern is the high incidence of child malnutrition, not withstanding past progress.\(^6\) Along with a larger allocation of public resources for health services based on higher resource mobilisation, public expenditures needs to focus even more strongly on basic health care as opposed to tertiary care which should mostly be left to the private sector. A major policy weakness is the lack of an effective regulatory framework for private health care. As a result, while a flourishing private health care service has emerged in response to growing demand, there are serious problems of quality control, accountability and affordability. Additionally, pricing policies for public tertiary care are inappropriate, providing huge subsidies without regard to incomes.

**Education policies**

Bangladesh has rightly recognised the importance of education for development. The main policy elements for education have been a combination of public financing and provision, and partnership with the NGOs for service delivery. Public spending for education expanded noticeably, reaching 2 per cent of GDP in 1990 and further rising to around 3 per cent in 2001. Yet, this level of funding is inadequate to meet both the quality and quantity requirements, particularly at the secondary level.\(^6\)

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\(^6\) See World Bank 2002.
\(^6\) See World Bank 1999b.
Regarding service delivery, Bangladesh has made remarkable progress in developing a strong partnership with the NGO community in the delivery of primary and secondary education. This has been the main factor underlying rapid increase in gross enrolment rates. Another striking positive feature of Bangladesh education policy has been the strong emphasis on girl’s education. The stipend programme for girls’ secondary education has been a particularly successful policy, enabling the rapid enrolment of girls in secondary education and the elimination of the gender gap. The main problem areas in the education sector concern the poor quality of education at all levels, the inadequacy of enrolments at the secondary level despite progress from very low levels, inequity of public education spending, and inadequate policy framework for private provision. While the progress in raising enrolments at the primary level, particularly in increasing education participation of the girl child, should be celebrated, these difficulties in the education sector continue to pose a substantial policy challenge for reducing long term poverty as well as providing the skill base for supporting higher economic growth.

Poor education quality is reflected in low education achievements, high dropouts, and the weak link of education with the job market. Quality problems relate to a whole host of factors in the entire education chain involving the curriculum, teacher quality, inadequacy of education materials, examination and testing standards. There are also governance problems relating to absentee teachers in public schools and examination and testing related corruption. As well, the efficiency and equity of public spending is of concern. These problems are not insurmountable, but require a thorough overhaul of education management. Recently efforts have been initiated to address the challenges in secondary education. These efforts will need to be sustained.

**Water supply, waste management, and management of air pollution**

Public spending along with supportive NGO role has enabled a sharp increase in the access to safe drinking water in Bangladesh. Also, one positive development in air pollution management has been the banning of leaded gasoline use in 1998. However, as noted earlier, water quality, including the problem of arsenic poisoning, is a serious health hazard. Actions taken by the government to mitigate this risk are welcome, but the arsenic problem remains a challenge. Similarly, heavily polluted air poses a severe health risk. The problems here largely reflect weakness of the

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65 See World Bank 1999b.
underlying institutions and corruption. In particular, the ability of urban municipalities to handle urban waste and other basic urban services is severely constrained by poor governance. Additional policies, standards and monitoring of water and air pollution are constrained by weak progress with environmental management institutions. Overall, pollution management is a major area of policy failure in Bangladesh leading to serious environmental health problems from air and water pollution.

**Progress with Institutional Reforms**

There is now a strong recognition that institutional reforms are necessary to sustain rapid growth and poverty reduction in developing countries. For example, the World Development Report (WDR) 2002 of the World Bank focused on 'Building Institutions for Markets' as the core theme of the report. There has been emphasis on certain aspects of institutions in other WDRs as well, including the WDR 1997 on the Role of State, the WDR 2003 on Environment, and the WDR 2004 on Service Delivery. Each of the WDRs builds on the work of earlier WDRs and provides further analysis of the institutional context of the development challenge in concrete terms to make associated reforms implementable. This is indeed a laudable effort and provides a fairly rich analytical base over which one can build on to move the institutional reform agenda forward.

Institutions have substantial political dimensions. However, to keep the focus on economic management issues, the paper will not dwell on political matters and look at only those institutions that have direct impact on economic management and related performance. For the context of this paper, and drawing on the work of the various WDRs, following dimensions of the institutional reform agenda would appear important:

- Management of the budget
- Anti-corruption policies and institutions
- Independent regulatory bodies to protect public interests
- Decentralization and devolution of decision-making
- Civil service reforms

Needless to say, institutional arrangements underlying each of these themes and associated issues are interrelated. Yet, it will be helpful to focus on each of these important themes separately in order to have clarity of underlying issues, measure specific areas of progress and identify areas where further attention is needed.

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68 See World Bank 1997b.
Management of the budget

The government budget is probably amongst the most fundamental institution that has a determining influence on development performance. A detailed exposition of past progress, issues and reform agenda is provided in an accompanying paper in this volume. In several respects, the management of the budget has been a positive development in Bangladesh. In particular, the emphasis placed on human development in budgetary allocations is a substantial achievement. However, in a number of areas, budgetary management has not progressed adequately. One key problem is tax administration. Bangladesh did make some progress in improving the tax structure by introducing the VAT and reducing the reliance on trade taxes, but the overall tax effort is weak due to both low coverage and low tax compliance. Modernisation of tax administration is a major institutional challenge for Bangladesh. In expenditure management, while broad allocations are fine, there are several concerns relating to quality of public spending and corruption.

The budgetary process in Bangladesh suffers from a number of weaknesses that reduce the effectiveness of the budget. These include: lack of strategic focus and clarity on sectoral priorities; inadequate information on the cost of policies, programmes, and services; short term horizon for budget decision-making that fails to account for the long term costs and benefits; an artificial separation of development and recurrent budgets, weakening the integrated, strategic content of the budget; and end of year spending incentives that reduce the efficiency of spending. These drawbacks have often led to inefficient spending decisions. For example, the separation of development and recurrent spending has meant inadequate attention to the recurrent cost implications of capital spending. Indeed, operation and maintenance (O&M) has typically tended to be short-circuited causing low returns from capital spending. Lack of good costing analysis of public programmes and policies has similarly meant inappropriate or inadequate funding of many programmes, leading to poor efficiency of these programmes. Many public programmes are based on political expediency rather than on a careful analysis and choice of competing priorities, thereby contributing to low returns from such spending.

Improving budget formulation to link policy planning and budgeting is necessary to embark on strategic planning initiatives such as the Poverty Reduction Strategy (PRS). The government aims to move gradually towards

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70 See paper by Sadiq Ahmed on Budgetary Management for Growth and Poverty Reduction in this volume.
71 The paper by William McCarten on Tax Administration in this volume looks at these issues in greater detail.
a Medium Term Expenditure Framework (MTEF). The government has already reclassified around 50 development projects and aligned them with the overall budget classification.\textsuperscript{72} It plans to continue until all projects have been reclassified and the revenue and development budgets have been fully realigned. With regard to budget strategy formulation, the government plans to proceed gradually by using selected ministries (starting with the education sector) as pilots for the preparation of sectoral medium term expenditures. The goal is to extend the approach to other sectors and then to the entire budget. These are important positive steps, but there is a long way to go. Among the issues that need more effort and resolution include: assigning clear responsibilities between different levels of governments and line ministries in the formulation of the MTEF; capacity to do detailed costing of programmes and policies; establishing sectoral and programme priorities; setting realistic programme goals and targets; and strengthening the relationship between the PRS and the annual budgets.

Another key factor underlying the low effectiveness of public expenditure in Bangladesh has been a dysfunctional expenditure monitoring system. The traditional monitoring emphasis has been on spending of budgetary allocations rather than on outcomes. Thus, the success of budget implementation is judged on the basis of how closely actual spending matched the allocated budget. The tracking of expenditure has also been constrained by inadequate attention to data quality and timeliness. Very recently, as a part of the PRS, an effort is now underway to establish a fairly detailed mechanism to monitor poverty-related expenditure, along with their intermediate indicators and outcomes, in relation to the specific human development and poverty targets in the PRS. This mechanism, when fully functional, can provide a powerful analytical tool to assess the effectiveness of public spending in achieving stated outcomes. The success, however, requires a long term effort to increase monitoring and evaluation capacity and strengthen the underlying database in terms of quality, comprehensiveness and timeliness at the district level and moving upwards.

Although on paper Bangladesh has a reasonably sound financial accountability set-up, in practice weak financial accountability has been a fundamental institutional constraint on public spending (World Bank 2000f). Major concerns include: (i) ineffective parliamentary and executive control of the budgetary spending – audit reports on annual accounts are heavily qualified and accounts do not currently meet the expectations of the Constitution and associated laws and regulations; for example, the audit reports focus only on irregularities in individual transactions without

\textsuperscript{72} Overall budget classification refers to the classification of expenditures into administrative units, functional, subfunctional and economic categories according to the General Financial Statistics or UN internationally recognised standards.
sufficient attention to significance and systematic weaknesses of financial management system. Similarly, the legislative oversight of the accountability system is weak. The accountability of the executive is not sufficiently supported by information that would enable it to become focused on results and outcomes; (ii) the separation of audit and accounts took a long time to come; even now the process is yet to be completed; (iii) although a system of penalties exist, these sanctions and associated implementation is inordinately cumbersome and lengthy; (iv) the quality of audit suffers both from quality and timeliness of data as well as from lack of automation and low staffing quality.

To address some of these concerns, since 2002 Bangladesh has initiated important reforms to improve financial management. The auditing and accounting functions have been separated. The Controller General of Accounts (CGA) no longer reports to the Controller and Auditor General (C&AG). Six Divisional Controller of Accounts (DCA) offices have replaced 20 regional accounting offices. Unions and districts now send their monthly accounts and report directly to the DCAs. A central reconciliation unit is working in the office of CGA. Budget Monitoring Committees have been formed in a number of ministries. Financial Management Units (FMUs) are being set up in five ministries in addition to seven previously done. The authorities have recently accepted an Inception Report for a Financial Management Reform Programme (FMRP), funded jointly by DFID and the government of Norway. The FMRP will help develop these FMUs, depending on the size of their ADP budgets. The Public Accounts Committee has been reestablished and is functioning. Further reforms are still needed to improve data reliability and timeliness, the comprehensiveness of government accounts, reporting and disclosures following International Public Sector Accounting Standards (IPSAS), quality of audit reports, and effectiveness of parliamentary oversight and other watchdog institutions.

Anti-corruption policies and institutions

For four years in a row, Bangladesh has been labelled by the Transparency International (TI) as the most corrupt country in the world. While one can debate the precision of this ranking and quibble with methodology, there is no doubt that corruption has become a major development problem in Bangladesh. The observed coexistence of serious corruption and good development performance is seen by many as a puzzle. A closer look will show that this is not indeed a puzzle. A combination of good policies and private sector initiatives, including the positive role of NGOs, explain the good performance of Bangladesh on the development front. On the other hand, corruption and poor governance explain the weak performance of
the public sector, which is a drag on the economy. Starting from a low level of economic activities and social indicators, it has been possible for Bangladesh to move forward rapidly with solid progress with growth, poverty reduction and human development. Nevertheless, Bangladesh remains a very poor and vulnerable economy, and long term sustained progress will be needed to reach the next stage of the MDGs. Increasingly this progress is being threatened by the pervasive problem of corruption. The investment climate is adversely affected by the associated high cost of doing business resulting from corruption. The missed opportunities for higher level of investment and growth are enormous.

The enormity of the corruption problem is recognized by the government and a strategy is evolving to tackle many of the problems at source. The strategy involves efforts at both economywide level as well as at the sectoral level. At the aggregate level efforts are being made to improve procurement policies, financial management policies, better sharing and access to information, improving budget management including tax administration, and establishing an Anti-Corruption Commission. At the sectoral level, the focus is on deregulation to reduce the scope for public intervention in commercial decision-making, reducing public ownership in commercial activities and establishing better regulatory policies and oversight in banking, energy and infrastructure. This effort is yielding results in a number of areas in terms of better management of public expenditures, reduction in non-performing loans of banks, and higher collection of utility bills. This progress is encouraging but there is a long, long way to go. The implementation of these reforms has begun only recently and implementation of some of the economywide reforms such as the Anti-Corruption Commission has barely moved, demonstrating the highly political nature of these reforms and weak commitment. Needless to say, the battle here is long term and sustained political will at the highest level is essential for success.

**Independent regulatory bodies to protect public interest**

The corruption problems partly emanate from the absence of proper regulatory bodies that reduces the accountability of the concerned agency, public or private. Important examples of these institutions are: an independent Central Bank; an autonomous tax administration; an independent Audit Body; Public Accounts Committee (PACs); utility regulatory bodies, etc. The mileage that one could get from these institutions even in the context of a poor developing country like Bangladesh is illustrated by the recent progress in the banking sector. To a significant extent, this progress has been possible because of the recent empowerment of the Central Bank to regulate more rigorously the banking sector without
Transforming Bangladesh into a Middle Income Economy

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excessive interference from the government. The experience of Pakistan's banking sector with this approach is similarly illustrative of the good outcomes that strong institutions can deliver. Bangladesh is slowly moving in this important area. In addition to the Central Bank, some progress has also been made with strengthening the audit functions and a start has been made to improve the effectiveness of the tax administration. This progress, however, is very small and gradual. The agenda here is long and arduous. Once again strong, sustained political will is necessary.

Decentralisation and devolution of decision-making

Public administration in Bangladesh is heavily centralized. Within the civil administration, almost all authority is exercised by the head of the government and the cabinet. Local governments are very weak, with little administrative and financial authority (World Bank 1996a; World Bank 1997b; World Bank 2000e; UNDP 2002). There have been a number of attempts to establish a stronger system of local governments. These have had very limited success due to lack of strong political commitment at the top. Consequently, the setting of expenditure priorities, allocation of resources, procurement of goods and services, and the implementation of projects are largely centralised at the ministry level in the capital city of Dhaka. District administrations are run by the civil servants with little independent authority. So, local level involvement is limited to running public facilities at the district level and maintaining law and order. Additionally, local level civil servants are not accountable to the local governments but to the ministries at the central level.

The political progress on decentralisation has suffered in Bangladesh from the unsupportive attitude of both the large political parties (Awami League and the BNP), even though the rhetoric has been different. At the heart is the contentious issue of division of power between the national legislators and the local governments. While similar conflicts arise in other countries as well, in Bangladesh this has become particularly complicated because of the small physical size of the country, the homogenous nature of the people and the relative ease of physical mobility. Consequently, national legislators have tended to argue that they can take care of their constituencies without the need for an intermediary political agent (elected and empowered local governments). Civil servants have also found this convenient since this has given them more authority without accountability, especially at the local level.

What has been the outcome of this heavily centralised administration for development performance? Even though the jury is out on the international evidence on the role of decentralized governments in service
delivery (World Bank 2003a), a priori it can be argued that the centralised system of public service delivery is likely to be an important contributor to the poor service quality in Bangladesh and needs to be revisited. The example from Pakistan in the delivery of social services is one negative experience of the ineffectiveness of a heavily centralised service delivery model. Recognising this, Pakistan has embarked upon an ambitious programme to decentralise basic service delivery to the district level. Although, the changes are still ongoing and it is too early to judge whether or not there has been a major breakthrough in service delivery, initial evidence seems encouraging.

In the case of Bangladesh, this is perhaps best illustrated by the experience with delivery of basic social services (education, health, water supply) through NGOs who tend to work very closely with the local communities as compared with centralised public services with poor accountability. It is generally acknowledged that on average health and education services delivered by NGOs involving community participation has been significantly better than comparable services provided by public facilities (see for example Ahmed and Nath 2004 for a review of BRAC experience in delivery of primary education). This is not surprising. The NGO facilities have typically involved heavy participation of local community members in the design and delivery of these services and with better accountability by NGO officials, whereas on average public services have suffered from lack of community participation and accountability of service providers. Centralised management has meant that there is no functioning mechanism to ensure accountability of the local public service providers. Thus, for example, the teacher or the health worker continues to get paid whether or not the person shows up because these service providers are not hired by the community or get punished for non-performance.

**Civil service reforms**

At both the central and local levels, day to day general administration is run by the civil servants. This system was inherited from the British colonial times and has changed very little in terms of basic attitude and accountabilities. In the early days after the independence of India and Pakistan from the British, the standard for the selection of civil servants was tough leading to high quality of officers. The high quality and the prestige value of the job sometimes motivated officers to take a missionary zeal and make an effort to contribute to local development. Over time, though, the quality of civil service weakened. The pay and benefits also fell drastically in real terms. Currently, the civil service is
plagued with a plethora of problems including low quality, poor remuneration, weak accountability and corruption. Consequently, service quality is low and bureaucracy is often a serious hurdle to the efficient functioning of the private sector and the economy (World Bank 1996a; World Bank 2000e).

Reform efforts in this area have been weak. There have been many studies of the civil service in Bangladesh, the most recent of these being the 2000 Report of the Public Administration Reform Commission (PARC). Generally, the recommendations in these reports are sound and sensible. But very little of the recommendations from the PARC report, or from other reviews and commissions, have been implemented. The major reason for the lack of action in this area is the absence of political will. While a systematic reform effort has not been made, some partial reforms have happened. First, the government has implemented a form of merit-based promotion for deputy secretaries and above. Second, to rebalance the pyramid nature of staff with heavy concentration at the lowest level (class IV), the freezing and shifting towards a ‘no work no pay’ contract model for new hires at the class IV employee level has been maintained for a number of years now. Third, to support the new policy of separating the judicial and executive functions, the government has very recently separated the judicial cadre from the normal civil service.

It is clear that civil service reforms lack political champion in Bangladesh, which is very unfortunate. This constraint will continue to impose a serious burden on development effectiveness in Bangladesh by reducing the quantity and quality of public services, as well as by reducing the progress in tackling corruption. Public pressure and donor effort to create ownership for this important reform will help. Further deregulation and reducing public sector role in delivering commercial services will also help. Similarly, greater devolution of responsibilities to publicly elected local bodies will help create the enabling environment for civil service reforms. The agenda is a long term one and progress is likely to be gradual.

SECTION IV: SUMMARY AND CONCLUSIONS

In this paper we drew on the basic principle emphasised by Sen\textsuperscript{73} and Stiglitz\textsuperscript{74} that development is much more complex than only securing rapid economic growth. Key elements of our analytical framework for measuring development progress in Bangladesh included: progress with poverty reduction and human development; the pace and pattern of economic growth; the distribution of the benefits of economic

\textsuperscript{73} Sen 2000.
\textsuperscript{74} Stiglitz 1998.
growth; and social development and participation. The overall record of Bangladesh on development performance since independence is fairly impressive. Yet substantial challenges remain.

The review also shows a rich and fascinating pattern of policy successes and failures. The paper showed that a number of positive socio-political-economic factors contributed to past progress. These include: (i) favourable initial social conditions such as common language, moderate religious influence, a relatively positive social attitude towards women’s empowerment; (ii) favourable regional security environment enabling military spending to be kept low; (iii) low initial debt obligations; (iv) a tradition of political consciousness and civil society activism leading to political competition and some degree of accountability; and (v) an abundant and hardworking labour force willing to take risks. As a result of these factors: (a) broad spending priorities were favourable to human development; (b) a strong role of NGOs/CBOs emerged in the delivery of social services, partially substituting for the failures of public service delivery; (c) an enterprising private sector emerged in most spheres of economic and social activities, again partly substituting for the weakness of public sector performance. Additionally, much of the gains came from relatively non-controversial policies where political trade-offs were either not serious or where these trade-offs were manageable. Generally, the pattern of policy reforms has followed a path of least controversy. These include policies such as: investment in seed-fertiliser technology, building up road infrastructure, investment in water, investment in education of girls, establishing free trade zones for the garment sector, and maintaining good monetary and exchange rate policies. Even so, the weak governance environment reduced the effectiveness of some of these policies, for example the low effectiveness of public spending due to corruption.

While appreciating the good progress with development, one should note that this progress is measured from very low initial levels. Consequently, notwithstanding the progress, Bangladesh remains one of the poorest country in the world with a per capita income of only 400 dollars. Not surprisingly, the incidence of poverty is still very high, nearly 50 per cent, and there is still substantial vulnerability of the poor to shocks. Human development has been impressive, but remaining challenges are substantial. Addressing these concerns will require growth to be raised to 6-7 per cent per annum by improving the investment climate, while social inclusion and participation in the growth process needs to be strengthened through further improvements in human development. Securing these goals will require moving to the second and more complicated phase of reforms that involve substantial political trade-offs. Without matured political leadership and improvement in public administration, such reforms will not be possible. For example, problems include low resource mobilization,
inefficiency of the financial sector, the generally weak investment climate due to high cost of doing business, low quality of education and health services, and inadequate social protection. Reforms in each of these areas involve substantial political trade-offs. The political nature of the agenda can be seen from the following illustrations:

- Stronger resource mobilisation will require bringing the powerful elites to the tax net and collecting electricity and other utility bills;
- Financial sector improvements will require taking the public sector banks out of the lending business and assigning this to private banks with full servicing and repayment of loans, which in turn requires the powerful business and others to repay their loans and eliminate the rents of politicians/bureaucrats from their influence over public banks;
- Improvement in investment climate will require removal of all hurdles to private investment, improving law and order, and strengthening infrastructure services. All of this require strong political will to tackle the many vested interests that are a constraint presently;
- Finally, improvement in the quality of human development and stronger social protection will require substantial resources as well as a sea change in the delivery of public services to ensure better accountability and transparency, including decentralisation of public services to link them better with users. The agenda here is clearly political in nature.

The basic message is that reforms are intimately linked with politics. Indeed, the link between politics, administration and policy performance is well demonstrated by the review of the experience of Bangladesh. Progress in policies happened in areas where political trade-offs were low and vested interest was not over-powering. But deeper reforms, needed to push ahead the poverty reduction and human development agenda beyond the easy options will require stronger political commitment and better representation of the common citizen in the decision-making process.

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### APPENDICES

**Table A 1.1 Bangladesh Poverty Incidence, 1973–92**

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<tr>
<th>Years</th>
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<th>Headcount (B)<strong>76</strong></th>
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</tr>
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<tr>
<td>1989</td>
<td>43.4</td>
<td>37.4</td>
</tr>
<tr>
<td>1992</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>1996</td>
<td>n.a.</td>
<td>n.a.</td>
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</table>


**Table A 1.2 Bangladesh Progress with Poverty Reduction, 1984–2000** **77**

<table>
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<tr>
<th>Years</th>
<th>Poor (headcount index)</th>
<th>Very Poor (headcount index)</th>
</tr>
</thead>
<tbody>
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</tr>
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<td>50</td>
</tr>
<tr>
<td>1986</td>
<td>53</td>
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<td>1989</td>
<td>59</td>
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<td>1996</td>
<td>55</td>
<td>30</td>
</tr>
<tr>
<td>2000</td>
<td>53</td>
<td>37</td>
</tr>
</tbody>
</table>


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**Notes:**

75 Based on distribution data ranked by per household expenditure.

76 Based on distribution data ranked by per capita expenditure.

77 These estimates in some sense are based on best practice methodology, being derived from the cost of basic needs method and careful attention is paid to deriving price deflators.
Poverty Trends During the Nineties

Rinku Murgai and Salman Zaidi

SECTION I: INTRODUCTION

The performance of the Bangladesh economy in the past decade has been relatively strong, with annual growth in gross domestic product (GDP) averaging about 5 per cent during the 1990s. Between 1991 and 2000, real GDP increased by 52 per cent in real terms, with gross output in agriculture, services, and the industrial sector increasing by about 33 per cent, 50 per cent and 86 per cent, respectively. Given the widespread interest in linkages between growth, equity, and poverty reduction, investigating the extent to which this impressive growth performance translated into reduced incidence of poverty in the country is an important one.

The household expenditure surveys (HES) series conducted by the Bangladesh Bureau of Statistics (BBS) are the main data source for estimation of poverty in Bangladesh. These surveys are designed by BBS to be comparable over time (i.e. in terms of methodology, questionnaire content, interviewing procedures, etc.), and have been carried out in Bangladesh at regular intervals. This paper presents the main findings of the analysis of the 2000 household income and expenditure survey (HIES), as well as of earlier rounds of the HES series (i.e. the 1991-92 and 1995-96 surveys) to assess changes in poverty incidence in Bangladesh during the past decade. The analysis presented was carried out in close collaboration with BBS.

Trends in poverty and inequality in Bangladesh during the 1990s are presented in Section II, which also outlines the various steps followed to derive these estimates. Section III compares selected findings from the various HES datasets with other data sources such as the National Accounts.

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1 This paper was prepared as a background paper for the Bangladesh Poverty Assessment.
This section includes a discussion of the extent to which the main HES findings are corroborated by these data sources, as well as highlights areas where the two present conflicting trends. Section IV presents a brief discussion of the extent to which the three HES datasets are comparable with one another. In addition, estimates of poverty obtained by following alternate methodologies are also presented in this section, along with trends in other selected indicators of living standards. Section V contrasts the pace of poverty reduction in Bangladesh with its neighbouring countries in South Asia and East Asia. Finally, Section VI concludes by summarising some of the main findings of the paper, as well as outlining areas where further work and research might prove fruitful.

SECTION II: TRENDS IN POVERTY INCIDENCE DURING THE NINETIES

Methodology

BBS and the World Bank used the cost of basic needs (CBN) method to derive poverty lines and poverty measures from the 1991-92 and 1995-96 HES (BBS 1997; World Bank 1999). To summarise briefly, the CBN approach entailed three main steps: First, a food bundle yielding 2,122 kcal per day per person was chosen comprising rice, wheat, pulses, milk, mustard oil, beef, fresh water fish, potato, other vegetables, sugar, and bananas. Purging reported unit values in the survey data of possible variation due to differences in the quality of items consumed, the prices of the various food items in this bundle were estimated for 14 different geographic regions to ascertain the total cost of consuming this bundle in different parts of the country. The second step was then to estimate the cost of basic non-food needs. Following the approach proposed by Ravallion (1994), two non-food allowance components were calculated: the first obtained by taking the amount spent on non-food items by those households whose total consumption was equal to their regional food poverty line (corresponding to the lower poverty line), while the second was obtained by taking the amount spent on non-food items by those households whose food consumption was equal to the regional food poverty line (corresponding

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to the upper poverty line. The third step in calculating the lower and upper poverty lines for each region entailed simply adding up the cost of purchasing the food bundle in each region to the respective non-food allowance components. The lower poverty lines thus incorporated a minimal allowance for non-food goods (the typical non-food spending of those who could just afford the food requirement) while the upper poverty lines made a more generous allowance (the typical non-food spending of those who just attained the food requirement).

In assessing trends in poverty over the decade, we hold fixed in real terms the poverty lines estimated by the CBN method at the beginning of the period, i.e. 1991-92, and update in subsequent years each region's base year poverty line for changes in the cost of living using a region-specific price index. The methodology used to derive these regional price indices and related estimates of poverty trends are discussed in this section. Alternative estimates of poverty trends obtained using poverty lines derived through other methodologies are discussed in Section IV.

Adjusting Poverty Lines for Changes In Cost of Living

There are several data sources that could potentially be used for estimates of cost of living increases, needed to update the 1991-92 poverty lines. For instance, we could (i) rely on estimates of inflation from official sources such as the consumer price index (CPI) or the GDP deflator series, or (ii) use price indices derived from the HES datasets themselves using information on unit values of various consumption items collected in the surveys.3

In some sense, the CPI is the natural choice for updating the poverty lines, as it is the standard yardstick used by most to assess changes in the cost of living over time. However, in the case of Bangladesh, the official CPI suffers from two main shortcomings: (i) it is based on a set of weights that have not changed since 1985-86, and may, therefore, be quite out of date in relation to current consumption patterns, and (ii) the national index, which is derived by aggregating urban and rural price indices, may be a poor proxy for changes in price levels in different regions.

By contrast, an important advantage of using the HES data to derive price indices is that not only do the surveys report unit value information relating to actual transactions, i.e. rather than prices listed or reported by shops – but also that these data permit one to calculate region-specific

3 This, for instance, was the approach used by Deaton and Tarozzi (2000), who used similar data from the Indian National Sample Survey Organisation (NSSO) datasets to derive inflation rates over time as well as across regions for their analysis of poverty trends in India.
indices to take into account differential rates of inflation across various parts of the country. However, one drawback of using data from surveys is that they rarely have information on prices of non-food items, and thus provide only a partial picture of the change in the aggregate price level. Food and non-food items (mainly fuels) for which unit values can be calculated from the HES surveys account for approximately two-thirds of total household expenditures.\(^4\) The budget shares not covered in urban areas tend to be higher, which is a reflection of the relatively greater importance for urban consumers of goods such as housing and transportation for which we have no information on unit values. If the prices of these non-covered items change at a rate different from those items included in the index, then the price indices derived from the HES data may not fully capture changes in the cost of living over time.

As both the above alternatives – the CPI or HES – based price indexes – each have their advantages as well as shortcomings, we combined the two into a composite index so as to capitalise on the relative strengths of both approaches.

The HES based price indexes were derived in four steps. First, expenditures on various items in the HES were divided into 14 groups. These groups were chosen so as to retain as much disaggregation as possible (to minimise heterogeneity within categories) as well as to be comparable across the three survey years.\(^5\) Second, unit values (by dividing expenditures by quantity) of the most commonly consumed item within each of the expenditure groups were calculated for each household. For each group, the median of the unit values within each geographic region was calculated.\(^6\) Using the price of the most commonly consumed item within each group and medians (which are more robust to outliers as compared to means) for the summary region-specific unit values helped minimise the problem that the calculated unit values are contaminated by choice of quality rather than providing information on market price alone. Third, average budget shares of the 14 main expenditure groups were calculated for each survey year. Finally, region-specific Tornqvist price indexes were then calculated using budget shares of the expenditure groups along with median prices of the selected items.\(^7\) The Tornqvist price indices for each region \(k\) were calculated as follows:

\[^4\] Budget shares are presented in Appendix Table A2.1.
\[^5\] Appendix Table A2.2 lists the relative budget share weights of each group in the overall HES price index for each year.
\[^6\] The median values of the unit values for the three surveys are reported in Appendix Table A2.3.
\[^7\] We used the chained Tornqvist price index in preference to the Laspeyres or Paasche indexes because it uses budget shares averaged between consecutive years, and therefore allows for changes in consumption patterns over time.
Transforming Bangladesh into a Middle Income Economy

\[
\ln P_{10}^{Tk} = \frac{\sum_{j=1}^{n} w_{Tj} + w_{Oj}}{2} \ln \left( \frac{p_{Tj}^{k}}{p_{Oj}^{k}} \right)
\]

where \( P_{10}^{Tk} \) denotes the Tornqvist price index for region \( k \), 1 and 0 denote the two years of comparison, \( w_{Tj} \) and \( w_{Oj} \) are the respective budget shares, and \( p_{Tj}^{k} \) and \( p_{Oj}^{k} \) are the respective prices for good \( j \) in the two years of comparison.

Once the RES based price indexes for each region had been derived from the survey data, we took a weighted average of these and the non-food component of the official CPI (disaggregated by urban and rural sectors) to derive region-specific cost of living indexes for 1995-96 and 2000, the relative weights being the budget shares of covered goods in each region for the RES price index, and balance (i.e. one minus these budget shares) for the non-food CPI. The composite price indexes were then used to update the 1991-92 CBN poverty lines to 1995-96 and 2000. 8

The derived composite price indexes show cost of living in Bangladesh to have increased by, on average, about 16 per cent between 1991-2 and 1995-96, and by about 12 per cent between 1995-96 and 2000. Note that the overall 30 per cent increase in price level between 1991-92 and 2000 implied by these indexes is somewhat lower than the 35 per cent increase in the GDP deflator over the same period, and much lower than the 52 per cent increase in the overall CPI. We will return to the implications for poverty trends of this difference between the composite price index and the CPI in Section IV.

Poverty and Inequality Trends

Headcount rates based on both the upper as well as lower poverty lines show poverty in Bangladesh to have declined considerably during the nineties (Table 2.1). In 2000, 50 per cent of Bangladesh’s population was poor (as measured by the upper poverty line) as compared to 59 per cent in 1991-92. Similarly, 34 per cent of the country’s population was very poor (i.e. below the lower poverty line) in 2000 as compared to 43 per cent in 1991-92. Thus, according to both the upper and lower poverty estimates, the incidence of poverty in Bangladesh declined by about 9 percentage points over the course of the decade. Throughout the decade, poverty in rural areas remained higher than in urban areas; however, the overall decline in poverty incidence over time was roughly equal across the two sectors. 9

8 The composite price indexes, as well as the CBN poverty lines for each region derived using these, are presented in Appendix Tables A2.4 and A2.5 respectively.
9 During the 1990s, the overall decline in poverty in Bangladesh as a whole (9.0 per cent) was greater than in either urban (8.3 per cent) or rural (8.2 per cent) areas because (i) the
Table 2.1 Trends in CBN Poverty Measures

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Headcount rate</strong>&lt;sub&gt;(P₀)&lt;/sub&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>58.8</td>
<td>51.0</td>
<td>49.8</td>
<td>-7.8</td>
<td>-1.2</td>
<td>-9.0</td>
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<tr>
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<td>+7.2</td>
<td>-8.3</td>
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<td>-6.0</td>
<td>-2.2</td>
<td>-8.2</td>
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<tr>
<td><strong>Poverty gap</strong>&lt;sub&gt;(P₁)&lt;/sub&gt;</td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>National</td>
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<td>-4.8</td>
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<tr>
<td>Rural</td>
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<td>13.8</td>
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<td>-0.7</td>
<td>-4.3</td>
</tr>
<tr>
<td><strong>Squared poverty gap</strong>&lt;sub&gt;(P₂)&lt;/sub&gt;</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>National</td>
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<td>4.6</td>
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<td>-2.2</td>
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<td>3.4</td>
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<td>+0.9</td>
<td>-1.0</td>
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<td>Rural</td>
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<td>5.3</td>
<td>4.9</td>
<td>-1.9</td>
<td>-0.4</td>
<td>-2.3</td>
</tr>
</tbody>
</table>

The poverty gap (P₁) estimates how far below the poverty line the poor are on average as a proportion of that line. The squared poverty gap (P₂) takes into account not only the distance separating the poor from the poverty line, but also inequality among the poor. Trends in these measures broadly mirror those observed with the headcount rates. Both measures confirm that urban poverty remained lower than rural poverty throughout the decade. In addition, however, these measures also suggest that rural areas experienced greater reductions than urban areas in the depth and severity of poverty.

Plotting the cumulative distributions for monthly real per capita expenditures (PCE) in Bangladesh (national, urban, and rural, respectively) for the three years confirms that trends in poverty between 1991-92 and 2000 (as well as between 1991-92 and 1995-96) are robust to the choice of share of population living in urban areas increased significantly during the period, and (ii) the incidence of poverty in urban areas was considerably lower than in rural areas.
the poverty line over the range of virtually all possible poverty lines (Figure 2.1). This is true for both the urban and rural sectors—the cumulative distributions for real PCE in 2000 are everywhere below and to the right of the cumulative distributions for 1991-92, indicating first-order stochastic dominance.

The HES datasets show much greater progress during the first half of the decade compared to the second half (Table 2.1): poverty in Bangladesh as measured by the HES fell by almost 8 percentage points between 1991-92 and 1995-96, but then by less than 1 point between 1995-96 and 2000. The data show rural poverty to have declined throughout the nineties, though at a considerably more rapid rate during the first half as compared to the second half (6.0 points drop v. 2.2 points respectively). In urban areas, the HES series show poverty to have fallen a spectacular 15.5 percentage points during the first half, but then to have increased by about 7.2 percentage points in the latter half. As the pattern of decline in poverty over the two halves of the decade indicated by the HES series is quite different from that suggested by other data sources, we return to examine this puzzle in more detail in the next section.

Trends in inequality measured by Gini coefficients are reported in Table 2.2. The HES datasets suggest that inequality in Bangladesh has increased over time. Almost all of the increase occurred between 1991-92
Table 2.2 Trends in Inequality: Gini Coefficients

<table>
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<th></th>
<th>Lower poverty line</th>
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<td>0.272</td>
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<td>0.368</td>
<td>0.311</td>
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<td>0.370</td>
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<td>0.271</td>
<td>0.251</td>
<td>0.267</td>
<td>0.275</td>
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</table>

and 1995-96, while, by contrast, inequality did not change much during the second period. While the Gini coefficients in 2000 are higher than for 1995-96, the Lorenz curves for the two years lie close to each other and cross at around the eightieth percentile, suggesting that inequality changes between 1995-96 and 2000 cannot be ranked unambiguously. Over the decade, the rise in inequality in urban areas was considerably higher than that in rural areas.

Table 2.3 Regional Trends in Poverty

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th>Change (upper line)</th>
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<th></th>
<th>Lower poverty line</th>
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<tr>
<td>All Divisions</td>
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<td>-9.0</td>
<td>42.7</td>
<td>34.4</td>
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<td>39.7</td>
<td>-10</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>39.1</td>
<td>28.8</td>
</tr>
<tr>
<td>Chittagong</td>
<td>46.5</td>
<td>52.3</td>
<td>47.7</td>
<td>5.8</td>
<td>-4.6</td>
<td>1.2</td>
<td>24.6</td>
<td>28.6</td>
<td>25.0</td>
</tr>
<tr>
<td>Dhaka</td>
<td>58.7</td>
<td>40.1</td>
<td>44.8</td>
<td>-19</td>
<td>4.7</td>
<td>-13.9</td>
<td>42.3</td>
<td>27.8</td>
<td>32.0</td>
</tr>
<tr>
<td>Khulna</td>
<td>59.9</td>
<td>55.0</td>
<td>51.4</td>
<td>-4.9</td>
<td>-3.6</td>
<td>-8.5</td>
<td>47.2</td>
<td>36.4</td>
<td>35.4</td>
</tr>
<tr>
<td>Rajshahi</td>
<td>71.8</td>
<td>61.8</td>
<td>61.0</td>
<td>-10</td>
<td>-0.8</td>
<td>-10.8</td>
<td>59.7</td>
<td>46.9</td>
<td>46.7</td>
</tr>
</tbody>
</table>

Regional Trends

The HIES data reveal that the incidence of poverty varies quite considerably across different parts of the country, from a low of 39.7 per cent in Barisal to a high of 61.0 per cent in Rajshahi division (Table 2.3). Between 1991-92 and 2000, the decline in poverty was highest in Dhaka, followed by Barisal and Rajshahi divisions. By contrast, poverty in Chittagong appears to have stagnated during the nineties.
SECTION III: GREATER PROGRESS IN FIRST OR SECOND HALF OF THE DECADE

How consistent are the HES findings, i.e. with regard to differential progress in poverty reduction over the two halves of the nineties – with other data covering the same period? We start first by presenting some summary statistics from the HES datasets, and then compare these with the National Accounts as well as wage data compiled by BBS. Our aim is to assess the extent to which these data report similar trends over the period under study. Table 2.4 reports trends in nominal and real per capita expenditures (PCE) by sector.

Table 2.4  Trends in Nominal and Real PCE: National and Sectoral

<table>
<thead>
<tr>
<th></th>
<th>Mean per capita expenditures (Tk. per month)</th>
<th>Change (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal PCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>550</td>
<td>764</td>
</tr>
<tr>
<td>Urban</td>
<td>829</td>
<td>1,344</td>
</tr>
<tr>
<td>Rural</td>
<td>503</td>
<td>649</td>
</tr>
<tr>
<td>Real PCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>550</td>
<td>657</td>
</tr>
<tr>
<td>Urban</td>
<td>829</td>
<td>1137</td>
</tr>
<tr>
<td>Rural</td>
<td>503</td>
<td>562</td>
</tr>
</tbody>
</table>

Progress Over the Decade

The HES data show nominal PCE in Bangladesh to have increased by about 59 per cent during the nineties (Table 2.4). This is consistent with (if somewhat lower than) the 67 per cent increase in nominal per capita private consumption or 76 per cent increase in nominal GDP per capita reported by the National Accounts over the same period. The 23 per cent

10 National Accounts Statistics of Bangladesh: Revised estimates, 1989-90 to 1998-99, BBS, Dhaka, December 2000, as well as latest GDP estimates for FY99 – FY01. Note that the HES figures are based on a 19 per cent increase in population between 1991-92 and 2000 while the NA assume a 15 per cent increase over the same period; recalibrating the HES estimates assuming the same population increase as in the NA raises nominal growth in PCE to 61 per cent.
growth in real PCE is also consistent with the 24 per cent increase in real per capita private consumption observed in the National Accounts.\textsuperscript{11} 

Trends in PCE estimated from the HES data within the urban and rural sectors are also broadly consistent with changes in manufacturing and agricultural wages, which are typically considered to be very good proxies for living conditions. In particular, taking into consideration that inequality increased over the nineties, the 68 per cent and 49 per cent increase in nominal PCE in urban and rural areas conforms closely with the 64 per cent and 44 per cent increase in manufacturing and agricultural nominal wage indexes respectively over the same period.\textsuperscript{12}

Finally, the relatively higher increase in nominal PCE in urban v. rural areas (68 per cent v. 49 per cent) is also in line with the differential rate of growth of agriculture and other sectors over the same period. The National Accounts show per capita output of the agriculture sector to have increased by 52 per cent, the services sector to have increased by 80 per cent, and per capita output of the industrial sector to have increased by 100 per cent in nominal terms over this period.

**Progress Over the First and Second Half of the Nineties**

While the HES and National Accounts estimates are fairly consistent with regard to the growth in PCE over the nineties, the two series present differing snapshots of the pattern of growth over time. The HES series show most of the increase in PCE to have taken place over the first half of the decade, while the National Accounts series indicate a very similar magnitude of change over the two periods. According to the HES series, mean PCE increased by 39 per cent between 1991-92 and 1995-96, but by only 15 per cent between 1995-96 and 2000; the National Accounts, by contrast, show per capita private consumption to have increased by 28 per cent and 31 per cent over the two periods (Figure 2.2).

Which of the two – the HES or the National Accounts – gives the correct picture of rate of progress over the two halves of the decade? In the absence of clear evidence in support of either standpoint, it is difficult to make a definitive assessment in this regard. On the one hand, it is difficult to reconcile the 62 per cent and 3 per cent increase respectively in urban PCE during the first and second periods reported by the HES to trends in the manufacturing wage index as well as sectoral GDP growth rates. This

\textsuperscript{11} Even though the increase in nominal PCE from the HES is lower than that reported in the NA, real PCE growth rates are similar because the price index used to deflate nominal PCE in the former is lower than the GDP deflator.

\textsuperscript{12} Nominal wage index series presented in the 1999 Statistical Yearbook of Bangladesh (BBS 2001). The respective wage series have been extrapolated past 1998-9 using the growth rates for the 1997-8 to 1998-9 period.
would suggest that the HES series may have overestimated growth in urban PCE between 1991-92 and 1995-96, while underestimating the increase that took place between 1995-96 and 2000. However, on the other hand, both levels as well as trends in rural PCE reported by the HES are consistent with trends in the agricultural wage index. By contrast, it is difficult to explain why the acceleration in per capita GDP growth in the latter half of the nineties indicated by the National Accounts was not accompanied by a commensurate rise in agricultural wages over the same period.

SECTION IV: SENSITIVITY ANALYSIS AND ROBUSTNESS CHECKS

Comparability of HES Datasets

The HES–HIES series are the main source of data used for estimation of poverty in Bangladesh. While the same organisation (Bangladesh Bureau of Statistics) has conducted the surveys, and similar survey methodology, questionnaires, interviewing procedures, etc., have been used over time, it is nonetheless worth investigating if any of the changes adopted over time have compromised the degree of comparability of datasets. We examine in tum three important aspects of the surveys and their implementation:

Questionnaire design

Consumption data in the HES series is collected using three different recall periods. Data on food consumption is collected on a daily basis (i.e. separate record of consumption on each day) through multiple visits, while data on non-food items is collected using a monthly and annual recall period. The lists of individual food and non-food line items covered in each survey have remained fairly similar over the years. However, in 1995-6, in addition to the usual income and consumption modules, an education module was added for the first time to the questionnaire. In 2000, the coverage of the questionnaire was expanded further, with additional modules added on
housing, health, fertility, and economic activities. BBS was careful to plan field operations and distribution of workload amongst interviewers in a manner that took into account the additional time needed to canvass the more detailed questionnaires, so it is unlikely that this expansion in coverage adversely affected comparability of the consumption data collected. However, this possibility cannot be completely ruled out, and is therefore worth noting.

**Field implementation procedures**

Over the years, there have been a few changes in the way the food consumption module has been administered in the HES. In 1991-92, these data were collected over a 14-day period through daily visits (i.e. 14 daily records through 14 visits). However, in 1995-96, BBS switched to collecting food consumption data for 7 days only (i.e. 7 daily records through 7 visits). Finally, in 2000, BBS reverted back to the 14-day period, but with data collection taking place every alternate day (i.e. 14 daily records through 7 visits). Could it be that the sharp rise in PCE observed during the first period was due to less respondent fatigue during the 1995-96 round on account of the fewer number of visits undertaken?13 Once again, as was the case with changes in questionnaire coverage, this possibility cannot be ruled out entirely, but we do not think it played a major role in accounting for the large difference between the two rounds. For one, we observe a significant decline in the share of PCE attributable to food items over this period, the exact opposite of what would have happened if higher food consumption had been reported by households in the 1995-96 round. Moreover, closer scrutiny of food consumption data from the 2000 survey provides no clear evidence of any statistically significant difference in food consumption estimates derived using data from the first week or second week of the interview (i.e. which could be attributed to respondent fatigue).14

**Sampling**

In all three surveys, household interviews were conducted in the same set of primary sampling units (PSUs), a feature that enhances considerably

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13 The reasoning being that respondent fatigue arising from multiple visits over an extended period results in progressively less food consumption being reported for each additional day. Since the 1995-96 survey entailed half the number of visits as compared to the 1991-92 survey, the data collected in this survey would have been less susceptible to this problem.

14 Specifically, we tested if there was any significant difference in food consumption reported by households for the first 7 days compared to food consumption reported for the second 7 days of the interviewing cycle. The difference between the two estimates (Tk 18 per capita per month, with the former being higher than the latter) was not statistically significant.
the degree of comparability between the three datasets. For instance, all 371 PSUs covered in the 1995-96 HES were also covered in the 2000 HIES sample. However, in addition to the original 70 PSUs from the statistical metropolitan areas (SMA), an extra 70 PSUs were added in 2000 from the SMA. These extra PSUs were randomly selected from all SMA PSUs in the sample frame, and hence provide a very powerful means to assess the extent to which the HES sample is representative of the SMA. PCE estimates across the two sub-samples (i.e. the 70 old and 70 new PSUs) were found to be extremely close to one another (taka 1,545 and 1,557 per month, respectively), thus confirming that the HES sample in urban SMA is in fact a good representation of all households that reside in these areas. This also suggests that the modest increase in urban PCE during the second period is unlikely to be attributable to any particular-sample related quirks. Had this been the case, it would be hard to explain why 700 additional randomly selected households (10 in each PSU) yielded estimates of PCE that were in such close conformance to the rest of the sample.

Alternate approaches to deriving poverty estimates

Clearly the poverty estimates presented earlier (henceforth referred to as the CBN estimates) depend critically on how the underlying poverty lines were derived. In this section, we explore five alternative approaches to estimating these lines. First, rather than updating the 1991-92 CBN poverty lines to subsequent years, an alternative is to simply apply the same methodology to re-estimate poverty lines, i.e. the 1995-96 and 2000 poverty lines can be derived by applying the CBN approach to each dataset separately.\(^{15}\) Poverty estimates derived using this approach are referred to as CBN methodology estimates. Second, rather than using the composite price index to update the 1991-92 poverty lines, one could instead use the CPI for this purpose – the poverty estimates which gives rise to are henceforth referred to as CPI-based estimates. Third, rather than using the composite price index combining the HES-based index and the CPI to update the poverty lines, the HES-based T\textsuperscript{R}nqvist index alone could be used for this purpose, in turn yielding the TP estimates. Fourth, one could also estimate poverty incidence in the country using the Direct Calorie Intake (DCI) method. Finally, poverty estimates could also be derived using the same CBN poverty lines derived in Section II, but instead using the per capita income (PCI) HES aggregates rather than per capita expenditure (PCE) as the welfare yardstick. Poverty estimates obtained through each of these approaches are presented and discussed in this section.

\(^{15}\)This was the approach applied to the 1995-6 HES data by BBS and in the World Bank’s Poverty Assessment (World Bank 1999). Poverty lines estimated by this method are presented in Appendix Table A2.6.
CBN methodology estimates

Poverty trends using this approach applied to all three years are surprising (Table 2.5): They show poverty to have declined somewhat between 1991-92 and 1995-96, but then to have risen back to 1991-92 levels by 2000. A major drawback of this approach is that if living standards in a country improve over time, and even poor households spend a larger share of their income on non-food items, the allowance made for these items in the poverty line increases over time as well. In Bangladesh, the share of spending on non-food items has increased not just for the overall population, but also for households in the bottom two quintiles of the income distribution from 27.2 per cent in 1991-92 to 32.8 per cent in 1995-96, to 35.4 per cent in 2000.16 As a result, reapplying the CBN methodology to each year makes progressively larger non-food allowances in 1995-96 and 2000, and the poverty lines therefore no longer reflect basic-needs bundles of constant value in real terms.

Table 2.5 Headcount Rates: CBN-Methodology Estimates

<table>
<thead>
<tr>
<th></th>
<th>Upper poverty line</th>
<th>Change (upper line)</th>
<th>Lower poverty line</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>58.8</td>
<td>53.1</td>
<td>59.7</td>
</tr>
<tr>
<td>Urban</td>
<td>44.9</td>
<td>35.0</td>
<td>47.1</td>
</tr>
<tr>
<td>Rural</td>
<td>61.2</td>
<td>56.7</td>
<td>62.9</td>
</tr>
</tbody>
</table>

Assessing trends in absolute poverty over time presupposes that the same yardstick was used at all points in time, a condition that is violated by the CBN-methodology estimates.

CPI or HES TP-based estimates17

An alternative to using the composite price index to update the 1991-92 poverty lines is to instead use the official CPI for this purpose. This approach is also a CBN-based method in that it also attempts to keep poverty lines constant in real terms, but assumes that the true change in cost of living

16 Budget shares are reported in Appendix Table A2.7.
17 CPI and HES-TP based poverty lines are reported in Appendix Tables A2.8 and A2.9, respectively.
Transforming Bangladesh into a Middle Income Economy
during the nineties was the higher rate reflected by the CPI rather than that indicated by the composite price index. The CPI-based poverty estimates show the percentage of population that was very poor increased by 5 per cent and the percentage that was poor (below the upper poverty line) to have increased by approximately 4 per cent over the decade (Table 2.6). In urban areas, these estimates show negligible decline over the decade overall, since a sharp decline in poverty between 1991-92 and 1995-96 was followed by a period of rising poverty in the latter half of the nineties. In rural areas, by contrast, these estimates suggest that poverty increased quite considerably over the decade. However, one reason why the official CPI may overestimate the increase in price level is that the weights used to construct this index are by now fairly out of date (the expenditure weights used have not been updated since 1985-86). Second, the CPI is a Laspeyres price index, as is well known, such indices tend to overestimate the increase in the price level over extended periods of time, as they do not take into account substitution in consumption towards goods whose relative price has fallen.

Similarly, one could instead use the lower HES-based Törnqvist price indices to update the 1991-92 poverty lines to 1995-96 and 2000. On account of the lower assumed rate of inflation, the TP-based poverty estimates show poverty to have declined at a more rapid rate during the nineties (Table 2.6). However, as discussed earlier, if the price of goods not covered in the HES-based Törnqvist price indices increased at a more

<table>
<thead>
<tr>
<th></th>
<th>Upper poverty line</th>
<th>Change (upper line)</th>
<th>Lower poverty line</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI-based estimates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>58.8</td>
<td>56.6</td>
<td>63.0</td>
</tr>
<tr>
<td>Urban</td>
<td>44.9</td>
<td>32.8</td>
<td>44.9</td>
</tr>
<tr>
<td>Rural</td>
<td>61.2</td>
<td>61.3</td>
<td>67.5</td>
</tr>
<tr>
<td>HES TP-based estimates</td>
<td></td>
<td></td>
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<tr>
<td>National</td>
<td>58.8</td>
<td>48.5</td>
<td>43.6</td>
</tr>
<tr>
<td>Urban</td>
<td>44.9</td>
<td>29.1</td>
<td>34.3</td>
</tr>
<tr>
<td>Rural</td>
<td>61.2</td>
<td>52.4</td>
<td>45.9</td>
</tr>
</tbody>
</table>
rapid rate than the goods on which these indices were based, these indices would underestimatethe increase in price level, and hence overestimatethe decline in poverty.

**DCI estimates**

The DCI method entails choosing a minimum threshold of caloric consumption as a measure of welfare, and then defining as poor any household with a caloric intake less than this threshold. One advantage of this method is that as long as the calorie threshold is kept fixed, poverty measures estimated at different points in time represent the same living standard, and are therefore readily comparable over time. In its summary reports on the 1991-92 and 1995-96 household expenditure surveys, BBS adopted a nationwide upper threshold of 2,122 kcal and a lower threshold of 1,805 kcal per person per day. We used the same thresholds to estimate poverty incidence with the 2,000 HIES. The headcount rates at the national and sectoral level using this method are summarised in Table 2.7. 

<table>
<thead>
<tr>
<th></th>
<th>Upper caloric threshold (2,122 kcal per day)</th>
<th>Lower caloric threshold (1,805 kcal per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>47.5</td>
<td>47.5</td>
</tr>
<tr>
<td>Urban</td>
<td>46.7</td>
<td>49.7</td>
</tr>
<tr>
<td>Rural</td>
<td>42.6</td>
<td>47.1</td>
</tr>
</tbody>
</table>

As the table shows, the DCI-based poverty estimates provide mixed support for our preferred CBN poverty estimates. On the one hand, the decline in poverty incidence during the 1990s is much lower using the DCI method as compared to the CBN approach. However, consistent with the CBN estimates, the DCI estimates also show urban poverty, as measured at the upper caloric threshold, to have increased from 50 per cent to 53 per cent during the latter half of the decade. The cumulative distributions of

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18 1991-92 and 1995-96 headcount rates are BBS estimates. In order to ensure that the caloric conversion factors we applied to the 2000 data were comparable to those used earlier by BBS, we re-estimated poverty rates for 1995-96. Our estimates for 1995-96 were found to be very similar to those computed by BBS, suggesting that all three estimates presented above are comparable.
calorie intake for the latter two surveys suggest that the finding of rising urban poverty in this period is robust to choice of a caloric threshold between 1,800 and 2,500 kcal per person per day, any cutoff within this interval would yield an increase in urban DCI poverty estimates. Also consistent with the CBN estimates, the DCI estimates of rural poverty incidence (and nationwide) at the lower caloric threshold show that poverty declined during the nineties, with much of the gains accruing in the first half. However, this pattern is not borne out at the upper caloric threshold.

The main differences between the DCI and CBN estimates relate to progress in poverty reduction in urban areas during the nineties, and to rural-urban comparisons. First, unlike the CBN method, which suggested substantial progress in urban poverty reduction, the percentage of population below a minimum caloric threshold increased between 1991-92 and 2000 in urban areas. Second, the CBN estimates consistently show rural poverty to be higher than urban poverty, whereas the DCI measures suggest that during the nineties, poverty rates in urban areas have become higher than in rural areas. However, this is not surprising since the DCI method applies the same caloric threshold to both urban and rural areas, which translates to a corresponding poverty line (in terms of real per capita expenditures) that is considerably higher in urban than rural areas.\(^{19}\)

**CBN income-based estimates**

Compared to earlier rounds, the 2000 HIES questionnaire included much more comprehensive coverage of different income sources of households. This enabled the construction of per capita income measures in addition to the more traditional per capita consumption measures, which in turn can be used to estimate the incidence of poverty (Table 2.8). For 2000, CBN poverty estimates based on income are over 5 percentage points lower than those based on per capita consumption (44.2 per cent v. 49.8 per cent). As was the case with consumption-based poverty estimates, the CBN income estimates show rural poverty to be considerably higher than urban poverty (47.5 per cent v. 31.2 per cent). The table also includes CBN income-based poverty estimates for earlier years. However, it is important to note that, on account of the considerably improved coverage of different income sources in the most recent HIES questionnaire, the poverty measures for 2000 are not comparable to those for 1991-92 and 1995-96. It is nevertheless

\(^{19}\) Because of higher food prices and lower caloric requirements (for instance, because of less physically demanding labour), the urban calorie Engel curve tends to lie lower than the rural calorie Engel curve. This implies that if one were to use a common minimum caloric threshold for urban and rural areas, caloric requirements would be achieved only at much higher PCE in the urban areas (Bidani and Ravallion 1994).
The CBN income-based estimates also show urban poverty to have increased between 1995-96 and 2000.

In sum, while the DCI poverty estimates provide mixed support for the CBN estimates, the CBN methodology as well as CPI based estimates shows virtually no progress in poverty reduction in Bangladesh over the nineties. Not only does this run counter to the expected drop in poverty suggested by the National Accounts which show a 3 per cent rise in per capita incomes per year, but these alternate poverty estimates are also sharply at odds with other indications within the same datasets showing considerable improvement in living conditions in Bangladesh during this period. These findings are presented and discussed in the following section.

**Other Evidence of Changes in Living Standards**

One of the main drawbacks of the DCI method is that it makes no allowance for improvements in composition of the food bundle consumed. Analysis of the average quantities of different food items consumed reveals that per capita consumption of virtually all major food groups (with the notable exception of rice, wheat, and pulses) increased substantially during this period (Figure 2.3). For instance, between 1991-92 and 2000, per capita consumption of fish increased by 9 per cent, meat increased by 48 per cent, poultry increased by 120 per cent, milk increased by 55 per cent, cooking oil by 26 per cent, while sugar consumption increased by 11 per cent. While per capita wheat consumption dropped considerably in 2000, 20

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20 Part of the decline in wheat consumption is probably due to two important factors: (i) sharp rise in the relative price of wheat in relation to rice, and (ii) lower distribution of wheat through the various food assistance programmes. During a period of bumper rice production and large rice stocks in the Public Food Distribution System (PFDS), rather than curtail procurement, in some instances the government resorted to distributing rice instead of wheat.
Figure 2.3 Average Quantities Consumed (grams per capita per month)
and rice consumption declined marginally (by about 3 per cent), consumption of potatoes increased by 25 per cent during this period. Similarly, the 13 per cent decline in consumption of pulses is probably due to substitution away from pulses towards higher-value sources of protein. Consumption by the poor also increased considerably over the nineties.

Figure 2.3 also reports per capita food consumption for households in the bottom two quintiles in urban and rural areas, and shows that the trend reported above was not confined to upper income groups only—consumption of fish, meat, poultry, and milk by the poor also increased considerably over the nineties.

In addition to confirming improvements in living conditions in Bangladesh during the nineties, the graphs also support the earlier finding of rapid progress during the first half of the decade, but then modest decline in poverty between 1995-96 and 2000. For instance, while there are indications of considerable improvement in consumption patterns between 1991-92 and 1995-96, the pattern over the latter half of the nineties is much murkier.

Finally, the graphs also help vividly illustrate the difference in living conditions between urban and rural areas. As indicated by the CBN poverty estimates presented earlier, virtually all households in the bottom two quintiles in urban and rural areas fall below the poverty line. However, across these two groups, there are striking differences in consumption patterns: levels of consumption of rice, wheat, vegetables, and pulses for the urban and rural poor are fairly similar; however, on average the urban poor consume considerably more high-value food items like meat, fish, poultry, milk, oils, and sugar. In contrast to what the DCI poverty estimates suggest, the poor in urban areas, at least in terms of the range and quantities of different food items they consume, appear to be considerably better off than their counterparts in rural areas.

SECTION V: COMPARING BANGLADESH TO SOUTH ASIA AND EAST ASIA

Bangladesh's pace of poverty reduction compares favourably with its South Asian neighbours (see Box 2.1 regarding comparability of poverty estimates). The decline in income poverty of about one percentage point per year during the nineties is in sharp contrast to the virtual stagnation Bangladesh experienced during the eighties.21 The reduction in poverty in

21 Earlier World Bank estimates show poverty in Bangladesh to have been stagnant at 59 per cent between 1983-84 and 1991-92 (World Bank, 1999). Similarly, Ravallion and Sen 1996 estimate that rural poverty in Bangladesh declined only marginally from 54 per cent in 1983-84 to 53 per cent in 1991-92.
Box 2.1 Are Poverty Estimates Across Countries in South Asian Comparable?

While trends in poverty reduction are comparable across countries in South Asia, estimates of poverty incidence levels are not. The national statistical offices in India, Pakistan, and Bangladesh all prepare poverty estimates using data from fairly similar national household surveys conducted on a regular basis in their respective countries. In India, the NSSO Consumer Expenditure Survey Series is used to estimate the incidence of poverty in the country. The Government of India Planning Commission’s latest estimates using the 1999-2000 survey show poverty in India to be 26.1 per cent. In Pakistan, the Household Income and Expenditure surveys (HIES) conducted by the Federal Bureau of Statistics are used to estimate the incidence of poverty. Using data from the 1998-9 HIES, the incidence of poverty in the country was estimated to be 32.6 per cent. In Bangladesh, two measures of poverty are estimated by BBS, corresponding to the upper and lower poverty lines. Using the upper poverty line, poverty was estimated to be 49.8 per cent in 2000, while the lower poverty line yielded estimates of extreme poverty of 33.7 per cent. Is poverty in Bangladesh so much higher than in India or Pakistan, as indicated by these estimates?

Cross-country comparisons of poverty are fraught with complex measurement and comparability issues and, amongst other factors, depend on the yardstick used to assess poverty levels in the respective countries. However, comparing the poverty lines used across these three countries suggest that part of the reason why poverty estimates in Bangladesh are so much higher than in either India or Pakistan is that a considerably higher poverty line is used to assess poverty (see table below). In US dollar terms, the upper poverty lines in use in Bangladesh are considerably higher than those in India and Pakistan (at prevailing exchange rates, not PPP-adjusted like the often used dollar 1 per person per day line).

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Poverty line per capita per month (local currency)</th>
<th>Poverty line US $</th>
<th>Ratio to upper line (in US $)</th>
<th>Bangladesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>Urban 1999-2000</td>
<td>Rs 454</td>
<td>9.88</td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>Rs 328</td>
<td>7.14</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>Urban 1998-9</td>
<td>Rs 665</td>
<td>13.27</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>Rs 589</td>
<td>11.76</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Upper line Urban: 2000</td>
<td>Tk 832</td>
<td>15.85</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>Tk 652</td>
<td>12.42</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lower line Urban</td>
<td>Tk 628</td>
<td>11.96</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>Tk 549</td>
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Bangladesh during the nineties also compares favourably with other countries in the region.

In India, where the economy grew at about 6 per cent per annum during the nineties, consensus is emerging that poverty declined by roughly 5–10 percentage points over a 6 year period between 1993-94 and 1999-2000, a magnitude similar to that observed in Bangladesh. However, in Pakistan where the rate of GDP growth has slowed down considerably in the latter part of the nineties, recent evidence suggests that poverty has more or less stagnated over the nineties. And in Sri Lanka, poverty declined at a considerably slower pace, by 6 percentage points between 1985 and 1995.

How do non-income indicators of living standards in Bangladesh compare to other countries? Using measures of stunting, wasting, and underweight children from Demographic and Health Surveys carried out in India and Bangladesh in 1998-99 and 1999-2000 respectively, Bangladesh compares favourably with India (Table 2.9). The comparison with Pakistan

Table 2.9 Bangladesh and South Asia: Comparison of Selected Indicators of Child Nutrition

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<td><strong>Stunting (height for age)</strong></td>
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<td>57</td>
<td>34</td>
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<tr>
<td>% below 3 std. Deviations</td>
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<td>32</td>
<td>36</td>
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<tr>
<td><strong>Wasting (weight for height)</strong></td>
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<td>10</td>
<td>13</td>
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<tr>
<td>% below 3 std. Deviations</td>
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<td>2</td>
<td>1</td>
<td>–</td>
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<tr>
<td><strong>Underweight (weight for age)</strong></td>
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<td>58</td>
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<td>48</td>
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<tr>
<td>% below 3 std. Deviations</td>
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<td>24</td>
<td>19</td>
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Source: Various DHS reports. For comparability, comparison limited to children 24–35 months (24–36 for Sri Lanka).
Table 2.10 International Comparisons of Selected Development Indicators

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<th>India</th>
<th>Pakistan</th>
<th>Thailand</th>
<th>Vietnam</th>
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<td>GNP per capita (US$)</td>
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<td>780</td>
<td>450</td>
<td>470</td>
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<td>Population growth (%)</td>
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<td>Urban population (% of total)</td>
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<td>32</td>
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<td>36</td>
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<td>Health</td>
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<td></td>
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<tr>
<td>Male life expectancy at birth (years)</td>
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<td>68</td>
<td>62</td>
<td>61</td>
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<td>66</td>
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<tr>
<td>Infant mortality (per 1,000 live births)</td>
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<td>31</td>
<td>70</td>
<td>91</td>
<td>29</td>
<td>34</td>
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<tr>
<td>Under 5 mortality rate (per 1,000)</td>
<td>(96)</td>
<td>36</td>
<td>83</td>
<td>120</td>
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<td>42</td>
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<td>Access to water and sanitation (% of population with access)</td>
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<td>Access to improved water source</td>
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<td>90</td>
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<td>Female illiteracy (% of age 15 &amp; older)</td>
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<td>Net primary school enrolment</td>
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<td>100</td>
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<td>–</td>
<td>88</td>
<td>100</td>
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Notes: Estimates are from 1999, or most recent estimates reported in the Database.
Source: World Development Indicators.
and Sri Lanka is more mixed. While Bangladesh has lower rates of stunting and wasting than Pakistan, the percentage of underweight children is far greater.

Comparisons of other development indicators show that Bangladesh, with a lower GNP per capita, has done reasonably well on some dimensions but lags with respect to others when compared with other South Asian countries (Table 2.10). It has lower population growth and mortality rates than both India and Pakistan. Access to improved water supply is better in Bangladesh, although this success is being threatened by the problem of arsenic contamination of groundwater. Adult literacy remains a problematic area relative to other countries, although Bangladesh has made significant strides in improving gender parity in enrolments.

While cross-country comparisons always require some care, the recent experiences of Vietnam, a country with the same GNP per capita as Bangladesh, may point to what is possible. Between 1993 and 1998, Vietnam experienced a 21 percentage point drop in poverty, spurred in large part by an ambitious reform programme that included land reform, liberalisation of agricultural input and output markets, freeing up the informal sector, and equitable investments in human capital. Between 1992 and 1998, the average annual GDP growth rate in Vietnam was a spectacular 8.4 per cent, with agricultural growth averaging 4.5 per cent, industrial growth 13 per cent, and the services sector growing by 8 per cent per annum. In addition to progress in reducing consumption based poverty, Vietnam has also achieved substantial progress in educational and health outcomes, which are now comparable to those of other East Asian countries that have much higher income levels. Vietnam's experience suggests that the poverty reduction payoffs to further reforms and institutional development in Bangladesh could be substantial.

SECTION VI: SUMMARY OF POVERTY TRENDS ANALYSIS

Both survey-based CBN poverty estimates as well as those based on the National Accounts show that the nineties were a period of declining poverty in Bangladesh. The proportion of the very poor declined from 43 per cent in 1991-92 to 34 per cent in 2000, while the proportion of the poor fell from 59 per cent to 50 per cent. Poverty in rural areas continues to be higher than in urban areas, but has declined at a fairly rapid rate in both sectors during the nineties. The improvement in living conditions is evidenced not only by increases in PCE, but also by a shift in composition of the food bundle consumed by the poor towards more high value items.

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While the incidence of poverty has fallen considerably during the decade, examination of the total number of individuals living below the poverty line reveals a more sobering picture – the total population living below the upper poverty line in 2000 remained virtually unchanged (at about 63 million) compared to 1991-92, while the population living below the lower poverty line declined somewhat from 45.2 million in 1991-92 to 42.5 million in 2000. The analysis carried out has also brought to light a number of puzzles that warrant further attention:

**Discrepancy with National Accounts**

The discrepancy between the HES and National Accounts series relates to the pattern of growth over the decade, with the HES surveys indicating much more modest progress at poverty reduction over the latter half of the decade as compared to the NA statistics. Assessing which of the two gives the correct picture of poverty trends is problematic as there exists supporting evidence for both standpoints. On the one hand, since 1995-96, the Bangladesh economy as a whole (agriculture in particular) has performed quite well. Inflation has remained within single digits, the price of rice is virtually unchanged in real terms, and per capita availability of essential food items has improved considerably. Secondary data on wages and agricultural incomes also points toward improvements in living standards through the nineties. On the other hand, HES data suggest that much of the increase in PCE as well as improvement in composition of the average food bundle consumed has taken place over the first half of the nineties. Similarly, while the share of total expenditures allocated to food has gone down considerably over the decade, most of this decline took place over the first half. Finally, enrolment rates derived from the two datasets suggest that the proportion of primary school age children attending school has declined between 1995-96 and 2000.

One important contra-indication to the otherwise bleak picture painted by the HES series for the latter half of the nineties is the 34 per cent increase in wages (in nominal terms) and 23 per cent increase in median crop revenues per capita between 1995-96 and 2000, in contrast to the much smaller 15 per cent increase in mean consumption. Amongst the possible reasons the latest HES dataset may underestimate improvement in living standards could be that the constructed welfare measure excludes important items for which expenditure has increased considerably in recent years (purchase of livestock and other assets damaged or destroyed by the 1998

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23 In addition, there are several reasons (e.g. differences in items included in NA consumption v. survey consumption measures, and various sources of measurement errors in both the NA and survey data) why it is not surprising to find a discrepancy between National Accounts and household survey based consumption estimates (Deaton, 2000).
Poverty Trends during the Nineties

floods), that it does not fully capture improved access to publicly provided goods and services, or that it does not fully account for increase in household savings rates, etc.\textsuperscript{24} Further analysis of shifts in employment patterns indicated by the most recent Labour Force Survey, analysed in conjunction with the poverty profile yielded by the 2000 HIES survey (in particular, the relationship between poverty and sources of household income) may be helpful in better understanding the relationship between aggregate growth and poverty during the latter half of the decade.

Discrepancy with the CPI

A second important issue worth noting concerns the discrepancy in inflation estimates from the survey data and the official CPI series. As pointed out earlier, the Thnqvist indices derived from the survey data suggest that the price level in Bangladesh increased by about 20 per cent between 1991-92 and 2000 while the CPI series show a rise of about 52 per cent over the same period. Part of the discrepancy relates to the fact that the CPI is a Laspeyres index, which tends to overestimate inflation over long time periods since budget-share weights are fixed at the base year level. In Bangladesh, these weights have not been revised since 1985-86, and may be quite out of date in relation to current consumption pattern. Given the widespread use of the CPI, updating these weights merits serious consideration by BBS.

Impact of Rural-Urban Migration on Poverty Estimates

Finally, the last issue we'd like to draw attention to concerns differentials in living standards between the urban and rural sectors. Notwithstanding the observed stagnation in urban poverty rates in recent years, living standards appear to be considerably higher in urban as compared to rural areas (as suggested by greater consumption of higher-value food items by the urban poor compared to the rural poor). The influx of migrants from rural to urban areas of Bangladesh appears to have continued unabated through the nineties. Results from the 'quick-count' carried out for the recent population census suggest that the share of the country's urban population has risen from around 14 per cent in 1991-92 to over 20 per cent in 2000.

A final question we would like to pose is whether the rural-urban cost of living differential implicit in our choice of poverty lines may have led to a slight underestimation of the decline in poverty. Recall that our

\textsuperscript{24}Unfortunately, since comparable data on wages and incomes are not available in the 1991-92 HIES, it is not possible to investigate the same trends over the 1991-95 period.
choice of poverty lines for the two sectors was tied to the rural-urban differential embedded in the 1991-92 poverty lines which we updated to 1995-96 and 2000 using region-specific cost of living indices. These lines imply that the cost of living is any where up to 41 per cent higher in urban as compared to rural areas. However, what if this overestimates the difference in cost of living across the two sectors? Consider the case of a person who is just above the poverty line in the rural sector, and who moves to the urban sector where he obtains a job generating a real income gain less than the difference in poverty lines across the two sectors. Though that person may be better off in his new residence, the poverty measures used will show an increase in both urban as well as rural sectors (there is one less non-poor person in rural areas, and one more poor person in urban areas). Further investigation into the extent and nature of migration trends in Bangladesh (What types of individuals moved? What jobs were they engaged in before moving to urban areas? What types of jobs did they take up in their new residence? etc.) will undoubtedly be an important topic for future research.

ACKNOWLEDGEMENTS

We would like to thank Faizuddin Ahmed, Syed Nizamuddin, Zahid Hussain, Kapil Kapoor, Martin Ravallion, Zaidi Sattar, Shekhar Shah, Binayak Sen, and participants of the Bangladesh Poverty Assessment workshops for useful comments and suggestions.

REFERENCES

World Bank. From Counting the Poor to Making the Poor Count. South Asia

25 The argument outlined follows the one outlined in Ravallion 1994.

### Table A.2.1 Budget Shares of Items with Unit-Value Information in the HES

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Note: ZL is the lower poverty line; ZU is the upper poverty line. Amounts are in Tk per person per month.
Table A.2.6 Poverty Lines: Reapplying the CBN Methodology to Each Dataset
(taka per person per month)

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Note: ZL is the lower poverty line; ZU is the upper poverty line. Amounts are in Tk per person per month.
Table A2.7 Share of Household Budget Allocated to Food Items

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<td>Share of PCE on food</td>
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Table A2.8 Poverty Lines: Updating 1991-92 Lines with the CPI

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Note: ZL is the lower poverty line; ZU is the upper poverty line. Amounts are in Tk per person per month.
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Note: ZL is the lower poverty line; ZU is the upper poverty line. Amounts are in Tk per person per month.
PART II

The Strategy for Accelerating Growth
3
Analysis of Growth Experience

Sandeep Mahajan

SECTION I: INTRODUCTION

Growth matters because it affects the poor. GDP growth is almost universally acknowledged to be the most potent economic force in the fight against poverty. Across the globe, examples abound of countries that achieved high GDP growth rates over sustained periods and made visible dents in their poverty rates; conversely, nations that experienced low or negative growth saw minimal reductions and, in some cases, even increases in poverty. China, with an average annual per capita growth of 8.5 per cent during 1985–98, saw a reduction in its rural poverty rate (per cent of rural population living under dollar 1 a day) from 45 per cent to 24 per cent over the period. Average per capita growth in Thailand was an impressive 5 per cent p.a. during 1981–98, a period over which its national poverty rate fell from 26 per cent to almost nil. In Indonesia, the share of the population living in poverty in 1993 was a quarter of its level in 1984, while per capita growth averaged 5.1 per cent over these nine years.1 Even in Bangladesh, the highest rates of poverty reduction and GDP growth since independence coincided during the 1990s.

On the other hand, in Niger, where per capita growth averaged −2.3 per cent during the 1991–96 period, the poverty rate increased from 59 per cent to 73 per cent.

Testing the growth-poverty relationship across countries, Dollar and Kraay (2001) convincingly show that higher income growth, on average, is equally shared by the poor. More specifically, on average, a one per cent increase in per capita GDP corresponds to a one per cent increase in the income of the bottom quintile of the population. In Bangladesh, in fact, since

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1 In both Thailand and Indonesia poverty rates rose considerably after the 1997 crisis, further substantiating that income growth and poverty are correlated.
independence the share of the bottom quintile in total income growth has been more than even one, i.e. for a one per cent increase in income, on average, the income of the bottom quintile increased by 1.25 per cent. Figure 3.1 shows the change in per capita income of the bottom quintile for Bangladesh and some comparator countries over the 1972–2000 period. Income growth accounted for about 65 per cent of the increase in the incomes of the poor in Bangladesh, 71 per cent in Thailand, and 84 per cent in Indonesia, the rest being accounted for by changes in the bottom quintile’s share in national income. In the case of China and India, the share of the bottom quintile fell, as a result of which about a third of the gains due to income growth were reversed in China and about a tenth in India. Even then, the per capita income in the bottom quintile in China increased by about 225 per cent between 1972–2000, almost double the gain seen in Bangladesh.

![Graph showing income growth](image)

**Figure 3.1** Trends in GDP Per Capita Level and Growth  
*Source: Author’s calculations.*

These compelling stylised facts point to the enormous development possibilities that improved and sustained growth performance present for Bangladesh. Higher GDP growth is also needed if the government’s own poverty reduction objectives are to be met. The government’s estimates, as presented in its Interim Poverty Reduction Strategy Paper (I-PRSP), show that GDP growth of about 7 per cent would be needed to meet the country’s stated poverty reduction objectives.

It appears important, therefore, to better understand the growth process in Bangladesh and to identify the economic factors that are most critical in unleashing its growth potential. This paper takes a step in that direction.
SECTION II: SOME STYLISED FACTS

Economic Growth in Bangladesh has been on a Rising Trend since Independence

Per capita growth increased from an annual average of -0.7 per cent during the 1970s, to 1.1 per cent during the 1980s, and further to 3.0 per cent during the 1990s and 3.3 per cent during 2001–03. As seen in Figure 3.2, there was a sharp structural break in the growth process in 1990. Annual per capita growth averaged 1.1 per cent during 1973–89 and almost triple that much during 1990–2003.

\[ \text{Figure 3.2 Trends in GDP Per Capita Level and Growth} \\
\text{Source: Author’s calculations.} \]

... Which has been Increasingly Stable

The growth process has also become increasingly stable. The standard deviation of per capita GDP growth fell from 3.9 during the 1970s to 1.1 during the 1980s and further to 0.6 during the 1990s. Volatility of growth during the decades of 1980s and 1990s was among the lowest in the world. Not surprisingly, volatility and GDP growth have shown a highly significant negative relationship (Figure 3.3). That lower volatility of growth contributes to higher growth performance (in a causal sense) has now been well documented in the literature (Ramey and Ramey 1995). Also, Bangladesh is among a handful of countries that have managed to avoid even a single year of negative per capita growth since the early 1990s – remarkable feat for an economy that is persistently hit hard by weather related adverse shocks.²

² Bangladesh will need to remain vigilant against future growth crashes. A remarkable feature of international growth experience has been the lack of persistence in growth (Rodrik 1999).
Bangladesh under a Comparative Lens . . . Growing Faster than Most

Bangladesh has consistently improved its growth performance relative to the rest of the world. According to the World Bank’s World Development Indicators (WDI) database, its annual per capita growth during 1973–2000 was slightly better than the performance of the median country in the world and significantly better than the median low-income country (LIC) (Table 3.1). Bangladesh has outperformed the median country in the world by a considerable margin since the early 1980s. Among the countries for which comparable data are available, 45 per cent (59 out of 130) of all countries grew at a pace faster than Bangladesh over the 1973–2000 period. This percentage drops to 32 per cent for the 1981–2000 period and further to 21 per cent for the 1991–2000 period. Among the LICs, Bangladesh has

Few countries have sustained strong growth over long periods. There are numerous examples of countries growing strongly over a brief period only to see growth crash. Per capita growth in Algeria and Cameroon averaged 2.6 per cent and 4.7 per cent during 1971–85 before crashing to −1.9 per cent and −4.7 per cent over 1986–95; average per capita growth in Argentina crashed from 1.4 per cent during 1970s to −2.8 per cent during the 1980s; Burundi saw its growth crash to −3.8 per cent, after having grown at an average of 1.7 per cent over 1976–90.

3 Only those countries are considered in this comparison for which more than 20, 10, and 5 annual observations on per capita growth are available for the 1973–2000, 1981–2000, and 1991–2000 periods.
### Table 3.1 Cross-Country Per Capita Growth Comparisons

<table>
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<th>Median low-income country (LIC)</th>
<th>Median low-income country (LIC)</th>
<th>India</th>
<th>Nepal</th>
<th>Pakistan</th>
<th>Sri Lanka</th>
<th>Bangladesh's rank in World</th>
<th>Bangladesh's rank among LICs</th>
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<td>3.0</td>
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<td>2.5</td>
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<td>7/39</td>
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<td>1981–2000</td>
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<td>2.5</td>
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<tr>
<td>1991–2000</td>
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<td>2.6</td>
<td>1.4</td>
<td>3.9</td>
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<td>11/62</td>
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</table>

*Source: World Bank Data, BBS, and author's calculations.*
consistently performed in the eightieth percentile. Within the South Asia region though it was outperformed by all other countries (not considering Afghanistan) between 1973–90. Pakistan and Nepal lagged Bangladesh during the 1990s while India and Sri Lanka did better.

Per capita income in Bangladesh, as per the Summers-Heston database (which is expressed in constant 1996 US dollar and adjusted for international purchasing power differences), ranked 91 among 102 countries in 1972, improving to rank 78 within the same group by 2000. In the region, India improved its rank from 87 to 71, Pakistan from 89 to 74, Sri Lanka from 74 to 67, and Nepal from 94 to 82. China, Thailand, and Korea recorded the most impressive improvements over the period: China improved from 93 to 60, Thailand from 71 to 41, and Korea from 54 to 26. China and Nepal are the only non Sub-Saharan countries that ranked lower than Bangladesh in 1972. Also, all countries that were overtaken in ranking by Bangladesh are Sub-Saharan countries.

**The Power of Growth Compounding**

Sustained high GDP growth over long spells can produce dramatic results. As per the WDI database, real per capita income in Bangladesh increased by about 65 per cent between 1972–2000. If Bangladesh had grown at the same rate as Niger, its income per capita would have been less than a third of the actual realisation in 2000 (Figure 3.4). Conversely, if Bangladesh had grown as fast as China, the average Bangladeshi in 2000 would have been more than four times richer. Clearly, Bangladesh has done well in avoiding the pitfalls faced by most of Sub-Saharan Africa and some other LDCs. At the same time, the magnitude of its lost potential is also significant. Either way, important lessons are to be learnt.

![Figure 3.4 Half Empty . . . or Half Full?](image-url)

*Source: Author's calculations.*
If Indonesia Could Do It . . .

At the time of independence in 1971, Bangladesh shared a number of similarities with Indonesia. Per capita GDP in Bangladesh stood at dollar 920 (in constant 1996 PPP prices as per the Summers-Heston database) compared with Indonesia's dollar 1,200, secondary enrolment rates were 19 and 20 per cent respectively in the two countries, and life expectancy in Bangladesh was 45 years compared to Indonesia's 49 years. Population was growing at about 2.5 per cent in each country. Yet, by 2000, Indonesia's per capita GDP had tripled to dollar 3,640 while Bangladesh's GDP had grown by 80 per cent to dollar 1,680 (Figure 3.5). This is another example of opportunities not fully availed of by Bangladesh.

![Figure 3.5 Tale of Two Countries (real GDP per capita, 1996US$)](image)

Source: Author's calculations.

SECTION III: GROWTH ACCOUNTING TO IDENTIFY SOURCES OF GROWTH

Here we develop a growth accounting framework to estimate the contributions of capital (physical and human), labour, and total factor productivity (TFP) toward long term growth.

Let us assume that the standard neoclassical constant-returns-to-scale Cobb-Douglas production function describes overall production in Bangladesh;

\( Y_t = A K_t^{\alpha} E_t^{1-\alpha} \)

\( Y \) symbolises real GDP, \( K \) stands for physical capital stock, \( E \) for effective labour, \( A \) is the Solow residual and represents TFP, \( \alpha \) is the share of capital stock in output under perfect competition. \( E \) equals \( L^*H \), where \( L \) is the total labour force and \( H \), a measure of human capital based on education stock and returns on education, adjusts for the quality of the labour force.\(^4\) Following

---

\(^4\) Previous detailed studies, e.g. Young (1994) have shown education to be by far the most important element in accounting for differences in labour quality. A more accurate proxy for human capital would also include learning by doing, but lack of data precludes this here.
Ghosh and Kraay (2000), we define $H = e^{0.1S}$, where $S$ is the average number of years of schooling per worker, and 0.1 is the returns on a unit increase in $S$. This assumed value of $S$ is consistent with estimates for Bangladesh and with estimates found in the literature for other countries (e.g. Klenow and Rodriguez-Clare, 1997).

The initial stock of capital in 1973 is derived using the capital-output ratio in 1973 from Nehru and Dhareshwar (1993). The capital stock data are then extended through 2000 using the perpetual inventory method.

$K_t = (1 - \text{geometric depreciation rate}) K_{t-1} + \text{Gross Capital Formation} (t-1)$.

Data on gross capital formation are from the WB's SIMA database. The data on $S$, the average years of school attainment by population aged 15 years or more, are from the updated Barro-Lee (2000) database on education attainment. The frequency of the Barro-Lee database is every 5 years and their numbers for 2000 are projections. We fill in each five year period using the assumption of a constant geometric growth rate within that period.

From (1), the growth rate of $A$ (TFP) may be written as

$g(TFP) = g(Y) - a \cdot g(K) - (1 - a) g(E)$, where $g(X)$ indicates the annual growth rate of variable $X$.

Using this accounting framework, and setting the value of $a$ equal to 0.4, Figure 3.6 and Table 3.2 present estimates of the contribution of capital, effective labor, and total factor productivity to GDP growth. TFP growth in Bangladesh has remained low—fluctuating mostly within the −1.0 to 1.0 per cent range since 1981. Capital stock growth has been robust and shows an

---

Figure 3.6 Factor and TFP Growth Rates
Source: Author's calculations.

5 Other country studies have found the value of ‘$a$’ to be in the 0.3–0.6 range. Qualitatively, the results for Bangladesh are not sensitive to the value of ‘$a$’ chosen within this range.
Table 3.2 Factor and TFP Contributions of Growth

<table>
<thead>
<tr>
<th></th>
<th>GDP growth</th>
<th>Capital stock growth</th>
<th>Effective labour growth</th>
<th>TFP growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Average growth rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981-5</td>
<td>3.72</td>
<td>3.36</td>
<td>2.70</td>
<td></td>
</tr>
<tr>
<td>1986-90</td>
<td>3.74</td>
<td>4.61</td>
<td>2.60</td>
<td></td>
</tr>
<tr>
<td>1991-5</td>
<td>4.39</td>
<td>5.06</td>
<td>3.64</td>
<td></td>
</tr>
<tr>
<td>1996-2000</td>
<td>5.21</td>
<td>6.74</td>
<td>3.44</td>
<td></td>
</tr>
<tr>
<td>1981-2000</td>
<td>4.27</td>
<td>4.94</td>
<td>3.10</td>
<td></td>
</tr>
<tr>
<td><strong>B. Contribution to output growth (TFP = solow residual)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981-5</td>
<td>3.72</td>
<td>1.34</td>
<td>1.62</td>
<td>0.75</td>
</tr>
<tr>
<td>1986-90</td>
<td>3.74</td>
<td>1.84</td>
<td>1.56</td>
<td>0.33</td>
</tr>
<tr>
<td>1991-5</td>
<td>4.39</td>
<td>2.02</td>
<td>2.19</td>
<td>0.18</td>
</tr>
<tr>
<td>1996-2000</td>
<td>5.21</td>
<td>2.70</td>
<td>2.06</td>
<td>0.45</td>
</tr>
<tr>
<td>1981-2000</td>
<td>4.27</td>
<td>1.98</td>
<td>1.86</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Source: Author's calculations.

increasing trend. Effective labour showed some improvement in the 1990s, reflecting slightly higher growth in both the labour force and the human capital stock.

Within the region, Bangladesh recorded the lowest average growth during the 1980s, mainly due to the weakest performance in the region in capital stock growth and weaker performance than India and Pakistan in TFP growth (Table 3.3). During the 1990s, despite recording the highest rate of growth in its effective labour stock and the second highest rate of growth (after Nepal) in its physical capital stock, average GDP growth in Bangladesh was the second lowest in the region. This was due to weak TFP growth – lower than in all other countries except Nepal.

Explaining Growth Over Time: Primacy of Factor Productivity Over Factor Accumulation

At first brush, it seems that capital and labour accumulation can explain almost entirely the growth process in Bangladesh. Given that physical capital growth during the 1980s and 1990s averaged 4.9 per cent per year (Table 3.3), and assuming the share of capital in production to be 40 per cent, the contribution of capital to growth would be 2.0 percentage points (46 per cent of GDP growth). Similarly, effective labour grew at an average rate of 3.1 per cent over 1981–2000 period, which, given its assumed share of 60 per cent in output, implies a 1.9 percentage point contribution to growth. Then, the contribution of the residual (TFP growth) in total GDP growth would be 0.43, or 10 per cent of total GDP growth.
### Table 3.3 Regional Comparisons of Factor, TFP, and GDP Growth

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP Growth</th>
<th>Cap. Stock Growth</th>
<th>Effective Labour Growth</th>
<th>TFP Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>3.7</td>
<td>3.4</td>
<td>2.7</td>
<td>0.8</td>
</tr>
<tr>
<td>India</td>
<td>5.4</td>
<td>5.0</td>
<td>2.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Nepal</td>
<td>5.0</td>
<td>7.7</td>
<td>2.4</td>
<td>6.8</td>
</tr>
<tr>
<td>Pakistan</td>
<td>6.8</td>
<td>6.0</td>
<td>3.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>5.0</td>
<td>10.3</td>
<td>2.7</td>
<td>-0.8</td>
</tr>
</tbody>
</table>

**Notes:**
- GDP Growth:
  - Bangladesh: 3.7, 3.7, 4.4, 5.2, 4.3
  - India: 5.4, 6.2, 5.3, 5.6, 5.6
  - Nepal: 5.0, 4.5, 5.3, 4.9, 4.9
  - Pakistan: 6.8, 5.8, 4.6, 3.3, 5.1
  - Sri Lanka: 5.0, 3.5, 5.4, 5.0, 4.7

- Cap. Stock Growth:
  - Bangladesh: 3.4, 4.6, 5.1, 6.7, 4.9
  - India: 4.3, 5.0, 5.0, 6.3, 5.2
  - Nepal: 7.7, 7.5, 6.8, 7.2, 7.3
  - Pakistan: 6.0, 6.0, 5.5, 4.3, 5.4
  - Sri Lanka: 10.3, 6.1, 4.5, 5.0, 6.5

- Effective Labour Growth:
  - Bangladesh: 2.7, 2.6, 3.6, 3.4, 3.1
  - India: 2.7, 2.8, 3.1, 3.4, 3.0
  - Nepal: 2.4, 2.5, 3.2, 3.4, 2.9
  - Pakistan: 3.0, 6.9, 2.5, 3.0, 3.8
  - Sri Lanka: 2.7, 2.3, 2.8, 3.2, 2.7

- TFP Growth:
  - Bangladesh: 0.8, 0.3, 0.2, 0.4, 0.4
  - India: 2.0, 2.6, 1.4, 1.1, 1.8
  - Nepal: 0.5, 0.0, 0.6, -0.1, 0.3
  - Pakistan: 2.6, -0.7, 1.0, -0.2, 0.6
  - Sri Lanka: -0.8, -0.4, 1.9, 1.1, 0.5

*Source: Author's calculations.*
Based on similar calculations for the rapidly growing East Asian economies, Young (1995) too is led to conclude that factor accumulation accounted for most of their GDP growth. But economists (e.g. Barro and Sala-i-Martin, 1995 and Klenow and Rodriguez-Clare, 1997) have since criticised Young's approach on the grounds that it does not account for the fact that capital accumulation responds to technological progress – that higher the rates of return, the larger the investments in physical and human capital can be expected to be. If this effect is taken into consideration, a more significant contribution of TFP growth is likely to emerge.

Is it the case that factor accumulation in Bangladesh responds to TFP growth? There is some evidence to support this for the 1975–2000 period. As seen in Table 3.4, the null hypothesis of no causation between TFP growth and physical capital growth cannot be rejected at the 5 per cent level in either direction, i.e. higher TFP growth appears to cause faster capital accumulation, and faster accumulation appears to result in productivity gains. The causal arrow in the relation between TFP growth and (first-differenced) effective labour growth flows from the former to the latter, i.e. faster productivity growth causes faster accumulation of effective labour (education stock and labour force) in Bangladesh.6

To assess more accurately the impact of TFP on growth – in a way that incorporates the fact that physical and human capital respond to technological progress – Klenow and Rodriguez-Clare (1997) recommend looking at the covariance between TFP growth and GDP growth divided by the variance of GDP growth. According to this measure, TFP growth explains 80 per cent of GDP growth between 1975–2000 and 61 per cent of GDP growth between 1981–2000. This is consistent with similar calculations for other countries (See Ghosh and Kraay, 2000, for the case of Korea) and with cross-country studies (e.g. Klenow and Rodriguez-Clare, and Easterly and Levine, 2000) that show that most of the cross country differences in GDP growth can be explained by differences in TFP growth.

Labour Force in Bangladesh has Become more Productive

An average Bangladeshi worker is about 30 per cent more productive today than in 1981.7 This is because of a two and half time increase in the stock of physical capital, 7 per cent increase in human capital stock, and 8 per cent increase in TFP which combined to overcome the diminishing returns to labour

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6 We use the first difference of the effective labour growth because unit root tests predict strong presence of non stationarity in it.
7 Labour efficiency for period t is calculated as $\delta Y_t / \delta L_t$, where $Y$ is as defined in equation (1) and $L$ is the size of the labour force. This calculation for years 2000 and 1975 shows the former to be 30 per cent higher than the latter.
Table 3.4  Granger Causality Tests (using two lags), 1975–2000

<table>
<thead>
<tr>
<th>Null hypothesis</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFP growth does not Granger cause physical capital growth</td>
<td>0.01</td>
</tr>
<tr>
<td>Physical capital growth does not Granger cause TFP growth</td>
<td>0.05</td>
</tr>
<tr>
<td>TFP growth does not Granger cause (differenced effective labour growth)</td>
<td>0.05</td>
</tr>
<tr>
<td>Effective labour (differenced) growth does not Granger cause TFP growth</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Source: Author’s calculations.

that would have arisen from the 70 per cent increase in the labour force over this period. Admittedly, this provides only a low-end estimate of labour productivity since learning-by-doing gains in human capital, which can be expected to have been substantial in the garments industry in Bangladesh are not accounted for here.

SECTION IV: GROWTH, INVESTMENT AND SAVING IN BANGLADESH

Figure 3.7A shows the investment, gross domestic saving, and GDP growth rate patterns in Bangladesh since 1981. The saving and investment series show an increasing trend and are highly correlated. The correlation coefficient between the two series is 0.92 – even after removing non-stationary in each series the correlation coefficient remains quite high at 0.68. This is consistent with the cross-country findings of Feldstein and Horioka (1980) and highlights the lack of capital account integration in Bangladesh as in majority of other countries. GDP growth is highly correlated with both the investment series (correlation coefficient = 0.53) and the saving series (correlation coefficient = 0.55), although this result deteriorates considerably when the stationary saving and investment series are used: the detrended saving series has a lower but still significant correlation with growth (correlation coefficient = 0.27), while the first-differenced investment series has an insignificant correlation with growth (correlation coefficient = 0.05).

Figure 3.7B shows the breakdown of investment by its private and public components. The 1980s saw offsetting changes in public and private investment rates – the correlation coefficient between the two series for the 1981–90

---

8 Unit root tests for the GDP growth, investment, and saving series show growth to be stationary and non-stationary in the investment and saving series. Unit root tests that include a time trend show the saving series to be stationary, i.e. the detrended saving is stationary. Similarly, first-differenced investment series is found to be stationary. To detrend the saving series, it is regressed on a constant and a time trend. The residual from the regression then provides the detrended saving series.
period is – 0.81 – and as a result total investment remained virtually unchanged over the decade. Since the early 1990s, the total investment rate has increased significantly, almost entirely on account of increases in the private investment rate. The total investment rate increased from 17 per cent to 23 per cent between 1990–2002, with the share of private investment in total investment increasing from 57 per cent to 72 per cent.

Source: World Bank data, BBS, and author's calculations.
SECTION V: ASSESSING BANGLADESH’S GROWTH PERFORMANCE IN A CROSS-COUNTRY FRAMEWORK

This section draws on the vast cross-country growth literature, that has evolved mainly since the early 1990s, to help identify the main determinants of GDP growth in Bangladesh. The intent is to carefully select from among the large number of explanatory variables in the literature (over 50 by some accounts (Levine and Renelt, 1992) a set that helps explain Bangladesh’s performance vis-à-vis, the rest of the world and a set of comparator countries in particular.

As in the section on growth accounting, this section looks at whether it is factor accumulation or technology growth and more efficient resource allocation that fundamentally explains growth in Bangladesh. The answer to this has important implications for policy formulation – should the focus of the policymakers be on accumulation of capital (saving and investment) or on technology infusion via R&D, FDI, and higher quality labour force?

It's More than Just Factor Accumulation

We begin with the simple (human-capital-augmented) neoclassical cross-country growth framework, first tested by Mankiw, Romer and Weil (1992) (MRW). Specifically, Regression 1 (see Table 3.5) regresses average annual per capita GDP growth during 1981–2000 on initial income (real per capita income in 1980 in constant PPP US dollar), average years of schooling (proxy for human capital), gross domestic investment rate (proxy for domestic saving), and population growth.9 The framework is purely cross-sectional, with all variables except initial income averaged over 1981–2000 for each country, giving us one observation per country.10

Regression 1 results closely resemble those of MRW. All coefficients have predicted signs and are highly significant. The coefficient on initial income is negative, indicating conditional convergence. On average, population growth is seen to hurt per capita growth while investment and education attainment are beneficial for growth. The broad interpretation is that the growth differentials across countries are due to out of steady state dynamics. Each country is converging to its unique steady state income determined by its exogenous rates of saving in human and physical capital and population growth. The pace at which the convergence takes place, i.e. the growth rate in each country depends on the gap between the existing levels of inputs (physical and human capital stocks) and their steady state levels – the shorter the inputs are of the steady state, the higher is their marginal returns and faster is growth. In this sense, the growth differentials are transitory, only until convergence to

9 The regression analysis of Mankiw, Romer and Weil covers the period 1960–85 and uses secondary education as a proxy for human capital.
10 All regressions in this section use White’s heteroskedasticity-corrected standard errors.
Table 3.5 Cross-Country Regressions. Dependent Variable-Average Per Capita Growth (1981–2000)

<table>
<thead>
<tr>
<th>Regressors</th>
<th>Regression 1</th>
<th></th>
<th></th>
<th>Regression 2</th>
<th></th>
<th></th>
<th>Regression 3</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>t-stat</td>
<td></td>
<td>Coef.</td>
<td>t-stat</td>
<td></td>
<td>Coef.</td>
<td>t-stat</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-3.32</td>
<td>-1.01</td>
<td></td>
<td>8.22**</td>
<td>2.45</td>
<td></td>
<td>18.37***</td>
<td>3.71</td>
<td></td>
</tr>
<tr>
<td>Initial Income</td>
<td>-1.04**</td>
<td>-2.48</td>
<td></td>
<td>-1.64***</td>
<td>-4.44</td>
<td></td>
<td>-2.34***</td>
<td>-4.67</td>
<td></td>
</tr>
<tr>
<td>GDI (% GDP)</td>
<td>3.31***</td>
<td>3.82</td>
<td></td>
<td>3.12***</td>
<td>3.84</td>
<td></td>
<td>2.37***</td>
<td>3.35</td>
<td></td>
</tr>
<tr>
<td>POP</td>
<td>-0.88***</td>
<td>-3.69</td>
<td></td>
<td>-0.22</td>
<td>-1.11</td>
<td></td>
<td>-0.35*</td>
<td>-1.82</td>
<td></td>
</tr>
<tr>
<td>EDU</td>
<td>1.88***</td>
<td>2.64</td>
<td></td>
<td>0.59</td>
<td>0.96</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CONC</td>
<td>-1.55*</td>
<td>-1.66</td>
<td></td>
<td>-13.67**</td>
<td>-2.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CONC* Initial Income</td>
<td></td>
<td></td>
<td></td>
<td>1.52**</td>
<td></td>
<td>2.38</td>
<td></td>
<td></td>
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<tr>
<td>FDI</td>
<td>0.04</td>
<td>1.00</td>
<td></td>
<td>0.55**</td>
<td></td>
<td>2.28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI* Initial Income</td>
<td></td>
<td></td>
<td></td>
<td>-0.06**</td>
<td></td>
<td>-2.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFLAT</td>
<td>-0.13**</td>
<td>-1.97</td>
<td></td>
<td>-0.22**</td>
<td></td>
<td>-3.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFLAT* (LIC + MIC)</td>
<td></td>
<td></td>
<td></td>
<td>0.02</td>
<td></td>
<td>-0.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOT</td>
<td>-0.56**</td>
<td>-1.99</td>
<td></td>
<td>-0.67**</td>
<td></td>
<td>-2.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOT* (LIC + MIC)</td>
<td></td>
<td></td>
<td></td>
<td>-0.50*</td>
<td></td>
<td>-1.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RULE</td>
<td>1.43**</td>
<td>2.26</td>
<td></td>
<td>1.12**</td>
<td></td>
<td>1.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COST</td>
<td>-0.22</td>
<td>-1.37</td>
<td></td>
<td>-0.31**</td>
<td></td>
<td>-1.99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

# of Observations            | 78          | 78    | 78     |
Adjusted R Squared            | 0.43        | 0.62  | 0.68   |
Predicted value for Bangladesh| 0.71%       | 1.87% | 2.02%  |

* reflects significance at the 10% level; ** reflects significance at 5% level; *** reflects significance at 1% level.
Source: Author's calculation.
the steady state takes place. After convergence, all countries would grow at
the same rate that is determined by the growth of a shared technological
frontier.

While Regression 1 explains cross-country differences in growth reason­
ably well – the adjusted R² equals 0.43 and happens to equal that obtained by
MRW for their 'intermediate sample' – it does not give a good fit for Bangladesh.
The fitted per capita growth for Bangladesh is 0.71 per cent p.a., significantly
lower than the 2.06 per cent actual performance during the 1981–2000 period.
Clearly, to understand why growth in Bangladesh differs from that in other
countries we would need to look at factors beyond capital accumulation.

Specifically, we need to incorporate cross-country differences in the
efficiency with which factors of production are used – something that
Regression 1 omits. This would also be consistent with the analysis of
Easterly and Levine (2000), who argue that productivity differences are far
more important in explaining cross-country growth differences than the factor
accumulation differences.

To capture productivity differences, we include 6 additional regressors
– each regressor may be viewed as a proxy for a major policy – institutional
area that the literature has identified as being important for efficiency of
investment.

• The first variable, CONC, measures the degree of concentration in the
banking system. Cetorelli and Gambra (2001) find that a higher value
of CONC, i.e. a less competitive banking sector, tends to dampen
productivity growth.
• The second variable, FDI, captures the spillover effects of foreign direct
investment. The FDI variable interacts gross FDI inflows into a country
.adjusted by its GDP) with the education stock and the phone density in
the economy. The latter two variables are meant to capture the absorptive
capacity of the economy, which Borensztein, Gregorio, and Lee (1998),
show to be important in capturing the growth effects of FDI.
• The RULE variable is from Kaufman, Kraay, and Zoido-Lobatón (2002),
and summarises the extent to which agents have confidence in and abide
by the rules of the society. Kaufman and Kraay (2002) find this to be an
important determinant of long-run growth.
• The next two variables, INFLAT and TOT, are meant to capture
macroeconomic stability. INFLAT measures the standard deviation of

1 Implicit in this MRW framework is the assumption that technology is an international public
good and, therefore, the rate of technological progress is the same for each country (even
though the initial levels of technology may differ across countries).
12 Borensztein et al. interact FDI/GDP only with the education variable. We add the phone
variable in the interaction under the assumption that physical infrastructure (which the phone
variable is meant to be a proxy for) is also an important component of the absorptive capacity.
annual CPI inflation and is included as a proxy for the degree of macro policy stability. Fischer (1993) shows this to be negatively correlated with growth. \( TOT \) measures the volatility of annual terms of trade growth in a country (normalised by the country's trade to GDP ratio) and acts as a proxy for the level of external shocks a country is exposed to. Rodrik (1999) shows this to have a negative impact on growth.

- Finally, the variable \( COST \) measures the cost of starting a new business (adjusted by the GNI) and, \textit{a priori}, can be expected to be negatively correlated with both the rate and quality of investment.\(^{13}\)

Results are presented in Regression 2. All coefficients have the predicted signs and the additional regressors, with the exception of \( FDI \) and \( COST \), are all significant at least at the 10 per cent level. The adjusted \( R^2 \) improves considerably to 0.62 and the regression gives a much improved predicted value of 1.87 per capita growth for Bangladesh. However, the coefficients on population growth and education stock lose significance and the lack of significance of the coefficients on \( FDI \) and \( COST \) is of concern.

To further improve the fit, we test for non-linearities in the framework. In particular, we test how the impact of these variables changes with the income level.

First, we add a regressor that interacts \( CONC \) with the level of initial income. This is included for two reasons – one, the banking sector in more developed economies can be expected to be more contestable, i.e. free entry by new banks. If this is the case, a given concentration ratio in a more developed economy would be associated with a more competitive banking sector than in a poorer country, and the interaction would have a negative coefficient. Second, the literature (Diamond, 1984 and Allen 1990) predicts important economies of scale in the banking business, which higher bank concentration would help exploit.\(^{14}\) As long as the banking sector consolidation is a result of market forces capitalising on the economies of scale, an increase in bank concentration can be viewed positively. There is evidence, however, that this process is more evident in developed economies – in emerging economies bank concentration is typically due to other forces, such as direct government intervention and public and private responses to crises.\(^{15}\) To the extent that the positive forces of bank consolidation are correlated with the development level of an economy, a negative sign on the interaction variable is to be expected.

\(^{13}\) The \( COST \) variable is taken from the WB's new Doing Business 2003 database.

\(^{14}\) Proponents of the recent spate of mergers in financial services in developed countries also argue for economies of scales in financial intermediation.

\(^{15}\) 'Fragile, handle with care', A survey of banking in emerging markets by \textit{The Economist}, 12 April 1997.
Similarly, since the FDI spillovers effect measures flow of technology from more to less developed economies, its impact can be expected to diminish with income level. This is what the interaction variable between FDI and initial income tests for. We also interact the INFLAT and TOT variables with income group dummies to test whether the higher income group countries, with presumably deeper institutions for economic management, are better able to cope with economic uncertainty. Finally, we drop the EDU variable as a separate regressor, since, as results of Regression 2 show, it is no longer significant in the presence of the additional productivity regressors. 16

Results of the revised regression are presented under Regression 3 in Table 3.5. The adjusted R² improves further to 0.68 and the predicted value for Bangladesh from the regression is 2.02 per cent, which is remarkably close to the actual performance of 2.06 per cent. All variables are now highly significant – most variables are significant at the 5 per cent level. The negative impact of bank concentration is seen to ameliorate with income level, perhaps confirming our prior that the offsetting scale effect and contestability in the banking sector become more pronounced with higher income. Inflation volatility is seen to harm the groups of low-income and middle-income countries but not high-income countries. TOT volatility negatively impacts growth in all income groups, although the effect is statistically larger for the groups of low-income and lower-middle-income countries than for the groups of upper-middle-income and high-income countries. The FDI spillover effect has a positive impact on growth, although it diminishes with income level. The rule of law variable is seen to have a positive and significant impact on growth, confirming earlier results in the literature. The new cost of starting a business variable appears to have a negative and significant impact on growth.

Bangladesh Relative to Comparators

The results of Regression 3 capture well Bangladesh’s relative growth performance during the 1980s and 1990s. In this section we benchmark Bangladesh’s performance against a group of comparator countries. The group consists mainly of countries that have outperformed Bangladesh in the hope identifying reform areas for even higher growth. Niger is included as an example of a poor performer to understand why Bangladesh was able to avoid the fate of most of the Sub-Saharan Africa. As seen in the Table 3.6 below, Regression 3 does a fairly good job of predicting growth in all of the comparator countries.

Figure 3.8 compares Bangladesh to the benchmark countries on the

16 Easterly (2001) argues that a higher education level does not in itself improve growth: the returns on education are high only when the business environment enables good use of the education stock. Regression 2 results appear to support this argument as the addition of business environment variables result in the EDU variable losing significance.
Figure 3.8: Determinants of Growth: Cross-Country Comparisons

- Contribution Ratio in 2000-2001
- Cost of Doing a Business
- Quality of Economic Governance
- FDI Spillover Variable
- Volatility of Terms of Trade Growth
- Standard Deviation of Inflation, 1981-2000
- Average Annual Population Growth
- Average GDP Per Capita Growth
- Real GDP Per Capita in 1980

Analysis of Growth Experience
Table 3.6  Average Per Capita GDP Growth, 1981–2000

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Predicted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>2.06</td>
<td>2.02</td>
</tr>
<tr>
<td>Chile</td>
<td>3.63</td>
<td>3.17</td>
</tr>
<tr>
<td>China</td>
<td>8.37</td>
<td>6.24</td>
</tr>
<tr>
<td>India</td>
<td>3.61</td>
<td>4.42</td>
</tr>
<tr>
<td>Indonesia</td>
<td>3.69</td>
<td>2.89</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3.84</td>
<td>3.60</td>
</tr>
<tr>
<td>Niger</td>
<td>-2.26</td>
<td>-1.94</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>3.49</td>
<td>2.65</td>
</tr>
<tr>
<td>Thailand</td>
<td>4.87</td>
<td>4.35</td>
</tr>
</tbody>
</table>

Source: Author's calculations.

growth determinants identified in Regression 3. Key features of the comparisons are as follows:

- Bangladesh had the lowest initial income among the group, which, ceteris paribus, should have produced higher growth. Clearly, given Bangladesh's relative standing in the group on growth performance, other factors outweighed any advantage from lower initial income level.
- A partial explanation of Bangladesh's relative position is its pace of capital accumulation – slower than in the better growth performers and faster than in Niger.
- The relative rates of population growth within the group help fit another piece in the puzzle. Average population growth in Bangladesh was higher than comparators except Malaysia and Niger.
- Bangladesh appears to have been a mediocre performer on banking sector, although, as suggested by the regression results, the growth impact of this may have been more severe in Bangladesh due to its low development level.
- Bangladesh has been an impressive performer on macro stability – as measured by the inflation and TOT volatility measures. This, in fact, appears to be a major reason why its growth rate has surpassed most other LICs’ and compares fairly well in most global comparisons.
- Relative inability to attract FDI and benefit from its spillover effects has been a major area of deficiency for Bangladesh. Even Niger outperforms Bangladesh on this measure.
- The quality of economic governance has been quite weak in Bangladesh – it lags all comparators barring Indonesia and Niger on this measure. This comparison is consistent with the priors that weak performance in this area has hampered Bangladesh’s growth performance.
- Cost of starting a business in Bangladesh is relatively high – exceeded only by Niger – and its ranking on this measure is consistent with its ranking on growth.
SECTION VI: A CLOSER LOOK AT THE MAIN STRUCTURAL AREAS

This section takes a closer look at the structural areas identified in the previous section as important determinants of Bangladesh’s growth performance. Broadly, the areas of relative weakness in Bangladesh are – policies and institutions to enhance and benefit from global integration, quality of financial intermediation, quality of economic governance, and regulatory and administrative burdens that impact cost of business. Weaknesses in these areas offset to some extent the advantages offered by the lower initial income, relatively good performance on macroeconomic stabilisation, and the decline in population growth.

Macroeconomic stability has been the cornerstone of Bangladesh’s economic performance. CPI inflation has not touched the two digit mark since the mid-1980s, and has been more stable than in any other low- or lower-middle-income country, as measured by its standard deviation. Exposure to external shocks has also been limited, mainly due to a low trade base though. Terms of trade volatility has been high – standard deviation of the terms of trade growth over the 1980s and 1990s was the highest in the comparator group – but when adjusted by the trade to GDP ratio, Bangladesh’s external vulnerability appears to be quite low. Partly in response to low exposure to macro policy and external shocks, GDP growth has been remarkably stable – the volatility of GDP growth in Bangladesh over the previous two decades was among the lowest in the world.

To be sure, the economy remains vulnerable to weather related shocks, floods and hurricanes in particular, that frequent Bangladesh due to its unique topography. However, the capacity to manage and cope with natural calamities has improved tremendously. For example, the spread of defensive infrastructure, such as coastal and river embankments, has helped contain natural disasters, while improved ability to evacuate people from disaster zones and provide shelter, improved access to micro-finance, implementation of government-sponsored employment programmes during the lean season, and liberalisation of private rice imports have collectively helped mitigate the impact of disasters.

Economic Governance

The problem of weak economic governance in Bangladesh is severe, and is a major impediment to faster economic growth.18

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17 Among the benchmark countries in this paper, only Malaysia had a more stable CPI inflation process during the 1981–2000 period.
18 Economic governance here refers to the quality of those aspects of public service delivery and public-private dealings that directly affect the efficiency of the private business sector.
<table>
<thead>
<tr>
<th></th>
<th>Starting a Business</th>
<th></th>
<th></th>
<th>Enforcing Contracts</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of procedures</td>
<td>Duration (days)</td>
<td>Cost (US$)</td>
<td>Cost (% of GNI per capita)</td>
<td>Number of procedures</td>
<td>Duration (days)</td>
<td>Cost (US$)</td>
</tr>
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<td>Bangladesh</td>
<td>7</td>
<td>30</td>
<td>272</td>
<td>75.5</td>
<td>15</td>
<td>270</td>
<td>973</td>
</tr>
<tr>
<td>Chile</td>
<td>10</td>
<td>28</td>
<td>494</td>
<td>11.6</td>
<td>21</td>
<td>200</td>
<td>626</td>
</tr>
<tr>
<td>China</td>
<td>11</td>
<td>46</td>
<td>134</td>
<td>14.3</td>
<td>20</td>
<td>180</td>
<td>301</td>
</tr>
<tr>
<td>India</td>
<td>10</td>
<td>88</td>
<td>239</td>
<td>49.8</td>
<td>11</td>
<td>365</td>
<td>456</td>
</tr>
<tr>
<td>Indonesia</td>
<td>11</td>
<td>168</td>
<td>103</td>
<td>14.5</td>
<td>0</td>
<td>225</td>
<td>1910</td>
</tr>
<tr>
<td>Malaysia</td>
<td>8</td>
<td>31</td>
<td>959</td>
<td>27.1</td>
<td>22</td>
<td>270</td>
<td>687</td>
</tr>
<tr>
<td>Niger</td>
<td>11</td>
<td>27</td>
<td>759</td>
<td>446.6</td>
<td>29</td>
<td>365</td>
<td>97</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>8</td>
<td>58</td>
<td>154</td>
<td>18.3</td>
<td>17</td>
<td>440</td>
<td>64</td>
</tr>
<tr>
<td>Thailand</td>
<td>9</td>
<td>42</td>
<td>144</td>
<td>7.3</td>
<td>19</td>
<td>210</td>
<td>586</td>
</tr>
<tr>
<td>Vietnam</td>
<td>11</td>
<td>63</td>
<td>129</td>
<td>29.8</td>
<td>28</td>
<td>120</td>
<td>37</td>
</tr>
<tr>
<td>Median Country in Global Sample</td>
<td>10</td>
<td>45</td>
<td>541</td>
<td>24.3</td>
<td>21</td>
<td>225</td>
<td>352</td>
</tr>
</tbody>
</table>

Source: Doing Business Database.
The problem of endemic corruption

Bangladesh has received a lot of negative attention lately due to perceptions of widespread corruption in public-private dealings. Most prominently, for four years in a row now Transparency International, the Berlin based private rating agency, has placed Bangladesh last in its cross-country corruption rankings. Such a blanket indictment of Bangladesh may not seem fully justified since it reflects subjective perceptions that are not meaningful in cross-country comparisons. Nonetheless, the problem of endemic corruption in Bangladesh and the harm it inflicts on the economy is undeniable. In a recent survey, about 60 per cent of the 1,001 firms surveyed in Dhaka and Chittagong viewed corruption as a major constraint to business operations and growth – second only to problems related to power supply.

Breakdown of law and order

Extortions and other criminal activities, feeding on an environment of widespread corruption in police and lower courts, are a major governance problem. This has seriously hurt public confidence in enforcement of the rule of law and impartial protection of property rights, vitiating the business environment and harming long-run growth.

Regulatory environment and the cost of doing business

According to the World Bank’s Doing Business 2003 database, on average, 7 procedures are involved in starting a business in Bangladesh (Figure 3.9).

![Figure 3.9 Procedures Involved with Starting a New Business in Bangladesh](image)

**Notes:**

1. Buy non-judicial stamps
2. Verify the company name
3. A lawyer verifies the Memorandum and Articles of Association
4. Pay the registration fee
5. File documents with the Registrar of Joint Stock Companies
6. Make a company seal
7. Register with the tax authority

*Source:* World Bank’s Doing Business Database.
Table 3.8 Country Rankings on A.T. Kearney/Foreign Policy Globalisation Index Measures

<table>
<thead>
<tr>
<th>Country</th>
<th>Overall globalisation index ranking</th>
<th>Economic integration</th>
<th>Personal contact</th>
<th>Technology</th>
<th>Political engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>56</td>
<td>62</td>
<td>43</td>
<td>62</td>
<td>35</td>
</tr>
<tr>
<td>Chile</td>
<td>37</td>
<td>29</td>
<td>50</td>
<td>27</td>
<td>39</td>
</tr>
<tr>
<td>China</td>
<td>57</td>
<td>37</td>
<td>59</td>
<td>49</td>
<td>56</td>
</tr>
<tr>
<td>India</td>
<td>61</td>
<td>61</td>
<td>53</td>
<td>55</td>
<td>57</td>
</tr>
<tr>
<td>Indonesia</td>
<td>59</td>
<td>47</td>
<td>61</td>
<td>51</td>
<td>53</td>
</tr>
<tr>
<td>Malaysia</td>
<td>20</td>
<td>8</td>
<td>14</td>
<td>26</td>
<td>46</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>51</td>
<td>41</td>
<td>34</td>
<td>56</td>
<td>60</td>
</tr>
<tr>
<td>Thailand</td>
<td>48</td>
<td>28</td>
<td>48</td>
<td>58</td>
<td>44</td>
</tr>
</tbody>
</table>

Notes: The table shows the rankings of different countries on various aspects of globalisation, including economic integration, personal contact, technology, and political engagement. The data is presented in a tabular format, with specific values for each category for each country.
This compares favourably relative to other benchmark countries. On average, it takes about 30 days to clear these procedures in Bangladesh, which again is relatively good – only Niger and Chile among the comparator countries have a shorter duration. However, the cost of even these relatively few procedures is extremely high in Bangladesh. In US dollar terms, the cost of starting a business is higher in Bangladesh than in China, India, Indonesia, Sri Lanka, Thailand, and Vietnam. As a share of per capita GNI, the cost of starting a business in Bangladesh is lower than only Niger within the comparator group.

As seen in Figure 3.9, the most costly procedures, in terms of time and money spent, are filing documents with the registrar of Joint Stock Companies and registering the company with the tax authorities.

Similarly, while the number of procedures involved in getting a business contract enforced is relatively low in Bangladesh, the cost of clearing these is quite high – the average cost of enforcing a contract in Bangladesh is almost three times its per capita GNI, the highest ratio within the comparator group (Table 3.7).

Global Integration

Bangladesh’s economic integration with the global economy is low, by most measures. The 2004 globalisation index prepared by the management consulting firm A.T. Kearney and the Foreign Policy magazine ranks Bangladesh at 56 out of 62 countries (Table 3.8). Bangladesh ranks last among the 62 countries in the area of economic integration, and within that category, Bangladesh ranks last on investment income, second to last on FDI, third to last on portfolio flows, and fifth from last on trade openness.

A commonly used measure of trade openness is the ratio of total trade (exports + imports) to GDP. By this measure, Bangladesh ranks 175 among the 182 countries for which the World Bank’s WDI database provides comparable data for the 1990s. The trade to GDP ratio has increased considerably in Bangladesh in recent years – from 20 per cent in 1990 to 34 per cent in 2002, reflecting significant reductions in trade tariffs and quantitative restrictions and considerable progress on exchange liberalisation (Ahmed and Sattar, 2003). However, since trade liberalisation was a common phenomenon across the globe during the 1990s, Bangladesh’s global rank improved only marginally over the decade.

In terms of openness to FDI, as measured by the gross FDI inflows to GDP ratio, Bangladesh ranks 137 among the 141 countries for which comparable data for the 1990s are available in the WDI database. Only Nepal, Iran, Republic of Congo and Samoa rank low. This is despite the fact that Bangladesh has a relatively liberal FDI regime – the most liberal in the South Asia region (World Bank 1999). Clearly, foreign investors are deterred by the licensing requirements for private activity in the energy and the telecom
sectors, as well as other investment climate problems identified by the recent Investment Climate Assessment (ICA). The perception of high corruption likely also dampens FDI inflows, as shown by Smarzynska and Wei (2000) for a cross section of countries.

Not only are the levels of FDI into Bangladesh quite low, its absorptive capacity to benefit from these is also weak due to low levels of infrastructure development and human capital.

**Infrastructure Supply**

Infrastructure bottlenecks in the areas of power, ports, gas, and telecommunications are severe. Only 31 per cent of the population – 80 per cent in urban areas and 19 per cent in rural areas – has access to power. Inadequate access to electricity was the most frequent complaint among firms surveyed for the Bangladesh ICA. Lack of access to power is a lot more constraining for rural enterprises. A recent survey found only 32 per cent of rural firms with access to electricity compared to 60 per cent in urban areas.¹⁹ For those fortunate enough to have a utility connection, reliability is a major issue – power outages and surges are all too frequent. This again affects the rural enterprises disproportionately since only 1.8 per cent of these own a generator.²⁰

Poor port conditions extract a hefty price in terms of lost economic potential. The Chittagong port, which handles nearly 85 per cent of the country’s merchandise trade, is plagued by labour problems, poor management, and lack of equipment. Its container terminal handles only 100-105 lifts per berth a day, well below the UNCTAD productivity standard of 230 lifts a day. Ship turnaround time is 5–9 days, higher than the one day standard of more efficient ports. In addition, handling charges for a 20 foot container are estimated at dollar 640 (of which dollar 250 is for unofficial tolls) compared to dollar 220 in Colombo and dollar 360 in Bangkok.²¹ Infrastructure related problems at the ports are exacerbated by cumbersome customs procedures that are also a source for bureaucratic discretion. Bangladeshi firms reported an average 11.7 days to get their last shipment through customs, compared with Malaysia (3.4 days), China and India (both 7.5 days), Philippines (10.2 days), and Pakistan (17.9 days). Customs procedures at airports, too, are fraught with multiple requirements for documents and approvals.

Despite a relatively high density of its road network, poor road conditions and lack of transportation services seriously impair private activity. Factors contributing to this are: poor construction of roads and bridges; lack of

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¹⁹ The World Bank, Promoting the Rural Non-Farm Sector in Bangladesh, (2004).
²⁰ Ibid.
<table>
<thead>
<tr>
<th>Country</th>
<th>Electricity generating capacity (kW per capita), 2002</th>
<th>Telephone mainlines (per 1,000 people), 2001</th>
<th>Internet users (per 1,000 pop)</th>
<th>Total road network (per sq. km. area), 1999</th>
<th>Roads, paved (% of total roads), 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>0.03</td>
<td>8.3</td>
<td>1.9</td>
<td>1.6</td>
<td>9.53</td>
</tr>
<tr>
<td>Chile</td>
<td>0.63</td>
<td>574.8</td>
<td>201.4</td>
<td>0.1</td>
<td>18.9</td>
</tr>
<tr>
<td>China</td>
<td>0.25</td>
<td>247.7</td>
<td>26.5</td>
<td>0.1</td>
<td>22.4</td>
</tr>
<tr>
<td>India</td>
<td>0.11</td>
<td>43.8</td>
<td>6.8</td>
<td>1.1</td>
<td>45.7</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.10</td>
<td>65.7</td>
<td>19.1</td>
<td>0.2</td>
<td>46.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.58</td>
<td>509.9</td>
<td>273.1</td>
<td>0.2</td>
<td>75.8</td>
</tr>
<tr>
<td>Niger</td>
<td>–</td>
<td>2.1</td>
<td>1.1</td>
<td>0.0</td>
<td>7.9</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>0.09</td>
<td>79.9</td>
<td>8.0</td>
<td>1.5</td>
<td>95.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>0.34</td>
<td>221.9</td>
<td>57.8</td>
<td>0.1</td>
<td>97.5</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0.06</td>
<td>53.0</td>
<td>12.7</td>
<td>0.3</td>
<td>25.1</td>
</tr>
</tbody>
</table>

Source: World Bank's WDI database and US energy information agency.
maintenance; and a lack of integration of different modes of transportation (which makes long-haul transport very difficult). Poor road conditions and lack of transportation are especially constraining for enterprises in far-flung rural areas where, in a recent survey, 36 and 18 per cent of firms, respectively, reported them as severe problems. \(^{22}\) Public spending on road maintenance falls well short of what is needed. For example, expenditure by the local government engineering department (LGED) on rural road maintenance was taka 1.7 billion in FY00 against an assessed requirement of taka 2.4 billion.\(^{23}\)

Another source of the weak investment climate in Bangladesh is communications services. Tele-density (fixed line and cellular) in Bangladesh is far lower than in comparator countries (Table 3.9). The vast majority of rural enterprises do not have access to fixed line phone service – only 1.5 per cent of rural firms reported access to phone in the recent NPSEB survey. Bangladesh has one public call office (PCO) per 32,000 population (India has one per 1,000), which gives only 31 per cent of the rural population access to a fixed line (compared with 70 per cent in India). Even in regions within reach of the telephone network, access is made difficult by the extremely high cost involved in getting the initial connection. Average cost of obtaining a fixed line is dollar 171 in Bangladesh, compared to dollar 18 in India and dollar 28 in Nepal, while the average waiting period is 130 days in Bangladesh, compared to 42 days in Pakistan and 16 days in China.

### Human Capital Development and the Innovation System

As seen in Table 3.10, despite significant improvements since independence, Bangladesh still lags comparator countries on most human development indicators.\(^{24}\) This significantly dampens labour productivity and, consequently, growth and wage levels. Bangladesh also lags comparator countries in terms of innovation potential and information technology (IT) infrastructure. The cross-country comparisons in Table 3.11 on four telling measures of a country’s innovation system (the first four indicators) and two indicators of information infrastructure exemplify this.

### Financial Sector Performance

Bangladesh has a relatively shallow financial sector. In 2002, bank credit to private sector was just 29 per cent of GDP and broad money was 37 per cent of GDP (Table 3.12). Historically, deep-rooted institutional weaknesses have drastically restricted the efficacy of the banking sector. Due to weak management, political interference, directed lending and corruption, the four

\(^{22}\) The World Bank, Promoting the Rural Non-Farm Sector in Bangladesh (2004).

\(^{23}\) The World Bank, Bangladesh Public Expenditure Review. (2003)

Table 3.10 Human Development Indicators: Cross-Country Comparisons

<table>
<thead>
<tr>
<th>Country</th>
<th>Average yrs of edu (2000)</th>
<th>Life expectancy</th>
<th>Fertility rate</th>
<th>Maternal mortality rate (per 1,00,000 live births)</th>
<th>Prevalence of child malnutrition (% of children under 5), weight for age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>1.3</td>
<td>2.6</td>
<td>46.0</td>
<td>61.2</td>
<td>6.6</td>
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<td>Chile</td>
<td>5.6</td>
<td>7.6</td>
<td>65.7</td>
<td>75.6</td>
<td>3.2</td>
</tr>
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<td>China</td>
<td>4.4</td>
<td>6.4</td>
<td>64.7</td>
<td>70.3</td>
<td>3.4</td>
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<td>India</td>
<td>2.7</td>
<td>5.1</td>
<td>51.8</td>
<td>62.8</td>
<td>5.4</td>
</tr>
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<td>5.0</td>
<td>51.3</td>
<td>66.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>4.4</td>
<td>6.8</td>
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Sources: World Bank's WDI database and Barro-Lee (2000)

Note: Data are for the most recent year available.
Table 3.11 Innovation Potential and Information Technology Infrastructure

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nationalised commercial banks (NCBs), holding almost half of the industry’s net assets, are technically insolvent, with the ratio of their non-performing loans to total loans estimated at 34 per cent. The court system cannot be relied upon to protect creditor rights which further vitiates lender incentives and contributes to misallocation of credit.

It is hardly surprising then that instead of contributing to economic growth the banking sector has dragged growth down and poses serious risks to financial stability. Recognising this, a 1998 World Bank report commented that ‘The three institutional pillars of banking – a strong regulatory system, well-managed banks, and an effective court system – have crumbled to such a point that banking institutions cannot be relied on to ensure the safety of deposits and efficiently allocate credit, their two most important functions. In a more difficult economic environment, the banking system could become Bangladesh’s Achilles heel.’ Responding to the difficulties the government over the past few years has embarked on a significant reform of the banking sector. Some positive developments have happened since then. In particular, the condition of private banks has improved markedly in response to improved banking supervision and governance. The performance and financial positions of the NCBs, however, has not improved much.

Greater competition from private banks along with a reform of administered interest rates on government saving instruments such as National Saving Certificates and postal saving schemes have helped lower the real lending rates, which have been rather high until recently.

Other elements of the financial sector are fairly underdeveloped. The size of the capital market is small – market capitalisation equals only about 2.4 per cent of GDP. There are no derivative or over the counter markets in Bangladesh. Insurance company assets equal only about 1.3 per cent of GDP and those of finance companies another 0.7 per cent of GDP.

![Figure 3.10 Growth that could have Been](image)

**Note:** Each coloured box bar shows incrementally the change in per capita growth if Bangladesh’s performance during 1981–2000 equaled that of a benchmark country.

**Source:** Author’s calculations.
Growth that could have been
Based on Regression 3 results, Figure 3.10 above shows how much growth would have been higher (or lower) if Bangladesh had matched the performance of its benchmark countries along the main policy dimensions. Higher FDI combined with better absorptive capacity appears to have been the area with the highest potential payoff. This is followed by higher investment levels, a better financial sector, better governance, and lower cost of business.

SECTION VII: ASSESSING THE FUTURE GROWTH POTENTIAL

Growth Potential Based on Current Policy Performance
Figure 3.11 below shows current growth potential of Bangladesh based on the most recent performance measurements of the right hand side variables in Regression 3. According to these calculations, current policy and institutional performance in Bangladesh appears to be consistent with annual per capita growth of 3.7 per cent. This is remarkably close to the actual performance in Bangladesh seen over the last couple of years. It appears, therefore, that the current policy stance should be able to sustain GDP growth in the 5.0–5.5 per cent range.
Transforming Bangladesh into a Middle Income Economy

Growth that can be: Reform Areas that Hold Most Promise for Growth

Figure 3.12 below uses Regression 3 results to assess the growth dividends if key growth-oriented policies and institutions are improved (or worsened in some cases) to equal those of the comparator countries. For instance, if Bangladesh’s investment climate performance across the five structural areas had equaled that of Chile, its future per capita growth would rise from 3.5 to 11 per cent, or if it had equaled that of China, it would rise to 8 per cent. The highest pay-off areas in terms of improving growth appear to be – attracting more FDI and increasing the economy’s capacity to benefit from its spillovers; improving the quality of and access to physical infrastructure and education; financial sector reforms; improving economic governance – especially by strengthening the rule of law; and streamlining the regulatory and administrative environment in order to reduce the cost of starting (and doing) business in Bangladesh.

An assessment of the required rates of saving, investment, and TFP growth

**Scenario 1.** Assume that physical investment grows at an annual rate of 9 per cent (investment grew at about 8.5 per cent during the 1990s), that the GDP growth path reaches a steady state 7 per cent, and labour force grows at 3.1 per cent (the same as in the 1990s). Average years of schooling are assumed to grow at the same rate as in the 1990s. Then, the implied growth path of

![Figure 3.12 Growth that can be](image)

**Note:** Each coloured box bar shows incrementally the change in future per capita growth if Bangladesh’s performance in 2000 equaled that of a benchmark country.

**Source:** Author’s Calculations.
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Note: 1/Effective labour growth is a composite of labour force growth and average education stock growth.  
Source: Author's calculations.
Transforming Bangladesh into a Middle Income Economy

TFP is as shown under scenario 1 in Table 3.13. Note that under this scenario annual TFP growth would reach 1.8 per cent in 2008 and would need to average 1.4 per cent during 2005–15. In comparison, in the 1990s TFP growth averaged 0.3 per cent. Note also that under the given assumptions the investment rate will increase from 26 per cent in 2004 to 29 per cent by 2010 and 32 per cent in 2015. A tall order overall to get GDP growth of up to 7 per cent.

Scenario 2 below presents an alternate set of assumptions, where GDP growth path remains at 7 per cent but investment growth reaches 12 per cent p.a. This scenario has two main implications – one, the investment rate would jump to 32 per cent by 2010 and to 41 per cent by 2015, implying that additional savings/external financing of 6 per cent of GDP would be needed by 2010 and of 15 per cent by 2015. Two, the implied average TFP growth rate for 2005–15 is still about 1 per cent p.a., about 3 times higher than the 1990s.

Scenario 3 seems the most plausible. A GDP growth path of 6 per cent from 2008 on and investment growth of 8 per cent would imply an average annual TFP growth of 0.7 per cent during 2005–15 (more than double of the 1990s). The investment rate with this GDP growth path would reach 29 per cent by 2010 and 32 per cent by 2015.

**Bottom Line**

Ambitious growth in both investment and its productivity is needed to achieve a growth target of 6 per cent p.a. Even then, performances on both fronts would need to be far superior than what has been seen so far. This of course also assumes that if the garment sector is adversely affected by the MFA phase-out in January 2005 then capital and labour from that sector would be shifted efficiently and costlessly to other equally or more productive sectors. A net write-off of capital stock and loss of employment would push growth lower.

Overall, given the substantial demands on investment and its efficiency, major improvements are needed in the investment climate. For productivity gains of the magnitude needed, structural measures are necessary in the areas identified above – improving financial intermediation (to improve the allocative efficiency of investment), increasing FDI inflows, accelerating human capital and infrastructure development, increasing private participation (private investment has been far more productive than public sector investment), improving economic governance, and reducing regulatory and administrative burdens that increase cost of business. At the same time, continued macroeconomic stability, lower barriers to entry for new firms, and improved access to finance are critical in stimulating investment growth. Even then, financing of the required higher investment levels will remain a challenge
and will require fiscal prudence (cutting budget deficits, lowering SOE losses, etc.) and substantial donor support.

ACKNOWLEDGEMENTS
Author acknowledges useful feedback from Kapil Kapoor, Marjin Verhoeven, Sadiq Ahmed, and Tercan Baysan. The views are those of the author alone, and should not be attributed to the World Bank, its Board of Governors, or any of its members.

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SECTION I: INTRODUCTION

Few policy issues evoke as contentious a debate in developing economies as trade liberalisation, openness and globalisation. Critics comprising of politicians, labour unions, business and intellectuals see the world economy as inherently unequal, made worse by advocates of openness to trade and finance. Such openness allegedly exposes the poorer countries to the whims of the advanced countries who benefit more from this open access leading to unequal exchange and exploitation. Much of this debate is often fueled by perceptions rather than a careful review of the underlying analytical framework or empirical foundations. Like in other developing economies, this is a matter of lively debate in Bangladesh where trade liberalisation was accelerated since the early 1990s. A populist view is that trade liberalisation and economic integration has contributed to inadequate progress with industrial development, and sometimes even leading to deindustrialisation. Consequently, growth and employment prospects have suffered. Cheap imports have flooded Bangladeshi markets, making it impossible for domestic enterprises to grow and survive. This view prevails despite the fact that industrial performance under trade protection has been quite dismal. Critics also fail to recognise the gains to consumers and producers from access to lower cost consumer, intermediate and capital goods owing to greater trade openness. Not surprisingly, there is much less recognition that, despite major reduction in trade barriers since the mid-1980s, trade protection still remains a significant source of distortion in Bangladesh.

1 This is an updated version of a paper published in the Economic and Political Weekly 2004.
South Asian Scene

The past decade has seen significant though varying degrees of trade liberalisation in the South Asia region known for its long history of high protection to import substituting industries (World Bank 2004). Until the last decade, with the lone exception of Sri Lanka, few countries in the region acknowledged the fact that trade could be an engine of growth and poverty reduction. What is seldom recognised in policy and business circles is that existing trade regimes across South Asia discriminated more against intra-regional trade than they did against trade with the rest of the world. As a consequence, officially recorded intra-regional trade, which was around 20 per cent in 1947, fell to under 2 per cent by 1974, and showed only modest rise to about 4 per cent as a result of trade liberalisation in all the countries during the 1990s. That the volume of potential trade is suppressed by trade barriers between countries can be discerned from the prevalence of massive amounts of informal trade. Curiously enough, it was the multilateral liberalisation of the 1990s that served as a catalyst for increasing the volume of intra-regional trade.

Two broad trends in the trade policy area can be observed in the South Asia region: (i) First, during the last decade, five countries in South Asia – India, Pakistan, Sri Lanka, Bangladesh and Nepal – have been implementing trade policy reforms, gradually moving their economies away from protectionism toward greater trade openness and global integration, (ii) Second, all the South Asian countries are to deal with a number of major trade policy developments which are related to the new international trading system and, in particular, to the WTO, which have important implications for their economic prosperity. The combination of these two developments has resulted in significant liberalisation of trade and exchange regimes in the whole region. Nevertheless, sufficient barriers to trade remain to suggest that trade restrictiveness in the region is relatively high compared to other regions of the world.

Despite significant opposition from vested groups, the considerable progress made in Bangladesh in recent years in opening markets and redirecting incentives away from import substitution toward export competition demonstrated guarded optimism on the part of policymakers in the proposition that trade openness was good for growth and poverty reduction. The present paper makes an attempt to document how the country has benefitted from these trade reforms of the past decade, noting that the country did not complete the full range of possible reforms.
Table 4.1 Summary of Trade Regimes in South Asia

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<td>Yes, limited</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Import restrictions (trade reasons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>General import licensing</td>
<td>No</td>
<td>No</td>
<td>No, but some restrictions</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Some QRs on imports</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, minor</td>
<td>Yes, minor</td>
</tr>
<tr>
<td>State import monopolies (excl POL)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tariff structure May 03</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Top normal CD rate</td>
<td>30</td>
<td>25</td>
<td>25</td>
<td>25</td>
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<tr>
<td>Average CD rate</td>
<td>22.2</td>
<td>18.2</td>
<td>13.5</td>
<td>9.6</td>
<td>13.7</td>
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<tr>
<td>Average CD + other protective taxes</td>
<td>22.2</td>
<td>18.2</td>
<td>21.4</td>
<td>12.5</td>
<td>16.2</td>
</tr>
<tr>
<td>Number of normal CD slabs</td>
<td>7</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Uses anti-dumping</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Export policies

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some export QRs</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Some export taxes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Some direct export subsidies</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Indirect export subsidies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Trade openness:

| trade-GDP ratio (%) 2000 | 19 | 33 | 33 | 77 | 44 |

(*) Tariff data for Bangladesh reflect changes in FY05 budget. For India, changes of February 2004.
SECTION II: BANGLADESH TRADE REGIME
IN SOUTH ASIAN CONTEXT

Although the Bangladeshi economy now is much more open than it was in 1990, international trade is still subject to a host of tariff and non-tariff barriers which makes the trade regime quite restricted in the global context. Table 4.1 provides an overview of the trade regimes in major South Asian countries.

While quantitative restrictions (QRs) have largely been removed in the rest of South Asia, Bangladesh is the only country that still maintains traditional QRs with the explicit purpose of protecting local industries. The most important restrictions are on the import of a range of textile products. It has also retained general administrative controls over imports which, depending on how they are implemented, can amount to a form of import licensing.

Tariffs are now the principal means by which the South Asian countries protect their domestic industries. While Sri Lanka reduced tariffs in the late 1970s, all the other four South Asian countries steadily reduced their tariffs in the 1990s, starting from very high and in many cases prohibitive levels (India, Pakistan and Bangladesh). In about 1997, in India and Bangladesh, these tariff reductions started to bite and reached the point where, for an increasing number of domestically produced products, much or most of the previous ‘water’ or tariff redundancy had been eliminated. This occurred at the same time as a slump in the world prices of many commodities and manufactured products happened, which accompanied the Asian financial crisis.

This partly explains a five year period between 1997 and 2001 during which there was backtracking on tariff reforms in both India and Bangladesh. During 2002, tariff reforms in India and Bangladesh resumed, with reductions in Bangladesh’s 2002 budget and successive reductions in India’s 2002 and 2003 budgets. In addition, India has announced that its general maximum customs duty rate (but only for non-agricultural products) will go down to 20 per cent in 2004. As of May 2003, the general maximum customs duties (which apply to most but not all products since there are products that are subject to higher customs duties than these generally applied maxima) in the major South Asian countries were as follows: India, 30 per cent; Pakistan 25 per cent; Bangladesh 32.5 per cent; Sri Lanka 25 per cent; and Nepal 25 per cent.2

2 These maxima are those in force in April 2003, and in the case of India are the new rates promulgated its 2003/04 budget which announced a new reduced ‘maximum’ Customs Duty of 25 per cent. However, all agricultural tariffs were excluded from the reduction and many of these as well as a large number of non-agricultural tariffs remain at 30 per cent, and others at rates well above this. 30 per cent therefore has been treated as de facto general maximum rate.
Other Protective Import Taxes

Except in Pakistan, customs duty rates alone give a misleading impression of actual protection rates for domestic industries, since India, Bangladesh, Sri Lanka and Nepal also employ other protective import taxes which are applied across the board on top of customs duties. In addition to this, India in particular and the other four countries to a lesser extent, use specific tariffs which can correspond to very high ad valorem equivalent rates, depending on import prices, and Bangladesh employs two additional protective taxes for selected products. It is not possible to quantify the overall impact of the specific tariffs, but estimates of the unweighted averages of the combined protective effect of customs duties and other taxes are shown in Table 4.1. After allowing for these, it is evident that tariffs are still very high in India and Bangladesh: in fact, compared with average tariffs in 105 developing countries on all products and agricultural products, India currently ranks sixth and fifth, and Bangladesh ranks fifth and seventh. By contrast, Pakistan is now a low to moderate tariff country with average tariffs about the same as Nepal’s, while Sri Lanka remains overall a low tariff country (average protective import duties and taxes in manufacturing around 10 per cent), with the important proviso that its tariffs are very high in agriculture.

SECTION III: EFFECTS OF TRADE OPENNESS

Why Trade Openness Might be Good for Growth and Poverty Reduction

Although the trade regime in Bangladesh is restrictive when judged by international standards, it is nevertheless true that considerable liberalisation has taken place over the past decade or so. The paper would show that this has benefited the economy both in terms of growth performance and poverty reduction. At the theoretical level, it can be argued that since Bangladesh is relatively heavily endowed with labour, within the framework of the well known Hecksher-Ohlin model (Ohlin 1933; Heckscher 1949) expansion of international trade opportunities will likely support the growth of labour intensive export industries, promoting employment and incomes, as predicted by the Stolper-Samuelson Theorem (Stolper and Samuelson 1941). More generally, following Krueger (1998) the arguments why greater trade openness is likely to contribute to higher growth and poverty reduction in Bangladesh might include:

• **Improved productive and allocative efficiency:** Unlike the protectionist regime of import substitution, trade openness will likely direct scarce resources into areas of Bangladesh’s comparative advantage, promoting specialisation and resulting in higher levels of output.
Transforming Bangladesh into a Middle Income Economy

- **Factor accumulation and investment**: Trade liberalisation will accelerate investment by allowing access to bigger markets, permitting scale economies, and encouraging imports of previously unavailable or cheaper capital goods and intermediate inputs.

- **Knowledge spillovers**: Greater trade openness will produce knowledge spillovers through technical innovation that is embodied in traded goods and machinery as well as FDI.

- **Improved income distribution**: Open economies enhance the returns to a country’s relatively abundant factor of production – unskilled labour, in the case of Bangladesh – thus augmenting real wages of unskilled labour, thereby contributing to improved income distribution.

- **Government policy improvements**: As the economy is opened up to global competition, there is greater pressure on policymakers to ensure macroeconomic stability and enhance deregulation.

The paper will show, using qualitative and quantitative analysis and a case study approach, that Bangladesh’s increasing global integration based on trade liberalisation and other economic deregulation, especially since the early 1990s, contributed significantly to the acceleration of per capita income growth and poverty reduction. This is not to suggest that trade liberalisation alone was responsible for these positive developments. It is but only a necessary condition for removing the constraints to rapid growth. Other complementary measures that were taken, such as restoring macroeconomic stability, and removal of many burdensome controls on business and investment, provided the supportive policy environment for bringing about these outcomes.

**International Evidence on Trade Openness and Growth**

The most compelling argument for greater trade openness comes from the effects of this on economic efficiency which promotes private investment and economic growth. Higher growth in turn helps lower poverty by increasing employment and real incomes of the poor.

Empirical evidence on the positive effects of trade openness on growth is quite abundant (Dollar 1992; Frankel and Romer 1999; Dollar and Kraay 2001; Bhagwati and Srivastava 2001; Wacziarg 1998) although there are some critics who dispute these findings on methodological ground (Rodrick, 1997; Rodriguez and Rodrick 1999). Even so, Rodriguez and Rodrick caution that their main intention is to challenge the over-enthusiasm on the questionable outcomes of many research showing strong positive correlation between openness and growth, and not to convey the message that they think trade protection is good for growth. Indeed they admit that they are not aware of
any credible evidence, at least for the post 1945 period, which suggests that trade restrictions are systematically associated with higher growth rates.

The most well-known recent study that provides evidence on trade liberalisation, growth and poverty reduction is that of Kraay and David Dollar (2001). The study concludes that a third of the developing countries of the world, described as 'rapid globalisers', did extremely well in terms of income growth and poverty reduction over the past two decades or so. These countries, which include Bangladesh, India and Sri Lanka in South Asia, have experienced large increases in trade and significant reduction in tariff and non-tariff barriers. Bangladesh, for instance, saw its trade GDP ratio almost double (during the course of the 1990s decade). In contrast, the remaining two-thirds of the developing world, with a large concentration in Africa, that did not experience trade expansion due to a lack of sufficient outward orientation, performed poorly both in terms of growth and poverty reduction.

Perhaps the most useful insights emerge from a review of country experiences. These also dispel any nagging doubts about the robustness of the results coming from cross-country regressions. Amongst the well known examples of how trade liberalisation has contributed to growth and poverty reduction include Chile, China and India.

Chile liberalised the trade regime unilaterally over the 1974–2000 period. Chile initially suffered from adjustment costs in terms of loss of employment in protected sectors. However, between 1985–2000, Chile grew by almost 7 per cent per annum and inflation declined to around 6 per cent p.a. Importantly, Chile was able to cut poverty by more than half between 1987 and 1998.

China's trade liberalisation policy started in late 1978. Within the pace of 20 years, China became one of the most open economies in the developing world with the GDP share of trade growing from only 11 per cent in 1978 to over 40 per cent in 1998. Average GDP grew by over 7 per cent per annum and exports by 20 per cent per annum. Although there has been rising income inequality, poverty fell at rapid pace with the incidence of poverty declining from 30 per cent in 1978 to less than 15 per cent in 1998.

India is yet another example of how economic liberalisation including trade liberalisation spurred growth of exports, investment, income and contributed to poverty reduction. Compared with the famous 3 per cent per annum so called Hindu growth rate over the 1950–80 period, India's GDP expanded at almost double the pace between 1980 and 2000, fueled by economic deregulation and trade liberalisation. Trade to GDP ratio grew from only 10 per cent in 1980 to 25 per cent in 2000. Poverty declined substantially, falling from 45 per cent in 1980 to 26 per cent in 2000. The progress with poverty reduction continued in the 1990s despite evidence of growing income inequality.
These diverse country examples are a reassuring sign that trade liberalisation can be used as a positive force to push economic growth and reduce poverty. Of course, there are other associated factors that have helped secure this progress. Invariably, private investment has increased in response to better investment climate and incentives. Supportive government policies in terms of investment in basic social services and infrastructure have helped. Attention to rural development and agriculture (in China) was an important determinant of poverty reduction. Furthermore, generally sound macroeconomic policies kept inflation low and real exchange rate at a competitive level. But the main point is that in all these cases there was a significant departure of policies from inward looking import substituting industrialisation strategy to an outward looking export promotion strategy. Overall policy framework, including macroeconomic management, exchange rate management and other policies, were supportive of this outward orientation.

There are also interesting differences in country experiences that have important bearing on the design of outward-oriented public policy.

- Both China and Chile gained tremendously from inflow of direct foreign investment following economic liberalisation. Thus, the volume of DFI in China surged from only dollar 5 billion in 1978 to dollar 40 billion in 1998. In Chile, this grew from dollar 0.2 billion in 1974 to dollar 3.5 billion in 1998. But, in India the role of DFI has been very modest, growing from dollar 1 billion per annum in 1980 to dollar 3.5 billion in 2000. This is largely because supportive reforms (behind the border reforms) to enable trade liberalisation to work fully have been lagging behind significantly as compared with Chile and China. Consequently, the investment climate for doing business remains less conducive in India as compared with Chile or China (Dollar and Goswami 2001).

- The pace and magnitude of trade liberalisation have been lower in India than China and Chile. India’s tariff level is still quite high relative to the average for other developing countries. As well, other forms of trade protection, especially anti-dumping, is hurting the growth of trade in India (World Bank 2002). Consequently, the lost opportunity in terms of greater gains from trade has been large in India (Stern 2002).

- Growing income inequality was seen in China and India along with trade liberalisation and rapid growth. Interestingly, however, growth has been relatively more pro-poor in China than in India (Ravallion 2002). This suggests that there is scope for improving public policy to support more rapid poverty reduction in both countries, especially in India, by putting in place processes and policies for the disadvantaged to catch up.
**Summary of International Evidence on Trade Openness, Growth and Poverty**

The above analysis provides strong evidence that greater trade openness is good for growth and poverty reduction over the longer term. It also suggests that there may be short term costs in terms of falling real wages of unskilled labour and or initially declining employment as greater competition drives out inefficient firms from business. Although these transition costs do not represent a credible case against trade openness as the longer term benefit would likely offset these short term cost, they need to be tackled through proper compensatory policies aimed at mitigating such costs. This is particularly important in order to manage the political economy of reforms. Since the loss is almost immediate while gains are more longer term, losers are likely to have a strong vested interest to fight the change. Additionally, in many cases, these losers are a strong political force and can provide formidable opposition to change.

Research provides considerable insights on how such compensatory policies could be formulated (Bannister and Thugge 2001; Cranfield, Hertel and Preckel 2000; Edwards and Lederman 1998; Harrison and Tarr 2001). Also, as Winters (2000) has rightly pointed out these trade-offs and associated mitigation measures need to be tackled on a case by case basis because individual country circumstances will likely be quite different.

**SECTION IV: LIBERALISATION EFFORTS IN BANGLADESH**

Since independence in December 1971 and until late 1975, Bangladesh followed a development strategy of state intervention and controls (Ahmed 2002). This first phase was characterised by massive nationalisation of most production entities, heavy trade controls, and other forms of state interventions as Bangladesh experimented with a socialist type economic framework. An early phase of economic deregulation and denationalisation started in 1976, although it took some years to have a clear direction for this to work out. This second phase ran up to 1990 with a mix of denationalisation, economic deregulation encompassing both goods and services sector, and limited trade liberalisation. The third phase, starting in 1991, saw continued progress with deregulation and privatisation but most importantly witnessed fairly rapid trade liberalisation compared to the past.

The major progress in trade policy reform came in this last phase starting in 1991 with a substantial scaling down and rationalisation of tariffs, removal of trade-related QRs and elimination of import licensing, unification of exchange rates and the move to a more flexible exchange rate system. In 1994, Bangladesh complied with the IMF’s Article VIII, making most current account transactions convertible. Unfortunately, by the middle of the 1990s,
trade reforms slowed, and was even reversed somewhat during the last years of the decade, on the popular notion that earlier reforms had been 'too much too fast'.

Outward orientation in Bangladesh in the 1990s covered, *inter alia*, three major areas:

- Liberalisation of imports through removal of quantitative restrictions (QRs)
- Reductions in nominal and effective tariffs, and
- Adoption of a unified and moderately flexible exchange rate regime.

It should be noted that, in contrast to the piecemeal and partial reforms of the 1980s, liberalisation of Bangladesh's trade regime since 1991 was more systematic and comprehensive. The overriding objectives of these policies were to promote competition and achieve neutrality of incentives between production for exports and import substitutes, while gradually making trade facilitation the centerpiece of customs administration.

**Liberalisation of Imports**

The liberalisation of imports was done primarily via removal of QRs in phases (see Table 4.2). Significant progress was made in removing QRs, as compared with the 1980s, to the point where a small but sensitive list of items remain restricted, mostly for non-trade reasons. Whereas nearly 26 per cent of all HS-4 digit codes were subject to QRs in 1990, now only 122 items (or 10 per cent of total items) covering about 2 per cent of imports remain restricted for trade and non-trade reasons.

However, the progress towards increasing liberalisation that was evident up until the Import Policy Order of 1995–97 seems to have been halted – even modestly reversed in the IPO 1997–2002, though some progress is now evident in the latest IPO 2003–06. Overall, since 1990, trade-related QRs have been progressively removed, leaving some 2.2 per cent of total HS 4-digit tariff lines (and 0.5 per cent of import value) subject to trade-related prohibitions or bans as of 2002. These restrictions are now limited to only three categories: agricultural products (chicks, eggs, salt), packaging materials and textile products. Nearly 40 per cent of all QRs apply to textile products that enjoy the heaviest protection. Although the readymade garment sector imports woven fabrics and gray cloth duty-free under bonded warehouse facilities, the system is cumbersome and susceptible to corruption (through leakage into the protected domestic market).

Some of remaining ban – restrictions on imports is on grounds of health, religion, environment, culture and so on. Yet, a review of all the items in this
### Table 4.2  Phased Removal of Import Restrictions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of items in the control list at the HS 4-digit level</td>
<td>315 (26.1%)</td>
<td>193 (15.6%)</td>
<td>111 (9.0%)</td>
<td>120 (9.7%)</td>
<td>122 (9.8%)</td>
<td>63 (5.1%)</td>
</tr>
<tr>
<td>Number of trade-related items in the control list at the HS 4-digit level</td>
<td>253 (21.1%)</td>
<td>79 (6.4%)</td>
<td>19 (1.5%)</td>
<td>27 (1.9%)</td>
<td>27 (2.2%)</td>
<td>24 (1.9%)</td>
</tr>
</tbody>
</table>

*Source: Ministry of Commerce, import policy orders for various years.*
group reveals that many of the prohibitions or restrictions cannot be justified on these grounds, and are presumably included for protection purposes. Thus, in the interest of economic efficiency and predictability of impacts, at a minimum, it would still be more meaningful to replace the QRs with equivalent tariffs.

While removal of QRs and elimination of import licensing helped remove anti-export bias of the trade regime, export expansion, especially the spectacular growth of the readymade garment sector, would not have been possible without the supplementary facilitating policies such as Special Bonded Warehouse, Duty Drawback and back-to-back LCs, all of which helped ensure world-priced inputs to exporters.

### Tariff Rationalisation

During the 1990s, Bangladesh significantly reduced its tariff rates and rationalised the structure, progressively moving towards the goal of simplicity and transparency of customs tariff. The top CD rate came down from 350 per cent in 1990 to 25 per cent today (see Table 4.3). The average (unweighted) customs duty declined to 17 per cent in FY 02 as compared with 57 per cent in FY 92, and 100 per cent in 1985. Considerable rationalisation of the tariff structure occurred and progress was made towards achieving a degree of uniformity and removing some tariff anomalies that existed due to higher tariffs on intermediates than final products (see Table 4.4).

#### Table 4.3 Progress in Tariff Rationalisation

<table>
<thead>
<tr>
<th>Tariffs</th>
<th>FY 92</th>
<th>FY 96</th>
<th>FY 97</th>
<th>FY 02</th>
<th>FY 03</th>
<th>FY 04</th>
<th>FY 05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average CD</td>
<td>57</td>
<td>22</td>
<td>22</td>
<td>17</td>
<td>16.5</td>
<td>15.7</td>
<td>13.5</td>
</tr>
<tr>
<td>(unweighted)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average protective tax</td>
<td>61</td>
<td>74</td>
<td>26</td>
<td>27</td>
<td>22</td>
<td>9.0</td>
<td>7.9</td>
</tr>
<tr>
<td>Top CD rate</td>
<td>350</td>
<td>50</td>
<td>45</td>
<td>37.5</td>
<td>32.5</td>
<td>30.0</td>
<td>25</td>
</tr>
</tbody>
</table>

*Source: Author estimates from customs data.*

#### Table 4.4 Summary Indicators of MFN Tariffs in Bangladesh, 1992–2003

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unweighted avg. of customs duty</td>
<td>57.23</td>
<td>21.87</td>
<td>15.7</td>
</tr>
<tr>
<td>Agricultural products (HS Ch 1–24)</td>
<td>71.80</td>
<td>28.86</td>
<td>22.01</td>
</tr>
<tr>
<td>Industrial products (HS Ch 25–97)</td>
<td>55.62</td>
<td>20.76</td>
<td>14.32</td>
</tr>
<tr>
<td>Standard deviation of CD</td>
<td>40.85</td>
<td>16.22</td>
<td>10.72</td>
</tr>
<tr>
<td>Unweighted avg. of all import taxes</td>
<td>82.57</td>
<td>39.08</td>
<td>37.42</td>
</tr>
<tr>
<td>Avg. collection rates (all imp. taxes)</td>
<td>37.41</td>
<td>34.39</td>
<td>25.89</td>
</tr>
<tr>
<td>Avg. protective tax</td>
<td>60.92</td>
<td>25.66</td>
<td>24.47</td>
</tr>
</tbody>
</table>

*Source: Author estimates from customs data.*
Notwithstanding this progress, there is still a substantial way to go forward with further tariff rationalisation. First, the application of various levies, surcharges, supplementary duties (and even VAT applied discriminately against imports) on imports resulted in an average nominal protection of 27 per cent in FY 02, well above the protection afforded by customs duty. Lately, more than a third of the protective effect came from these para tariffs. In fact, there was a modest increase in average nominal protection since the mid-1990s in contrast with the sharp decline experienced since 1991-92. Second, the level of effective protection afforded by the tariff structure is influenced by the level of average tariffs as well as its dispersion. Since both these indicators have shown a substantial downward trend since 1991, the presumption is that ERP has also declined over the years. However, enterprise level effective protection estimates are not available for a long period, except for FY 02. The fact that the average ERP, at 78 per cent in FY 02, is significantly higher than the average nominal protection of 27 per cent suggests the existence of tariff escalation (Table 4.5), whereby average applied tariffs on basic raw materials (11.3 per cent) and intermediate goods (11.9 per cent) are substantially less than that of final consumer goods (25.6 per cent). Furthermore, there is wide variability in ERP across sectors, ranging from 23 per cent for manufacture of machinery and equipment to 258 per cent for chemical and chemical products. Also, it is worth noting that although Bangladesh has moved, in principle, to the WTO’s transactions value system, in practice, discretionary valuation practices leave room for further protection and unpredictability of transaction costs.

Finally, other notable features of the tariff structure that could lead to potential loss of efficiency and possible abuse of the system are: tariff concessions granted by end-use, existence of multiple rates for similar products (at HS 4-digit level), and rise in zero rates. Figure 4.1 gives the distribution of MFN tariffs for fiscal year 2003-04.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Unweighted customs duty</th>
<th>Customs duty collection rate</th>
<th>Unweighted total taxes</th>
<th>Collection rate, all taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic raw material</td>
<td>11.33</td>
<td>9.49</td>
<td>25.26</td>
<td>23.47</td>
</tr>
<tr>
<td>Intermediate inputs</td>
<td>14.51</td>
<td>14.92</td>
<td>34.76</td>
<td>36.49</td>
</tr>
<tr>
<td>Capital goods</td>
<td>7.85</td>
<td>6.34</td>
<td>20.15</td>
<td>12.23</td>
</tr>
<tr>
<td>Final consumer goods</td>
<td>22.24</td>
<td>10.93</td>
<td>52.55</td>
<td>24.91</td>
</tr>
</tbody>
</table>

Source: Author estimates from customs data.

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Exchange Rate Liberalisation

As in the case of trade liberalisation, following the difficult period of 1972-75, exchange rate management improved gradually and by and large the adverse effects of overvaluation were avoided for most of the period since then. However, exchange rate reforms gained momentum in the 1990s. Importantly, the multiple exchange rate regime was replaced by a unified exchange rate in 1992 and the flexibility of the exchange rate system was enhanced to strengthen the competitiveness of exports. In 1994, the taka was made convertible for current account transactions, and since May 2003, the taka has been floating.

Trends in Real Effective Exchange Rates (REER)

Compared with India and Pakistan, Bangladesh's REER has been remarkably stable for the most part, since 1980 (Figure 4.3). During the 1970s, real exchange rate trend (Figure 4.2) is characterised by the 40 per cent depreciation in 1975-76 and a modest depreciation in the remainder of the decade. Except for a period in the mid-1980s, during which the REER appreciated rapidly for three years but was then devalued sharply in 1985, the real effective exchange rate has moved within a fairly small band of about 10 per cent around its trend, which was slow devaluation from 1980 up to about 1998, followed by a final episode of modest depreciation starting from about 2002. The strength of the taka during this period is in part due to the rapid growth of ready made garment exports, which increased from US dollar 116 million in 1985 to nearly US dollar 5 billion in FY 04, and increasing remittances, both through formal channels and unrecorded, from Bangladesh workers outside the country. Together, these increases more than offset the decline in

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aid inflows relative to GDP, and were sufficient to balance whatever increases in imports resulted from the trade liberalisation measures that were implemented during the 1980s and 1990s. However, one consequence of the relatively stable taka alongside the massive devaluation of the Indian rupee between 1985 and 1992, was that the bilateral real taka/rupee rate appreciated by about 30 per cent during the same period (Figure 4.4). This appreciating trend of the real taka/rupee rate continued at a slower pace until, in 1999, the total real appreciation of the taka relative to its value during the mid-1980s was about 40 per cent. A perceptible turnaround in this trend could only be seen since 2002. Combined with Bangladesh's gradual removal of QRs and tariff reductions over the same period, this led to a rapid growth of imports from India, which during the 1990s became Bangladesh's largest single supplier, accounting for between 15 and 18 per cent of its total recorded imports. In addition, studies of informal trade suggest that there has been a similar large increase in unrecorded imports from India, with a total value perhaps as large as the total value of recorded imports. If this is correct, India is supplying about one-third of Bangladesh's total imports. These developments have made the trading relationship with India a key concern in Bangladesh, with some groups using the import competition from India and the bilateral trade deficit to argue against further general trade liberalisation, while others are pushing for further trade liberalisation combined with reform of the customs service so as to divert illegal imports into legal channels.
Other Deregulation

While the main focus of this paper is on outward orientation, it is well recognised that trade deregulation alone will not have the full beneficial effects unless supported by other deregulation in the domestic economy (the so-called ‘behind the border’ issues). A fuller review of the progress in Bangladesh in this area is available in Ahmed (2002). Progress in deregulation and market orientation might be summarised as follows:

• The period of the 1972–75 was characterised by heavy administrative controls on the means of production and pricing. This control was pretty pervasive, including massive nationalisation of manufacturing enterprises, banking, public utilities, and distribution of agricultural inputs. State Trade Corporations handled a large chunk of international trade and domestic distribution of commodities. Price controls were pervasive, including manufacturing goods, exchange rate, interest rates, agricultural inputs and outputs, utility rates and house rents.

• This control-oriented economic management changed quite dramatically starting around 1976. In this phase, the main focus of deregulation was to move towards a market-based economy by removing price controls, initiating denationalisation and reducing regulatory barriers to private investment. Much of the focus of domestic deregulation was on freeing up agriculture, domestic trade and services. Progress with privatisation was limited, even in manufacturing sector. Also, much of the banking and public utilities remained under public management, although the period saw the gradual growth of private sector banking.

• The third phase, which began in 1991, saw a more rapid pace of deregulation in manufacturing, including more substantive progress with privatisation in the manufacturing sector. Private banking also grew significantly, even though the large public banks remained in place. In infrastructure, private telecommunications services (wireless services) emerged while some limited private generation of private power emerged. However, reforms of banking, public utilities, and ports generally lagged behind.

SECTION V: IMPACT OF ECONOMIC LIBERALISATION ON GROWTH AND POVERTY REDUCTION IN BANGLADESH

It is clear from the above that Bangladesh experienced progressive liberalisation of its economy and the trade regime since about 1976. Outward orientation gained particular momentum in the 1990s, although important foundations were laid in the 1980s, especially in the garments sector. What has been the impact of this progressive outward orientation on economic growth and poverty reduction?
Average growth and poverty reduction performance over the past 30 years, broken down by several distinct phases of outward orientation are shown in Table 4.6. The key results are as follows:

- First, trade data confirm the substantial opening up of the economy, progressively over the early years. Thus, the Bangladesh trade GDP ratio – a standard measure of trade orientation of the economy – rose from an average of 11 per cent in 1972–75, to 17 per cent in 1990, and further to 30 per cent in 2000. Both imports and exports grew as a share of GDP, with imports growing from an average of 8 per cent of GDP in 1972–75 to 18 per cent in 2000, while exports expanded from 3 per cent of GDP in 1972–75 to 12 per cent in 2000.
- Per capita GDP growth moved from (−)0.1 per cent during phase 1 to 1.6 per cent in phase 2, rising to 3.1 per cent in phase 3.
- Inflation, which is key determinant of poverty, declined from a rapid pace of 47 per cent per annum in the first phase to 9 per cent in the second phase to 6 per cent in the third phase.

The incidence of poverty (headcount index) fell from 88 per cent in 1974 to 59 per cent in 1992 and further declined to 50 per cent in 2000.5
- Importantly, the progress has continued since 2000 in terms of greater openness, stronger macroeconomic stability and higher growth.

Although the overall growth and poverty outcomes presented above are the results of a wide variety of economic and social policies, it is fair to conclude that greater outward orientation reflected in trade openness and a supportive macroeconomic management played a key role. Indeed, as argued by Srinivasan and Bhagwati (2002), outward orientation is generally supported by sound macroeconomic management that helps maintain low inflation to preserve the competitiveness of the exchange rate. This is also true of Bangladesh. The rapid control over inflation during phase 2 and 3 was not an isolated development. It was aimed at supporting the management of the external balances and the real exchange rate. In addition, progressively improving exchange rate management and supportive prudent macroeconomic management were complemented by other market-oriented reforms such as deregulation of industries and a liberal investment regime that encouraged investment.

While these aggregative results give comfort that outward orientation has on average yielded positive outcomes in terms of better growth and lower poverty, it would be reassuring to obtain more direct linkage between

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5 There are some problems of comparability of these point poverty estimates over the various years, but there are no doubts about the general trend of these numbers. See Ahmed 2002.
<table>
<thead>
<tr>
<th>Period</th>
<th>Average GDP growth</th>
<th>Average per capita GDP growth</th>
<th>Average inflation rate</th>
<th>Poverty headcount, end period</th>
<th>Trade-GDP ratio, end period</th>
</tr>
</thead>
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<tr>
<td>1972–75</td>
<td>2.75</td>
<td>-0.10</td>
<td>47.14</td>
<td>88.1*</td>
<td>11.2*</td>
</tr>
<tr>
<td>1976–90</td>
<td>3.89</td>
<td>1.58</td>
<td>9.12</td>
<td>58.8**</td>
<td>17.4</td>
</tr>
<tr>
<td>1991–2000</td>
<td>4.80</td>
<td>3.09</td>
<td>5.64</td>
<td>49.8***</td>
<td>30.1</td>
</tr>
<tr>
<td>2001–04</td>
<td>5.12</td>
<td>3.70</td>
<td>3.74</td>
<td>-</td>
<td>31.3*</td>
</tr>
</tbody>
</table>

Source: Bangladesh Bureau of Statistics and author estimates.
outward orientation and poverty reduction by looking at sectoral performance: employment and income generation in manufacturing – large and small-scale, in agriculture and non-farm/off-farm activities, and within the broad category of service activities, that could have been affected by the changes brought about by greater trade openness.

For Bangladesh, a labour abundant economy, growth to be pro-poor must also be based on labour-intensive production. Trade openness promotes production in accordance with a nation’s comparative advantage, which in Bangladesh’s case, would be in those production activities that have a relatively high labour to capital ratio.

**Sector Growth Performance**

Table 4.7 provides a summary and comparison of growth performance in key sectors over the three phases.\(^6\)

(a) *Agriculture*

In the first phase, Bangladesh began with a pretty heavy dose of controls over both the product and input markets for agriculture. Following the debacle of the phase 1, agriculture growth picked up considerably in phase 2, fueled by input-output deregulation as well as the supportive policies of the green revolution (the seed-fertiliser technology). Deregulation in agriculture started in early 1980s. This involved liberalisation of the fertiliser and irrigation equipment markets, and the reform of the public marketing of food grains. While much of the reform focused on agricultural inputs, on the output side the main noteworthy reform was the abolishment of most forms of food rationing and the monopoly in the import and export of food grain. The overall effect of this deregulation was positive, contributing to an expansion in agricultural productivity and value-added.\(^7\) Much of the positive impact happened in rice production – the dominant agriculture activity. Deregulation enabled rapid adoption of the high-yielding varieties (HYV) of rice, causing paddy production to increase at a faster pace than population and Bangladesh achieved rice self-sufficiency by the early 1990s.

Direct effects of trade liberalisation came in the form of imports of agricultural inputs and implements in the mid-1980s (coupled with deregulation of domestic fertiliser markets) providing the initial impetus to

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\(^6\) Comparison of sectoral performance is a bit complicated by the revision of national accounts in (1995). The revised series do not go far enough and stop at 1980. For this study, we use the old series to calculate growth indicators for phases 1 and 2 and the new series for phase 3. This could bias the magnitude of the growth estimates somewhat but does not affect the direction of change as indicated by the comparison of growth estimates for 1980–90 in the two series.

\(^7\) Abdullah and Shahabuddin 1997; Ahmed 1997.
Table 4.7 Sectoral Growth Performance (per cent)

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</thead>
<tbody>
<tr>
<td>Agriculture &amp; forestry</td>
<td>1.02</td>
<td>43.09</td>
<td>2.56</td>
<td>25.15</td>
<td>2.60</td>
<td>19.49</td>
<td>2.65</td>
<td>15.89</td>
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<td>Crops &amp; horticulture</td>
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<td>39.34</td>
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<td>19.34</td>
<td>2.85</td>
<td>14.59</td>
<td>2.09</td>
<td>11.70</td>
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<tr>
<td>Animal farming</td>
<td>1.64</td>
<td>3.75</td>
<td>2.10</td>
<td>3.73</td>
<td>2.51</td>
<td>3.02</td>
<td>4.13</td>
<td>2.43</td>
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<tr>
<td>Fishing</td>
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<td>5.00</td>
<td>2.35</td>
<td>4.37</td>
<td>8.21</td>
<td>6.09</td>
<td>0.92</td>
<td>4.66</td>
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<td>–10.92</td>
<td>10.88</td>
<td>4.99</td>
<td>12.52</td>
<td>6.90</td>
<td>15.40</td>
<td>6.58</td>
<td>16.05</td>
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<tr>
<td>Large-scale</td>
<td>–22.36</td>
<td>4.81</td>
<td>4.94</td>
<td>8.91</td>
<td>6.95</td>
<td>11.01</td>
<td>6.26</td>
<td>11.33</td>
</tr>
<tr>
<td>Small-scale</td>
<td>0.87</td>
<td>6.07</td>
<td>5.15</td>
<td>3.61</td>
<td>6.78</td>
<td>4.39</td>
<td>7.39</td>
<td>4.73</td>
</tr>
<tr>
<td>Construction</td>
<td>–19.44</td>
<td>2.81</td>
<td>6.02</td>
<td>6.01</td>
<td>8.31</td>
<td>7.84</td>
<td>8.42</td>
<td>8.12</td>
</tr>
<tr>
<td>Wholesale &amp; retail trade</td>
<td>12.24</td>
<td>8.65</td>
<td>4.50</td>
<td>12.17</td>
<td>5.67</td>
<td>13.35</td>
<td>6.41</td>
<td>13.75</td>
</tr>
<tr>
<td>Hotels &amp; restaurants</td>
<td>n/a</td>
<td>n/a</td>
<td>4.12</td>
<td>0.59</td>
<td>5.49</td>
<td>0.63</td>
<td>7.05</td>
<td>0.68</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other services</td>
<td>18.87</td>
<td>29.87</td>
<td></td>
<td>28.0</td>
<td></td>
<td></td>
<td></td>
<td>27.16</td>
</tr>
</tbody>
</table>

agricultural growth in the late 1980s, which was then sustained in the 1990s. In agriculture, therefore, trade liberalisation with supportive liberalisation of the input market, provided impetus to rice (a labour-intensive import substituting activity) that expanded through higher area coverage, intensity of cultivation, and adoption of high-yielding technology. Moreover, there is now a growing segment in agriculture – vegetables and horticulture – that is geared towards export markets. Export volumes for such products, though modest in relative terms (about dollar 40 million in FY02), has been rising rapidly in the recent past (exports in FY 00 were five times those of FY 90). A major export-oriented agriculture sector that benefitted from trade liberalisation is the fishing industry. Fishing as an economic activity grew at a record pace during the 1990s, largely driven by the export-oriented shrimps production that responded to exchange liberalisation and other trade incentives (Table 4.8). Liberalisation of imports allowing duty-free inputs most needed in commercial fish farming also helped strong growth.

**Table 4.8 Shrimp Production and Exports**

| Year | Production (MT) | Value added (US$ million) | Export of frozen shrimp (MT) | Export of frozen shrimp (US$ million) |
|------|-----------------|---------------------------|--------------------------------|
| FY 90 | 70,776          | 121.85                    | 17,505                        | 126.9                              |
| FY 91 | 80,384          | 138.42                    | 17,985                        | 128.0                              |
| FY 92 | 98,419          | 164.69                    | 16,730                        | 119.7                              |
| FY 93 | 123,231         | 225.73                    | 19,224                        | 155.5                              |
| FY 94 | 100,542         | 196.63                    | 22,054                        | 197.7                              |
| FY 95 | 113,366         | 244.75                    | 26,277                        | 260.7                              |
| FY 96 | 101,655         | 267.24                    | 25,225                        | 270.5                              |
| FY 97 | 112,634         | 286.44                    | 25,742                        | 279.2                              |
| FY 98 | 146,356         | 368.85                    | 18,630                        | 260.4                              |
| FY 99 | 157,371         | 375.41                    | 20,086                        | 242.2                              |
| FY 00 | 170,788         | 386.36                    | 28,514                        | 322.4                              |
| FY 01 | n/a             | n/a                       | n/a                           | 349.8                              |

*Source: Bangladesh Bureau of Statistics, Exports Promotion Bureau.*

Yet, overall the agriculture sector did not show dynamism. The performance of the agriculture sector remains heavily dependent upon the contribution of rice, which seems to have become constrained by slowdown of domestic demand due to low income elasticity and the slowdown of the population growth rate. Given the importance of agriculture for poverty reduction, it has been a subject of considerable analysis, debate and discussion.\(^8\) Despite

\(^8\) A good summary of these issues is contained in Abdullah and Shahabuddin 1997; Mahmud 1998; and Faruqee 1998.
progress, agriculture continues to suffer from many controls over output pricing, marketing, and input supply; removal of these controls will benefit farm production and value-added. Deregulation has focused mostly on input markets. On the demand side, low expansion of the pace of domestic demand and inadequate export orientation continue to limit the incentives for production. So, diversification of agricultural production away from the heavy reliance on rice is important to raise agricultural value-added. This in turn will require policies to boost domestic demand along with efforts to remove constraints to agricultural exports. The prospects for non-rice agriculture exports are also limited by the relatively low productivity. So, policies for promoting technological progress in non-rice agriculture are very important. Inadequate agricultural infrastructure is another constraint on farm production and productivity. Overall water management and flood control policies are deficient, suffering from serious management problems, including O&M. Land markets function inefficiently due to inadequate land administration policies, including the inadequacy of the legal process for land tenure arrangements and land sales.\footnote{See World Bank 2000.} Finally, the inadequacy of the farm credit market remains a major constraint on farm production.

**Growth of shrimp sector.** A notable exception in non-rice agriculture is the shrimp sector. The shrimp sector has expanded rapidly over the 1990s, thanks to the rise in the volume of exports. Labour-intensive in character, it now employs over half a million rural poor in various stages of processing and shrimp culture. Shrimp farming is now a major economic activity in the coastal regions of Bangladesh. Bangladesh accounted for 4.1 per cent of global production of commercial shrimp in the mid-1990s, and after RMG, the shrimp sector is now the second largest export industry. The production of shrimps doubled in the last decade, while exports multiplied three times within the same period of time. Its share in fishing sub-sector rose from 11 per cent to 14 per cent by the end of the decade, but it made up 90 per cent of export earnings from fish.

Export-oriented shrimp has expanded from a US dollar 10 million business in 1975 to US dollar 77 million in 1985, and is running close to US dollar 400 million today (Table 4.8). Over the last decade, the industry has registered a robust growth rate of about 9 per cent per annum (in dollar terms). Except for the ready-made garments industry, no other industry in Bangladesh has been able to match this performance.

(b) **Manufacturing**

Much of the debate on the possible adverse effects of trade liberalisation, denationalisation and deregulation policies has concentrated on the impact
Table 4.9 Growth of the RMG Sector

<table>
<thead>
<tr>
<th>Year</th>
<th>Export volume ('000 dozen)</th>
<th>Export value (US$ million)</th>
<th>Share in total exports (%)</th>
<th>Employment (million workers)</th>
<th>Number of garment factories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-86</td>
<td>4,762.6</td>
<td>131.5</td>
<td>16.1</td>
<td>0.2</td>
<td>594</td>
</tr>
<tr>
<td>1990-91</td>
<td>30,566.6</td>
<td>866.8</td>
<td>50.5</td>
<td>0.4</td>
<td>834</td>
</tr>
<tr>
<td>1995-96</td>
<td>72,005.0</td>
<td>2,547.1</td>
<td>65.6</td>
<td>1.3</td>
<td>2,353</td>
</tr>
<tr>
<td>1999-2000</td>
<td>111,905.8</td>
<td>4,349.4</td>
<td>75.6</td>
<td>1.6</td>
<td>3,200</td>
</tr>
<tr>
<td>2001-02</td>
<td>140,444.6</td>
<td>4,583.8</td>
<td>76.6</td>
<td>1.8</td>
<td>3,618</td>
</tr>
<tr>
<td>2002-03</td>
<td>152,013.0</td>
<td>4,912.1</td>
<td>75.1</td>
<td>2.0</td>
<td>3,760</td>
</tr>
<tr>
<td>2003-04</td>
<td>161,343.0*</td>
<td>5,043.1*</td>
<td>74.6*</td>
<td>2.0</td>
<td>3,962</td>
</tr>
</tbody>
</table>

* July 2003-May 2004

Source: Bangladesh Garment Manufacturers and Exporters Association & Export Promotion Bureau.
of these policies in manufacturing. For years, the trade regime in Bangladesh was geared to providing high protection to the manufacturing sector, in general, and some so-called thrust industries like textiles, in particular. While effective rates of protection (ERP) in agriculture were either very low or even negative, average ERP in manufacturing was in excess of 100 per cent for much of the 1970s and 1980s. Recently, after all the liberalisation of the 1990s, Bangladesh Tariff Commission’s Review of Relative Protection 2002 found average ERP in a large sample of manufacturing enterprises to be 78 per cent. The review also found that although average nominal protection rates had come down significantly, the sector stubbornly resisted reduction of effective rates by pressing for and obtaining reduction in tariffs of intermediate inputs as well as the continuation of tariff concessions by end-use for imported capital machinery and many industrial raw materials.

What has been the effect of this trade liberalisation on the manufacturing sector? Since much of the impetus to trade liberalisation came in the early 1990s, it is possibly most appropriate to compare the performance of the manufacturing sector in phase 2 and phase 3, with the caveat that even phase 2 benefited from significant deregulation and the rapid expansion of the export-oriented garment sector based on establishment of the free trade zones (see below). On average, the share of manufacturing in GDP rose by almost 3 per cent of GDP in the 1990s, from 12.5 per cent in the 1980s. This fact, in itself, belies the contention of critiques who argue that trade liberalisation of the 1990s resulted in deindustrialisation (Zaid Bakht 2001). Nevertheless, it is accepted that tariff reductions and QR removal introduced a substantial degree of import competition in the local manufacturing sector, forcing enterprises to restructure and raise productive efficiency. Many did, such as ceramics, textiles (new spinning capacities), RMG accessories, electrical goods, etc. Those that failed to adjust had to close down and lay off workers [see World Bank (1999), for a detailed assessment of the impact of trade liberalisation on the manufacturing sector]. In this category, were a large number of state-owned manufacturing enterprises which ended up becoming sick (unviable), and could only continue operation with regular budgetary subsidy. In this group were a large number of jute and cotton textile mills, apart from paper and chemical products. Private enterprises which were beneficiaries of high protection for long but failed to adjust following liberalisation had no other option but to close down. Some metal products, light engineering, and rubber products are in this group. Such outcomes are predictable and the natural consequences of trade liberalisation.

Manufacturing growth averaged 8.2 per cent per annum (only 4.3 per cent for non-RMG) in the first half of the 1990s during the peak of the liberalising period, but tapered off to an average of 5.6 per cent in the latter half, to end the decade with an average of 6.9 per cent growth, compared to
5 per cent in the 1980s. These averages mask the fact that it was the RMG enterprises (in the medium and large scale group) that grew by over 20 per cent and drove manufacturing growth, while there was stagnation and even decline in some import-substituting industries – a predictable impact of trade liberalisation in a manufacturing sector that enjoyed high protection for a prolonged period. Most notable was a sustained average growth of 6.8 per cent in the small-scale enterprise sector, compared to only 5 per cent growth in the previous decade. This is anything but surprising. Small and rural or peri-urban entrepreneurs typically lack access to licenses, permits or exemptions that their larger compatriots extricate from the controlling authorities. Tariffs and QR regime served as constraints to the availability of raw materials and intermediate inputs for small firms. Thus, import liberalisation and the abolition of import licensing improved access of small enterprises to capital machinery, raw materials and implements that could now be purchased readily and at low cost. Import liberalisation thus acted to eliminate supply constraints in the sector. Moreover, their products being poor substitutes for imports, small-scale enterprises benefited more from the removal of supply constraints than they suffered from increased import competition, unlike their large-scale counterparts (Bakht 2001).

**Growth of RMG industry.** The phenomenal growth of the readymade garment sector in Bangladesh is a major success story of an export-oriented activity, giving a major boost to domestic manufacturing and exports, while creating direct and indirect employment and investment opportunities in backward and forward linked activities. Notwithstanding the fact that this sector's emergence and expansion is the direct outcome of the global MFA regime, there is no denying that it has had a stellar impact on overall economic growth, income generation and poverty reduction in Bangladesh. Table 4.9 gives a summary picture of the evolution of this sector from humble beginnings in the late 1970s.

From a minuscule share of about 4 per cent in total exports in the early 1980s, garments now constitute 76 per cent of total exports from Bangladesh, raking in nearly dollar 5 billion of foreign exchange, out of total export earnings of dollar 6.8 billion in 2001-02. Net domestic value addition – hitherto a weak point, on account of the heavy dependence of the sector on imported fabrics, yarn and accessories – has risen substantially, so much so that nearly 60 per cent of the required inputs are now domestically sourced (Table 4.10), as compared to a mere 36 per cent in 1991-92. This sector has been unique in its ability to create jobs, particularly for the women workforce. From 2,00,000 workers in FY 85-86, RMG industry now directly employs 2.0 million workers – almost 90 per cent of them women – in its 3,962 factories. This was the fastest employment creation experienced by any sub-sector in Bangladesh. BGMEA, the industry association, claims (perhaps rightly since no serious
<table>
<thead>
<tr>
<th></th>
<th>FY92</th>
<th>FY93</th>
<th>FY94</th>
<th>FY95</th>
<th>FY96</th>
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<th>FY98</th>
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<th>FY02</th>
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<td>57.0</td>
<td>59.1</td>
<td>59.7</td>
<td>60.1</td>
</tr>
</tbody>
</table>

* July 2003–May 2004

Source: Bangladesh Bank and Export Promotion Bureau.
data has been compiled on indirect employment effects) that a similar number of workers might be employed in a host of support activities (backward and forward linkages, e.g. courier, packaging) that have also emerged alongside the expansion of RMG. The largely female workforce of RMG industries are drawn from the vast reserves of unskilled labour amongst the poor rural communities. Surely, this has made an enormous contribution to lifting several million rural families out of poverty over two decades, quite apart from advancing the cause of women’s empowerment in a big way.

Another example is the case of leather manufacturing. From modest exports of dollar 16 million in 1973, exports of leather and leather goods rose to nearly dollar 140 million by 1989, and to dollar 250 million in FY 02, making it the fourth largest export category in Bangladesh. Although export growth has been robust, this sector is miles behind its competitors, Pakistan and India, in terms of quality and productivity. While goat hides are reputed to be the best in the world, cow hides are the worst in quality, and the sector has been unable to attract the technology and investment required to raise quality standards to become a significant player in the world market for leather or footwear. Nevertheless, it accounts for 12,000 jobs directly and employment has been remarkably stable. Because of the polluting nature of this industry, there are indications that this is a sunset industry in Korea and Taiwan, needing re-locations to such places as Bangladesh; but the investment climate here has not been judged as favourable by prospective foreign investors in the sector.

(c) Construction and other services
The construction sector benefited in both phases 2 and 3 from the growth of income and from remittance inflows. Investment in housing provided the impetus in the second phase fueled by the rapid growth of remittances, while other construction activities provided the lead in the third phase. Additionally, on the supply side, liberalisation of the import regime, and complementary policies of market orientation and deregulation of the investment regime helped the sector to expand. A liberalised import regime that improved the availability of implements and construction materials at internationally competitive prices supported the growth of this sector by reducing cost. At the close of the 1990s decade, the share of construction in GDP had risen by nearly 2 per cent of GDP, spurred by a significantly higher annual rate of growth (8.3 per cent compared to 6 per cent in the 1980s).

Besides construction, the largest expansion of activity in the 1990s decade came in retail and wholesale trade (average growth up by +2 per cent in 1990s), hotels and restaurants (up by 1.2 per cent) and transport and communications (up 0.3 per cent) – activities that are clearly linked to the level and growth of trade (trade-GDP ratio). The stimulus to these activities
of course come from the spurt in production and investment that occurs in the agriculture and industry. Export-oriented manufacturing was the main driver of this growth, followed by readjusted ISI enterprises, which had to be financially and managerially nimble to remain competitive. Import liberalisation facilitated not only export-oriented firms but also the vast majority of small and large firms feeding the domestic market. Some 75–80 per cent of Bangladesh’s imports continue to be made up of intermediate inputs, industrial raw materials and capital goods. Aggregate production in Bangladesh is still import-intensive. Import liberalisation, by removing various control mechanisms, had the general effect of eliminating supply constraints and generating a supply response that contributed to higher GDP growth.

**Impact of trade liberalisation on employment.** The lack of a consistent set of data from periodic LFS, makes it difficult to draw conclusive assessments of the impact of trade liberalisation on aggregate employment. While acknowledging that intensive liberalisation and opening up of the economy that occurred in the early 1990s would have adversely impacted production and employment, especially for highly protected import-substituting firms, it is also true that trade openness and removal of anti-export bias led to the establishment of new industries and robust expansion of export industries, such as RMG. Hence, in this paper, we limit our discussion to the impact on employment in the RMG sector for which empirical evidence was readily available.

**Employment in RMG.** During the 1990s, the fastest rate of employment creation was in the export-oriented RMG sector (Figure 4.4) which directly employed 1.5 million workers in 2000 (and 2.0 million in 2004) growing from only 200 thousands in 1990-91, 80 per cent of whom were females. It is important to note that the RMG sector helped create jobs in complementary industries or services, such as accessories, packaging, toiletries (demanded by newly employed female RMG workers), courier, finance, transport and telecommunications services, etc. BGMEA claims, quite rightly, that the RMG sector creates as many jobs in these complementary enterprises as there are in
RMG units themselves. That means, nearly 3 million workers directly or indirectly depend for their employment on the existence and expansion of the RMG sector. Although RMG operates in a free trade enclave environment, its growth is clearly based on Bangladesh’s comparative advantage in a labour- and non-skill intensive activity – one that has been sustained by trade and exchange liberalisation in addition to the quota regime offered under the MFA. Given this, it is plausible to believe that the job losses suffered in the import-substituting group of industries is likely to have been more than compensated by the rapid job creation in the RMG industry as well as in those manufacturing and service activities that were linked to RMG. Importantly, RMG wages were well above the CBN poverty equivalent wages as shown in Figure 4.5, implying that workers in this industry who generally came from poor rural families were able to pull nearly two million households, that is 13 per cent of the poor households, out of poverty.

These positive developments notwithstanding, the phase out of the MFA in January 2005 does raise a host of questions regarding the sustained impact of this sector on employment and real wages. A valid question that might be raised at this juncture is whether or not Bangladesh’s preferential access to the US (under MFA quota) and EU (facilitated by GSP) markets, complemented by trade and exchange liberalisation at home, has helped create durable comparative advantage in RMG exports. In other words, was the phenomenal expansion of RMG exports in the 1990s largely driven by the MFA preferential access in North American markets (51 per cent of Bangladesh RMG exports) and GSP concessions in EU (destination of 46 per cent of RMG exports)? As an LDC, Bangladesh will continue to enjoy GSP

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10 Average annual growth of RMG exports in the 1990s was 17 per cent, with one-third of these exports (knitwear) registering a phenomenal 27 per cent growth, and the remaining two-thirds (woven garments) growing at 12 per cent per annum.
concessions until 2010, although more competition is likely from countries unshackled from the MFA quota after 2005.

There is no denying that the MFA provided the basis for as well as the stimulus to the RMG sector. Nevertheless, on the whole, Bangladesh’s position as a low-cost supplier of RMG (in basics, and standards, rather than high-value items) is now well-established. This is its strength, going forward. Yet, transforming comparative advantage based on low labour-cost into competitive advantage in a post-MFA world requires other steps beyond trade and exchange liberalisation. According to market experts, Bangladesh RMG sector has problems in terms of quality, delivery lead times, and market orientation. These are challenges that the sector has to face in the highly competitive post-MFA environment. Of late, there are signs that it is gearing up to meet these challenges head on. To conclude, there are challenges and opportunities for Bangladesh RMG sector in the post-MFA world. For one, the RMG export market is expected to expand from the current dollar 195 billion to dollar 350 billion in 2005–07, and even larger thereafter. The challenge for Bangladesh is to maintain, if not expand, its present share of 2.6 per cent of this expanding market.

**Trends in real wages.** The trend in real wages for unskilled workers in three sectors – manufacturing, agriculture and construction – is summarised in Table 4.11. By and large, real wage trends in manufacturing confirm the prediction of theory that trade openness pushes up the price of the abundant factor – unskilled labour, in the case of Bangladesh. On average, real wages of unskilled workers in manufacturing grew by 2.4 per cent since FY 73, which is faster than per capita GDP. Importantly, real wages of unskilled workers grew faster than real wages of skilled labour during the third phase of rapid trade

<table>
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<th>Reform phase</th>
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<th>Agriculture</th>
<th>Unskilled construction workers</th>
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</thead>
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<tr>
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<td>1972–2003</td>
<td>2.9</td>
<td>1.8</td>
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</table>

a. First period is 1973–75.

*Source: Bangladesh Bureau of Statistics.*

A study by the Swiss firm, Gherzi Textile, has been completed, under the Ministry of Commerce, which lays down the options for the Bangladesh RMG sector for facing the challenges of greater competition after the phase out of MFA in 2005.
liberalisation. Agricultural wages show much more volatility, being affected by floods and other natural disaster, and, on average, show a modest increase in real wages (only 1.8 per cent per annum). The slower growth of real agricultural wages is, in part, due to low average long term growth in the sector – only 2.2 per cent per annum, which is barely at par with population growth and substantially below the growth in the rest of the economy.

Putting together the output, employment and wage picture the Lewis (1954) model of unlimited supply of labour would appear to fit well with the Bangladesh agricultural scene. Faced with low average productivity and massive underemployment, the pace of labour absorption in agriculture is contracting, simply because agriculture is unable to create enough jobs to absorb the growing rural population.

Non-agricultural employment and output expansion is moving much more rapidly, but without driving up the marginal productivity and real wages growth noticeably in agriculture yet. So, the ‘turning point’ whereby real wages in agriculture is driven up by the contracting labour availability in agriculture is yet to come. 12 As we noted earlier, there are a host of factors that constrain agriculture sector performance and the sector has experienced only limited trade liberalisation (fisheries). The pull factor from trade liberalisation in manufacturing has not worked very much because the key agricultural raw material (cotton) feeding the dynamic manufacturing activity (garments) is wholly imported. On the other hand, the primary raw material (jute) that has historically fed into manufacturing is gradually being phased away because of the dying jute industry due to changing world demand.

Unskilled construction workers have on average also gained a 2.5 per cent per annum increase in real wages, which is still faster than the expansion in per capita GDP. Much of this increase came during the second phase (1976 – 90), while real wages stagnated in the third phase. However, there is now a recovery in wages since 2001. The surprising result of stagnating real wages for unskilled construction workers in the 1990s is probably due to the fact that the period 1976–90 was characterised by large scale migration of construction workers to the Middle East, putting upward pressure on construction wages in general. Since then, the outflow of labour has slowed considerably, thereby augmenting domestic supply of workers and lowering growth of wages.

Overall, it is fair to conclude that deregulation and trade liberalisation has been favourable for supporting a modest increase in real wages of unskilled workers throughout the economy. Unskilled labour in manufacturing has gained most, benefitting from the rapid expansion of such dynamic export industries as garments. The benefit was constrained in agriculture due to

12 The authors benefited from discussions with Professor Wahiduddin Mahmud who describes this as ‘that a tightening of the wage labour market is yet to occur in Bangladesh agriculture’. 
weaker progress in deregulation, export promotion and other supportive policies. Also, the pull factor in agriculture from manufacturing has been modest (only in fisheries) due to weak forward linkages between agriculture and manufacturing. Indeed stronger focus on export markets for agro-processing enterprises (as in fisheries) will likely support a more rapid growth in agricultural incomes and real wages. In construction, rapid growth in income from the export of labour to the Middle East and other countries supported the construction boom in the mid-1970s to the late 1980s, thereby contributing to the growth of real wages. Domestic slowdown in the housing market along with slower pace of expansion in remittance income has constrained the growth of real wages in construction in the 1990s.

SECTION VI: CONCLUSIONS

In this paper we have provided broad evidence that trade liberalisation and economic deregulation in Bangladesh have contributed to growth of output and helped reduce poverty. This policy of deregulation and trade liberalisation started around 1976, but gained momentum in the early 1990s. While the positive effect on output expansion was considerably larger in the 1990s, corresponding broadly with a much faster pace of trade liberalisation, the associated poverty reduction impact was higher in the 1976–90 phase of deregulation. This was because employment and real wage growth was slower in the 1990s as compared with 1976–90. The reasons for this outcome in the 1990s include: the lack of dynamism in agriculture; a slowdown in the migration of construction workers to the Middle East and slowdown in the local housing market due to excess supply, thereby constraining the growth of real wages of unskilled construction workers; and adjustment in the manufacturing sector, wherein inefficient protected industries contracted reducing employment growth.

It might be tempting for critics to conclude that trade liberalisation is not good for poverty reduction. This would be a wrong conclusion for a number of reasons. First, overall output expansion has been much more rapid in the 1990s, contributing positively to poverty reduction. Second, the increase in income inequality that has reduced the poverty impact of growth, as has been observed in other deregulating economies like China and India, is simply an indication that public policy needs to be more sensitive to pushing for pro-poor growth by supporting investments in agriculture and rural non-farm activities. Indeed, with better agricultural policies, including public investments in rural infrastructure, and policies for promoting rural non-farm enterprises, growth can be made more pro-poor. Third, so far as the direct effects of trade liberalisation are concerned, these have been generally positive. Notwithstanding the contraction of inefficient protected industries, overall manufacturing output grew much more rapidly in the 1990s than in earlier
periods. Also, manufacturing employment and wages of unskilled workers grew significantly. So, the fear of 'deindustrialisation' due to trade liberalisation is unfounded. As long as resources could move with ease to labour-intensive industries which are competitive internationally, the deindustrialisation phase of any trade liberalisation would be short lived. The important thing is to remove constraints on resource movement rather than worry about deindustrialisation as being inevitable. Indeed, the rapid expansion of the labour-intensive, export-oriented garments sector is a clear indication that an environment in which investors face international prices of inputs and outputs can be a rapid source of employment and income creation for the poor. Such a claim would be difficult to make for an inward-oriented trade regime. This calls for a faster pace of trade liberalisation rather than trade protection.

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Rama, Martin. ‘The Labour Market and Trade Reform in Manufacturing’ in M. Connolly and J. de Melo (eds.), Essays on the Effects of
SECTION I: INTRODUCTION

Bangladesh's enterprise sector needs to be globally competitive in order to be a driver of growth in the economy. This is true not only for that segment of the enterprise sector that is, or seeks to be, primarily export-oriented but also for enterprises that exclusively or largely operate in the domestic market. In a more interconnected world, with the walls of protection coming down, domestic-oriented firms also face significant competition from foreign firms. However, it is the export market which is likely to produce the greatest opportunities for growth of Bangladesh enterprises. Enhanced competitiveness will be critical for operating in these markets.

The potential benefits of export orientation can be seen clearly at the firm level in Bangladesh. A recent survey of 1,000 firms in Bangladesh shows that exporting firms tend to enjoy faster sales and employment growth and higher investment than firms that do not (Figure 5.1).1

PRIVATE INVESTMENT IN BANGLADESH

The large-scale nationalisations just after independence diminished the relative role of the private sector in the economy. While agriculture remained private, most of large-scale industry came under public ownership. In addition, an interventionist policy regime implied significant state control and influence over that part of the enterprise sector that remained private. Privatisation and

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1 See World Bank and Bangladesh Enterprise Institute 2003. The analysis recognised the possibility that causality may be in the other direction, i.e. that it is the good firms that export. However, even after controlling for this, the analysis found evidence that the exporting firms have a superior performance in terms of sales and employment growth and investment rates.
liberalisation over the last two decades have reduced the direct ownership role of the state and have opened up greater space for the private sector. However, with the exception of the garment sector, private enterprise growth is still modest. The share of manufacturing value-added in GDP has hovered between 15 and 17 per cent since the early 1990s (Figure 5.2). A major reason for this has been the modest levels of private investment. Gross fixed capital in the private sector has ranged between 10 and 17 per cent of GDP during 1992-2003 (Figure 5.3). Bangladesh has also not had much success in attracting FDI (Figure 5.4). Of the 141 countries for which there are comparable data in the World Bank's World Development Indicators database on the gross FDI inflow/GDP ratio for the 1990s, only Nepal, Iran, Republic of Congo and Samoa rank lower than Bangladesh. The fact that this has happened despite Bangladesh's relatively liberal FDI regime, indicates that there are problems in the overall investment climate.
SECTION II: THE CHALLENGES FOR THE ENTERPRISE SECTOR

Enhancing competitiveness will be a big challenge for the enterprise sector in Bangladesh. Bangladeshi enterprises have traditionally pursued price-based competitive strategies, taking advantage of low labour costs. As a result, the ‘Made in Bangladesh’ brand is associated with products and services that are low priced, but also of low and inconsistent quality. Bangladesh’s ability to compete on a price basis is being threatened by the growing strength of other low-cost producers, notably China. At the same time, non-price factors, such as quality and adherence to ethical standards, are becoming important sourcing criteria for international buyers. In an increasingly competitive post-MFA world, there has to be a paradigm shift towards products and services that are of good and reliable quality. Concurrently, the products should be price competitive. Thus, efforts should also continue to retain, and enhance, the price competitiveness of Bangladeshi firms.

The overall challenge of enhancing competitiveness can be broken down into a number of specific challenges. These include improving product quality, achieving cost-efficiency, ensuring rapid and consistent delivery to consumers, adhering to social and environmental standards, identifying new markets and developing new products. These challenges are discussed in detail below.
The Efficient Delivery Challenge

The garment sector provides the example of an industry where reliability of supply and reduction in the order cycle times is becoming important for gaining competitive advantage. Reduction in the lead time is needed both on the input supply as well as output delivery sides. In addition, it is important to consistently meet delivery deadlines. In the past, lead time was a critical factor mainly for high-value goods and perishables. Now, as wholesalers and retailers increasingly seek efficiencies in inventory management, reduction in lead time is becoming important for medium and low value goods as well. In garments, for example, good practice order cycles have decreased from 6–9 months to 3–6 months, and even shorter for repeat orders. Average order sizes are also shrinking from millions of units to 100 thousands for low value garments. For medium value garments, order sizes around 10,000 are becoming increasingly common. These changes require substantial improvement in logistics.

In the woven sector of Bangladesh’s garment industry, the most common lead time for the supply of orders is 90 to 120 days. This compares unfavourably with the average lead time of 60 to 90 days in Vietnam, Malaysia, Thailand and Indonesia, and 45 to 60 in China. As China becomes more self-sufficient in finished fabrics, lead time for garment deliveries is expected to reduce further. Bangladesh’s long lead time is caused primarily by inefficiencies in the logistics system, including deficiencies in port and transport infrastructure and custom clearance procedures.

While logistical bottlenecks are particularly problematic for the garment industry, they constrain the growth of other industries as well. For example, at present, there is only one leather goods factory able to meet the demands of large-scale contract manufacturing with its tighter logistics. There are several successful exporters of ceramics, but they remain major players in the medium value tableware market and are not prepared to move up to manufacturing for large retailers of household goods.

The Quality Challenge

International markets are demanding stricter product and process standards. This is particularly true of agro-processing industries where consumers are demanding higher health and food safety standards. However, adherence to higher standards is rapidly becoming a source of competitive advantage in other sectors as well. Moreover, concerns about standards are extending from products to processes with increased emphasis on quality assurance in the production processes.\(^2\) Compliance with such standards is costly but essential if Bangladesh is to grow, or even sustain, its exports.

\(^2\) For example, traceability of products has become important in connection with food quality and safety. Traceability systems help firms isolate the source and extent of safety or quality
In Bangladesh, the need to meet quality standards has been felt most strongly in the shrimps industry. Failure to comply with standards resulted in a crisis in 1998 when the European Union banned shrimp imports from Bangladesh. Corrective actions taken subsequently have helped sustain exports of shrimps to the key markets of Europe, Japan and USA. Significant investment has taken place in meeting the European Commission’s Hazard Analysis Critical Control Point (HACCP) regulations and other sanitary and phytosanitary (SPS) standards.3 Recently, the private sector and government have collaborated to institute a Shrimp Seal of Quality Programme (SSOQ). This is a self-imposed ‘certification’ programme similar to those being adopted by government, industry, and non-governmental partnerships for other commodities and processes worldwide. The key to success is adherence to the self-imposed standards and the recognition and acceptance of the third-party certification process by importers and regulatory agencies in importing countries.

Horticulture exports from Bangladesh have not yet felt the impact of high quality standards as these are almost exclusively targeted to the ethnic Bangladeshi and other South Asian consumers in Europe, USA and the Middle East. These consumers, and retailers and wholesalers who cater to them, don’t insist on high quality standards. However, even for these markets, the higher UK and European food standards are likely to start biting soon. Individual markets in the Middle East are also likely to step up their own standards for produce imports. The quality standards will become particularly relevant if horticulture exports from Bangladesh are to go beyond the ethnic market and target mainstream consumers.

In the garment industry, most firms produce cheap products in high volume. They essentially offer stitching skills and capacities to buyers at decreasing prices. Buyers give them orders for their stitching capacities, either on a CMT or FOB basis. Their agents expect companies to produce these garments to their specifications and not offer any new development ideas. These products are, by definition, merchandise of basic design and low value addition.

Continuing to produce in this manner is not a good strategy for the garment industry. Many producers around the world are similarly focusing on low-price products. They have many advantages over Bangladesh’s garment

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3 Exports of Bangladeshi shrimps to the EU market in particular are subject to regulatory requirements that are deemed to be WTO compliant under the technical barriers to trade (TBT) and SPS agreements.
producers, for example, many are geographically closer to their markets than Bangladesh is. There will be increasingly severe price competition between companies who operate this way, both in Bangladesh and in other countries. Passive selling companies are most unlikely to progress and they cannot have the necessary control over their destinies. The majority of Bangladeshi companies will be unable to sell products of higher value addition to the international markets without making fundamental changes to their business strategies and being part of the forces that drive the world markets.

The successful companies will be those that are able to: (a) produce to a quality specification consistently, (b) further develop their active marketing activities and, (c) convert their current, passive manufacturing oriented businesses to active, marketing-oriented businesses.

The companies will also have to improve their quality assurance systems. Quality control systems are in place in all companies as a checking system rather than as a means to proactively eliminate sources of quality problems. There is a lack of databases, so few analyses are made to understand the causes of quality problems. The quality of the end product generally serves customer needs since these 'bottom end of the market' customers are generally less critical and demanding. However, this is achieved at a cost, as very considerable numbers of checkers and reworkers are employed at many stages to detect errors.

The Corporate Social Responsibility Challenge

In addition to demanding higher quality standards with regard to products and processes, international consumers are becoming increasingly sensitive to the social and environmental characteristics of the production processes. Consequently, corporate social responsibility considerations have increased in importance in sourcing and investment decisions of companies, especially those located in the western world. This is increasingly impacting in Bangladesh’s industrial sector.

In the garment industry, for example, buyers are increasingly demanding improved working conditions for workers and instituting rigorous monitoring mechanisms to check compliance with standards. Exports of leather goods from Bangladesh are handicapped by the poor environmental practices of the local tanning industry. Buyers from Europe and North America have concerns about purchasing leather goods produced by using local leather. Environmental concerns are also being raised with regard to shrimp production.

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4 Bangladeshi shoe manufacturers must send their leather samples to India to test for banned substances as foreign buyers do not have confidence in the independent analysis of Bangladeshi labs.
Shrimp farms have detrimental impact on the coastal ecosystem and on mangrove forestlands through waste disposal of polluted soil in rivers, deforestation of landscape for shrimp farming.

The Marketing Challenge

Most garment firms emphasise production, not marketing. They have no proactive marketing activities and passively manufacture according to instructions from buyers' agents and buying houses. Very few companies have close business or personal relationships with actual retail buyers and hence, do not understand well the dynamics and trends of the markets. Even fewer develop and sell own-designed products. Active marketing and selling is a must, in order to become a preferred supplier of value added products.

Meeting the competitiveness challenge will require reductions in production and distribution costs. It will also require substantial upgrading of managerial, supervisory and worker skills in the private sector and improved public sector capacity to formulate and implement competitiveness enhancing policies. It will also require significant increases in foreign investment, not only in fully foreign-owned ventures but also in domestic enterprises. Foreign investment brings with it modern methods of production, organisation and management that is vital for a paradigm shift of the nature described above. Infusion of foreign investment in domestic enterprises helps the broader diffusion of such methods. Attracting foreign investment, in turn, will require sound corporate governance practices and controls over anti-competitive behaviour. But, overall, it will require a sound investment climate. In brief, redefining the 'Made in Bangladesh' brand is a challenge primarily for the private sector but the government will have to create a conducive environment for this to happen.

SECTION III: THE CONSTRAINTS FACED BY BANGLADESH'S ENTERPRISE SECTOR

Recent analytic work by the World Bank group, other donors and Bangladeshi institutions have identified a host of deficiencies in Bangladesh's investment climate, including in the climate most relevant for rural and small-town enterprises. The most important constraints are inadequate and poor quality infrastructure and energy supply, difficulty in obtaining land, especially serviced land, poor access to long term finance, and the burden placed on firms by cumbersome, and inefficiently implemented, regulatory and

5 This section draws heavily from World Bank and Bangladesh Enterprise Institute 2003.
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<th>Country</th>
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<th>Cost (US$)</th>
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*Source: World Banks' doing business database.*
administrative procedures. Regulatory burdens affect all stages of an enterprise's life cycle, i.e. entry, operations and exit.

**Barriers to Entry**

A dynamic and competitive economy requires that entrepreneurs with good ideas are able to implement their ideas by setting up companies and entering into productive activity. The ease with which new enterprises can be set-up is an important aspect of the investment climate of a country. Entry is affected by many factors, including regulatory restrictions on which activities can be pursued, the costs and complexities of registering a business, the various clearances that are required after registration and access to the basic factors of production such as land, labour, finance and infrastructure (some of these factors affect not only entry but also subsequent operations).

Registering a new business is not easy in Bangladesh. According to the World Bank's *Doing Business 2005* database, on average, 7 procedures are involved in registering a business in Bangladesh (Figure 5.5). On average, it takes about 30 days to clear these procedures in Bangladesh, which is relatively good – only Niger and Chile among the comparator countries have a shorter duration. However, despite having fewer procedures, the cost of starting a business (in US dollars) is higher in Bangladesh than in China, India, Indonesia, Sri Lanka, Thailand, and Vietnam. As a share of per capita GNI, the cost of starting a business is higher in Bangladesh than in any other country except Niger in the comparator group (Table 5.1). A complementary measure based on surveys of business executives corroborates that starting a business is onerous in Bangladesh, of all comparator countries in Asia, Bangladesh ranks lowest on a question rating the difficulty of starting a formal business in terms of administrative burden, ranking 77 out of the 102 surveyed countries. As seen in Figure 5.5, the most costly procedures, in terms of both time and money spent, are filing documents with the registrar of Joint Stock Companies and registering the company with the tax authorities.

Starting a business is also complicated by other entry problems. Firms have to wait long to get utilities and other services needed to run a business. In Bangladesh, firms reported waiting nearly 70 days on average for an electricity connection, more than 90 days for a gas connection, nearly 170 days for a mainline telephone connection, and more than 260 days for construction permits. Combining these waiting times with unofficial payments, as well as legitimate connection fees (see below), gives a sense of the difficulties entrepreneurs face in starting viable businesses in Bangladesh.

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7 World Economic Forum, Global Competitiveness Report. 2003-04, Table 8.05.
8 Mobile telephony has shortened the wait for communications services, with firms reporting typical waits of less than a week – and often no time at all – for mobile service.
Investment Climate for Private Enterprise

**Figure 5.5** Procedures Involved with Starting a New Business in Bangladesh

*Notes:*
1. Buy non-judicial stamps
2. Verify the company name
3. A lawyer verifies the Memorandum Articles of Association
4. Pay the registration fee
5. File documents with the Registrar of Joint Stock Companies
6. Make a company seal
7. Register with the tax authority

*Source:* World Bank's Doing Business Database.

**Figure 5.6** Ranking of Overall Quality of Infrastructure, Average Response

Infrastructure, Energy and Land

Infrastructure is a critical feature of a country’s investment climate. Here, the quality of services appears to be relatively poor in Bangladesh. Business executives surveyed for *Global Competitiveness Report 2001-02* ranked Bangladesh lower on this dimension than all other developing countries in East and South Asia covered by the report. The executives were asked to rate the infrastructure quality in their country on a scale of 1 (‘poorly developed and inefficient’) to 7 (‘among the best in the world’). Of the 75 developing and industrial countries in the sample, Bangladesh ranked 74, higher only than Bolivia (Figure 5.6). By contrast, Malaysia ranked 20, Thailand 30, China 61 and India 66.

Evidence from the firm-level investment climate survey for Bangladesh confirms that the quality of infrastructure services is a significant problem in Bangladesh. Asked to rate the extent to which telecommunications, electricity, and transport hampered enterprise operations and growth, only 4 per cent of enterprises in Bangladesh reported that electricity posed no obstacle (Figure 5.7). In a similar survey in China, more than a third (37 per cent) reported that it was no obstacle; in Pakistan, the corresponding response is 21 per cent. Other dimensions of infrastructure fare better from the perspective of Bangladeshi enterprises. Thus, transport posed no obstacle for 19 per cent of the Bangladeshi firms surveyed and telecommunications no obstacle for 30 per cent (Figure 5.7). However, these shares were considerably smaller than those in China and Pakistan.

These responses suggest that the poor quality of infrastructure is a serious problem for enterprises in Bangladesh. However, the data are qualitative, and methodological issues make it difficult to draw strong conclusions. Enterprise responses to questions such as these depend on their needs and expectations which, in turn, depend on the nature of their activity. For example,

![Figure 5.7](image)

**Figure 5.7** Share of Firms Reporting that Infrastructure is ‘No Obstacle’ to Business Operations

*Source:* Investment Climate Surveys.

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Table 5.2 Infrastructure Indicators: Cross-Country Comparisons

<table>
<thead>
<tr>
<th>Country</th>
<th>Electricity generating capacity (KW per capita)</th>
<th>Telephone mainlines (per 1,000 people)</th>
<th>Total road network (per sq km area)</th>
<th>Roads, paved (% of total roads)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>0.03</td>
<td>8.3</td>
<td>1.6</td>
<td>9.53</td>
</tr>
<tr>
<td>Chile</td>
<td>0.63</td>
<td>574.8</td>
<td>0.1</td>
<td>18.9</td>
</tr>
<tr>
<td>China</td>
<td>0.25</td>
<td>247.7</td>
<td>0.1</td>
<td>22.4</td>
</tr>
<tr>
<td>India</td>
<td>0.11</td>
<td>43.8</td>
<td>1.1</td>
<td>45.7</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.10</td>
<td>65.7</td>
<td>0.2</td>
<td>46.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.58</td>
<td>509.9</td>
<td>0.2</td>
<td>75.8</td>
</tr>
<tr>
<td>Niger</td>
<td>—</td>
<td>2.1</td>
<td>0.0</td>
<td>7.9</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>0.09</td>
<td>79.9</td>
<td>1.5</td>
<td>95.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>0.34</td>
<td>221.9</td>
<td>0.1</td>
<td>97.5</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0.06</td>
<td>53.0</td>
<td>0.3</td>
<td>25.1</td>
</tr>
</tbody>
</table>

technologically advanced enterprises might be more vulnerable to infrastructure problems than less advanced ones, making them more likely to rate infrastructure as a significant problem. Thus the average score in a country depends on both the quality of infrastructure and the average level of technological advancement, making cross-country comparisons difficult. The following sections, therefore, explore several quantitative measures of infrastructure development in addition to the qualitative measures.

**Power**

With generating capacity short of needs, supply notoriously unreliable, and power outages common, access to reliable power is a prime concern for most manufacturing firms in Bangladesh. Over the past two decades the country's generating capacity increased almost threefold, from 1.0 million kilowatts to 3.3 million. With population increasing only from about 85 million to 129 million, there has been a modest increase in per capita generating capacity. Even so, generating remains low relative to that in other countries in East and South Asia (Table 5.2).

The investment climate survey for Bangladesh confirms the conventional wisdom that electricity supply, transmission, and distribution are serious problems. Firms reported experiencing power outages and surges about 250 days a year on average – and many reported outages and surges which operate every day. While 72 per cent of enterprises in Bangladesh reported having a generator, only 42 per cent did in Pakistan, and 27 per cent in China. The heavy reliance on generators in Bangladesh means that the reported losses seriously understate the true costs of the poorly performing electricity grid. Relying on generators to maintain production is costly. While firms reported paying about taka 4 per kilowatt-hour from the electricity grid, they pay more than taka 6 per kilowatt-hour to use their own generators – nearly 50 per cent more. Moreover, generators are not cheap. Firms tend to pay more than dollars 20,000 for their generators, though some buy very small ones for less than dollars 1,000 and a few reported purchasing extremely powerful generators for more than dollars 5,00,000. These backup systems impose costs on firms in Bangladesh that those in few other countries must bear, quickly undermining cost advantages that Bangladesh firms might otherwise enjoy.

Lack of access to power is significantly more constraining for rural enterprises. A recent survey found only 32 per cent of rural firms with access to electricity compared to 60 per cent in urban areas. For those fortunate enough to have a utility connection, reliability is a major issue – power outages and surges are all too frequent – since only 1.8 per cent of the roughly 3 million rural enterprises own a generator.

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11 Ibid.
Gas

Gas shortages have been identified as one of the most serious constraints facing the private sector in Bangladesh in the coming years. A critical use of gas is for power generation as well as for other industrial applications such as producing fertiliser. Government estimates average daily demand for gas to rise from about 980 million cubic feet in 2003-04 to about 1.4 billion cubic feet in 2005-06. This compares with a current supply of about 970 million to 1 billion cubic feet per day. The gap is greater if peak demand figures are considered (which are about 8 to 10 per cent higher than average demand).

Transport, ports, and customs

As mentioned in section II, the ability of firms to source inputs and deliver outputs efficiently is a major determinant of their competitiveness. This highlights the importance of logistics, which include transport systems and services, port infrastructure and customs clearance procedures.

Bangladesh has a relatively dense road network. However, road conditions are poor, particularly due to poor construction and lack of maintenance of roads and bridges. Public spending on road maintenance falls well short of what is needed. For example, public expenditure on rural road maintenance was about taka 1.7 billion in FY00 as opposed to an assessed requirement of taka 2.4 billion.\(^\text{12}\) Bangladesh also suffers from a lack of integration of different modes of transportation, which makes long-haul transport very difficult. Poor road conditions and lack of transportation are especially constraining for enterprises in far-flung rural areas, where, in a recent survey, 36 and 18 per cent of firms, respectively, reported them as severe problems.\(^\text{13}\)

Problems in transportation are compounded by problems in the ports, parts of which are an extension of the deficiencies in the transportation network. The investment climate survey shows that the median time required for imports to clear ports and customs in Bangladesh is seven days and for exports, five days (Figure 5.8). Although this performance compares well with Pakistan’s, it falls short of that in India and China. Average waits are longer. The average wait for imports to clear customs in Bangladesh was nearly 12 days, while the average longest wait was 23 days. For exports the average wait was nearly 9 days, and the average longest wait 14 days.

Although Bangladesh has modernised its customs clearance procedures, especially for exports and temporary imports, it has failed to improve the performance of its port system as rapidly as its competitors. Much of the

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\(^\text{13}\) The World Bank 2004.
inefficiency in Bangladesh ports is centred in Chittagong port, which handles nearly 85 per cent of the country’s imports and exports. One of the most inefficient and costly ports in Asia, Chittagong is plagued by labour problems, poor management and lack of equipment. The container terminal in Chittagong handles about 100 to 105 lifts per berth a day, well below the productivity standard of 230 lifts a day suggested by the United Nations Conference on Trade and Development (UNCTAD). Ship turnaround time is five to six days, compared with about one day in more efficient ports, and the port faces serious congestion.

These inefficiencies can be traced to deficiencies in equipment and transport infrastructure. The cargo-handling technology and method of operation of the port are outdated. The benefits of multimodal transport are unrealised as a majority of the containers continue to be stuffed and unstuffed in the port. Rail transport of containers is underdeveloped due to lack of commercial management. The availability of inland customs facilities and storage is limited and they are not located in a way that will minimise overall delivery costs.

The uncertainties and poor performance of vessel turnaround and container dwell time prevent producers from developing efficient movement from the factory to the buyers warehouse or to approximate a just-in-time production activity. In addition, handling charges for a 20 feet container have been estimated at dollar 640 (of which dollar 250 is for unofficial tolls) compared to dollar 220 in Colombo and dollar 360 in Bangkok.\(^\text{14}\)

Infrastructure related problems at the ports are exacerbated by time consuming and cumbersome customs procedures that provide constant

\(^{14}\text{Bangladesh Enterprise Institute 2004.}\)
opportunities for bureaucratic discretion. Customs procedures at ports require more documents and take longer than at other regional ports. Similarly, customs procedures at airports also are fraught with multiple requirements for documents and approvals. However, there have been improvements in this area, especially with regard to processing clearance of exports.

**Telecommunications**

Enterprises in Bangladesh rated telecommunications a smaller constraint on enterprise operations and growth than other infrastructure sectors. But having a well-developed telecommunications sector is becoming increasingly important. The number of fixed line telephones per 100 people in Bangladesh rose significantly in the past two decades despite relatively rapid population growth – from 0.11 in 1980 to 0.39 in 2001. Meanwhile, driven by private investment, growth in the mobile phone market took off dramatically. Introduced only in the 1990s, mobile phones had surpassed fixed line phones by 2001. In that year there were 0.4 mobile phones per 100 people, compared with 0.39 fixed line phones. Even so, Bangladesh still lags behind other countries in both fixed line and cellular telephony. In 2001, it had fewer fixed line and mobile phones than the average for low-income countries, and fewer than any of the comparator countries in East and South Asia (Figure 5.9).

The quality of service also appears to be a problem in Bangladesh. In the most recent year for which data are available, Bangladesh had 208 faults for every 100 mainlines, according to the International Telecommunication

![Figure 5.9 Mobile and Fixed Line Telephones Per Hundred People in South and East Asia, 2001](image)

Union. In comparison, there were 203 faults per 100 mainlines in India, 99 in Pakistan, 38 in Malaysia, 29 in the Philippines, 15 in Sri Lanka and 13 in Indonesia. Getting a telephone connection also appears to be relatively difficult in Bangladesh. In the investment climate surveys, enterprises obtaining a telephone connection within the previous two years reported a median wait of 90 days in Bangladesh, far longer than the 18 days in Pakistan and 7 days in China.

The vast majority of rural enterprises do not have access to fixed line phone service – only 1.5 per cent of rural firms reported access to phone. Bangladesh has one public call office per 32,000 population (India has one per 1,000), and as a result only 31 per cent of the rural population has access to a fixed line, compared with 70 per cent in India.

Land

Difficulty in obtaining land, especially serviced land, is an important constraint on private investment in Bangladesh. The government’s new industrial policy announced in early 2005 emphasises the development of industrial parks and special economic zones to address this problem. While Bangladesh has had a successful experience with export processing zones, the record with industrial parks has been mixed. Industrial parks have been set-up in various parts of the country, largely through the Bangladesh Small and Cottage Industries Corporation (BSCIC). Many of them remain under-utilised because the locations are not attractive to private investors – a result of poor site selection. These projects typically emphasised up front capital investment in infrastructure as industrial policy tools, with less emphasis placed on responding to market demand or providing good customer service or maintenance.

Finance

Bangladesh firms tend to have reasonable access to formal finance compared to other low-income countries. In 2001, credit to the private sector amounted to about 27 per cent of GDP in Bangladesh. Although this ratio was lower than those in some countries in the region, it compares favourably with the average for low-income countries (24 per cent of GDP), and was only fractionally lower than the ratios in India (29 per cent) and Pakistan (28 per cent). Other measures confirm this assessment of finance in Bangladesh. For example, nearly 66 per cent of enterprises in the investment climate survey reported having an overdraft facility, compared with only 18 per cent of enterprises in China and 23 per cent in Pakistan.

Firms in Bangladesh reported that around 55 per cent of their working capital and nearly 60 per cent of their investment capital, on average, came
from retained earnings, while about 30 per cent of working and investment capital came from banks. Just over 65 per cent of firms have an overdraft facility or line of credit. A line of credit can be useful, allowing firms to borrow funds relatively quickly and easily, without excessive bureaucracy. Firms that have lines of credit appear to use them extensively – the median share of lines of credit remaining unused was only 10 per cent.

There are serious weaknesses and looming problems in the financial sector that could hurt long term growth. Bangladesh has a relatively shallow financial sector. Moreover, deep-rooted institutional weaknesses drastically restrict the efficacy of the banking sector. Due to weak management, political interference, and problems of corruption, the nationalised commercialised banks (NCBs), holding almost half of the industry’s net assets, are technically insolvent, with the ratio of their non-performing loans to total loans estimated at 34 per cent. The court system cannot be relied upon to protect creditor rights which further vitiates lender incentives and contributes to misallocation of credit.

It is hardly surprising then that instead of contributing to economic growth the banking sector has dragged growth down and has posed serious systemic risks to financial stability. Recognising this, over the past few years the government has embarked upon a major reform of the banking sector. Much of the initial effort has focused on the private sector, aimed at increasing competition and strengthening regulations. The outcome has been very positive and the condition of private banks has improved markedly. However, progress in reforming the NCBs has been limited. Consequently, the banking sector continues to show signs of inefficiency and is vulnerable to downside risks.

Historically, banking sector inefficiencies along with administered interest rates on government saving instruments, such as National Saving Certificates and postal saving schemes, kept the real lending rates quite high, leading to (more or less ad hoc) rationing of credit to private businesses and hurting the efficiency of private investment.

Recent reforms in spurring private banking along with reforms of administered interest rates has significantly reduced interest rates and improved access to bank credit. However, interest rates continue to be higher than they need be due to the inefficiencies of the NCBs.

Other elements of the financial sector are fairly underdeveloped as well. The size of the capital market is also very small – market capitalisation equals only about 2.4 per cent of GDP. There are no derivative or over-the-counter markets in Bangladesh. Insurance company assets equal only about 1.3 per cent of GDP and those of finance companies another 0.7 per cent of GDP.

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<table>
<thead>
<tr>
<th>Country</th>
<th>Average yrs. of edu.</th>
<th>Life expectancy</th>
<th>Fertility rate</th>
<th>Maternal mortality rate (per 100,000 live births)</th>
<th>Prevalence of child malnutrition (% of children under 5), weight for age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>1.3</td>
<td>46.0</td>
<td>6.6</td>
<td>440</td>
<td>48</td>
</tr>
<tr>
<td>Chile</td>
<td>5.6</td>
<td>65.7</td>
<td>3.2</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>China</td>
<td>4.4</td>
<td>64.7</td>
<td>3.4</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>India</td>
<td>2.7</td>
<td>51.8</td>
<td>5.4</td>
<td>410</td>
<td>53</td>
</tr>
<tr>
<td>Indonesia</td>
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<td>51.3</td>
<td>5.0</td>
<td>450</td>
<td>25</td>
</tr>
<tr>
<td>Malaysia</td>
<td>4.4</td>
<td>64.4</td>
<td>4.6</td>
<td>39</td>
<td>20</td>
</tr>
<tr>
<td>Niger</td>
<td>0.5</td>
<td>39.9</td>
<td>8.0</td>
<td>590</td>
<td>40</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>4.8</td>
<td>66.2</td>
<td>3.9</td>
<td>60</td>
<td>33</td>
</tr>
<tr>
<td>Thailand</td>
<td>4.0</td>
<td>60.6</td>
<td>4.6</td>
<td>44</td>
<td>18</td>
</tr>
<tr>
<td>Vietnam</td>
<td>–</td>
<td>–</td>
<td>5.7</td>
<td>160</td>
<td>34</td>
</tr>
</tbody>
</table>

*Note: 1/Data are for the most recent year available.*
*Source: World Bank's WDI database.*
**Labour quality**

Despite significant improvements since independence, Bangladesh still lags comparator countries on most human development indicators.\(^{16}\) This significantly dampens labour productivity, and consequently, growth and wage levels (see Table 5.3).

Bangladesh has improved access to education, essential in creating a workforce with the skills and knowledge needed for a healthy investment climate. But other elements of a strong human capital base are missing. Fewer scientists and engineers are available than in many other developing countries, including many of the comparator countries in East and South Asia. Illiteracy remains high, possibly reflecting poor education results in the 1970s and 1980s. And concerns about the quality of education remain. Bangladesh has made much progress in improving enrolment over the past decade. In 1990 its gross enrolment ratios – only 72 per cent for primary, 19 per cent for secondary and 4 per cent for tertiary education – were similar to their levels in 1975 and lower than the average ratios in low-income countries (89 per cent, 37 per cent, and 6 per cent). Moreover, its ratios were lower than those in any of the comparator countries in East and South Asia except Pakistan, which had lower primary and tertiary ratios. By the late 1990s, Bangladesh had increased its gross primary enrolment ratio to more than 97 per cent and its gross secondary enrolment ratio to 42 per cent. These ratios exceeded the average in low-income countries. Tertiary enrolment remained low, however, rising to about 5 per cent by the end of the decade.

The shortage of skilled workers is another concern. Business executives, asked to rate the availability of scientists and engineers in their country in the survey for *Global Competitiveness Report 2001-02*, ranked Bangladesh 58 among the 75 countries in the survey, ahead of China (59) and Malaysia (60) but below the other comparator countries. The relatively low ranking might reflect in part the relatively low tertiary enrolment ratio in Bangladesh. But it might also reflect a ‘brain drain’ of skilled workers. When asked whether scientists and engineers normally wished to leave the country to pursue opportunities elsewhere or would almost always remain in the country, executives in Bangladesh were more likely than those in all other countries in the survey except Zimbabwe to report that scientists and engineers would normally leave the country.

**Innovation system and IT infrastructure**

Bangladesh also lags comparator countries in terms of innovation potential and information technology (IT) infrastructure. The cross-country comparisons

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\(^{16}\) The World Bank and Bangladesh Enterprise Institute, 2003 contains an in-depth assessment of human development issues.
<table>
<thead>
<tr>
<th>Country</th>
<th>R&amp;D expenditure (% of GDP)</th>
<th>Number of researchers (per million pop.)</th>
<th>Patents granted by the US patent &amp; trademark office (per million pop.)</th>
<th>Scientific &amp; technical journal articles (per million pop.)</th>
<th>Personal computer penetration (per 100 pop.)</th>
<th>Number of internet users (per 10,000 pop.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>0.03</td>
<td>51</td>
<td>0.00</td>
<td>1.2</td>
<td>0.3</td>
<td>15</td>
</tr>
<tr>
<td>China</td>
<td>0.7</td>
<td>551</td>
<td>0.21</td>
<td>9.3</td>
<td>2.8</td>
<td>460</td>
</tr>
<tr>
<td>India</td>
<td>0.7</td>
<td>158</td>
<td>0.17</td>
<td>9.2</td>
<td>0.7</td>
<td>159</td>
</tr>
<tr>
<td>Malaysia</td>
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<td>2.35</td>
<td>18.3</td>
<td>14.7</td>
<td>3197</td>
</tr>
<tr>
<td>Pakistan</td>
<td>–</td>
<td>78</td>
<td>0.01</td>
<td>2.1</td>
<td>0.4</td>
<td>103</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.2</td>
<td>156</td>
<td>0.19</td>
<td>2.2</td>
<td>2.8</td>
<td>440</td>
</tr>
</tbody>
</table>

in Table 5.4 on four telling measures of a country’s innovation system and two indicators of information infrastructure exemplify this.

Bangladesh spends less on research and development (R&D) as a share of GDP than do most other developing countries in East and South Asia for which data are available. While R&D spending totalled about 0.03 per cent of GDP in Bangladesh, it amounted to about 0.2 per cent of GDP in the Philippines and Malaysia and about 0.7 per cent in China and India. Since R&D spending as a share of GDP is highly correlated with income, the low spending in Bangladesh might reflect its low per capita income relative to that in most comparator countries. But it might also reflect problems in the institutional environment -- recent work has shown that R&D spending tends to be lower in countries where intellectual property rights are less well protected and the rule of law is weak.

The low level of R&D spending in Bangladesh is reflected in relatively low levels for other measures of innovation. For example, companies and individuals in Bangladesh were granted fewer US patents per capita than were those in other developing countries in East and South Asia. Similarly, basic research appears to be weaker in Bangladesh than in other countries in the region -- authors from Bangladesh published fewer scientific articles per capita than did those from any of the comparator countries in East and South Asia except Indonesia.

**Governance problems**

How does Bangladesh fare in comparisons of governance across countries? Making such comparisons is not easy -- because it is difficult to find quantitative measures of such aspects as the quality of government regulation and the cost imposed by corruption. But analyses based on aggregate statistics suggest a mixed performance.

**Governance quality.** To assess governance in Bangladesh relative to that in comparator countries, six aggregate measures were used that capture different aspects of governance, including regulation and corruption. These measures combine information on up to 60 (mostly subjective) indicators from other sources. The six indexes measure perceptions about:

- Voice and accountability – the extent to which citizens of the country are able to participate in the selection of government.
- Political stability – the likelihood that the government will be destabilised or overthrown by possibly unconstitutional or violent means, including terrorism.
- Government effectiveness – the quality of public service provision and the government bureaucracy, the competence and independence of the civil service, and the credibility of the government’s commitment to adhering to announced policies. This measure focuses mainly on ‘inputs’
that governments need to implement good policies and deliver public goods.

- Regulatory quality – the quality of government policies. This measure, based on 'outputs' rather than 'inputs,' focuses on the prevalence of market-unfriendly policies (such as price controls or inadequate bank supervision) as well as perceptions about the burden imposed on businesses by regulation.
- Rule of law – the extent to which individuals have confidence in and abide by the rules of society. This includes perceptions about the incidence of crime (violent and non-violent), the effectiveness and predictability of the judiciary, and the enforceability of contracts.
- Control of corruption – the extent of corruption (that is, the illegal use of public power for private gain).

**Figure 5.10 Bangladesh Governance Hexagon**

*Note:* The misshapen thick line in the middle of the outer hexagon is the hexagon for Bangladesh. The outer line represents the best performance possible. The thick line in the middle, which forms an even hexagon, is the average for low-income countries. The dotted lines represent the 90 per cent confidence intervals for Bangladesh.

*Source:* D. Kaufmann and A. Kraay, 2002
Plotted on a ‘governance hexagon,’ these measures of governance show a mixed performance for Bangladesh compared with the 175 developing and industrial countries in the sample (Figure 5.10). Bangladesh scores relatively well on the indexes for voice and accountability, regulatory quality, and government effectiveness, exceeding the average for low-income countries on all three measures. In addition, it performs better than China, India, and Pakistan on regulatory quality – but worse than all three on government effectiveness. On control of corruption, it performs fractionally better than the average for low-income countries but worse than either China or India. And on both political stability and rule of law, Bangladesh performs worse than the average for low-income countries and worse than China, India, and Pakistan.

Bangladesh has received a lot of negative attention lately due to perceptions of widespread corruption in public-private dealings. Most prominently, Transparency International, the Berlin based private rating agency, has placed Bangladesh last on its cross-country corruption ratings. While such a blanket indictment of Bangladesh could be viewed as unjustified since it reflects subjective perceptions that may not be meaningful in a cross-country setup, the problem of endemic corruption in Bangladesh is undeniable. In a recent survey, about 60 per cent of the 1,001 firms surveyed in Dhaka and Chittagong areas viewed corruption as a major constraint to business operation and growth (Figure 5.11). Lack of access to electricity was the only other constraint which was viewed as a major constraint by a higher number of the surveyed firms.

Breakdown of law and order
Extortions and other criminal activities, feeding on an environment of widespread corruption in police and lower courts, are a major governance problem. This seriously hurts public confidence in enforcement of the rule of law and impartial protection of property rights, vitiating the business environment and harming long-run growth.

Legal System. Entrepreneurs and other investors want assurances that contracts will be honoured, that disputes will be handled fairly and quickly by the legal system, and that its decisions will be enforced. Thus a country’s legal system can support investment – or seriously undermine it. Firms in Bangladesh generally have a poor view of the court system. Asked for their perceptions whether the court system is fair, honest, quick, affordable, and consistent and whether it enforces its decisions, firms scored it best on fairness and honesty – though even here nearly a third reported that it was never or seldom fair or honest. The worst score goes to efficiency, with more than 60 per cent of firms reporting that courts are never or seldom quick. Even worse, nearly 70 per cent of firms involved in a court fight in the previous three
Table 5.5 Enforcing Contracts: Bangladesh v. Comparators

<table>
<thead>
<tr>
<th>Procedures</th>
<th>Starting a business</th>
<th></th>
<th>Enforcing contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Duration (days)</td>
<td>Cost (US$)</td>
<td>Cost (% of GNI per capita)</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>7</td>
<td>30</td>
<td>272</td>
</tr>
<tr>
<td>Chile</td>
<td>10</td>
<td>28</td>
<td>494</td>
</tr>
<tr>
<td>China</td>
<td>11</td>
<td>46</td>
<td>134</td>
</tr>
<tr>
<td>India</td>
<td>10</td>
<td>88</td>
<td>239</td>
</tr>
<tr>
<td>Indonesia</td>
<td>11</td>
<td>168</td>
<td>103</td>
</tr>
<tr>
<td>Malaysia</td>
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<td>959</td>
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<tr>
<td>Niger</td>
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<td>27</td>
<td>759</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>8</td>
<td>58</td>
<td>154</td>
</tr>
<tr>
<td>Thailand</td>
<td>9</td>
<td>42</td>
<td>144</td>
</tr>
<tr>
<td>Vietnam</td>
<td>11</td>
<td>63</td>
<td>129</td>
</tr>
<tr>
<td>Median Country in Global Sample</td>
<td>10</td>
<td>45</td>
<td>541</td>
</tr>
</tbody>
</table>
years reported that the courts were never or seldom quick, suggesting that the
efficiency of the court system may be even worse than it is perceived to be.
However, steps are being taken to improve the functioning of the court system.
One manifestation of the legal system is the ease of enforcing business
contracts. While the number of procedures involved in getting a business
contract enforced is relatively low in Bangladesh, the cost of clearing these is
quite high – the average cost of enforcing a contract in Bangladesh is almost
three times its per capita GNI, the highest such ratio among the comparator
group (Table 5.5).

\[ \text{Figure 5.11 Corruption: Unofficial Payments to Government Agencies} \]

*Source: World Bank and Bangladesh Enterprise Institute, June 2003.*

**SECTION IV: THE EFFECTS OF BANGLADESH’S INVESTMENT CLIMATE ON FIRM PERFORMANCE**

The deficiencies in Bangladesh’s investment climate discussed above have a
significantly negative impact on the performance of Bangladesh’s enterprise
sector.

**The Costs of Poor Logistics**

As discussed above, the quality of logistics is critical for the enterprise sector,
not only for exporting firms but also for domestic-oriented firms because
most of them have to rely significantly on imported inputs. Even for firms
that source primarily from, and sell largely to, the domestic market logistics
is an important determinant of performance. Deficiencies in the logistics
system thus affect Bangladeshi firms in many ways.

Logistics is particularly important for perishable goods. An example is
the shrimp industry, one of the major export industries of Bangladesh. While the outbound supply chain, i.e. from the shrimp processing factories up to the ports has improved over time, especially with the use of refrigerated trucks, there are problems in the input supply chain. Here, logistics linking the hatcheries to the shrimp farms is often poor. Numerous middlemen operate in the supply chain without necessarily adding much value. A consequence of this is the high mortality rate of shrimp fries.

Fresh vegetable is largely exported by air using Bangladesh Biman carriers. Biman has a monopoly on cargo export, it subsidises air freight for vegetable exports but has limited capacity. This generates excess demand for air freight, especially for the Middle Eastern markets. Cargo space is allocated through quotas which serve as a constraint on the large, perhaps more efficient, exporters. Inefficiencies in the air freight system generate considerable uncertainty for vegetable exporters (see Box 5.1). Since air freight costs comprise more than 80 per cent of the total costs of delivering fresh vegetable produce to a foreign, high-end supermarket, the level of efficiency in this part of the supply chain is critical. As the vegetable export business grows, it will also be necessary to convert to frozen vegetables and to utilise ocean freight in order to remain cost competitive. The footwear industry also faces handling, transport and other inefficiencies, which decreases their global competitiveness significantly.

As discussed above, lead times with regard to input supply and output delivery have become an important determinant of competitiveness in the garment industry. Port performance is an important determinant of lead times for Bangladeshi industry. Delays in clearing imported inputs through the Chittagong port adversely affect the garments industry with firms often missing delivery dates.

Regression analysis carried out for the Bangladesh investment climate assessment suggest that the waits at the port can be costly to firms. Regression analysis controlling for industry and firm characteristics suggests that import delays are associated with lower profits, while customs delays for exports are correlated with slower growth in sales and employment and lower investment.\(^\text{17}\) While imports are typically delayed longer than exports, firms tend to be hurt more by export delays. Indeed, each day that exports are delayed in customs is associated with a 0.3 percentage point reduction in investment and a 0.2 percentage point reduction in sales and employment growth. Interpreted causally, these figures suggest that the average wait of nine days for exports reduced the three-year average for sales and employment growth by nearly 2 percentage points and investment by 2.7 percentage points. Among the firms for which all the relevant data are available, sales growth averaged around 11

\(^{17}\text{See World Bank and Bangladesh Enterprise Institute, 2003.}\)
Box 5.1 How Poor Logistics Affect Vegetable Exports

It is reported that, in about five per cent of the cases, Bangladesh Biman rejects fresh vegetable shipments because of insufficient air cargo capacity. The rejected consignments are then sold in the local Dhaka market at much lower prices than could have been obtained through exports. Apart from lost revenues, this practice generates uncertainty, especially for those exporters that would like to expand their operations and enter into larger supply contracts with vegetable producers. Another source of uncertainty is the numerous flight delays caused by rescheduling and plane repairs and maintenance. This has huge costs because there are no cold-storage facilities at the Dhaka airport and fresh vegetables delivered to the airport have to stay in unrefrigerated air freight containers on the tarmac, often for hours. The quality of fresh vegetables thus deteriorate rapidly; in some cases, foreign buyers have rejected up to 30 per cent of a Bangladeshi fresh vegetable shipment.

Figure 5.12 Additional Measures of Performance of the Power Sector

Note: No data from India on lost sales due to power outages.
Source: Investment climate surveys.

per cent, employment growth 9 per cent, and the investment rate 9 per cent. Thus, the delays for exports reduced the sales and employment growth rates and the investment rate by nearly a quarter.

The Costs of Poor Availability of Power

Power problems impose real costs on firms, seriously constraining business operations and growth. Regression results show that even when industry fixed effects and firm characteristics are controlled for, sales and investment both suffer as the number of power disruptions increases. Indeed, firms reported
losing more than 3 per cent of production on average as a result of problems in the electricity grid.

How do other Asian countries compare? While the median estimate of lost sales due to power outages was 1 per cent in Bangladesh, it was 0 per cent in China (Figure 5.12). Although the estimate was higher for Pakistan, at 2 per cent of sales, this difference might be explained by the fact that generators are more common in Bangladesh than in Pakistan.

**The Impact of Poor Governance, Corruption and Regulatory Burden**

The quality of governance, which is reflected in the execution of regulatory and administration procedures and the incidence of corruption, affects firms in many ways. It increases the costs as well as uncertainty of doing business and often creates an uneven playing field, as firms that wish to play by the rules of the game often face disadvantages, vis-à-vis those who can flout the rules.

Firms interface with several government agencies in their day to day operations. These interactions are often cumbersome and associated with harassment and corruption. An example is dealing with government inspectors. While such inspections are necessary to ensure compliance with various regulations, these need not be onerous and a source of harassment to firms.

The 2002 investment climate survey revealed that, on average, Bangladeshi firms receive about 17 inspections during a year. The most frequent visitors are customs officials (7.5 a year), followed by tax officials (2.7). Dealing with inspection can be costly, not only in fees and payments but also in the resources firms must expend to satisfy inspections. Bangladeshi managers reported spending nearly 5 per cent of their time on average dealing with regulatory matters. More than a third of firms reported using facilitators to help with regulatory issues, at an average annual cost of more than taka 600,000. Regression analysis reported in the investment climate assessment for Bangladesh, indicate that, controlling for industry fixed effects and firm characteristics, the number of inspections per employee has a significant negative correlation with investment and productivity.

The costs of regulatory compliance are not confined to the official fees and managerial time spent on compliance. Often, informal payments are involved. More than half of the firms surveyed in 2002 reported that corruption was either a major or very severe obstacle to their growth. Firms reported making unofficial payments totalling an average of more than taka 70,000 in the previous year. This may be an underestimate, given the understandable reluctance of firms to provide detailed information on informal payments.

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18 There are inter-agency variations in this regard. The customs and tax agencies top the list,
Corruption is also involved in getting utility connections. While a relatively small number of firms in the survey (54) reported making unofficial payments to the gas company for connections, the payments were very large, averaging close to taka 100,000 for a connection. Unofficial payments for obtaining a power connection are reported to average taka 30,000 (reported by 103 firms) while that for a mainline telephone connection is taka 11,000 (241 firms reporting).

The Effects of a Weak Financial System
How does access to formal finance affect firms’ performance? To investigate the effects, the investment climate assessment for Bangladesh used an index, based on the share of a firm’s working capital that comes from banks (domestic and foreign), the share of a firm’s new investment capital from banks, and whether the firm has access to an overdraft facility or line of credit. The index thus increases with a firm’s access to formal finance and decreases with reliance on retained earnings. Regressions show that the index is positively and significantly correlated with growth in employments, suggesting that firms with better access to credit grow more quickly than firms that rely more on retained earnings, even controlling for firm and industry characteristics.

The high incidence of non-performing loans serve to increase the cost of capital for private firms since banks have to make provisions for non-performing loans. While the government has taken measures to improve the banking sector, including strengthening debt recovery and enhancing monitoring capacity, dealing with the high level of non-performing loans remains difficult.

The Impact of Labour Market Conditions
Few firms in Bangladesh believe that labour issues impede their growth. Indeed, asked what ideal staffing levels would be if hiring and firing were costless, the median firm covered by the investment climate survey reported that its current staffing level was ideal. Nonetheless, two issues relating to labour are worth emphasising.

The first has to do with labour flexibility. To operate efficiently, firms need a labour force that can quickly adjust to production needs. Regressions controlling for industry and firm characteristics show that the share of a

both in the frequency with which firms reported making payments to them and in the payments required. Some 424 firms reported making unofficial payments to the customs agency in the previous year – payments averaging more than taka 55,000. And 517 firms reported paying the tax authorities close to taka 20,000 on average. By contrast, only 154 firms claimed payments to environmental agencies, averaging taka 4,800, while 331 firms reported payments to the labour and social security agencies, for about taka 4,500.
company’s labour that is temporary (rather than permanent) is positively correlated with sales and employment growth. That is, firms that can adjust their staffing levels more quickly seem to grow more quickly. But assigning causality here is difficult—it may be that firms hire temporary labour because they are growing so quickly, not that firms grow more quickly because they use temporary labour.¹⁹

Another dimension is flexibility with regard to hours worked. To give an example, one factor constraining the competitiveness of the knitwear industry beyond 2005 is the labour policy that does not allow women to work past 8:00 p.m. Since Bangladesh’s garment industry employs mostly women (90 per cent of the workforce), no factory can work more than one and a half shifts, and have to incur higher costs of overtime work.

The Differential Impact of Poor Investment Climate Conditions on SMEs

A deficient investment climate affects all firms. However, often the greatest impact is on small and medium enterprises. This means that dynamic SMEs who could have grown and challenged larger, but less efficient, firms, are often prevented from doing so. Identifying problems facing small firms is not easy. On average, small firms often appear to perform worse and to face greater difficulties than large firms, but that does not necessarily mean that small firms face special market failures. For example, small firms across the world often report difficulty obtaining finance. In some cases this difficulty reflects market failures that create credit constraints for small firms but in other cases new firms have trouble obtaining financing because they are not viable. Sorting out which explanation applies is extremely difficult. Nonetheless, looking at differences in investment climate measures between smaller and larger firms provides insights into the difficulties entrepreneurs face, both in building a firm that they have already started and in deciding whether to start a new firm.

The investment climate assessment for Bangladesh thus separated the sample into three groups: those with up to 50 employees (218 firms); those with 51–150 employees (215 firms); and those with more than 150 employees (554 firms). The analysis shows that small firms generally have much worse

¹⁹ The benefits of temporary labour should not be interpreted to mean that investments in workers are not useful. Regressions similar to those for labour flexibility show that firms that ran training programmes or sent employees to outside training programmes saw higher sales growth, profitability, and investment. Together, the two analyses suggest that flexible rules on hiring and firing benefit firms, but so too do investments in workers. Just as firms with a flexible labour force tend to grow faster, so do firms that invest in their labour force through training.
access to formal finance than do larger firms. The analysis used an index, constructed on the basis of the share of a firm's working capital and investment that comes from bank loans and whether the firm has an overdraft facility.

There are also differences with regard to the impact of regulation and corruption. Comparing government inspections per employee across the three size categories reveals that smaller firms face a larger burden of inspections. Indeed, the smallest firms face nearly 10 times the inspection intensity that large firms do. Inspections per employee may overstate the problem facing small firms – when a firm is very small, even one inspection can make this measure seem large. Nonetheless, the indicator shows the bureaucratic obstacles entrepreneurs face – a very small firm has fewer employees to deal with inspectors and must divert scarce resources to meet bureaucratic requirements.

Corruption, though ubiquitous in Bangladesh, can also disproportionately affect small firms. When bribes are measured as a share of costs by firm size, the results show that the smallest firms tend to make unofficial payments at nearly five times the level of payments by large firms. Since these younger, smaller firms are also more likely to face financial constraints, these unofficial payments make growth even more difficult.

The bottom line, life is more difficult for small firms. Some of these difficulties arise simply because not all firms are viable – as noted, in a healthy economy most new, small firms will fail. But a healthy economy should encourage entrepreneurial risk taking and attempt to minimise market failures facing small enterprises. The evidence here suggests instead that small enterprises in Bangladesh face greater obstacles than other firms do. These obstacles ultimately prevent dynamic new firms from entering the market and putting competitive pressure on existing enterprises.

SECTION V: THE WAY FORWARD: MEETING THE COMPETITIVENESS CHALLENGE

Globalisation is making the environment in which Bangladeshi firms operate increasingly competitive. The phase out of the Multi-Fibre Agreement (MFA) at the end of December 2004 adds a new dimension to this. The assessment of the investment climate in the previous sections suggest the need for a comprehensive set of actions to enable Bangladeshi firms to effectively face
the competitive challenges. Some of the most important ones are discussed below.

**Power Sector Reforms**

Power tops the list of infrastructure concerns in Bangladesh although reforms in telecommunications, transport, and ports and customs will also be critical to ease the bottlenecks hampering private enterprise in Bangladesh. The power sector has seen some improvements in recent years primarily through an increased role of the private sector in power generation (which now accounts for more than 25 per cent of the total generation capacity) but also through some efficiency improvements in the public sector, including increased cost recovery and reduced cross-subsidies from firms to residential consumers. However, much more needs to be done to make the power sector efficient. Key elements of a sector restructuring plan would include improving sector policy and public utility governance, undertaking financial restructuring, introducing independent regulation and phasing in competition. A transparent and predictable framework is needed for private sector concessions. The recent improvements have included unbundling of the sector. Transmission and despatch functions and assets have been transferred to the Power Grid Corporation of Bangladesh, and a few public sector generation and distribution companies are being corporatised. But this process needs to be accelerated, and measures taken to strengthen the governance of these new corporations.

**Strengthening Governance**

Governance, especially regulation and corruption, is an important concern in Bangladesh, viewed by firms as a serious problem. There are no easy solutions. But actions that may help improve governance include the following — encouraging a greater flow of information, establishing and enforcing clear rules and regulations for public sector administration, supported by the separation of power among the three branches of government, and promoting voice and participation of civil society to foster a more transparent government.

**Reducing the Anti-export Bias of the Trade Policy Regime**

Despite significant trade liberalisation, there remains a large anti-export bias — in the 19–24 percentage point range — in Bangladesh’s trade regime. High tariffs and other protective instruments create strong disincentives to exports and export activities through several channels, thus causing significant anti-export bias. Specific actions would include reduction in the maximum customs duty below 20 per cent, reduction in use of para-tariffs, and elimination of all quantitative restrictions that are for protective purposes.
Continuing Reform in Customs Clearance Procedures

Inefficiency and rent-seeking in customs compounds the problems created by deficient infrastructure and complicate the clearing of goods through ports. Although there have been changes in customs processes and procedures, and in automation of import and export clearance during the past decade, there remains a large agenda for customs modernisation. This includes the introduction of ASYCUDA based systems for channel selectivity/risk management in order to reduce inspections and the use of Direct Trader Input systems to reduce the number of signatures required.

Improvements at Chittagong Port

This includes both infrastructure as well as management improvements. The cargo-handling technology in the Chittagong port is mired in the 1970s. The benefits of multimodal transport are unrealised as a majority of the FCL containers continue to be stuffed and unstuffed in the Port. Introduction of new equipment (SSGs and RTGs) will help reduce the current average berth throughput. These improvements need to be complemented by improvements in management practices and labour management in the port. These are required to fully realise the improvements from introduction of modern equipment, ensure quick and predictable vessel turnaround time and day of the week feeder services. Private management could be introduced through a management contract with an experienced terminal operator.

Establishment of Internal Container Depots

Bangladesh has been successful in developing a number of EPZs and in providing bonded warehouse status to factories producing for export. It now needs to develop supplemental bonded facilities that will further reduce the cost and time for delivery of imported inputs used in the production of exports. These could include rail and road internal container depots.

The above are some examples of actions that are required to help improve the competitiveness of Bangladeshi firms. The agenda is much more comprehensive than what these examples alone would suggest. This would encompass a wide range of actions in the area of policy reforms, regulatory streamlining, organisational and institutional reforms in the public sector, infrastructure investments in both the public and private sector and improved provision of financial and non-financial services to private firms. Bangladesh also has an unfinished privatisation agenda. With rapid changes occurring in the world, Bangladesh needs to move fast in implementing this comprehensive agenda.
REFERENCES


SECTION I: OVERVIEW

Financial sector performance is well-recognised as a major determinant of the growth of the private sector in any modern economy. International evidence shows that over the longer term economic development and the maturity of the financial sector are strongly correlated (Loyaza and Ranciere 2004; DFID 2004; Calderon and Liu 2003; Khan 2002; Khan and Senhadji 2000; Levine 1997). In today's world of global markets and competition, the cost and efficiency of financial services can often make the difference between a competitive and non-competitive firm. In low income developing economies the financial sector typically tends to be dominated by banking enterprises. Non-bank financial institutions normally tend to be at an evolutionary stage. So, much of the financing for private enterprises is typically provided by the banking sector. This situation is also representative of Bangladesh. For example, as of December 2001, the banking sector accounted for 89 per cent of the country's financial assets. Consequently, the performance of the banking sector is a key determinant of the growth of the private sector.

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1 The literature on this subject is vast. DFID 2004, Khan and Senhadji 2000 and Levine 1997 provide useful summary of the literature and underlying issues. Since financial sector mismanagement including unduly rapid credit expansion can also cause short term disturbances that reduce growth, the literature now makes a distinction between short term and long term effects of financial intermediation. See Loayza and Ranciere 2004 on this point.

SECTION II: EVOLUTION AND STRUCTURE OF THE BANKING SECTOR

Following independence, the banking sector was nationalised. The dominance of these nationalised banks continued well until the late 1990s, even though gradually private banks were allowed entry into the banking business. Its only in the last 4 years that the private banking has taken deeper roots. Currently, the banking sector comprises of 4 nationalised commercial banks (NCBs), 5 government owned development finance institutions (DFIs), 30 private commercial banks (PCBs) and 10 foreign commercial banks (FCBs). The structure of the banking sector as of 2002 is shown in Table 6.1.

The structure of banking has changed substantially over the last 4 years. The structural change is shown in Table 6.2. Thus, even as late as 2000, public banks (NCBs + DFIs) accounted for some 65 per cent of the deposits and 63 per cent of the loans. By 2004, these shares had fallen to 51 per cent and 48 per cent, respectively. The fact that the private sector banks now account for close to 50 per cent of the total deposits as compared with around a third in 2000 and have now replaced the public banks as the larger source of loans as compared with a little over a third in 2000 is a remarkable development. The growth in private sector bank was facilitated by policy measures to enhance entry and competition, while also taking regulatory steps to improve the quality of the banking sector portfolio.

<table>
<thead>
<tr>
<th>Number of banks by types</th>
<th>Number of branches</th>
<th>Total assets (taka billion)</th>
<th>Per cent distribution</th>
<th>Deposits (taka billion)</th>
<th>Per cent distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCBs (4)</td>
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<td>662</td>
<td>46</td>
<td>515</td>
<td>50</td>
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<td>DFIs (5)</td>
<td>1311</td>
<td>167</td>
<td>11</td>
<td>60</td>
<td>6</td>
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<td>PCBs (30)</td>
<td>1398</td>
<td>525</td>
<td>36</td>
<td>377</td>
<td>37</td>
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<tr>
<td>FCBs (11)</td>
<td>31</td>
<td>99</td>
<td>7</td>
<td>71</td>
<td>7</td>
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<tr>
<td>Total (50)</td>
<td>6236</td>
<td>1453</td>
<td>100</td>
<td>1023</td>
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</table>

Table 6.2 Structural Change in Banking in Bangladesh

<table>
<thead>
<tr>
<th>Year</th>
<th>Deposits (taka billion)</th>
<th>Deposits (per cent share)</th>
<th>Loans (taka billion)</th>
<th>Loans (per cent share)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
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<td>Public</td>
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</tr>
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<td>1997</td>
<td>342</td>
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<td>2001</td>
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<td>2002</td>
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<td>2003</td>
<td>510</td>
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<tr>
<td>2004</td>
<td>544</td>
<td>515</td>
<td>51</td>
<td>49</td>
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</table>

Source: Data provided by Bangladesh Bank.
SECTION III: BANKING SECTOR
REFORMS AND OUTCOMES

What factors have contributed to this positive structural change of the banking sector in Bangladesh? And how sound is banking sector, not withstanding this growth in private banks? Historically, banking sector in Bangladesh has been plagued by the problem of non-performing loans. Public banks with seriously infected portfolios have dominated the banking sector. Even in the private banks, the portfolio infection has been pretty high. A 1998 World Bank study of the banking sector noted that ‘The three institutional pillars of banking – a strong regulatory system, well-managed banks, and an effective court system – have crumbled to such a point that the banking institutions cannot be relied upon to ensure the safety of deposits and efficiently allocate credit, their two most important functions. In a more difficult economic environment, the banking system could become Bangladesh’s Achilles Heel.’

Due to weak management, constant political interference, problems of corruption and directed lending, even as late as 2000, the four nationalised commercialised banks (NCBs), holding 63 per cent of the industry’s net assets, were technically insolvent, with the ratio of their non-performing loans to total loans estimated at 46 per cent. The court system could not be relied upon to protect creditor rights which further vitiated lender incentives and contributed to misallocation of credit. While the issue of non-performing loans is fundamentally a problem of political economy, there were many associated management problems in Bangladesh relating to the inadequacy of the legal framework for banking control, banking supervision, inefficient management and overstaffing in public banks, and poor service standards in many banks, particularly in public banks.

Faced with this rather alarming situation, reform efforts over the past several years have sought to improve the regulatory and legal environment aimed at facilitating more competition and improving the soundness of the banking sector. Much of this initial effort was focused on the private banks. More recently, over the past two years, attention has been given to the public banks.

Regulatory Reforms

A number of steps have been taken to improve prudential regulations. These have focused on increasing the capital adequacy of banks, tightening guidelines for rescheduling various types of loans, improving accounting standards to align to international standards, moving towards tighter provision requirements for non-performing loans, imposing limits on individual loans and

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4 See World Bank 1998a.
strengthening disclosure requirements. To ensure that these measures are properly implemented, efforts have been made to strengthen the regulatory capacity of the Central Bank. Alongside prudential regulations, competition in banking has been strengthened by allowing entry of more private banks including foreign bank. Review of evidence suggests that these reform efforts are being implemented well. The regulatory framework has improved and the capacity as well as effectiveness of the Central Bank in supervising banks has improved. Progress has been made towards the application of international standards of loan classification and provisioning.

Reform of NCBs

Unfortunately, progress in reforming the NCBs has been much more limited and hesitant. At the heart of this reform is the ownership issue and the associated political constraints. The government is only slowly reconciling to the idea that public ownership of banks is not a sound banking concept. Without change of ownership and relying on market forces, regulations are not likely to have the full desired impact. Only very recently, the government has agreed to a timetable to privatise 3 of the 4 NCBs and steps have been taken to initiate this process. The largest NCB, Sonali bank, is to remain under public ownership with some planned actions, including management advisers, to ring fence from further weakening. The implementation of this strategy will test the government’s real political commitment to banking privatisation.

Loan Recovery and Banking Courts

This is another area where progress is slow. Generally, getting decisions from the court system on outstanding loans is a long drawn process, discouraging financial institutions from seeking this remedy. To obviate this problem, very recently, the Artha Rin Adalat Ain 2003 (Money Loan Court Act 2003) was enacted in March 2003 with a view to streamlining the process of realisation of overdue loans and advances by banks and financial institutions. Provisions have been made in this Act for realisation of the banks dues by selling properties held as security, without prior orders of the court. This is an encouraging step, but implementation remains a challenge.

Deregulation of Interest Rates

One area where better long term progress has been made in Bangladesh concerns the management of the interest rate. Figure 6.1 shows the trend in

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5 For a detailed review of this point, see Ahmed et al. 2003. Empirical evidence from Latin American countries similarly support this point. See Galindo and Micco 2003.
real deposit rates. In the early years, rapid inflation along with control over interest rates, caused deposit rates to become highly negative until 1975. High inflation of the early 1980s and interest rate controls also caused deposit rates to become negative. However, since 1983, deposit rates have remained largely positive. They fluctuated quite a bit though, reflecting yearly variations in inflation rates. Following years of control, interest rate policy was gradually deregulated in the 1990s. Recent reforms of government saving instruments have further reduced distortions and also helped calm the fear of rising real interest rates by reducing the cost of deposit mobilisation that is closely linked to returns on government saving instruments. So, the reform of taxes on financial instruments, the proper management of returns on long term government debt instruments (saving certificates, etc.), and the maintenance of positive real interest rates have all played an important role in spurring financial saving while reducing the bias against the stock market. Thus, the ratio of broad money (M2) to GDP surged from a low of only 20 per cent in 1980 to almost 40 per cent in 2002 (Figure 6.2). Not surprisingly, the progress in financial deepening has accelerated in the past few years. For example, the ratio of M2/GDP accelerated from an average growth of 2.4 per cent per year between 1990 and 1999 to 7.9 per cent between 1999 and 2002. This reflects the combined effects of interest rate deregulation and entry of new private banks.

**Impact of Reforms on Banking Structure and Financial Deepening**

The evidence is clear that in terms of both the growth of banking sector deposits and improved banking structure reflected in a greater role for private banks, there has been an encouraging progress in Bangladesh in recent years. The

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6 Data from IMF International Financial Statistics, various years and from Bangladesh Bank. Deposit rates are weighted average. Inflation is calculated from rate of change of annual CPI. 7 Data from Bangladesh Bureau of Statistics and IMF International Financial Statistics, various years. Since the national accounts data were revised upwards for the 1990s, earlier GDP data was revised upwards similarly by using the ratio of old GDP to new GDP for the year 2001.
growth in deposits and the associated rapid growth in $M_2/GDP$ is one indicator of the deepening of the financial intermediation in Bangladesh. Two other indicators are the growth of total credit to GDP ($C/GDP$) and the share of private credit to total Credit ($PC/TC$). The trend in credit is illustrated in Figure 6.3 below. Once again, both indicators suggest a deepening of financial intermediation in Bangladesh.

### Impact of Reforms on Soundness of Banking Sector

What has been the impact on soundness of the banking sector? The quality of the banking sector is usually measured in terms of the CAMEL framework. The term is derived from the first letters of the following five factors: (i) Capital adequacy; (ii) Asset quality; (iii) Management soundness; (iv) Earnings; and (v) Liquidity. Let's look briefly at each of these dimensions of the Bangladesh banking sector.
Capital adequacy

Based on an amendment of the Banking Company Act in 2003, banks are now required to adopt the Basle minimum capital standard, which is 9 per cent of risk-weighted assets (RWA) with core capital equal to at least 4.5 per cent of RWA. The performance of the different types of banks by this indicator is shown in Table 6.3. While the private banks have been maintaining the required capital adequacy ratio, the public banks are yet to comply with this requirement. Also, not surprisingly, private foreign banks have played it most safe in maintaining very generous capital adequacy ratio. For the banking sector as a whole, capital adequacy declined significantly until 2001, but is now on an improving trend. Nevertheless, the deterioration in public banks has dragged down overall capital adequacy ratio, and the banking sector will not likely reach the required standard without adequate progress in the NCBs.

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<td>5.3</td>
<td>4.4</td>
<td>4.2</td>
<td>4.1</td>
</tr>
<tr>
<td>DFIs</td>
<td>6.0</td>
<td>6.0</td>
<td>6.9</td>
<td>3.2</td>
<td>3.9</td>
<td>6.9</td>
</tr>
<tr>
<td>PCBs</td>
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<td>9.2</td>
<td>11.0</td>
<td>10.9</td>
<td>9.9</td>
<td>9.7</td>
</tr>
<tr>
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<td>17.1</td>
<td>15.6</td>
<td>18.4</td>
<td>17.8</td>
<td>21.4</td>
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<td>Total</td>
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<td>7.3</td>
<td>7.4</td>
<td>6.7</td>
<td>6.7</td>
<td>7.5</td>
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</table>


Asset quality

Historically, this has been a major problem in Bangladesh. The ratio of non-performing loans (NPLs) to total loans is shown in Table 6.4. Generally, the public banks have been saddled with a large infected portfolio and this infection got sharply severe between 1997 and 1999, raising the share of NPL to over 45 per cent for the NCBs and 65 per cent for the DFIs. The reasons are well known and international experience shows that Bangladesh is not alone in this regard, although the severity of the problem is possibly more intense. Much of the problem is a manifestation of corruption linked with the politics of public ownership, but this also reflects poor banking decisions due to weak management, poor staffing quality and lack of accountability. Domestic private banks also had a fairly large share of bad loans, reflecting inadequate regulation and weak supervision by the Central Bank. But actions taken over the past few years described above have led to significant improvements. Thus, the share of NPL for PCBs fell sharply from 33 per cent in 1998 to 16 per cent in 2002. Partial data suggests this performance has improved further in 2003, falling to below 15 per cent. These actions also had a positive impact on the public banks, but the share of NPL remains substantially large. Again, not
Table 6.4 Trend in Non-Performing Loan as Per Cent of Total Loans

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<td>40</td>
<td>46</td>
<td>39</td>
<td>37</td>
<td>34</td>
</tr>
<tr>
<td>DFIs</td>
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<td>67</td>
<td>65</td>
<td>63</td>
<td>62</td>
<td>56</td>
</tr>
<tr>
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<td>4</td>
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<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
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<td>41</td>
<td>41</td>
<td>35</td>
<td>31</td>
<td>28</td>
</tr>
</tbody>
</table>


Surprisingly, FCBs, have maintained much cleaner portfolio. The performance by asset quality also illustrates the importance of ownership.

Management soundness

Assessing the management quality directly in quantitative terms is difficult. However, based on the trends in NPL, one could draw some broad conclusions about management performance of banks. Thus, FCBs appear to be best managed followed by PCBs. The public banks generally show poor management, although some progress appears to have made in recent years.

Another useful indicator is the ratio of expenditure to income. Higher the ratio, the weaker is likely to be the management performance ceteris paribus. This is shown in Table 6.5. As expected, DFIs show the weakest performance while FCBs show the strongest. Generally, private banks are doing much better than the public banks. Indeed, the high ratio of expenses to earnings are mainly a reflection of overstaffing and weak income, although in some years the rise in the ratio also reflects loan loss provisions.

Table 6.5 Expenditure-Income Ratios in Bank (per cent)

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<td>99</td>
<td>99</td>
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<tr>
<td>DFIs</td>
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<td>100</td>
<td>91</td>
<td>93</td>
</tr>
</tbody>
</table>


Earnings and Profitability

Two commonly used earning measures are the return on assets (ROA) and return on equity (ROE). A third indicator is profit per employee.
Table 6.6 Rate of Return on Assets and Equity (per cent)

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<tr>
<td></td>
<td>ROA</td>
<td>ROE</td>
<td>ROA</td>
<td>ROE</td>
<td>ROA</td>
<td>ROE</td>
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<td>0.0</td>
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<td>2.0</td>
</tr>
<tr>
<td>DFIs</td>
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<td>-36.0</td>
<td>-1.6</td>
<td>-29.0</td>
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<td>27.0</td>
<td>0.8</td>
<td>15.0</td>
</tr>
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</table>


Figure 6.4 Bank Profit Per Employee in 2002

Table 6.6 shows the trend in ROA and ROE, while Figure 6.4 shows profitability per employee. The main results are: (i) private banks are significantly more profitable than public banks; (ii) within private banks, foreign banks are more profitable; (iii) public banks showed negative or zero ROAs well until 2000, but some improvement has happened only recently.

Liquidity

Presently, commercial banks are required to hold 20 per cent of their total deposits as statutory liquidity requirement (SLR) which includes a 4 per cent cash reserve requirement (CRR). The CRR is held at the Central Bank and the remaining 16 per cent is kept in the concerned bank as qualifying secure assets in terms of cash or government securities. Liquidity indicators by banks are contained in Table 6.7. The results show that banks are generally liquid. All banks maintained excess liquidity over the minimum requirement. However, foreign private banks maintained higher levels of liquidity than domestic banks.
Table 6.7 Liquidity Ratios (per cent)

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<td>24</td>
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</tr>
<tr>
<td>DFIs</td>
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<tr>
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<td>Total</td>
<td>23</td>
<td>25</td>
<td>27</td>
<td>26</td>
<td>25</td>
<td>27</td>
</tr>
</tbody>
</table>


Summary CAMEL Ratings

The overall picture that emerges from this review suggests the following:

- The banking system’s overall quality has improved somewhat in the recent years, but shows considerable vulnerability due to the continued weak performance of the NCBs.
- FCBs are the strongest performer and show overall satisfactory results in terms of CAMEL indicators.
- PCBs on aggregate show mixed but improving performance.
- NCBs and DFIs remain substantially vulnerable by most CAMEL indicators, except in terms of liquidity.
- A disaggregated analysis reported by the Bangladesh Bank shows the following: As of end-2002, the CAMEL rating of 9 banks was 1 or Strong; 21 banks were rated as 2 or Satisfactory; 10 were rated 4 or Marginal, and 2 got a 5 or Unsatisfactory rating.
- Importantly, all the four NCBs and four of the 5 DFIs had a marginal rating.

Bangladesh Banking Performance in Relation to SAR Countries

Banking sector difficulties are not unique to Bangladesh. Other countries in the South Asia Region (SAR) have faced similar difficulties. How have other countries responded to the challenges? A detailed review of banking sector performance in SAR countries is available in Ahmed et al. (2003) and in World Bank (2004). Reflections on this in terms of a few summary indicators is presented below.

Indicators of financial depth

Let's first start with the depth of the banking sector as measured by the following three indicators: M2/GDP, Deposits/GDP and Credit/GDP. The situation of

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Table 6.8 Banking Sector Performance: International Comparison, 2003

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Regulatory capital to risk-weighted assets (%)</th>
<th>Non-performing loans to total loans (%)</th>
<th>Return on assets (%)</th>
<th>Return on equity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Asia region</td>
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<tr>
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<td>27.7</td>
<td>0.6</td>
<td>13.5</td>
</tr>
<tr>
<td>India</td>
<td>12.6</td>
<td>8.8</td>
<td>1.0</td>
<td>11.9*</td>
</tr>
<tr>
<td>Nepal</td>
<td>-7.1</td>
<td>30.6</td>
<td>-1.1</td>
<td>-30.8</td>
</tr>
<tr>
<td>Pakistan</td>
<td>13.1</td>
<td>15.9</td>
<td>2.2</td>
<td>36.0</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>9.6</td>
<td>14.3</td>
<td>1.5</td>
<td>25.8</td>
</tr>
<tr>
<td>Other countries</td>
<td></td>
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<tr>
<td>Australia</td>
<td>10.6</td>
<td>0.5</td>
<td>1.2</td>
<td>18.2*</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>15.6</td>
<td>4.4</td>
<td>0.8</td>
<td>12.5</td>
</tr>
<tr>
<td>Japan</td>
<td>10.8*</td>
<td>7.2</td>
<td>0.0*</td>
<td>0.4*</td>
</tr>
<tr>
<td>Korea</td>
<td>10.4</td>
<td>2.3</td>
<td>0.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Singapore</td>
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<td>3.5</td>
<td>0.8</td>
<td>7.7</td>
</tr>
<tr>
<td>UK</td>
<td>12.4</td>
<td>2.2</td>
<td>0.5</td>
<td>19.0</td>
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<tr>
<td>USA</td>
<td>12.7</td>
<td>1.3</td>
<td>1.4</td>
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<tr>
<td>Canada</td>
<td>12.9</td>
<td>1.4</td>
<td>0.6</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Note: *2002 data.

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these indicators in the 5 major SAR countries (Bangladesh, India, Pakistan, Sri Lanka and Nepal) is shown in Figure 6.5. On average, India, Pakistan and Sri Lanka have done better than Bangladesh in stimulating the banking sector activities in respective countries. However, Bangladesh has done better than Nepal. The trend also suggests that the progress in strengthening banking activities is now accelerating in Bangladesh, giving hope that with continued effort Bangladesh will likely catch up with its better performing neighbours.

Progress with banking quality

Selected indicators of banking quality in SAR and a few developed countries are shown in Table 6.8. A number of important results emerge from this comparison.

- On average, banking quality is stronger in Sri Lanka, India and Pakistan. This is reflected in terms of all three indicators used here: capital adequacy, share of non-performing loans and rate of return on assets. Bangladesh does better than Nepal.
- When compared with developed countries, all SAR countries show much weaker performance in terms of one core indicator – share of non-performing loans. This is as well an indication of the governance problem faced by the banking sector in SAR countries linked mostly with public ownership.
- The progress achieved by India and Pakistan in meeting capital adequacy requirement at par with developed countries is commendable. Bangladesh has a long way to go. However, Nepal's banking sector remains most vulnerable.
- Overall, not withstanding recent progress, the vulnerability of the Bangladesh banking sector stands out quite clearly when this performance is compared at the international level. The challenge for improving banking efficiency and quality in Bangladesh is obvious.

9 Data are from IMF 2003. All data refer to 2002 except for Nepal, which is for the year 2000.
SECTION V: SUMMARY AND CONCLUSIONS

This brief review of banking sector developments in Bangladesh offer a number of important conclusions on past progress with reforms in this critical area and the challenges for the future. These are summarised as follows:

- Historically, Bangladesh has suffered from a poorly performing banking sector due to public ownership, lack of competition, poor governance and weak management. This manifested itself in a sharply deteriorating banking portfolio quality, raising concerns about its viability.

- Faced with this alarming situation, the Bangladesh government has launched a comprehensive reform programme over the past few years, especially during 2002–04. The programme has focused on improving prudential regulations, strengthening the oversight capacity of the Central Bank, improving competition, deregulating interest rates and developing the banking legal system for speedy resolution of loan disputes.

- Evidence shows that good progress has been made in deregulating interest rates, strengthening prudential regulations, enhancing the capacity of the Central Bank and allowing more competition through greater entry of private banking enterprises. Less progress has been made in reforming state owned banks, preparing them for privatisation, and developing institutions for speedy resolution of banking disputes. Implementation of international accounting standards along with proper public disclosure also remains to be done.

- The outcomes show this overall positive policy progress. Thus, there has been a significant growth in banking deposits and credit relative to GDP, a sharp increase in the private sector banking activities from a low base, interest rates now better reflect market forces, and some improvement in the quality of banking portfolio in terms of better capital adequacy ratios and lower share of non-performing loans.

- The performance improvements is mostly concentrated in private banks, including domestic private banks. For the first time, private banks now have a greater share of the banking deposits than public banks, while also rapidly catching up in the loans market. This encouraging progress with the transformation of banking structure within a relatively short period is a truly commendable outcome. Not surprisingly, private banks also show stronger performance in terms of CAMEL indicators.

- Despite some improvement, the quality of public banks remain of major concern. Bangladesh Bank evaluation of CAMEL ratings suggest that all 4 NCBs and 4 of the 5 DFIs are rated as marginal. Overall governance in NCBs and DFIs remain poor. Management remains weak and political interference continues. This is partly because the Bangladesh Bank does not have full regulatory and supervisory powers over NCBs and DFIs.
Also, there is discrepancy in the application of prudential norms. Overall, the efficiency and financial soundness of the state owned banks remain of major concern.

- When compared internationally, banking performance in Bangladesh is much weaker than in other large SAR countries including India, Pakistan and Sri Lanka. This performance ranks even more poorly with developed countries, particularly regarding banking portfolio quality and related governance.

- The experience with banking reforms in Bangladesh suggests that while prudential regulations and oversight/supervision responsibility/capacity of the Central Bank is important, competition and ownership matter a lot in strengthening banking structure. Greater competition by allowing new entry of private banks is fast changing the quantity and quality of banking services in Bangladesh. Yet, the slow and hesitant move with privatising the NCBs is constraining this progress in a substantial way. The continued vulnerability of the banking sector is largely explained by this weaker progress. The recent decision to move towards an action plan for privatising the NCBs is laudable, but progress is rather slow and needs to be accelerated.

- Along with efforts to privatise the NCBs, further reforms are needed to boost competition with a view to offering consumers a wider range of banking products, including modernisation of the banking sector based on new information technology.

REFERENCES


Reforming State Owned Enterprises

Syed Nizamuddin

SECTION I: INTRODUCTION

This paper is based on a World Bank report led by the author on the performance of state owned enterprises (SOEs) assessed in the context of the sector strategies and policies pursued by the government for these entities. The analysis has been updated to incorporate recent trends in public enterprise performance and reform initiatives. The paper identifies some key efficiency and equity issues and their policy implications, and the main elements of a SOE reform agenda. The SOEs reviewed include the state-owned corporations and boards and their 200 subsidiary enterprises, departmental enterprises – Bangladesh Telephone and Telegraph Board (BTTB) and Bangladesh Railway (BR), and the public financial institutions (PFIs) – consisting of four nationalised commercial banks (NCBs) and four public specialised development banks (SDBs).

Overview of SOE Performance

There has been a substantial shortfall in the performance of SOEs over a long period of time, but this burden became acute in the 1990s. Thus, the contribution of SOEs to GDP has been falling (Figure 7.1) even as assets have grown (Figure 7.2). Traditionally, the corporate governance and management of the entities has been considerably ineffective or unresponsive to the unfavourable outcome, and the sector strategy in many areas of SOE activity was inward-looking and did not work well. Actions have been initiated in a number of areas since FY 02 to address the poor performance of some of the entities, leading to a welcome reduction in losses. As part of a renewed SOE reform agenda, the sector strategy and governance in all key areas will

1 World Bank 2003.
need to respond aggressively to the challenge of rapid and efficient sector development so as to enhance economic growth and speed up the creation of economic opportunities for the poor and pace of poverty reduction in this decade.

Bangladesh has lagged behind other developing countries, including some in the region, in undertaking SOE reforms to deal with the underdevelopment of key sectors, and the inefficiencies of service and fiscal costs associated with SOE operations. Public sector involvement in Bangladesh in a number of areas of manufacturing, energy, transport and utility services through state-owned entities has been inefficient and costly to the economy. This has been manifested in various forms: minimal return on resources; poor direct contribution to GDP and economic growth; low coverage of services, particularly for the poor; unsatisfactory quality and high transaction cost of services; inefficient and inequitable subsidies; high fiscal costs of SOE deficit financing; and substantial contingent liabilities for the government. The cost of inefficient public services in energy, telecommunications, railways, ports, urban water supply and banking, in terms of increased cost of doing business, economic opportunities foregone and consumer welfare lost, has been high.

The SOEs employ substantial resources (size of assets equal to 36 per
cent of GDP). The economy’s growth has been limited to some extent by their low efficiency of services in key areas and on account of their poor financial returns. Their direct contribution to GDP in terms of value addition has declined to 1 per cent in nominal terms in recent years, while their contribution to growth has been minimal in most years. The inefficient operation of SOEs has led to a massive resource transfer, estimated to be equal in magnitude to 4.8 per cent of GDP annually during FY1991–2004, assuming a warranted return on assets of 13 per cent. A part of this is the fiscal resource transfer on government loans and equity provided to SOEs on account of subsidised capital, and poor recovery of interest and dividend – conservatively estimated at around 2.8 per cent of GDP annually during FY1997–2000. The true fiscal resource transfer was higher than this on account of budgetary subsidies, grants, default in debt amortization, conversion of loans to equity or grant, erosion of equity due to accumulated losses, and recapitalization of banks against classified loans owed by SOEs. In addition, debt service liabilities owed by SOEs to the government had been underestimated in the past, and the revised estimate could add up to 0.8 per cent of GDP to the above estimate of fiscal resource transfer.

The public financial institutions have performed poorly, suffering from significant and understated losses and capital shortfall. A recent special evaluation of 4 NCBs, based on international accounting standards (IAS), found their true losses to be much higher than audited books for 2002. Their true capital shortfall has also risen since the last evaluation in 1996. The liabilities and capital shortfall of the SOEs, arising from their poor financial performance, represent a major source of contingent liability for the exchequer, a part of which has been realised. Given that SOEs are involved mostly in commercial activities, the rationale for ‘public’ provision has been weak or largely missing in many areas. Because of persistent losses and poor returns and associated fiscal costs, the ‘financial’ rationale for public ownership has also been largely missing.

Complacency about the outcome of public provision and its impact on the economy and public finances contributed to a status quo on the SOE reform agenda for many years which has been costly, and it is imperative that the welcome reform initiatives since FY 02 be scaled up significantly while adequately addressing the social costs of adjustment. Complacent views about SOE performance and reservations about structural adjustment reforms in some areas, including corporatisation, functional unbundling, manpower rationalisation, private participation and divestiture, have been expressed within government, SOEs, interest groups, academic community and other sections of the society. In the context of the high costs of SOE operations,

2 Such a view was expressed in the SAPRI Report led by Center For Policy Dialogue 2002. See also Bhattacharya et al. 2001.
postponing the unfinished reform agenda would be costly in terms of foregone growth and poverty reduction. The urgency of a decisive stance on implementing the unfinished SOE reform agenda – particularly in the context of the backlog of sector underdevelopment, limited access to services by the poor, high costs of public provision, emerging opportunities for private participation, and the need to prioritise the use of budgetary resources for provision of public goods to promote faster growth and poverty reduction could hardly be overemphasised. The measures initiated since FY 02 to address poor performance in various areas are steps in the right direction but much more needs to be done to implement the substantial unfinished reform agenda. The reforms will need to be carried out with a human face, in consultation with relevant stakeholders, taking into account their legitimate concerns, and supported by safety nets to address the social costs for those likely to be affected adversely by the reforms.

Role of SOEs in the Economy

The SOEs have been involved in a wide range of commercial activities in key sectors of the economy, employing significant resources. Growing at an average annual rate of 9 per cent in nominal terms, the SOEs’ assets today are more than threefold their levels in the early 1990s (equal in magnitude to 36 per cent of GDP). The domain of activities has included jute goods, textiles, steel and engineering, fertiliser, paper, newsprint, wood products, sugar, power, gas, petroleum, telecommunications, railway, ports, shipping, aviation, inland water and urban road transport, urban water supply, urban land development, hotels, tourism, trading and banking. The entities have held near monopoly position or high market shares in many of these activities. Until FY 02, there has been little restructuring or downsizing of the SOEs in Bangladesh in the last decade, unlike in most other countries. FDI inflows that could help substitute for public investment and provision have been relatively small, being limited to a joint-venture fertiliser plant, a few power purchase and gas production sharing contracts and mobile phones. Contributing less than 2 per cent of GDP, the SOEs have claimed on average 8 per cent of GDI in the last decade. They currently account for around 5 per cent of manufacturing sector employment. The market share of the PFIs has come down from around 70 per cent of bank loans and credit in the early nineties to 51 per cent at present. This largely reflects the growth of private sector banking, rather than restructuring or privatisation of these public financial entities. The BTTB has operated as a state monopoly in urban fixed telephone services while BR is a state monopoly in rail transportation.
Governance and Management of SOEs

The corporate governance and management of the SOEs has not been conducive to their efficient commercial operations and institutional development. Much of the shortfall in their performance can be linked to ineffective or unresponsive governance and management. This is attributable to a variety of factors, including their limited operational autonomy, unclear mandates, conflicting policies, low incentives and accountability, lack of corporate structure and culture, and inadequate commercialization of many entities. Overstaffing and skill mismatch, particularly dearth of competent technical and managerial expertise, have compounded their problems. This is linked to their inappropriate compensation system and the process of selecting technical personnel and managers, which have not been competitive. Private sector representation on the Board of Directors has been limited to two SOEs (e.g. DWASA and BWDB), but its impact on improving governance and operational performance appears to have been limited so far. In the case of the NCBs and SDBs too, such representation did not result in a noticeable improvement in their governance and performance. A welcome initiative has been the initiation of efforts to restructure the NCBs and improve their operational performance with assistance of private management advisors. Some parastatals have been required to carry out quasi-fiscal activities, with little or no budgetary compensation. The NCBs and SDBs for many years have enjoyed little autonomy, and political or partisan considerations could have been at work in high-level personnel decisions and in shaping their senior management, precluding the participation of the most qualified and experienced personnel available in the profession. These problems were exacerbated by the exclusion of NCBs and SDBs from the purview of Bangladesh Bank's regulatory control, until a recent amendment of the relevant legislation. Interference of employees and trade unions in the operational and personnel matters of the entities has further constrained their management.

SECTION II: FINANCIAL PERFORMANCE OF SOEs

The financial performance of SOEs has generally been quite unsatisfactory in the last decade, leading to a significant resource transfer on account of their operations, and some welcome measures initiated since FY 02 have contributed to their loss reduction. Gross SOE losses (counting the loss-making entities only), averaged taka 15 billion annually during FY1991–2002, while net annual losses of all SOEs averaged taka 9 billion annually. The BPDB, DESA, BJMC, BCIC, BTMC and BSEC contributed most to these losses, while BPC lost heavily during FY 2000–02. Largely as a result of restructuring, mill closure, manpower rationalisation, system loss reduction and pricing measures, the net annual SOE losses were contained during FY
2003–04 at taka 3.5 billion (Figure 7.3). This outcome largely reflects the lower losses of BPDB, DESA, BJMC and BCJC, and overall losses would have been lower without BPC's continued high losses. The pre-interest rate of return on assets (ROA) of SOEs for the period FY1991–2004 as a whole averaged a mere 0.25 per cent annually, falling significantly short of the warranted ROA, assumed in this study to be 13 per cent. The implied shortfall in SOEs' returns on assets, and hence resource transfer on account of public provision through the entities, was equal to 4.8 per cent of GDP annually on average during FY1991–2004 (Figure 7.4). This is likely to understate the true shortfall because of various reasons, including weaknesses in financial accounting and asset valuation.

Figure 7.3 Equity, Liability and Assets of Major SOEs: FY 04

Figure 7.4 Rate of Return on Assets (ROA) of SOEs and Shortfall in Returns as % of GDP (FY 91–04)
The net worth of SOEs, currently around one-third of total assets, has been eroded by significant accumulated losses. The net worth and asset build up of SOEs would have been much lower without the substantial budgetary equity financing, conversion of government loans into equity or grants, explicit and hidden subsidies, loss financing and asset revaluation by some agencies, partly offset by nominal dividend payments, contributed by a few profit-making entities. Their net worth (or equity) is, therefore, not a true reflection of their financial performance. The BTTB has contributed a modest revenue surplus, largely due to its state monopoly in fixed telephones in urban areas, rather than efficient operation. Its net contribution to the exchequer, taking investment under the ADP into account, has been much more limited. Bangladesh Railway has been losing heavily because of a variety of factors, including overmanning and unresponsive management, linked to the absence of a corporate structure and commercial orientation. Largely as a result of a high proportion of non-performing loans, and resulting financial losses, the net worth of PFI's has become negative, and their viability has been threatened by a significant capital shortfall. Some of the PFI's have been officially reporting profits for many years but their true performance, taking loan loss provisioning requirements into account, was a significant cumulative loss – estimated at taka 66 billion (2.2 per cent of GDP) during 1991–2003.

Implications for Service Provisions

The cost to the economy on account of inadequate and unsatisfactory quality of public provision in energy, telecommunication, railway, ports and other public utilities and banking, in terms of increased cost of doing business and economic opportunities and consumer welfare lost due to limited access and inefficient services has been high. Power outages and voltage fluctuations, shortage of gas supply, limited and inefficient telephone services, inadequate urban water supply, and the high transaction costs of accessing these services (e.g. cost of obtaining new connections) and using them (costs of billing anomalies and paying) have imposed considerable burden on entrepreneurs and households alike. The cost of inefficient cargo operations at the seaports has been particularly high, thus affecting the external competitiveness of the economy. The cost of system loss and poor revenue collection and high arrears for power, gas, urban water supply and telephones has been substantial. These financial losses have affected the viability of the entities and precluded a faster expansion of coverage and improvement of services. The inefficiency costs of parastatals' operations have been passed on to households and entrepreneurs – as effectively higher user charges due to high transaction costs, low quality of utility, infrastructure and banking services, and foregone access to services by the large majority of the poor – and to taxpayers through rising budgetary liability on account of financing SOE deficits.
Equity Implications

Public provision of services through SOEs has contributed little to equity objectives because of the limited access by the poor to much of these services and associated transfers. Because of the low coverage of most services, the substantial subsidies associated with them have not been equitable. The coverage of power, piped gas and water supply, and telephones has been largely limited to the urban non-poor. The large majority of the poor have remained outside their coverage, and so associated subsidies have not benefitted them. Access to power is limited to around 31 per cent of the population, with 80 per cent in urban areas and just 19 per cent in rural areas. Access to electricity by the poor has been very limited – only 12 per cent of the bottom fifth of the income distribution and 21 per cent of the second-lowest quintile – while nearly all households in the top two quintiles are connected to the public distribution network. Access to piped natural gas for domestic use has been limited to 4 per cent of households, mostly living in urban areas. Subsidy on household gas consumption has been significant, with gas tariffs being about a quarter of the cost of alternative fuels, mainly kerosene and LPG, but these subsidies have been benefitting a relatively small minority, mostly the non-poor urban residents. Gas subsidies to the power sector, using almost half the gas produced, do not benefit the large majority of the poor because of their very limited access to power. The urban poor, including slum dwellers, have paid a much higher price for informal access to electricity and water, compared to the prices paid by the affluent, subsidised well below cost of provision and benefits. Urban residents have paid a much lower price for power than some categories of rural consumers served by Palli Bidyut Samities. For many years, until 2001, urban consumers enjoyed a generous initial block of cheap electricity, not available to the rural consumers in Bangladesh or urban consumers in other countries. Entrepreneurs, including those operating small and medium enterprises, have effectively cross subsidised other consumers of power and gas, including the urban non-poor, rather than consumption being subsidised through the budget.

The burden of cost recovery has been shifted non-transparently and inequitably, raising the taxed groups’ cost of doing business, and encouraging malpractice and revenue leakage. Consumption of kerosene, diesel, sugar and telephone services (until mid-FY 02), and supply of sugarcane by farmers have been taxed considerably. Sugarcane farmers and gur consumers, largely the rural poor, and sugar consumers – households and food-processing enterprises alike – have been taxed in order to keep the public sector sugar mills running. The very low access to fixed telephones, together with high charges until FY 02, has denied the public, particularly the poor, the right to communicate cost effectively. The annual gross losses of the SOEs peaked at 38 per cent of annual public spending on education and health in FY 01 and
declined to 11 per cent in FY 03 but rose to 19 per cent in FY 04. Gross SOE losses have been on average equal to around 27 per cent of annual public spending on education and health since FY 91 (Figure 7.5). In addition, maintaining jobs in unprofitable activities has been costly. The net loss per employee in nine major SOEs averaged taka 53,200 per employee per annum, or 91 per cent of their average annual wage per employee during FY 91–02.\(^3\) The high cost of maintaining employment suggests that the employment argument for continuing many loss-making activities is weak. In the context of the country’s massive underemployment and poverty, and backlog of social underdevelopment, the direct and indirect budgetary financing of SOEs’ deficit has meant a high opportunity cost in terms of foregone priority investment in the social and infrastructure sectors that could have been financed with these resources to achieve a significantly greater employment and poverty reduction impact.

![Figure 7.5 Comparison of Gross SOE Losses and Budgetary spending on Social Sectors](image)

**Figure 7.5** Comparison of Gross SOE Losses and Budgetary spending on Social Sectors

**Fiscal Implications of SOE Operations**

Budgetary financing of SOEs’ deficits has contributed much to the government budget deficit, necessitating higher domestic borrowing. There was a noticeable deterioration in terms of a rise in domestic deficit financing to high levels during FY 2000-01, linked partly to a rise in financing of SOEs deficit. The SOEs’ gross deficit or financing gap widened to 2.8 per cent of GDP during FY 2000–02. This contributed to some extent to the rise in government’s domestic borrowing, largely to finance parastatals’ investment under the ADP, averaging 2.4 per cent of GDP. In addition, direct financing of loss-making entities, through subsidies or working capital loans, and indirect

\(^3\) The entities are BJMC, BTMC, BSEC, BSFIC, BCIC, BPDB, DESA, BOGMC and BPC.
financing, in terms of shortfalls in recovery of DSL, dividends and taxes, have contributed to the rising domestic borrowing. The heavy reliance on the exchequer for deficit financing on account of the poor performance of parastatal entities is a fiscal issue, particularly for energy entities, while this has also been a banking sector issue for manufacturing entities. A welcome development is the recent decline in the gross SOE deficit, coming down to 1.8 per cent of GDP in FY 04.

Budgetary resource transfer on account of financing SOEs’ deficit has been taking place systematically and on a significant scale for many years and a welcome development is that actions were initiated in FY 02 to rationalize funding and tighten the budget constraint for SOEs. Direct budgetary subsidy to SOEs has been limited to around taka 4 billion annually in recent years. The budgetary cost of supporting safety nets in terms of manpower separation costs of SOEs since the early nineties has been substantial, particularly on account of sizable manpower rationalization during FY 03-04. Budgetary financing of SOEs’ investment under the ADP has averaged taka 33 billion annually while investment of departmental enterprises averaged taka 7 billion per annum. Total budgetary resource transfers, including hidden subsidies, arising from default on DSL payments owed to government, for instance, have been much larger than direct budgetary transfers. The budgetary resource transfer on loans and equity financing provided to SOEs on account of interest subsidy and poor recovery of interest on loans and dividend return on equity has been significant — estimated at around 2.8 per cent of GDP annually during FY1997–2000 (Figure 7.6).

Actual resource transfers to SOEs has, however, been higher due to explicit and hidden subsidies, grants, default on loan amortization payments, conversion of loans to equity and grant, erosion of equity, and recapitalization of banks against classified loans owed by SOEs. The total stock of DSL owed by SOEs and PFIs to the government has been recently estimated at taka 482 billion (18 per cent of GDP). This revision implies a higher level of budgetary resource transfer, by up to 0.8 per cent of GDP annually, than the above

![Figure 7.6 Implicit Resource Transfer on Government Lending and Equity to SOEs](image-url)
estimate. Most of this is reportedly owed by BPDB, DESA, BCIC, BOGMC, REB and BSEC. The limited direct subsidy to SOEs, reported in the budget, therefore, represents the tip of the iceberg. The liabilities and capital shortfall of parastatals arising from their substantial losses represent a major source of contingent liability for the exchequer. The budgetary constraint on SOEs has been tightened in recent years. Manufacturing enterprises, for instance, are not being provided budgetary financing for meeting their working capital loans (e.g. raw jute purchase by BJMC) and now rely entirely on commercial bank credit for this purpose, without sovereign guarantee by the government. Manpower separation is the only recurrent purpose for which budgetary financing is being provided because this is crucial for restructuring or privatising the entities, which are financially unable to meet these liabilities.

SECTION III: PERFORMANCE AND STRATEGY IN PUBLIC MANUFACTURING

The shortfall in returns as a result of manufacturing SOEs’ operations averaged 1.6 per cent of GDP annually during FY1991–2004, leading to a significant resource transfer (Figure 7.7). Substantial downsizing and closure of unviable mills and manpower separation, particularly in FY 03 and to a lesser extent in FY 04, contributed to a reduction in manufacturing sector losses in the last two years. Within manufacturing, the shortfall in return on assets has been highest for BCIC, followed by BJMC. The unsatisfactory performance of manufacturing entities is linked to a variety of factors – inefficient capacity, excess overhead costs, overmanning, increased external competition, weak external demand, shortages in input supply, distortions in input and output pricing, and rising debt burden of accumulated losses and liabilities. BJMC’s poor operational performance and weak external competitiveness continued until FY 02 because of limited actions to address the constraints identified in the early nineties. The closure of the Adamjee Jute Mill and other inefficient and high-cost mills has helped to lower BJMC’s losses. Because of efficient adjustments within the jute manufacturing sector, production and exports have not been affected by the sizable downsizing of BJMC’s inefficient capacity.

![Figure 7.7 Shortfall in Annual Returns for Manufacturing SOEs: FY 1991–2004](image-url)
Further restructuring and divestiture should lead to efficiency gains through competitive private participation and help improve viability. The viability of the public textiles and steel and engineering sectors have been poor and further mill closure and manpower rationalization would facilitate their divestiture. The poor viability of the public sugar mills has imposed high inefficiency costs on other stakeholders – particularly sugarcane farmers, and gur and sugar consumers. Experience in Bangladesh and other countries suggests that the public sector is ill-suited to run sugar mills profitably, and divestiture seems to be a prudent option worth pursuing. BCIC’s financial performance has not been satisfactory because of industrial weaknesses and domestic policies. Urea has been under-priced considerably, by 45 per cent below import/export parity price on average, since the early nineties but the fertiliser plants have not been compensated, unlike in India, for instance. It is imperative that any investment decision relating to expansion of urea production capacity takes into account all relevant factors, including developments in the global fertiliser market, options for FDI and cost effective imports, and the economics of gas use for urea production, vis-à-vis, other uses. Economic pricing of natural gas and urea, and transparent budgetary accounting of subsidies, if warranted, and compensation to fertiliser producing entities, would facilitate efficient resource allocation decisions in fertiliser manufacturing and fertiliser application in agriculture.

The rationale for active public sector involvement in manufacturing in the last decade appears questionable and costly. These are commercial activities that could have been carried out by the private sector under appropriate sector strategy and incentive regimes. Public involvement and associated sector policies discouraged development of various manufacturing sub-sectors. In addition, deficit financing of manufacturing entities through budgetary transfers and bank borrowings has been costly. Consequently, there has been little or no financial rationale for the government’s involvement in carrying out most of these commercial activities in the public sector and assuming the associated risks. Divestiture of manufacturing enterprises is desirable to move government out of these business activities, that are best left to the private sector. Closure of unviable mills and manpower rationalization initiated since FY 02 has facilitated this process. Liberalization of sector policy regimes, including efficient input and output pricing, would promote competitive private participation in manufacturing.

SECTION IV: PERFORMANCE AND STRATEGY IN PUBLIC ENERGY PROVISION

Public provision of energy has been a significant source of resource transfer. The shortfall in returns as a result of inefficient public provision of energy is estimated conservatively to be equal to 1.9 per cent of GDP annually during
FY1991–2004 (Figure 7.8). This shortfall has been highest for BPDB, followed by DESA, BOGMC and BPC. The inefficiency of public provision of energy has been linked to, among other factors, low efficiency of generation and refining, high system loss, inadequate tariffs, and poor billing and revenue collection. Power sector performance has improved to some extent and losses have declined through improvements in operational performance – lowering of system losses and account receivables for public sector consumers – and tariff measures. Unbundling and corporatisation in power distribution and selective use of private management have been pursued but there has been little progress in privatisation. Performance in petroleum continues to be unsatisfactory. A surge in world oil prices and inadequate price adjustment have impacted adversely on BPC's finances. Price adjustments in line with

![Figure 7.8: Shortfall in Annual Returns for Energy SOEs: FY 1991–2004](image)

changes in cost of supply and restructuring are key to performance recovery for the petroleum sector.

Comprehensive reforms are needed to improve efficiency of provision of commercial energy, which is vital for driving the wheels of growth and reducing poverty. This is also critical for improving the financial viability of the public energy entities, most of which have been in an acute financial state. Natural gas has remained significantly under-exploited and underpriced, considerably below long-run marginal cost (LRMC) and netback value of gas, for various categories of consumer. This has led to significant resource transfers to the power and fertiliser sectors and urban households. These resources could instead have been mobilised through realistic pricing to support investment within the sector as well as worthwhile development activities in the rest of the economy. The challenge for Bangladesh is to exploit its gas reserves effectively, expand its gas market and optimally price gas, so as to make the most profitable use of its only abundant mineral resource and enhance its contribution to the country's enormous development financing needs.
Inefficient power sector operations have imposed a high cost on the economy through inadequate access, poor quality and high transaction cost of services, while budgetary financing of the large deficits of energy entities has led to substantial fiscal resource transfers. The urgency of continued implementation of power sector reforms – so as to enhance cost recovery by curbing system loss and pricing power adequately, expand coverage and improve quality of services, and contain the massive resource transfer and the associated contingent liabilities and fiscal risks – could hardly be overemphasised. State monopoly in petroleum refining, import and marketing and administered pricing have proved to be inefficient and costly. BPC’s mounting losses in recent years have demonstrated the weaknesses of the sector strategy, and exposed the government to substantial liabilities for the exchequer. Liberalisation of the downstream petroleum market and pricing would lead to efficiency gains through competitive private participation, with favourable impact on growth as well as petroleum revenues, without exposing the government to the financial risks associated with petroleum operations. Actions will need to continue in a number of areas: completion of unbundling of operations in all energy sectors; instituting effective commercialisation in all entities; effective measures to curb pilferage and recover arrears; promotion of private participation in distribution through policy, legal and regulatory reforms; and implementation of economic or market-based pricing of all types of commercial energy, with automatic periodic adjustments, linked to changes in the cost of supply, as in many other countries. Following the passage of the Energy Regulatory Commission Act, the Energy Regulatory Commission is in the process of being made functional, with the appointment of key functionaries. The challenge now will be to operationalise the energy regulatory entity with adequate capacity and independence, so as to enable it to play an effective role in promoting development of the energy sectors, including protecting consumers’ interests and safeguarding quality of services. The effective implementation of the energy pricing framework for electricity, gas and petroleum products that was adopted last year would help depoliticise the process of tariff adjustments and improve the poor financial viability of the entities and relieve government from the associated contingent liabilities.

SECTION V: PUBLIC SECTOR PERFORMANCE AND STRATEGY IN TELECOMMUNICATIONS AND RAILWAY

Bangladesh’s telecommunications sector has lagged considerably behind that of most other countries, and the sector strategy has been inward looking, constraining economic activities and overall growth and lowering consumer welfare. Bangladesh has one of the lowest tele-densities in the world. The unsatisfactory outcome has been manifested by restricted access to telephone connections, uncompetitive pricing, up to mid-FY 02, and poor quality of
services, linked to BTTB’s public monopoly in fixed telephones, and inadequate competition and private investment. The sectoral inefficiencies and underdevelopment have imposed a very high cost on the economy, by limiting economic opportunities, raising the cost of doing business, and constraining growth and reducing consumer welfare. Inadequate investment has been linked to restrictive sector policies, absence of a regulatory regime, until FY 02, and severe interconnection constraints for mobile phones. The urgency of liberalising the telecommunications sector and effective functioning of the regulatory body, with adequate operational autonomy, could hardly be overemphasised. This is vital to attract adequate private investment, particularly in fixed lines, that is crucially needed to improve the very low telephone access and quality of services. While the coverage of the fixed line network operated by BTTB has grown very slowly, the mobile phone network has grown noticeably, partly reflecting the liberalisation initiated in recent years.

A welcome development in recent years has been the reform initiatives in the telecommunication sector designed to enhance competition and encourage new investment and better improve performance. Initiatives are underway to restructure and corporatise BTTB. This could lead to possible partial privatisation of the entity – ideally in strategic partnership with a foreign investor, as implemented in Sri Lanka and planned in Pakistan, for instance – in order to pave the way for the much-needed development of the telecommunications sector. Following the establishment of the Bangladesh Telecommunications Regulatory Commission (BTRC), activities have been undertaken to enhance its capacity to function effectively within a reasonable time period. Other initiatives include: liberalisation of the licensing regime, including licensing of new private sector PSTN operators and imminent licensing of VOIP operators; approval and establishment of an interconnection framework; and reduction of long distance and international access charges.

Bangladesh Railway’s losses have continued to impose a high fiscal cost (Figure 7.9), and its potential to contribute to the economy through efficient transportation remains largely under-exploited. Its poor performance is attributable to a variety of factors – including overstaffing and skill mismatch; public service obligations (PSO), like operation on unviable routes and inadequate passenger fares; pilferage of revenue and other assets; and generally weak governance and unresponsive management. These problems are linked partly to the absence of a corporate structure, which has limited its operational autonomy and commercial orientation. Reforms of BR are needed to improve the efficiency of railway services, and contain its highly unfavourable budgetary impact. Key elements of the needed reform are BR’s restructuring, corporatisation, commercialisation, and promotion of private participation in various areas of railway investment and operations, as in many other countries. There has, however, been an apparent lack of political will
for many years to undertake reforms needed to transform BR into an efficient commercial entity. Such a transformation of BR will take more time. In the meantime, efforts are underway to achieve modest improvements in BR's autonomy in day to day operational matters by amending the Railway Act (1996), while the Ministry of Communications will continue to retain control on substantive policy issues. One major constraint has been that railway fares for containers and other freight as well as passengers have remained unadjusted for long periods, despite rising operational costs, further compounded by ticketless travelling by passengers. Adequate compensation for PSO has not been provided in the budget to BR, partly on account of accounting weaknesses, and establishment of improved commercial accounts is, therefore a high priority. It has been recently decided that BR will set up a Freight Business Unit.

SECTION VI: PERFORMANCE AND STRATEGY IN PUBLIC BANKING

Performance in public sector banking has generally been quite unsatisfactory in the last decade (Figure 7.10), and governance of the PFIs has been considerably unresponsive to their unfavourable performance outcome. The true financial performance outcome of the PFIs, adjusted for shortfalls in loan loss provisioning, has been significant cumulative losses, amounting to taka 65 billion (2.2 per cent of GDP) during 1991–2003. The NCBs and SDBs continue to suffer from high and significantly understated capital shortfall,
representing a major source of contingent liability for the government. The NCBs' estimated capital shortfall, based on a special evaluation according to IAS, deteriorated during 1996–2002. This is apparently linked to the deterioration in the proportion of non-performing loans in their portfolio up to the late 1990s. This proportion has been much higher in Bangladesh than in other developing countries. There has, however, been an improvement in the proportion of non-performing loans (NPL) reported by NCBs in recent years, partly reflecting loan write-offs and scheduling but also some improvement in cash loan recovery. Poor operational performance of manufacturing SOEs and their default in debt servicing on loans from PFIs contributed partly to the high proportion of NPL. This has imposed a budgetary cost in the form of recapitalization and loan repayment to banks by the government, estimated at around taka 50 billion so far. Some of the burden of default by SOEs has been passed on to the PFIs through low-interest bonds and inadequate recapitalization. Quasi-fiscal activities, like ceiling on lending rates in some sectors and loan waivers in the last decade, without adequate budgetary compensation, have contributed partly to PFIs' losses.

SECTION VII: SOE REFORM AGENDA

Why did SOE reforms not gather pace in the last decade even in the face of poor SOE performance? Has this been due to inadequate technical capacity or experience or political readiness or opposition by vested groups? Complacent views about SOE performance and objections to their reforms in some areas, including corporatisation, functional unbundling, manpower rationalisation, private participation and divestiture, have been expressed within the government, SOEs, academic community and interest groups. The

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\text{Adjusted Cumulative Loss} = \text{Loss} + \text{Shortfall}
\]

Figure 7.10 Trends in Reported and Adjusted Profit/ Loss of Public Financial Institutions

The official accounts of PFIs do not provide a true picture of their financial position because of short provisioning for loan loss.
rationale for privatisation has been questioned on grounds of its perceived unfavourable outcome, particularly in terms of immediate job loss resulting from retrenchment or closure of privatised enterprises (see for example Sobhan et al. 1998). Questions have been raised about the capacity of the private sector to undertake the activities to be relinquished by the public sector, and about their motive for buying the entities. The case for government’s continued involvement in some commercial activities has also been supported on grounds of strategic considerations (e.g. jute manufacturing).

The assessment in this paper of the outcome of SOE operations clearly suggests that the above reservations do not constitute a convincing case for maintaining the status quo. In the context of the country’s massive underemployment and poverty, the estimates of high loss per employee suggest that running chronically unprofitable SOEs is a highly costly and unsustainable means of providing employment. In addition, many of the privatised entities have been restructured into other business activities, leading to some new job creation. The experience of SOE reforms in Bangladesh also suggests that the government has been able to pursue reform measures when it has been able to muster adequate political will to do so. It seems that in most areas of reform, progress has not taken place primarily because of mixed views within the bureaucracy and political leadership, which has contributed to inadequate government commitment to pursue reforms, as well as due to opposition by interest groups in the SOEs. Support by other sections of society for a high level of state intervention in economic activities and reservations about structural reforms of SOEs could have reinforced such a complacent stance. A segment of the workforce has been able to influence management and oppose or slow down the pace of reforms. This group is much more organised and influential, compared to the large majority of potential beneficiaries who stand to gain from reforms.

Substantial SOE reforms have already been initiated in a number of important areas since FY 02. The government has obtained a strong mandate to improve the management of the economy, among other tasks, and now has a unique opportunity to muster the political will to move ahead with the implementation of the unfinished SOE reforms. Economic recovery and faster poverty reduction will depend crucially on these reforms, which are in the interest of the majority of the electorate. Given the substantial backlog of unfinished structural adjustment, this is an opportune time to gear up the SOE reform agenda initiated since FY 02. Much will depend on how this process is managed in the run up to the next parliamentary elections, and how effectively the momentum might be speeded up after election.

Where should be the focus of SOE reforms in Bangladesh? Experience suggests that no single component of reform has by itself worked. The countries that have made the most progress in SOE reforms are those that
have pursued a comprehensive strategy of divestiture, competitive private participation, efficient pricing, hard budget constraints, improvements in the business relationship between SOEs and government, and financial sector reforms simultaneously. Bangladesh will need to follow the same route. The unsatisfactory performance outcome of SOEs can be attributed to operational inefficiencies, sector policies, quasi-fiscal activities, institutional constraints and governance failures, and actions will therefore be needed on many fronts. Well-conceived actions will be required in key areas of policy and management of SOEs. Some of the needed actions are not unknown but have just not been pursued seriously in the past. Many of the elements of the reform agenda in key areas of public sector activity – notably power, gas, petroleum, telecommunications, ports, urban water supply, aviation, railways and banking – have been identified through various sector assessments sponsored by the government and donors. Building on the existing sector assessments and lessons of experience, comprehensive sector development strategies and action plans will need to be adopted and implemented in various sectors. Key policy issues and institutional problems will need to be addressed for the entities in a number of important areas.

Actions are needed in five broad areas of SOE reform. These are: (i) improving the fiscal strategy for SOEs, including enforcing a hard budget constraint; (ii) rationalising the domain of public sector activities through closure of inefficient capacity and divestiture of business activities; (iii) promoting efficient sector development and public and private participation through sector restructuring, rationalising sectoral policy regime and improving the regulatory environment; (iv) improving cost recovery, manpower and compensation policies, and corporate governance and management; and (v) improving performance of public banks and promoting private participation in banking.

- **Fiscal strategy**: The inefficient operations of SOEs represent a major source of contingent liability for the government and a potential threat to macroeconomic stability. In the context of the significant fiscal cost and the competing claims on budgetary resources for expanding coverage of provision of public goods, the fiscal strategy for SOEs needs rethinking. The actions initiated to rationalize budgetary financing of SOEs and apply a hard budget constraint on them will need to be instituted. Access to budgetary resources will need to be linked to the achievement of objectives of SOE reforms, including divestiture of business activities and improved performance of entities to be retained in the public sector. Other issues warranting attention include: critical questioning of the public sector rationale and priority of all new SOE investment proposals; consistent and transparent accounting of budgetary
subsidiary, transfers, and taxes; avoiding quasi-fiscal financing to achieve non-commercial objectives; making sovereign guarantees transparent; taking a guarded approach to use of suppliers' credit; reviewing lending and on-lending terms for SOEs and action plan to improve recovery of debt service liability (DSL) from SOEs.

- **Rationalising domain of public sector activities**: Excess and inefficient capacity will need to be eliminated to facilitate divestiture of commercial activities. There has been good progress in the past two years in downsizing of manpower and closure of unviable manufacturing entities. The government has decided to assume the long term debt liabilities of enterprises to be privatized and responsibility for meeting cost of manpower separation in order to facilitate restructuring and divestiture of SOEs. Actual progress in divestiture in recent years has nonetheless been very limited. The bid offers obtained through tenders have fallen short of government's expectations. In the interim period and until an effective approach to privatisation is found, the government is pursuing a phased approach to downsizing through partial closure by separating employees of ongoing entities. A major challenge for the government now is to explore and decide on an effective strategy for disposal of public enterprises through divestiture, vis-à-vis, liquidation, and develop the institutional capacity for efficient disposal of the entities and promotion of efficient use of their assets. One key institutional issue that is being debated and needs to be resolved soon is whether the privatisation commission or the line ministries will be responsible for carrying out liquidation of SOEs that cannot be divested easily. It is also vital that unrealistic reservation prices of SOEs should not constrain the disposal of the entities because the opportunity of delay is likely to be high.

- **Promoting efficient sector development and public and private participation**: The incentive regime in all major sectors will need to be rationalised by improving the policy, legal and regulatory frameworks for promoting efficient sector development. In some key activities like power, gas, petroleum, telecommunications, railways and urban water supply, public sector presence is likely to continue in the foreseeable future. It is vital that the incentive regimes in these areas be improved adequately to promote private participation, including public-private partnership, in operations, management, maintenance and distribution. Good progress has been made in this regard with the improvement in

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6 The government is undertaking a programme, with World Bank assistance, to develop the land and facilities of closed/liquidated enterprises into industrial parks and allocate them to worthwhile activities so as to promote enterprise growth and job creation.
seCTORAL POLICIES IN A NUMBER OF AREAS, NOTABLY ENERGY, TELECOMMUNICATIONS AND BANKING. IN ADDITION, REGULATORY ENTITIES HAVE BEEN ESTABLISHED IN TELECOMMUNICATIONS AND ENERGY, AND BANGLADESH BANK'S REGULATORY AUTHORITY AS WELL AS CAPACITY HAVE BEEN STRENGTHENED. THE PROCESS OF RESTRUCTURING AND UNBUNDLING, PARTICULARLY FOR ALL ENERGY SECTOR ENTITIES, WILL NEED TO BE COMPLETED EXPEDITIOUSLY SINCE THIS IS CRUCIAL FOR EFFICIENT PRICING, PRIVATE PARTICIPATION AND MOBILISATION OF CAPITAL FOR INVESTMENTS, AND HENCE IMPROVED COVERAGE AND QUALITY OF SERVICES.

**Improving cost recovery, manpower policies and corporate governance and management:** This is crucial for recovery of performance of the entities to be retained in the public sector for strategic reasons or grounds of market failure. Prospects for restoring the viability of entities in energy and other public utilities, and expansion and improvement of services will depend critically on progress in improving cost recovery. Cost recovery will need to be improved by introducing economic or cost-based pricing, reducing system loss and improving billing and revenue collection. Pricing of tradable products (e.g. petroleum products, fertiliser and sugar) will need to be linked to movements in import parity prices, and those of non-tradable services linked to the cost of supply to various categories of consumers (e.g. gas and power) or competitive world prices (e.g. telecommunications). A comprehensive action plan will need to be implemented to curb non-technical loss, and improve billing and collection significantly for gas, power, water supply and telephone services. Manpower will need to be rationalised to address overstaffing as well as problems of skill mix, while wage setting will need to be decentralised, initially at the corporation level and ultimately at the plant level. Decisions regarding the future of entities with shrinking or redundant role (e.g. BADC) will also need to be made expeditiously. Much of the unfavourable outcome of SOEs is a reflection of underlying governance failures, and this will demand strong political support to improve performance. A major challenge, therefore, will be to put in place responsive and accountable corporate governance and management, which are key to improved performance of SOEs. Participation of private sector representatives in SOEs' Boards will not contribute to better management and performance of the entities unless they are effectively empowered, and such participation is truly effective in decision-making, rather than symbolic, and incentives and accountability mechanisms for better performance are instituted. Efficient oversight of the government as the shareholder of entities to be retained in the public sector within the framework of full operational autonomy of the SOEs and their accountability for achieving commercial objectives will be vital.
Transforming Bangladesh into a Middle Income Economy

- **Strengthening regulatory capacity of Bangladesh Bank and improving performance in public commercial banking:** The efficiency and management of the NCBs and SDBs needs to be improved by decisively implementing the banking reform agenda, much of which has already been identified. Notable progress is being made in implementing reforms in a number of important areas. The recent passage of legislation in banking, providing operational independence to Bangladesh Bank and its regulatory control over the NCBs and SDBs is a welcome development, and the challenge will be to institute these policy improvements so as to achieve a noticeable improvement in outcomes. Given the importance of a strong capital base for the financial health of commercial banks, in the public and private sectors alike, the enhancement of capital adequacy requirements has been a step in the right direction. Other ongoing and planned reform initiatives include – tighter prudential regulations on loan classification, exposure limits and provisioning, consistent with international practice, improvement in various areas of regulation to improve governance of commercial banks, particularly the NCBs, closure of a number of surplus NCB branches, preparation to privatise the smallest NCB and activities to help restructure the other three inefficient and under-capitalised NCBs with the help of private management advisers and over time implement the detailed resolution strategy, including possible divestiture, to revive the viability of the entities. Some other needed areas of actions include – close monitoring of PFIs loans to SOEs and avoiding of directed credit, continued rationalisation of manpower and bank branch network, upgrading technical and managerial skills of the PFIs through an open and competitive recruitment process, and instituting accountability for performance of NCBs and SDBs, through performance contracts or MOUs between the government and the senior management and boards of these entities.

**SECTION VIII: CONCLUSIONS**

The SOE reform agenda constitutes an important component of the country’s poverty reduction strategy. Given the large number of people living in poverty, the urgency of a decisive stance on implementing the unfinished SOE reform agenda – particularly in the context of poor performance of SOEs, backlog of sector underdevelopment, limited access to services by the poor, high costs

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7 An interim poverty reduction strategy paper entitled ‘National Strategy for Economic Growth, Poverty Reduction and Social Development’ was completed by the government in March 2003 and the preparation of the full PRSP is underway and planned to be completed by December 2004.
of public provision and associated economic risks, emerging opportunities for private participation and the need to prioritise the use of public resources for provision of public goods to promote faster growth and poverty reduction — could hardly be overemphasised.

The SOE reform agenda should be pursued as part of a broader agenda to accelerate poverty reduction — by removing constraints on efficient resource allocation and private sector development in key sectors and facilitating growth and job creation, and freeing up public resources from SOEs for use in priority areas of public provision — particularly human development, programmes for the poor and key areas of infrastructure where private investment is unlikely. Such a reallocation of public resources will constitute an important element of Bangladesh’s poverty reduction strategy.

The development strategy and governance in all key sectors will need to respond aggressively to the challenge of rapid and efficient sector development if economic opportunities for the poor, particularly in terms of efficient access to energy, infrastructure and utility services and inputs, as well as basic public goods, are not to be lost in this decade. The optimal combination of public and private provision of services will need to be managed in a financially efficient and fiscally rational manner, taking full advantage of the opportunities of efficient private participation, in order to achieve that objective. A noticeable recovery in macroeconomic stability in recent years provides a favourable environment for pursuing these reforms.

These reforms will need to be carried out with a human face, in consultation with relevant stakeholders, supported by adequate safety nets. In areas where mill closure and privatisation have proved to be necessary, leading to loss of employment, manpower separation will need to be managed sensitively, taking into account the legitimate concerns of workers who might be affected adversely. Safety nets, under a voluntary separation scheme (VSS), with compensation for redundancy, have been supported for the separated workers and employees of SOEs to help mitigate such concerns. The government has had a policy in place since the early nineties of assuming all financial liabilities owed by SOEs to their separated employees. Sample surveys of separated workers of SOEs have been carried out in order to assess their current livelihood and monitoring is planned for the future. Programmes of retraining and counselling are being undertaken in order to meet their needs.

In the context of the past experience in carrying out training programmes, it is important that the services provided are demand driven, and linked to business prospects and skill requirements in the job market. There is also cross-country experience in this area from which Bangladesh could benefit in designing and implementing safety nets to help the separated workers.

8 Ownership of some enterprises has been transferred to workers (e.g. 8 mills in the textiles sector), but its outcome has not yet been evaluated.
REFERENCES


PART III

Making Growth Work for the Poor
Main Income Sources and Assets of the Poor

Rinku Murgai and Salman Zaidi

SECTION I: INTRODUCTION

Part one of this Book noted the good progress Bangladesh made in reducing poverty since independence and especially in the 1990s. However, with over 60 million people still below the poverty line, accelerating the pace of poverty reduction remains Bangladesh's central development challenge. Respectable as its economic performance has been in recent years, it will have to be improved further for the country to achieve its stated poverty reduction objectives. Faster progress at poverty reduction will require sustained efforts to not only accelerate economic growth, but also to devise better ways to ensure that the poor can reap its benefits.

Devising strategies to accelerate pro-poor growth requires knowledge of the main activities and sectors from which poor people derive their livelihood, both to help them build key assets needed to raise their incomes as well as to provide an enabling environment to help raise returns to these assets. The problems of poverty in Bangladesh, as elsewhere, reflect underlying disparities in both the distribution as well as returns to assets between the poor and the non-poor. This chapter reviews the differences in the sources of income and disparities in asset ownership and returns in Bangladesh. Section I first briefly reviews Bangladesh's progress in accelerating growth and reducing income-poverty during the 1990s. Sections II and III provide profiles of the main sources of income and assets of Bangladeshi households using data from the 2,000 Household Income and Expenditure Survey (HIES). Finally, Section IV reports regression results that examine how asset ownership (both ownership of private assets and access to public assets) is related to poverty.
SECTION II: GROWTH AND POVERTY REDUCTION DURING THE NINETIES

Following the fairly wide-ranging reforms introduced during the 1980s and reinforced during the early 1990s, the rate of economic growth in Bangladesh has risen steadily. Average GDP growth increased from 2.8 per cent in the 1970s to 3.7 per cent in the 1980s further to 4.4 per cent in the first half and to 5.2 per cent in the second half of the 1990s. Moreover, slower population growth rate meant that average per capita income grew at about 3 per cent per annum during the 1990s, twice the contemporary gains of low and middle income countries. Economic growth was most robust in the industrial sector, which increased in importance from 21 per cent to 26 per cent of GDP, with its real GDP rising by an impressive 86 per cent during the nineties (Figure 8.1). The export-oriented readymade garment (RMG) sector recorded double-digit annual growth. The share of the services sector remained unchanged at about one-half of GDP, while agriculture – the slowest growing of the three sectors – declined in importance from 29 per cent to 25 per cent of GDP. Even
within the agricultural sector, however, notable achievements marked the period. The country attained food grain self-sufficiency in FY2000 and estimated aggregate production reached approximately 25 million tons.

Along with higher growth, Bangladesh also saw significant reduction in the incidence of poverty, though not necessarily in the absolute number of the poor (Figure 8.2). The most commonly used measure of poverty is the 'headcount' rate, or determining the proportion of the country's population whose level of consumption falls below the poverty line — the level at which basic human needs are met. Similarly, the extreme poor are defined as those whose consumption level falls below the lower 'extreme poverty line'. Estimates computed for Bangladesh following this methodology show that poverty declined by about 9 percentage points over the 1990s. However, income inequality also rose considerably over this period (Table 8.1).

**Table 8.1** Trends in Poverty and Inequality Measures

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>Headcount Rate:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>58.8</td>
<td>51.0</td>
<td>49.8</td>
<td>42.7</td>
<td>34.4</td>
<td>33.7</td>
</tr>
<tr>
<td>Urban</td>
<td>44.9</td>
<td>29.4</td>
<td>36.6</td>
<td>23.3</td>
<td>13.7</td>
<td>19.1</td>
</tr>
<tr>
<td>Rural</td>
<td>61.2</td>
<td>55.2</td>
<td>53.0</td>
<td>46.0</td>
<td>38.5</td>
<td>37.4</td>
</tr>
<tr>
<td>Gini Coefficient:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>0.259</td>
<td>0.302</td>
<td>0.306</td>
<td>0.272</td>
<td>0.315</td>
<td>0.318</td>
</tr>
<tr>
<td>Urban</td>
<td>0.307</td>
<td>0.363</td>
<td>0.368</td>
<td>0.311</td>
<td>0.369</td>
<td>0.370</td>
</tr>
<tr>
<td>Rural</td>
<td>0.243</td>
<td>0.265</td>
<td>0.271</td>
<td>0.251</td>
<td>0.267</td>
<td>0.275</td>
</tr>
</tbody>
</table>

*For more details, see World Bank 2002.*
The growth-incidence curve during the 1990s (Figure 8.3), which shows the growth rate of real per capita consumption for different groups ranked by level of income, illustrates clearly how the top-fifth of the population experienced considerably higher increases in income compared to the rest of the population. Had growth benefitted all groups equally, poverty would have declined by 17 percentage points, or almost twice the observed decline over the period. For poverty reduction, what matters is not just high growth, but also the question of who benefits from this growth.

![Figure 8.3 Growth Incidence Curve for Bangladesh, 1991-92 to 2000](image)

Although average per capita consumption increased much more in urban as compared to rural areas during the nineties, the headcount rate declined by an equivalent magnitude in both sectors. In fact, alternate measures of poverty – which focus on the depth and severity of poverty – suggest that rural areas experienced greater reductions in poverty than urban areas. What explains this contrasting performance across the two sectors in Bangladesh? Urban areas had much higher growth in average incomes, but the growth was largely concentrated amongst the relatively affluent, considerably increasing inequality. What made a similar rate of poverty reduction possible in rural areas, despite slower growth, was a growth process that appears to have been relatively more broadly based and pro-poor than in urban areas (Figure 8.4).

**SECTION III: PROFILE OF MAIN SOURCES OF INCOME**

Clearly, devising strategies to accelerate pro-poor growth requires knowledge of the main activities and sectors from which poor people derive their livelihood, both to help them build key assets needed to raise their incomes as well as to provide the enabling environment to help raise returns to these assets. The 2000 HIES is the first survey conducted by BBS in Bangladesh that contains extensive modules on total earnings from different income sources as well as the main assets owned by households. For the purposes of
this analysis, total household income earned has been classified into income from daily wage work, salaried employment, agriculture (including fisheries and livestock), non-farm self-employment activities, and ‘other’ income (remittances, rental of property, investments, etc.).

**Per cent of Population Ranked By Per Capita Expenditures**

Comparing sources of income across the income distribution shows that households in Bangladesh pursue a broad range of activities to earn their livelihoods. Even within any single income decile, not only do earning strategies vary extensively across households, but even in the same household different members engage in various different activities over time and across seasons (Figure 8.5). The data show that 54 per cent of households get income from more than one source, defined broadly as agricultural wages, non-farm wages, family business, and agricultural self-employment. Among households for whom agricultural or non-farm wage labour is the main source of income, about 40 per cent also derive some income from non-wage agriculture. Clear
differences in the importance of alternative income generation strategies also mark the behaviour of rich and poor. The starkest difference is in the tremendously high reliance on daily wage labour among the lower income groups and by contrast, the negligible share that such work contributes to income among the relatively better-off. For the poorest-fifth of the population, daily wage income and salaries account for close to half of total income.

The importance of daily wage labour for the poor is evident in both rural and urban areas (Figure 8.6). About 70 per cent of the rural population earns income from agriculture. However, the share of income earned from this source is fairly constant across income deciles. While only about 46 per cent of the population residing in rural areas derive income from daily wage work, the poor in particular are highly dependent on this income source. Income from salaries and self-employment activities contributes a relatively larger share of income for the more affluent; about 20 per cent and 28 per cent respectively of the overall rural population derives some income from these two sources. In urban areas, close to half the population (48 per cent) rely upon salaried employment as a source of income, while about one-quarter (27 per cent) earn income from daily wage work. However, as in rural areas, labour income from daily wage work is a particularly important source for the poor. About two-fifths of the population (42 per cent) earn income from various self-employment activities, though these tend to be relatively more important income sources for the non-poor.

Figure 8.6 Sectoral Differences in Sources of Income
Agriculture provides a significant share of income for the poorer groups, so clearly policies and actions that help raise income from agriculture are likely to play an important role in reducing income inequality. However, a noteworthy feature in the income profile is the importance of the non-farm sector, i.e. all economic activities except agriculture, livestock, fishing, and hunting – as a source of income for households, including in rural areas and for the poorest income groups. Even for the poorest 10 per cent of the population in rural areas, about 40 per cent of income is derived from non-agricultural sources, either as wages earned in the non-farm sector, family business income, or remittances and other income (Figure 8.7).

Figure 8.7 Agricultural versus Non-Farm Sources of Income, Rural Areas

Profile of Household Asset Portfolios

Income differences between the rich and poor in turn reflect severe disparities in asset endowments across households. Regardless of the type of physical or financial asset, poorer households invariably tend to own less of it than the more affluent. 2000 HIES data indicate that the distribution of the taka value of various personal, financial and productive assets has an overall Gini of 0.7, far higher than either per capita incomes (Gini 0.4) or per capita expenditures (Gini 0.3). Regardless of the type of physical or financial asset, poorer households invariably tend to own less of it than the more affluent. A profile of household assets by per capita expenditure deciles reveals that poor households in Bangladesh do not look much different from the poor in other parts of South Asia. They tend to have low levels of education and limited access to land and to be highly concentrated in low-paying and physically demanding occupations. In both urban and rural areas, the poor have less access to modern amenities and services and also commonly reside in houses of inferior quality. A brief profile of household assets by per capita expenditure decile or poverty status is presented below:


**Education**

The 2000 HIES data shows considerable disparities within Bangladesh in the highest educational attainment amongst the population aged 15 years and older ranked by per capita expenditure deciles (Figure 8.8). On average, individuals in the top expenditure decile had seven times as many years of education as compared to individuals from the lowest decile.

Examining poverty status by educational attainment of the household head shows that close to three-quarters of the poor population lives in households where the head is illiterate (Table 8.2). The incidence of poverty

![Figure 8.8 Average Years of Schooling](image)

**Table 8.2 Poverty Incidence by Level of Education of Household Head**

<table>
<thead>
<tr>
<th>Highest educational attainment of head</th>
<th>Incidence of poverty</th>
<th>Percentage of Population</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Overall</td>
</tr>
<tr>
<td>Not literate</td>
<td>64.2</td>
<td>64.0</td>
<td>64.1</td>
</tr>
<tr>
<td>Less than primary</td>
<td>40.6</td>
<td>41.5</td>
<td>41.3</td>
</tr>
<tr>
<td>Completed Primary</td>
<td>31.1</td>
<td>43.6</td>
<td>40.9</td>
</tr>
<tr>
<td>Completed middle</td>
<td>22.4</td>
<td>34.1</td>
<td>30.7</td>
</tr>
<tr>
<td>Completed secondary</td>
<td>12.5</td>
<td>29.0</td>
<td>24.0</td>
</tr>
<tr>
<td>Completed higher Level</td>
<td>2.8</td>
<td>13.2</td>
<td>8.2</td>
</tr>
<tr>
<td>Overall</td>
<td><strong>36.6</strong></td>
<td><strong>53.0</strong></td>
<td><strong>49.8</strong></td>
</tr>
</tbody>
</table>

*Source:* 2000 HIES.
declines as household heads are progressively more educated, such that the incidence of poverty falls by half in urban households whose heads completed primary school and by almost one-third in similar rural households as compared to those headed by illiterates.

**Access to land**

As with educational attainment, the 2000 HIES shows distribution of land in Bangladesh to be highly unequal. Close to two-thirds of the population in the bottom quintile in rural areas owned less than 0.05 acres of land (Table 8.3). The incidence of landlessness falls steadily with income level, while average landholdings increases; the top-fifth of the population was almost 10 times as likely to own 2.5 acres or more as compared to the bottom-fifth. Apart from obvious gains due to larger area under cultivation, larger landholdings also allow greater scope for diversification into higher value-added crops, as well as permit greater economies of scale with regard to investments in irrigation and other technological innovations.

**Table 8.3 Land Ownership and Poverty: Rural Bangladesh**

<table>
<thead>
<tr>
<th>Per capita expenditure quintile</th>
<th>% Population by amount of land owned (in acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 0.05- 0.49</td>
</tr>
<tr>
<td>1</td>
<td>64.9 14.7</td>
</tr>
<tr>
<td>2</td>
<td>55.0 13.5</td>
</tr>
<tr>
<td>3</td>
<td>43.7 14.2</td>
</tr>
<tr>
<td>4</td>
<td>35.2 12.0</td>
</tr>
<tr>
<td>5</td>
<td>32.3 8.5 16.7 13.6</td>
</tr>
<tr>
<td>Overall</td>
<td>48.0 13.0</td>
</tr>
</tbody>
</table>


Housing conditions and infrastructure

Housing conditions and infrastructure for the poor in Bangladesh are also generally worse than for the rest of the population and in rural as compared to urban areas (Table 8.4). While 7 per cent of overall population has access to tapped water supplies in Bangladesh, only 2 per cent of the poor had access to this drinking water source. The vast majority of the rural population relies on tubewells for drinking water supply. Only 38 per cent of the poor lived in dwellings with proper toilet facilities compared to 71 per cent of the non-poor. Poorer access to drinking water supply and sanitation in turn make it more likely that the poor suffer from worse health than the non-poor. Access
to services and amenities such as electricity and phones is much lower among the poor compared to the non-poor, as well as among rural residents compared to those in urban areas.

Not only do the poor own less, they also have substantially different asset portfolios from richer households. In particular, poorer households hold a greater share of their asset endowments in relatively more liquid form such as livestock and financial assets (Figure 8.9). The poor are much less likely

<table>
<thead>
<tr>
<th>Table 8.4 Housing Conditions by Sector and Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amongst the population</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>Average number of rooms in dwelling</td>
</tr>
<tr>
<td>Average size of dwelling (sq. feet):</td>
</tr>
<tr>
<td>Population with supply water for drinking (%)</td>
</tr>
<tr>
<td>Population in dwelling with hard roof.** (%)</td>
</tr>
<tr>
<td>Population with proper toilet facilities:***(%)</td>
</tr>
<tr>
<td>Population living in electrified dwelling (%)</td>
</tr>
<tr>
<td>Population living in dwelling with telephone: (%)</td>
</tr>
</tbody>
</table>

Notes: * Excluding bottom and top one per cent of the population. **i.e. cement, corrugated iron sheets, wood, tiles etc. ***i.e. excluding those using temporary latrines or open fields.

Source: 2000 HIES.

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2 The figure excludes owner occupied housing and agricultural land which in terms of total value are by far the most important assets for households across the wealth distribution.
to own business assets. These differences in portfolios reflect not only differences in access to investment opportunities (e.g. due to credit constraints), but also the compulsion on poor households to seek safer but lower-returns, to refrain from profitable but non-divisible investments, and to rely on costly strategies for smoothing consumption (e.g. through distress sales of liquid productive assets).

The varied range of income generation strategies and asset holdings has several implications for designing an effective poverty reduction strategy. First, it emphasises that no silver bullet will cut poverty. Rather, development interventions need to take different contexts and classes of households into account at the same time that they bolster an environment that opens opportunities to the poor and lets them turn their own specific endowments and circumstances to advantage. Secondly, it is precisely because of this heterogeneity in the context of asymmetric information between households and the government that decentralisation and participation – which enable people to reveal their demands for intervention and hence shape the
development process – are important. And finally, heterogeneity illustrates why growth in itself may not assure poverty reduction. Growth will always be a precondition for the elimination of poverty, but policymakers need to also take into account the nature of growth and the variegated potential of households and individuals to participate in and benefit from an expanding economy.

SECTION IV: ANALYSING THE CORRELATES OF POVERTY

In order to better understand the role of key private and public assets that are essential for poverty reduction, we use a regression model to explore how various household and community characteristics are correlated with per capita expenditures, separately for rural and urban areas. The regressions include geographical identifiers that control for differences across communities, leaving the household variables to account for differences in expenditure levels within communities. At the outset, it is important to note that although theory predicts that many of the variables included in the analysis do indeed contribute to poverty reduction, the statistical relationships should be interpreted as correlates and not as determinants since causality can run both ways for some variables. In addition, the analysis is limited by the variables available at the household and community level in the 2000 HIES.

Education

The higher the educational attainment of the household head, the less likely the household is to be poor. For instance, in rural areas, expenditures of people living in households in which the head had completed primary education were 10 per cent higher than those who lived in otherwise similar households whose head was uneducated (Figure 8.10). However, given the non-linearity in returns to education, the poor derived lower returns from education. As the figure shows, secondary and tertiary education had an even stronger association than primary education with expenditure levels. A rural household whose head had completed secondary education had 31 per cent higher per capita expenditure than a household with an uneducated head. Also note that gains from education were larger in urban than in rural areas, possibly reflecting the differences in income generation opportunities for skilled workers across the two sectors.

Land

Comparing expenditure levels across different land ownership categories, after controlling for other household characteristics, we find a strong association between land ownership and poverty. Compared to a landless rural household, a household with less than half an acre had 7 per cent higher
expenditure, and a household with more than 2.5 acres had 44 per cent higher per capita expenditures (Figure 8.11). Expenditure gains in urban areas also rise as the size of the landholding changes, but as one would expect, the rate of increase across different landowning categories is not as sharp. Above 1.5 acres, households have 27 per cent higher expenditure than the landless.

**Family Business Assets**

Compared to rural households with family business assets less than taka 5,000 (or no family business), households with a business worth taka 5 to 100,000 had 17 per cent higher per capita expenditures, while those with a business worth taka 100,000 or more had 38 per cent higher expenditure levels. Returns to business assets were found to be of similar magnitude in urban areas as well. Overall, self-employed households in Bangladesh that had business assets worth taka one hundred thousand or more had per capita expenditures almost
three times as high as self-employed households with business assets less than taka five thousand. Disparities in business asset ownership between the poor and non-poor are perpetuated across generations as a large share of these business assets tend to inherit it, rather than purchase with credit or from the household’s own savings.

**Marital Status**

In both urban and rural areas, per capita expenditure levels in households headed by females who were currently married were significantly higher (between 18 and 20 per cent) than in household headed by males (Figure 8.12). This could potentially be due to receipt of remittances from the migrant spouse in such households. However, not all female headed households were better off. In rural areas, per capita expenditure levels in female headed households, where the woman was either widowed, divorced or separated from her spouse were about 11 per cent lower than levels in a household headed by males. Such households in urban areas, on an average, did not have significantly higher expenditure levels than male headed households. Distressed female-headship, therefore, appears to be a useful proxy for targeting poverty interventions in rural areas.

**Geographic Effects**

Geographic identifiers in the per capita expenditure regressions attract significant coefficients, even after controlling for household characteristics. Differentials in per capita expenditure due to geographic effects are considerable, suggesting that the same, observationally equivalent, household is poor in one place but not another. High payoffs could potentially be reaped through investments designed to improve area characteristics.
For the rural sample, as we have information on various community-level characteristics, we can also examine what aspects of area characteristics give rise to geographic effects. Table 8.5 presents the percentage increase in per capita expenditure associated with the community characteristics, after controlling for household characteristics.

The strongest correlates of expenditure levels and community characteristics are indicators of infrastructure. Even after controlling for household characteristics, individuals living in communities that have electricity and phones had between 6 to 12 per cent higher expenditure than those living in villages without such services. The degree of isolation, as

<table>
<thead>
<tr>
<th>Variables</th>
<th>Per cent change in per capita expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructure and access to markets</strong></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>5.7</td>
</tr>
<tr>
<td>Phone</td>
<td>12.4</td>
</tr>
<tr>
<td>Distance to bus stop (km)</td>
<td>-0.5</td>
</tr>
<tr>
<td>Distance to Dhaka (km)</td>
<td>Ns</td>
</tr>
<tr>
<td><strong>Access to natural assets</strong></td>
<td></td>
</tr>
<tr>
<td>Beel</td>
<td>3.3</td>
</tr>
<tr>
<td>Forest</td>
<td>Ns</td>
</tr>
<tr>
<td>Khas</td>
<td>2.3</td>
</tr>
<tr>
<td>Grazing</td>
<td>Ns</td>
</tr>
<tr>
<td><strong>Diversification</strong></td>
<td></td>
</tr>
<tr>
<td>Main economic activity females: NAG</td>
<td>3.8</td>
</tr>
<tr>
<td>Main economic activity: NAG</td>
<td>Ns</td>
</tr>
<tr>
<td>One crop land most predominant</td>
<td>5.2</td>
</tr>
<tr>
<td><strong>Presence of banks, NGOs and cooperatives</strong></td>
<td></td>
</tr>
<tr>
<td>Krishi bank</td>
<td>-14.8</td>
</tr>
<tr>
<td>Grameen</td>
<td>Ns</td>
</tr>
<tr>
<td>BRAC</td>
<td>-3.9</td>
</tr>
<tr>
<td>Proshika</td>
<td>-5.4</td>
</tr>
<tr>
<td>Farmers cooperative</td>
<td>Ns</td>
</tr>
<tr>
<td>B.S.S.</td>
<td>3.9</td>
</tr>
</tbody>
</table>

*Note:* The estimates measures the percentage increase in per capita expenditure associated with each variable, controlling for household characteristics. Ns means not significant at 10 per cent.

*Source:* World Bank Staff Estimates from 2000 HIES Rural Sample.
measured by the distance to the nearest bus stop, accounted for a significant but small part of the differences in expenditure levels across communities. Access to natural assets such as beels (ponds) and khas land was found to have a positive impact on expenditure levels. Such resources can be an important source of livelihood for the poor as has been extensively highlighted in the literature on poverty in Bangladesh. For example, the Consultations with the Poor study (Nabi et al. 2002) reports that in two of the villages covered, access to khas land was highlighted by respondents as an important means of moving out of poverty.

Similarly, the extent of diversification into non-farm activities also appeared to matter: people living in villages where the main activity of females was outside agriculture had 3.5 per cent higher expenditures than those living in villages where agriculture was the predominant income generation activity. Comparing the importance of the non-farm sector as a source of livelihood across communities shows that availability of basic infrastructure and non-farm sector work are highly correlated in Bangladesh. For instance, localities where commercial electricity connections were available were more than four times as likely as others to report small cottage industries as one of the main economic activities. Likewise, the transport and services sector were also more likely to be reported amongst the main economic activities in communities with relatively better infrastructure. The strong effects of these community characteristics on incomes indicate that investments designed to improve infrastructure and foster non-farm growth should play an important role in poverty reduction.

External Institutions and Indigenous Cooperatives

Service provision by agricultural banks and NGOs appears to be well-targeted to poor areas – communities in which services were provided by the major NGOs and the agricultural banks tended to have lower per capita expenditure levels. By contrast, indigenous cooperatives for the poor, such as the B.S.S. (Asset-less Cooperative Association) were associated with higher expenditure levels, suggesting that such organisations that help the poor may be less likely to be formed in the poorest areas.

SECTION V: SUMMARY AND CONCLUSIONS

This paper reviews the evidence on poverty in Bangladesh during the 1990s and the main sources of income and assets of the poor based on the 2000 HIES data. The main conclusions of the paper are:

- Households in Bangladesh pursue a broad range of activities to earn their livelihood. Thus, some 54 per cent of households get income from
more than one source, broadly defined as agricultural wages, non-farm wages, family business and agricultural self-employment.

- Among households for whom agricultural or non-farm wage labour is the main source of income, about 40 per cent also derive some income from non-wage agriculture.
- Lower income groups exhibit a very high reliance on daily wage incomes. Thus, for the poorest-fifth of the population, daily wage incomes and salaries accounts for close to half of the total income.
- About 70 per cent of the rural population earns income from agriculture.
- A noteworthy feature in the income profile is the importance of non-farm sector. Even for the poorest 10 per cent of the population in rural areas, about 40 per cent of income is derived from non-agricultural sources, either as wages earned in the non-farm sector, family business income or remittances and other income.
- Income differences between the rich and poor mainly reflect severe disparities in asset endowments across households. Regardless of the type of physical or financial asset, poorer households invariably tend to own less of it than the more affluent.
- The 2000 HIES data show considerable disparities within Bangladesh in the highest educational attainment amongst the population aged 15 years and older ranked by per capita expenditure deciles. On average, individuals in the top expenditure decile had seven times as many years of education as compared to individuals from the lowest decile.
- As with educational attainment, the 2000 HIES shows distribution of land in Bangladesh to be highly unequal. Close to two-thirds of the population in the bottom quintile in rural areas owned less than 0.05 acres of land. The incidence of landlessness falls steadily with income level – while average landholdings increases, the top-fifth of the population was almost 10 times as likely to own 2.5 acres or more as compared to the bottom-fifth.
- Housing conditions and infrastructure for the poor in Bangladesh are also generally worse than for the rest of the population and in rural as compared to urban areas. While 7 per cent of overall population has access to tapped water supplies in Bangladesh, only 2 per cent of the poor had access to this drinking water source. Only 38 per cent of the poor lived in dwellings with proper toilet facilities compared to 71 per cent of the non-poor. Access to services and amenities such as electricity and phones is much lower among the poor compared to the non-poor, as well as among rural residents compared to those in urban areas.
- Putting together these variables in a regression model shows the level of education, land ownership, level of family assets and availability of infrastructure (roads, electricity, phones) are all correlated with poverty reduction.
- Given the above, policies and programmes that create employment, improve education for the poor, improve their land holdings and other assets, improve agriculture, and improve infrastructure will all have a positive impact on poverty reduction.

REFERENCES


SECTION I: INTRODUCTION

Following years of slow growth, Bangladesh’s agriculture performed well in recent years, with real agriculture GDP increasing by an average of 5.1 per cent per year from 1996 to 2001. This growth reflects relatively high growth rates in crops and horticulture (4.6 per cent), forest activities (4.6 per cent) and fisheries (8 per cent) and is largely attributable to improved access to inputs, facilitated by domestic market liberalisation and increased factor productivity.

The analysis of sources of income for the poor in the previous paper showed that agriculture is a major source of income for the rural poor. It is not surprising, therefore, that rural poverty declined more rapidly in the 1990s than during the mid-1980s. Thus, the rural poverty rate declined by 8 percentage points over the 1990s, from 61.2 per cent in 1992 to 53 per cent in 2000 as compared with stagnation between 1986 and 92 (World Bank 2002). Nevertheless, rural poverty is still pervasive as the number of rural people still living below the poverty line is 53 million. This represents 85 per cent of the total number of poor in Bangladesh.

Aggregate data, however, cannot be entirely relied upon to pinpoint the specific policies and investments needed to alleviate rural poverty through agriculture growth and productivity. The incidence of rural poverty varies significantly by regions, which requires looking at this sources of disparity. This paper presents a regionally disaggregated analysis of agricultural growth and rural poverty trends in Bangladesh and examines the linkages between these two factors. To pinpoint the specific role of agriculture in rural poverty dynamics, the paper analyses the sources of rural income (especially farm versus non-farm), the extent of agricultural growth and the distribution of income in each region. Having identified the regions where agricultural growth
Transforming Bangladesh into a Middle Income Economy

has the greatest poverty impact, the paper then proceeds to identify the key drivers of agricultural growth. Econometric investigation suggests that macroeconomic stability, human capital, irrigation, mechanisation and environment factors (floods) are the major determinants of agricultural growth in Bangladesh.

The next section examines the profile and evolution of rural poverty in Bangladesh. The third section looks at the role of agriculture in the observed poverty trends. The fourth section analyses the determinants of agricultural growth in Bangladesh while the last section derives the policy implications of the study.

SECTION II: PROFILE AND EVOLUTION OF RURAL POVERTY IN BANGLADESH

Poverty in Bangladesh has declined significantly since the early 1990s, but it is still pervasive, with about half of the population living below the ‘food-based’ poverty line and about one-quarter subsisting in extreme poverty\(^1\) in the year 2000 (Table 9.1). The national poverty incidence declined from 58.8 to 49.8 per cent between 1992 and 2000, reflecting an 8 percentage points of both urban and rural poverty.\(^2\) This notwithstanding, poverty remains a predominantly rural phenomenon in Bangladesh, with 53 per cent of the rural population living in poverty. This represents a population of 53 millions or 85 per cent of the total number of poor in Bangladesh.

There are, however, wide variations in rural poverty incidence across Bangladeshi geographical regions.\(^3\) Despite a significant reduction in the

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\(^1\) Poor households are defined as those consuming less than 2122 cal/capita/day. Households consuming less than 1800 cal/capita/day are considered extremely poor.

\(^2\) The headcount index, \(P_0\), is the proportion of population with per capita expenditure below the poverty line. The poverty-gap, \(P_1\), estimates the average distance separating the poor from the poverty line, as a proportion of that line. Finally, the squared poverty-gap, \(P_2\), takes into account not only the distance, but also inequality among the poor.

\(^3\) To capture some of the regional diversities, six broad agro-ecological regions were constructed. These regions were created in accordance with several major criteria: consistency with broad agro-ecological zones, hydrological regions, division boundaries, and the need to limit the number of regions to get a statistically representative sample from the Household Income and Expenditure Survey (HIES 2000) for the region. The six regions defined are: (i) the northwest region which corresponds with Rajshahi division; (ii) the south Ganges flood plain region which contains Barisal district, as well as parts of Dhaka and Khulna divisions – areas south of the Padma (Ganges) river; (iii) the coastal region which is a complex and fragile natural ecosystem comprising the districts of Satkhira, Khulna, Bagerhat, Perijpur, Jhalokati, Bostuna, Bhola and Patuakhali. This region faces major problems of water drainage; (iv) north central region, defined as the parts of Dhaka division north of the Padma, a region similar to Rajshahi division, though with marketing advantages arising from its proximity to Dhaka city; (v) The eastern part of the country (Chittagong division) is split between the Meghna flood plain (the western part of Chittagong division) and the eastern hills regions.
1990s, the northwest area remains Bangladesh’s poorest region – the rural poverty incidence fell by 11 per cent over the 1990s but still remains 18 per cent higher than the national average (Table 9.2). Similarly, rural poverty fell by 13.7 per cent in the north central, making a significant dent on the incidence of poverty but still leaving 49 per cent of the rural population in this region below the poverty line. By scrapping poverty by almost one-third in the 1990s, however, the coastal region has now the lowest rural poverty incidence in the country (37 per cent). In sharp contrast with these three regions, south Ganges, the second poorest region (15 per cent of national average), enjoyed only a 1.7 per cent reduction in the poverty incidence over the 1990s while the Meghna flood plains region saw a stagnant poverty rate. The only region where poverty increased is the eastern highlands region. The small sample sizes in the latter make, however, this trend uncertain.

Table 9.1 Trends in Bangladesh’s Poverty Measures

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Headcount rate (PO)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>58.8</td>
<td>51.0</td>
<td>49.8</td>
</tr>
<tr>
<td>Urban</td>
<td>44.9</td>
<td>29.4</td>
<td>36.6</td>
</tr>
<tr>
<td>Rural</td>
<td>61.2</td>
<td>55.2</td>
<td>53.0</td>
</tr>
<tr>
<td>Poverty gap (P1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>17.2</td>
<td>13.3</td>
<td>12.9</td>
</tr>
<tr>
<td>Urban</td>
<td>12.0</td>
<td>7.2</td>
<td>9.5</td>
</tr>
<tr>
<td>Rural</td>
<td>18.1</td>
<td>14.5</td>
<td>13.8</td>
</tr>
<tr>
<td>Squared poverty gap (P2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National</td>
<td>6.8</td>
<td>4.8</td>
<td>4.6</td>
</tr>
<tr>
<td>Urban</td>
<td>4.4</td>
<td>2.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Rural</td>
<td>7.2</td>
<td>5.3</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Source: BBS and World Bank staff estimates.

In sum, analysis of rural poverty dynamics shows that despite an 8 percentage points decline over the 1990s, rural poverty remains pervasive, with 53 per cent of the rural population leaving below the poverty line in 2000. But trends in rural poverty have been uneven across regions, leading to a contrasted regional profile of rural poverty in the beginning of the new millennium:

- Rural poverty remains very high in the northwest, north central and south Ganges regions, despite a significant reduction in the first two regions;
- The coastal region now enjoys the lowest rural poverty incidence in the country thanks to an impressive reduction of poverty in the 1990s;
- While rural poverty stagnated in Meghna flood plains and increased in
Table 9.2 Regional Trends and Profile of Rural Poverty in Bangladesh

<table>
<thead>
<tr>
<th></th>
<th>Northwest</th>
<th>South</th>
<th>North</th>
<th>Meghna</th>
<th>Eastern</th>
<th>Coastal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FP</td>
<td>central FPLN hills</td>
<td>area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headcount rates, UPL*, 1991 (%)</td>
<td>73.7</td>
<td>62.4</td>
<td>63.0</td>
<td>49.3</td>
<td>29.4</td>
<td>66.5</td>
</tr>
<tr>
<td>Headcount rates, UPL, 2000 (%)</td>
<td>63.2</td>
<td>60.8</td>
<td>49.4</td>
<td>48.8</td>
<td>46.6</td>
<td>37.0</td>
</tr>
<tr>
<td>Changes in headcount rates, UPL, 1991–2000 (%)</td>
<td>-11</td>
<td>-1.7</td>
<td>-13.7</td>
<td>-0.5</td>
<td>17.1</td>
<td>-29.6</td>
</tr>
<tr>
<td>Changes in poverty gap, 1991–2000 (%)</td>
<td>-4.33</td>
<td>-2.8</td>
<td>-2.53</td>
<td>0.33</td>
<td>1.9</td>
<td>-4.46</td>
</tr>
<tr>
<td>Changes in the square of poverty gap, 1991–2000 (%)</td>
<td>-5.83</td>
<td>-2.73</td>
<td>-3.45</td>
<td>0.98</td>
<td>3.6</td>
<td>-7.98</td>
</tr>
</tbody>
</table>

Note: *UPL: Upper poverty line; For details regarding the calculation of the UPL, see World Bank 2002.
the eastern hills, poverty rates in these regions remain below the national average.

What has been the specific role of agriculture in the observed rural poverty trends? In principle, the impact of agriculture on poverty is strongest—the larger the share of agriculture in total income, the higher the rate of agricultural growth. However, (total) income distribution effects can offset the impact of agricultural growth as the poor may fail to capture the benefits of growth. To pinpoint the role of agriculture in rural poverty dynamics, it is thus necessary to analyse the sources of rural income, the extent of agricultural growth and the distribution of income by region.

**SECTION III: ROLE OF AGRICULTURE IN THE OBSERVED POVERTY TRENDS**

Agriculture is a major source of income in rural Bangladesh. According to Household Income and Expenditure Survey data (HIES 2000), agricultural income, i.e. sales of crops, livestock, and fisheries, and agricultural wages, accounts for 40 per cent of average rural household income. But the prominence of agriculture as a source of income and livelihood is more patent for the poor. Households in the bottom 20 per cent of the income distribution derive 48 per cent of their income from agriculture. For households in the top 20 per cent of the income scale, agricultural income accounts for 27 per cent of total income (World Bank 2003). The share of income from the agricultural wages component declines even more dramatically across expenditure quintiles, accounting for 29 per cent of the incomes of the poorest, but only 3.5 per cent of incomes of the top quintile.

The importance of agriculture in rural household incomes varies, however, considerably across regions (Table 9.3). Rural households are more dependent on agriculture for income in the northwest and south Ganges regions, the two poorest regions, than in the other regions. Income from agriculture accounts for 50 per cent and 43 per cent of total income respectively in northwest and south Ganges. In contrast, rural households in the eastern hills and Meghna flood plains regions are far more dependent on non-farm activities for income. They derive respectively 40 and 38 per cent of their income from non-farm activities, against only 24 per cent from agriculture. Rural households in the coastal and north central regions also predominantly derive their income from non-farm activities even if agriculture provides a sizeable share of total income.

The importance of agriculture in rural household incomes varies, however, considerably across regions (Table 9.3). Rural households are more dependent on agriculture for income in the northwest and south Ganges regions, the two poorest regions, than in the other regions. Income from
<table>
<thead>
<tr>
<th>Source of Income</th>
<th>Northwest</th>
<th>South Ganges</th>
<th>Coastal</th>
<th>North central</th>
<th>Meghna flood plain</th>
<th>Eastern hills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural income</td>
<td>50.51</td>
<td>43.27</td>
<td>32.04</td>
<td>36.84</td>
<td>23.93</td>
<td>23.91</td>
</tr>
<tr>
<td>of which: agricultural wages</td>
<td>22.52</td>
<td>17.97</td>
<td>14.09</td>
<td>15.63</td>
<td>10.54</td>
<td>11.2</td>
</tr>
<tr>
<td>of which farm income</td>
<td>27.99</td>
<td>25.3</td>
<td>17.95</td>
<td>21.21</td>
<td>13.39</td>
<td>12.71</td>
</tr>
<tr>
<td>Non-farm income</td>
<td>29.84</td>
<td>34.17</td>
<td>36.52</td>
<td>38.46</td>
<td>37.68</td>
<td>39.88</td>
</tr>
<tr>
<td>of which: non-agricultural wages</td>
<td>17.52</td>
<td>17.97</td>
<td>22.34</td>
<td>21.95</td>
<td>22.29</td>
<td>27.59</td>
</tr>
<tr>
<td>of which: enterprise income</td>
<td>12.32</td>
<td>16.2</td>
<td>14.18</td>
<td>16.51</td>
<td>15.39</td>
<td>12.29</td>
</tr>
<tr>
<td>Other income</td>
<td>19.65</td>
<td>22.55</td>
<td>31.44</td>
<td>24.7</td>
<td>38.4</td>
<td>36.21</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Poverty rate (headcount)</td>
<td>62.8</td>
<td>60.8</td>
<td>37</td>
<td>49.4</td>
<td>48.8</td>
<td>46.6</td>
</tr>
</tbody>
</table>

*Note: Other income includes rental income, local and foreign remittances, imputed value of house, and other transfers.*
agriculture accounts for 50 per cent and 43 per cent of total income respectively in northwest and south Ganges. In contrast, rural households in the eastern hills and Meghna Flood Plains regions are far more dependent on non-farm activities for income. They derive respectively 40 and 38 per cent of their income from non-farm activities, against only 24 per cent from agriculture. Rural households in the coastal and north central regions also predominantly derive their income from non-farm activities even if agriculture provides a sizeable share of total income.

Thus, while agriculture is of critical economic importance for the poor in Bangladesh, there are wide disparities in the dependence on agriculture for income across Bangladeshi regions. The dependence on agriculture for income is the highest in northwest and south Ganges regions. In contrast, the coastal, eastern hills, Meghna Flood Plains and north central regions are more dependent on non-farm activities for income, even though income from agriculture is significant (above 30 per cent) in the north central and coastal regions.

### Regional Agricultural and Total GDP Growth

Are the poverty trends of the 1990s consistent with the growth dynamics of the decade? We analyse here in some detail the regional patterns in agricultural growth and total growth. Table 9.4 summarises the trends of these indicators in the 1990s. All regions grew at a rate in excess of 3 per cent per year, except for the coastal region, which grew at only 1.7 per cent per year. South Ganges Flood Plain registered the highest in real agriculture growth, with an annual growth of 4.1 per cent in the period 1993-94 to 1997-98. Agricultural growth was above national average for Northwest, South Ganges Flood Plain and North Central Regions, where rural households derive a significant share of their income from agriculture.

The pattern of growth rates of total GDP by region is much different, however. Indeed, limited non-agricultural growth in the northwest and south ganges flood plain regions kept total GDP growth in these regions to only 4.4 and 5.4 per cent, respectively, in spite of rapid growth in agriculture. In contrast, spurred by rapid non-agricultural growth (both urban and rural) total GDP in the coastal region grew by 5 per cent, only slightly below the national average of 5.4 per cent (Table 9.4). Similarly, the eastern hills experienced a rapid non-agricultural growth leading to the highest growth in total GDP (6 per cent).

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4 Data availability has constrained the time frame of this analysis. Because regional total GDP growth rates were available only until 1998, we calibrated the time frame accordingly for consistent comparisons.
Table 9.4 Regional Difference in Agricultural and Total GDP Growth

<table>
<thead>
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</thead>
<tbody>
<tr>
<td></td>
<td>Northwest (F)</td>
<td>South Ganges (F)</td>
<td>North central (F)</td>
<td>Meghna FPLN (F)</td>
</tr>
<tr>
<td></td>
<td>9.6</td>
<td>11.7</td>
<td>6.6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3.4</td>
<td>4.1</td>
<td>3.7</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>4.4</td>
<td>5.3</td>
<td>5</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>1.03</td>
<td>1.02</td>
<td>1.02</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Note: * Wage rates are average daily real wage rate of agricultural male labour without food.
Source: Bangladesh Bureau of Statistics.
Distribution of Income Growth Across Rural Household Quintiles

To what extent poor in different regions have captured the fruits of agricultural growth in the 1990s? To respond to this question, we follow Ravallion and Chen (2001) and construct ‘regional growth incidence curves’ (Figure 9.1). These curves show the changes in real per capita expenditure over the 1990s for different groups ranked by level of income.5

As Figure 9.1 shows, all the segments of the population in all regions experienced an increase in real per capita expenditure over the 1990s, the rate of change varying between 6 and 40 per cent. However, the distribution of real income across quintiles was uneven across regions. In northwest, north central and south Ganges regions, the curves are U-shaped, indicating that the lowest quintile as well as the highest quintile in these regions had increased their real per capita expenditure relatively more than the middle class. With an average per capita increase of 13 per cent, the poorest quintile also fared better than the middle class in the coastal region. In sharp contrast, real per capita distribution was biased in favour of the richer parts of the population in the Meghna flood plains and eastern hills regions.

The crucial but insufficient role of agriculture in reducing rural poverty

Because most of the poor are still employed in agriculture, this sector plays a central role in reducing rural poverty in Bangladesh. In the northwest, north central and south Ganges regions where sales of agricultural products and agricultural wages provide a large share of total income, robust agricultural growth has allowed a significant reduction in poverty. The fact that the lowest quintiles in these regions have increased their income relatively more than the middle class has reinforced the poverty effect of agricultural growth. The still high level of poverty in these regions only reflects their initial conditions: the poverty levels were extremely high and deep in the early 1990s.

It is clear, however, that agricultural growth is insufficient to significantly attack poverty in some other regions of Bangladesh. The coastal region is a vivid example of this. Despite limited role of agriculture, spurred by rapid non-agricultural growth, total GDP in the coastal region grew by 5 per cent and allowed the largest rural poverty reduction among the regions. Similarly, in spite of strong agricultural growth, poverty stagnated in Meghna flood plains and increased in the eastern hills. In these two regions, where rural households also derive the bulk of their income from rural non-farm activities, the impact of agriculture was further limited by a skewed distribution of

5 See Ravallion and Chen (2001) for details regarding the mathematical derivation and properties of these curves.
income, since the real per capita distribution was biased in favour of richer parts of the rural population.

SECTION IV: BOOSTING AGRICULTURAL GROWTH IN BANGLADESH: WHAT ARE THE KEY DRIVERS?

As shown by Table 9.4, Bangladesh’s agricultural growth record has been impressive in the 1990s. We have also seen that agricultural growth has greatly contributed to reducing poverty in Bangladesh’s poorest regions. Given the still pervasive poverty in these regions, it is critical to identify the key drivers of agricultural growth in order to carefully implement policies that have the highest potential for boosting growth and reducing poverty in rural Bangladesh. This section looks at this issue. We briefly review literature on the determinants of agricultural growth and undertake an econometric analysis of the case of Bangladesh.

Determinants of Agricultural Growth

The empirical literature on the factors behind agricultural growth is abundant. Early researches have identified physical capital, infrastructure, human capital, research, extension, and rural population density as the major determinants of agricultural supply (Binswanger et al. 1987). Many recent studies of growth of agricultural output find similar results, with much focus, however, on the different contribution of factor inputs and total factor productivity (TFP) or technical change. Changes in factor inputs (land, labour, capital, etc.) appear to account for only about a half of agricultural output (Mundlak 1999). Thus,
about 50 per cent of change in agricultural growth is explained by TFP growth. Hence, a great deal of attention is paid to factors determining TFP.

Confirming the earlier findings of Antle (1983), many recent studies identify education, research and infrastructure as major determinants of TFP. In a recent monograph, Evenson, Pray and Rosegrant (1999) estimate the contribution of various factors to India's TFP and found that public research and extension are the two most important factors accounting for TFP growth, with irrigation coming next. In particular, investments in agricultural research and extension accounted for nearly three-fourths of the growth in productivity. Similarly Fan, Hazell, and Thorat (1999) show, using Indian data, that public expenditures for research and extension have had the largest impact on agricultural productivity growth, followed by rural roads, education and irrigation. In the same vein, Fan, Zhang and Zhang (2002) found that in China the largest contribution to agricultural productivity has come from research and extension, followed by education, rural telephones, rural roads, and electricity.

The relationship between factor inputs and TFP has also received much attention in recent years. Mundlak (1999) suggests that the empirical evidence points to the fact that the major way technology is incorporated into agricultural production is through physical capital. The same result is found in Mundlak, Larson and Butzer (1997). The underlying idea is that adoption of more advanced techniques (e.g. HYV seeds) takes time and resources. McGuirk and Mundlak (1991) show that the pace of adoption of the modern wheat and rice varieties in Punjab was largely related to the pace of expansion of irrigation facilities, infrastructure and fertilisers, all of which require resources. As such the pace of adoption is related to the scarcity or availability of capital. Without accompanying infrastructure (irrigation, roads), there could be an important lag between technological innovations in agriculture and overall TFP improvements. Murgai's (1999) finding for Punjab agriculture during and after the green revolution illustrates this point.

The various estimates in the literature are, however, hampered by the limited or inaccuracy of aggregate data for inputs such as labour, capital and infrastructure variables. Similarly, the interpretation of the contribution of several variables can be problematic, since for instance technological innovation may increase the elasticity of output to modern inputs, and TFP figures do not capture these effects (Murgai 1999). This notwithstanding, researchers like Mundlak have recently proposed innovative ways to pinpoint the drivers of agricultural growth.

**Drivers of Agricultural Growth in Bangladesh**

To assess the sources of agricultural growth in Bangladesh, we estimate a Mundlak-type Cobb-Douglas production function (Mundlak, 2000). The
originality of this model is the recognition that aggregate output is the sum of outputs produced by more than one technique, since adoption of more advanced techniques takes time and resources. The economic problem faced by producers involves then a decision on what techniques of production to employ in addition to their decision on the level of inputs. Optimisation under these circumstances, and after approximation, yields a Cobb-Douglas-like production function, which has as arguments the major inputs and a set of variables called ‘state variables’. State variables are variables such as human capital, infrastructure, and incentives that condition an effective adoption of technologies. The technical problems related to specification of estimation of a production function under this specific context are discussed in Mundlak (1988, 2000).

The dependent variable is the logarithm of agricultural value added, measured in 1995 constant prices. We introduced four categories of explanatory variables, expressed in logarithmic form:

- **Incentive variables** Real exchange rates, vis-à-vis, India (RER) and Bangladesh’s GDP deflators (inflation) are introduced to capture evolution in the incentive structure brought about by the broader macroeconomic environment.
- **Input variables** namely, the labour force in agriculture, net irrigated area and number of tractors, used as a proxy of capital.
- **Human capital and infrastructure** Human capital is proxied by adult illiteracy rates (education) and infant mortality rates (health). As for infrastructure, because of limited data, only production of electricity (availability of electricity nationwide) is introduced in the regression.
- **Environmental variables** capturing the effects of weather shocks (dummy for lower than normal years of rainfall) and natural calamities (dummy for flood and cyclone years).

Table 9.5 shows the results of the econometric estimations. The major drivers of aggregate agriculture output in Bangladesh appear to be irrigation, mechanisation, education, infrastructure, inflation and occurrence of flooding. The positive and significant impact of irrigation and mechanisation is consistent with the findings of the broad literature as well as that of some recent studies on crop production growth in Bangladesh. For instance, Asaduzzaman (2000) found a strong and positive impact of mechanisation of tillage on cropping intensity and crop production while Mandal (2000) highlighted the key role of irrigation on crop expansion. The positive impact of the education is consistent with findings in the literature. Education is critical to increase productivity and agricultural value added. Indeed agricultural growth requires change, including adoption of sophisticated new technologies and marketing practices, hence the critical role of education.
As expected, a stable macroeconomic environment (captured here by a low inflation) contributes significantly to agricultural growth. Finally, the negative impact of flooding on agricultural growth reflects the fact that about 80 per cent of Bangladesh is a flood plain and despite progress on coping mechanisms, flooding significantly and frequently disrupts production. A surprising result is the negative (though insignificant) impact on agricultural labour on aggregate production, but this may suggest the existence of important disguised unemployment (labour surplus) in agriculture.

Table 9.5 Determinants of Aggregate Agricultural Growth

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>-0.004</td>
<td>-0.44</td>
</tr>
<tr>
<td>Irrigation</td>
<td>0.36***</td>
<td>2.88</td>
</tr>
<tr>
<td>Mechanisation</td>
<td>0.49*</td>
<td>1.69</td>
</tr>
<tr>
<td>Illiteracy</td>
<td>-0.96***</td>
<td>-2.74</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>-0.20 ns</td>
<td>-0.97</td>
</tr>
<tr>
<td>Electricity</td>
<td>0.22 ns</td>
<td>1.49</td>
</tr>
<tr>
<td>Inflation</td>
<td>-0.26***</td>
<td>-3.01</td>
</tr>
<tr>
<td>Flood</td>
<td>-0.12 ns</td>
<td>-0.82</td>
</tr>
</tbody>
</table>

Note: The variables, in log, are expressed in first difference.

*** Significant at 1 per cent
**  Significant at 5 per cent
*   Significant at 10 per cent

These results are consistent with that of studies focused on rice. For instance, Hossain (1989) attributes the growth in rice production to the increase in the application of major inputs (HYV seeds, irrigation). According to Ahmed (2001), the availability of HYV seeds combined with increased small-scale private irrigation and fertiliser has been key in boosting productivity in the rice sector. In particular, these have allowed a seasonal shift of area in favour of high-yielding, irrigated and fertiliser-intensive boro rice grown during the dry (winter) season. Indeed, gradually, area under pre-monsoon rice (aus rice), susceptible to drought, and that under deepwater aman rice, susceptible to floods, have been reduced to give way to boro rice cultivation. Between 1989-90 and 1998-99, the share of boro in total rice area increased from 24 per cent to 35 per cent. Consistently, the share of boro in production increased dramatically from 35 per cent to 53 per cent in the same period. TFP in rice has reportedly increased by 1 per cent annually for the last two decades (Ahmed 2001).
SECTION V: POLICY IMPLICATIONS

The above analysis allows us to derive several policy implications:

• In attempting to enhance the income earning opportunities for the rural poor and specifically to remove the impediments to agricultural growth, one should be cognizant of regional differences in dependence on agriculture versus non-agriculture and regional differences in productivity constraints. As shown above, rural households in the northwest and south Ganges regions are highly dependent on agriculture for income. In contrast, rural households in Meghna flood plain, the eastern highlands and the coastal regions derive a significant share of their income from rural non-farm activities. Thus, a given rate of growth in agriculture is likely to have a bigger impact on income and poverty in northwest and south Ganges than elsewhere.

• Given large numbers of non-farmers in rural areas, agricultural growth alone will be insufficient to rapidly reduce poverty. In fact, the largest reductions in incidence and depth of rural poverty have occurred in the coastal regions that have enjoyed substantial non-agricultural income growth and only very modest gains in agricultural incomes. Further analysis of non-agricultural income sources, constraints and growth is crucial for understanding policy options to accelerate poverty reductions in the future.

• To further boost agricultural growth, continued investments in irrigation, water control, mechanisation, and human capital are key factors. As in the past, a rapid spread of green revolution technology for rice and wheat will be more favourable in the south Ganges, northwest and north central regions, where agro-ecological conditions are more favourable. The spread of green revolution technology through irrigation and mechanisation will be limited in Meghna flood plains and the coastal regions because the risk of flooding – cyclone is higher and the drainage relatively difficult.

• Furthermore, investment in better education is particularly important in the agriculture-dependent regions (northwest, South ganges and to a lesser degree, the north central region) to increase productivity and boost diversification towards non-rice crops, livestock and fisheries. A recent

6 To date, Bangladesh agriculture (particularly the crop sector) is characterised by weak diversity. Rice remains the dominant crop, accounting for 77 per cent of total value of production. For many individual farm households, rice is their sole source of crop incomes. This large share of agricultural GDP coming from rice to a large extent reflects the comparative advantage of rice given the agro-climatic characteristics of Bangladesh, where approximately 80 per cent of the country is a flood plain. Rice, thus virtually dictates the performance of the agricultural sector.
Bank report (World Bank 2003) has shown that education is an important determinant of diversification in Bangladesh.

• Because agricultural growth may translate into lower real prices received by net sellers, an export strategy should be devised to expand markets and increase income. In Bangladesh, growth in rice production in the 1990s has been accompanied by declining real prices (Appendix Figure A9.1). This real price decline unambiguously benefitted net buyers of this staple, including the poor landless and marginal farmers. However, since rice is not yet exported (due to inferior quality), real price declines lead to lower income for net rice sellers unless productivity increases dramatically. Exports can help prevent collapses in real prices as a result of growth.

• Bangladesh has enormous potential of plugging its small producers of vegetables, spices and poultry into some market niches (Singapore, Thailand, some middle-eastern countries) and into larger and more demanding markets (e.g. European Union).

• One finding of this report is the negative effect of inflation on aggregate agricultural growth. Price stability, as during the 1990s, would contribute to agricultural growth in Bangladesh. A sound macroeconomic policy is particularly crucial in the context of greater integration of Bangladesh to the world economy.

• Finally, in developing the strategy to promote agricultural and rural non-farm growth, it should be recognised that region-specific rural development strategies and public expenditure plans would be required, so as to take into account the differential regional potentials and initial conditions as illustrated in Appendices A9.1 and A9.2.

REFERENCES


H. Binswanger, M.C. Yang, A. Bowers and Y. Mundlak, ‘On the Determinants

7 The real price of this staple is an important channel through which agricultural growth affects poverty in Bangladesh. With a per capita rice consumption of 190 kg this country is the third world largest consumer of rice, after Burma and Vietnam (FAOstat). The staple provides more than 70 per cent of total calorie intake of the 140 million Bangladeshis. At the same time, two-thirds of Bangladesh population is engaged in livelihood activities related to rice.


Figure A 9.1 National Average Real Wholesale Price of Rice and Wheat in Bangladesh, 1980-2001

Note: Prices are deflated using the non-food Dhaka middle-income Cost of Living Index (and the national CPI after June 1998).
Source: Dorosh (2001); FPMU data.
Table A9.1 Some Socio-Economic Indicators by Rural Regions (2000)

<table>
<thead>
<tr>
<th>Natural constraints:</th>
<th>Northwest</th>
<th>South Ganges FP</th>
<th>North central</th>
<th>Meghna FPLN</th>
<th>Eastern hills</th>
<th>Coastal area</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vulnerability to flood/cyclone/other disaster</td>
<td>Low</td>
<td>Medium (flood)</td>
<td>Medium (flood)</td>
<td>High (steep slopes)</td>
<td>High (cyclones)</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Other constraints:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to irrigation (% of irrigated area in total cultivated area)</td>
<td>64</td>
<td>47.5</td>
<td>54.4</td>
<td>40.9</td>
<td>35.4</td>
<td>11.8</td>
<td>47</td>
</tr>
<tr>
<td>Density of rural roads (km square km)</td>
<td>0.05</td>
<td>0.09</td>
<td>0.09</td>
<td>0.11</td>
<td>0.06</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>Availability of electricity in community*</td>
<td>13.8</td>
<td>10.9</td>
<td>25</td>
<td>26.4</td>
<td>16.8</td>
<td>15.6</td>
<td>19</td>
</tr>
<tr>
<td>Human capital development:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Education</td>
<td>38</td>
<td>39</td>
<td>34</td>
<td>44</td>
<td>43</td>
<td>54</td>
<td>40</td>
</tr>
<tr>
<td>Health</td>
<td>16</td>
<td>12.6</td>
<td>11.7</td>
<td>13.9</td>
<td>21.1</td>
<td>17.7</td>
<td>14.5</td>
</tr>
</tbody>
</table>

Note: *Percentage of household living in a community that has electricity.
Table A9.2 Some Socio-Economic Indicators by Rural Regions (2000)

<table>
<thead>
<tr>
<th></th>
<th>Northwest</th>
<th>South Ganges flood plain</th>
<th>Coastal region</th>
<th>North central</th>
<th>Meghna flood plain</th>
<th>Eastern hills</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of individuals aged 15–70 that can read</td>
<td>38</td>
<td>39</td>
<td>54</td>
<td>34</td>
<td>44</td>
<td>43</td>
<td>40</td>
</tr>
<tr>
<td>Percentage of individuals aged 7–70 that have primary level of education</td>
<td>17</td>
<td>17</td>
<td>23</td>
<td>15</td>
<td>17</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>Percentage of children aged 6–10 currently enrolled in school</td>
<td>76</td>
<td>72</td>
<td>82</td>
<td>71</td>
<td>74</td>
<td>79</td>
<td>74</td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of individuals reported being sick</td>
<td>16.0</td>
<td>12.6</td>
<td>17.7</td>
<td>11.7</td>
<td>13.9</td>
<td>21.1</td>
<td>14.5</td>
</tr>
<tr>
<td>Percentage of sick that sought medical care</td>
<td>14.3</td>
<td>13.9</td>
<td>14.9</td>
<td>14.0</td>
<td>21.2</td>
<td>18.7</td>
<td>16.3</td>
</tr>
<tr>
<td>Average distance (minute) to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- satellite clinic</td>
<td>35</td>
<td>52</td>
<td>29</td>
<td>34</td>
<td>22</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>- Govt. district hospital</td>
<td>96</td>
<td>100</td>
<td>94</td>
<td>112</td>
<td>132</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>- Thana health complex</td>
<td>54</td>
<td>65</td>
<td>47</td>
<td>62</td>
<td>77</td>
<td>54</td>
<td></td>
</tr>
</tbody>
</table>

(Contd.)
(Contd. Table A9.2)

<table>
<thead>
<tr>
<th>Housing conditions</th>
<th>99.0</th>
<th>98.25</th>
<th>91.4</th>
<th>99.6</th>
<th>97.7</th>
<th>81.4</th>
<th>97.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of rural household with adequate supply of drinking water</td>
<td>28.1</td>
<td>48.5</td>
<td>65.8</td>
<td>52.4</td>
<td>55.8</td>
<td>44.9</td>
<td>47.4</td>
</tr>
<tr>
<td>Share of rural household with proper total facilities*</td>
<td>15.2</td>
<td>13.1</td>
<td>16.7</td>
<td>26.3</td>
<td>27.1</td>
<td>18.9</td>
<td>20.3</td>
</tr>
</tbody>
</table>

*excluding those using temporary latrines or open fields.

SECTION I: INTRODUCTION
The rural economy in Bangladesh has made remarkable strides during the last three decades. The widespread adoption of Green Revolution technology, facilitated by liberalisation of input and output markets during the 1980s and early 1990s, resulted in the cereal (mainly rice) production more than doubling since 1975. This impressive productivity gain in agriculture not only eliminated the threats of hunger and famine, but also allowed some diversification into other higher-value crops, livestock, and fisheries, and fueled a rapid expansion in rural non-farm (RNF) activities during the 1990s. The strong performance of both rural sectors during the 1990s led to an annual growth of rural income of about 2.2 per cent, and to an annual decline in rural poverty of about 1 per cent. Despite this progress, about 53 per cent of rural population still lives in poverty and 37 per cent in extreme poverty. The Interim Poverty Reduction Strategy Paper (I-PRSP) for Bangladesh\(^1\) estimates that a per capita rural consumption growth of at least 4 per cent per annum is needed to reduce rural poverty by half by 2015 – as envisioned by the Millennium Development Goals (MDGs). Such strong growth in per capita consumption, in turn, requires a doubling of the rural income growth rate from the 2.2 per cent trend level registered during the 1990s. The doubling of rural growth rate can be achieved by significantly enhancing the performances of the agriculture and RNF sectors, and by creating a virtuous circle of growth between these sectors through multitudes of inter-linkages.

The demographic, geographic, and economic reality of Bangladesh

\(^1\) Government of Bangladesh, Ministry of Finance (2003).
Assigns a central role to the RNF sector in generating employment and income in rural areas. With 1,000 people per square kilometer (sq. km.), population density in Bangladesh is among the highest in the world – more than three times the density of India. As a result, nearly all available cultivable land is already under cultivation. Agricultural land is increasingly being diverted to competing uses such as housing, roads, and industrial development. The total cultivated area declined from 8.15 million hectares (ha) to 7.20 million ha between 1984 and 1996, and will continue to decline in coming years. Cropping intensity has almost reached its limit, further restricting agriculture’s ability to create incremental employment. Despite a significant decline in population growth rate, there are nearly a million new entrants into the total labour force every year. The urban areas currently employ only about 18 per cent of the country’s total labour force of 58 million people, and even a very significant rise in growth rate in urban areas will not be able to absorb a large proportion of the new entrants. In fact, the majority of the new entrants (80 per cent) will need to find a job in rural areas. Given the limited opportunity for employment expansion in agriculture, the labour force joining the RNF sector will continue to swell in the foreseeable future. Only stimulated productivity growth in the RNF sector can ensure that those joining the sector are able to escape poverty.

During the 1990s, growth in the RNF sector was triggered primarily by rapid growth and transformation of agriculture. In particular, the robust growth of pump irrigation (15 per cent per year for shallow tube-wells since the early 1970s) and power tillage technologies stimulated various manufacturing, repair, and other service activities at the local level. At the same time, accelerated growth in the fisheries and livestock sector helped develop the feed supply chain. The forward link of the supply chain, involving collection from farmers, processing, storing, and distributing to urban consumers, is now in place for most agricultural products, but its level of development remains uneven across commodities. Indeed, development of marketing and processing facilities, an important segment of RNF economy, is essential for supporting intensification and diversification in agriculture. The rising productivity and wage levels resulting from the exodus of labour from agriculture and into RNF sector, and concomitant tightening of the rural labour market will facilitate creation of a virtuous circle of broad-based rural growth and poverty reduction. However, for such broad-based rural growth and poverty reduction to occur, the growth in RNF sector has to be accelerated much beyond its current rate of 4 per cent.

The strength and ability of the RNF economy to meet the daunting challenge of employment and income generation in rural areas will depend

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crucially on the environment in which rural enterprises emerge and operate. The analysis of rural investment climate thus becomes essential in identifying the policy, institutional and behavioural constraints that affect enterprise dynamics and hence the potential for generating gainful employment in this sector. Moreover, the relevance of rural investment environment extends well beyond rural areas. Historical experience suggests that rural areas often act as the breeding grounds for entrepreneurs in urban areas (Hayami 1998). This paper investigates the rural investment climate using a large-scale survey of micro, small and medium-sized enterprises in Bangladesh conducted during March-June 2003. The survey, known as the National Private Sector Enterprise Survey of Bangladesh (NPSESB 2003), collected information on 10,000 micro, small and medium enterprises from a nationally representative random sample. Out of the total sample of 10,000 enterprises, some 8,135 enterprises are engaged in non-farm activities where non-farm activities are defined to include all activities other than primary agricultural production (crop, fishery, livestock and forestry). The investment climate analysis in this paper is based on the responses of these 8,135 non-farm enterprises. In order to provide the context of the rural investment environment, the contribution and profile of the micro, small and medium (MSM) enterprises are briefly discussed in Section II. Main results on rural investment climate based on the direct responses of the MSM firms are presented in Section III. Section IV elaborates on the state of rural physical and financial infrastructure, the most pressing constraints identified by the enterprises in starting and operating enterprises. Section V concludes the paper.

SECTION II: THE MICRO, SMALL AND MEDIUM ENTERPRISES IN BANGLADESH ECONOMY

Contribution of the Micro, Small and Medium (MSM) Non-farm Enterprises

The contribution of the MSM non-farm activities is substantial both in terms of employment and value added. There are about 4.25 million MSM enterprises in Bangladesh (Table 10.1) and nearly 70 per cent of them are

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4 In the NPSEB 2003 survey, information on employment and value added are collected for all firms employing less than 100 workers. Note that the survey covers only a part of the non-farm activities as it does not include mobile enterprises (e.g. rickshaw pullers). The survey is likely to under-represent household based activities (not considered as enterprises) such as domestic services.
Transforming Bangladesh into a Middle Income Economy

located in rural areas. Another 11 per cent are located in smaller urban centers and rural towns. Noting that overwhelming majority of the enterprises in Bangladesh employ less than 20 workers, the importance of rural enterprises in generating employment in the non-farm activities becomes even more striking. The MSM enterprises generate employment for about 12.8 million people, 73 per cent of this employment is generated in rural areas. The contribution of MSM enterprises to GDP is also substantial. Total nominal GDP in Bangladesh for 2003 is estimated to be taka, 2,996 billion. The MSM enterprises' contribution to GDP is estimated to be taka 531 billion, accounting for 17.7 per cent of total GDP. The share of MSM enterprises located in rural areas is again substantial – they account for 76 per cent of value added generated by the MSME sub-sector as a whole. Another 8 per cent of MSM enterprises' value added is generated in the smaller urban centers and rural towns.

Table 10.1 Contribution of Micro, Small and Medium Non-Farm Enterprises to Bangladesh Economy, 2003

<table>
<thead>
<tr>
<th>Strata</th>
<th>Enterprise (Million)</th>
<th>Employment (Million)</th>
<th>Value added Billion Taka (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>2.953</td>
<td>9.375</td>
<td>4050</td>
</tr>
<tr>
<td>Metropolitan</td>
<td>0.472</td>
<td>1.258</td>
<td>467</td>
</tr>
<tr>
<td>Other urban</td>
<td>0.455</td>
<td>1.204</td>
<td>427</td>
</tr>
<tr>
<td>Peri-urban</td>
<td>0.292</td>
<td>0.669</td>
<td>255</td>
</tr>
<tr>
<td>Industrial</td>
<td>0.009</td>
<td>0.034</td>
<td>10</td>
</tr>
<tr>
<td>Commercial cluster</td>
<td>0.067</td>
<td>0.233</td>
<td>86</td>
</tr>
<tr>
<td>Commercial house</td>
<td>0.001</td>
<td>0.001</td>
<td>0</td>
</tr>
<tr>
<td>BSIC estate</td>
<td>0.002</td>
<td>0.034</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>4.25</td>
<td>12.81</td>
<td>5306</td>
</tr>
</tbody>
</table>

Source: Author's estimate based on NPSESB (2003).

Dynamics of Non-Farm Activities During the 1990s

The decade of the 1990s has witnessed impressive growth of the number of non-farm MSM enterprises and their employment. Bangladesh Bureau of Statistics conducted a survey of all non-farm activities in 1989-90 (Integrated Annual Survey of Non-Farm Activities - IASNF 1989-90) using restricted definitions of the non-farm activities. Using this restricted definition of non-farm activities, the estimates from the IASNF and NPSEB surveys show that number of non-farm enterprises has increased from 2.1 million in 1989-90 to

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5 This assumes that total nominal GDP already included value added generated by the MSM enterprises. Note also that the estimate of GDP generated by MSM enterprises is likely to be underestimate because of large number of non-responses to profit questions.

6 For detail on this definitional issues, see Shilpi 2003.
4.1 million in 2003, implying an annual average growth rate of 5.3 per cent (Table 10.2). Employment has increased by an annual average rate of 3.8 per cent, from 5.3 million to 9 million during the same time. More interestingly, the enterprises in permanent structure, which tend to have higher productivity, experienced impressive growth in employment (4.2 per cent). The number of enterprises in permanent structure has also grown (2.6 per cent) implying an extensive growth. Importantly, employment growth has exceeded growth in the number of enterprises implying an increase in the average size of the enterprises in permanent establishments. Such extensive (growth in number of enterprises) and intensive (growth in size) growth highlights the inherent strength of the sector in transforming itself into a more dynamic and efficient sector. The process of structural transformation into more productive and dynamic sector is also evident from the fact that household based enterprises experienced much higher growth in number than employment. The process of shift from household to permanent establishment is clearer in manufacturing sector where household based enterprises experienced a slight decrease in employment. In rural areas, the growth of the number of enterprises, and of employment have been slightly slower compared with national trends, yet the process of structural transformation is more evident there. Manufacturing sector in permanent establishment in rural areas has experienced impressive growth in numbers (6.1 per cent) and employment (10.4 per cent), exceeding the growth in urban areas. As observed at the national level, household manufacturing experienced decline in employment (0.85 per cent) in rural areas.

Table 10.2 Dynamics of Non-Farm Enterprises

<table>
<thead>
<tr>
<th></th>
<th>Number of enterprises</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Permanent</td>
<td>HH</td>
</tr>
<tr>
<td>Growth (National) (%) (%) (%)</td>
<td>(%) (%) (%)</td>
<td>(%) (%) (%)</td>
</tr>
<tr>
<td>1989/90–2002/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>5.84</td>
<td>3.38</td>
</tr>
<tr>
<td>Services</td>
<td>2.15</td>
<td>8.82</td>
</tr>
<tr>
<td>Total</td>
<td>2.63</td>
<td>7.29</td>
</tr>
<tr>
<td>Growth (Rural)   (%) (%) (%)</td>
<td>(%) (%) (%)</td>
<td>(%) (%) (%)</td>
</tr>
<tr>
<td>1989/90–2002/03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>6.13</td>
<td>2.24</td>
</tr>
<tr>
<td>Services</td>
<td>2.53</td>
<td>8.18</td>
</tr>
<tr>
<td>Total</td>
<td>2.98</td>
<td>6.25</td>
</tr>
</tbody>
</table>

Source: Author's estimate based on NPSESB 2003.
Profile of the Micro, Small- and Medium-Sized Non-farm Enterprises

Consistent with evidence from other developing countries, the non-farm activities in Bangladesh consist of widely heterogeneous activities. The sector is dominated by wholesale and retail trade across the geographical spectrum with its share ranging from 60 per cent in smaller towns to 54 per cent in metropolitan areas (Table 10.3). The share of trade in total enterprise population is about 57 per cent in rural areas. Interestingly, a quarter of all enterprises in rural areas are engaged in manufacturing activities, higher than that observed even in metropolitan areas (18 per cent). Trade appears to be particularly important in the smaller urban areas and towns. The predominance of trade in non-farm sector signifies its relatively early stage of development. Historical evidence indicates that at later stage of RNF development, the predominance of relatively low productive trading is replaced by more skilled services activity and manufacturing.

<table>
<thead>
<tr>
<th></th>
<th>Rural areas</th>
<th>Other urban areas</th>
<th>Peri-urban areas</th>
<th>Metropolitan areas</th>
<th>Bangladesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>25.1</td>
<td>17.2</td>
<td>14.1</td>
<td>18.4</td>
<td>22.6</td>
</tr>
<tr>
<td>Construction</td>
<td>2.1</td>
<td>1.3</td>
<td>1.1</td>
<td>0.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Wholesale &amp; retail trade</td>
<td>57.4</td>
<td>59.8</td>
<td>55.1</td>
<td>53.9</td>
<td>57.3</td>
</tr>
<tr>
<td>Hotels &amp; restaurants</td>
<td>3.5</td>
<td>9.9</td>
<td>18.8</td>
<td>17.8</td>
<td>6.9</td>
</tr>
<tr>
<td>Transport, storage &amp; communications</td>
<td>2.2</td>
<td>0.9</td>
<td>2.6</td>
<td>1.3</td>
<td>2.0</td>
</tr>
<tr>
<td>Real estate, renting, business activity</td>
<td>5.1</td>
<td>3.3</td>
<td>2.9</td>
<td>2.1</td>
<td>4.4</td>
</tr>
<tr>
<td>Education</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Health and social work</td>
<td>1.1</td>
<td>1.5</td>
<td>0.2</td>
<td>0.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Other service activities</td>
<td>3.5</td>
<td>5.8</td>
<td>5.2</td>
<td>5.3</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Source: Author's estimate based on NPSESB (2003).*

The enterprise profile indicates that a typical enterprise is small in size, fairly young in age, employs mainly unpaid family labour, provides self-employment for the owner, yet it is not engaged in one of the low productive residual type activities. The average size of a typical enterprise is about 3 workers (Table 10.4). More than a third of the firms/enterprises are less than 3 years old. The age distribution suggests higher rate of enterprise start-ups in the large urban cities, particularly in peri-urban areas compared with
Improving the Rural Investment Climate for Non-Farm Enterprises

rural areas and towns – about 26 per cent of enterprises in peri-urban areas are less than two years old relative to 17 per cent in rural areas. More than a third of the rural enterprises are household based enterprises. Urban enterprises are more frequently based in permanent structure such as shops. Employment data for enterprises show that nearly all of the owners work in their enterprises (99 per cent) implying that these enterprises also generate self-employment for the entrepreneurs themselves. Yet, they do not seem to be activities undertaken just to earn some income during slack seasons in agriculture. Most enterprises are operated year around (11 months in a year and 27 days in a month), and tend to have long working days (11 hours in a day). Though number of months for which the enterprises are operated is slightly smaller in rural areas (10.9 months), the rural enterprises are by no means operated as stop-gap activities, which follow agricultural cycles. Detailed age and size profiles of the enterprises indicate that non-farm activities provide rich breeding grounds for entrepreneurs in both urban and rural areas.

The MSM enterprises in non-farm sector lacks access even to basic factors of production and services. About 40 per cent of the enterprises reported having utility connections (Table 10.5). There are striking differences between

| Table 10.4 | Basic Profile of Micro, Small and Medium sized Non-Farm Enterprise |
| --- | --- | --- | --- | --- |
| Rural areas | Other urban areas | Peri-urban areas | Metropolitan areas | Bangladesh |
| Average size | 3.2 | 2.7 | 2.3 | 2.7 | 3.0 |
| Average age | 9.3 | 9.0 | 6.5 | 7.9 | 8.9 |

Enterprise type

| Home | 37.0 | 22.3 | 31.0 | 23.8 | 32.9 |
| Traditional market | 6.2 | 3.1 | 4.7 | 4.5 | 5.6 |
| Shop | 28.6 | 51.3 | 43.1 | 45.7 | 34.8 |
| Roadside/riverside | 11.8 | 16.3 | 12.6 | 13.9 | 12.6 |
| Mobile enterprise | 15.8 | 6.5 | 8.4 | 11.2 | 13.6 |
| Industrial site building | 0.1 | 0.0 | 0.0 | 0.8 | 0.2 |

Enterprise operation

| Months/year of operation | 10.9 | 11.6 | 11.8 | 11.8 | 11.1 |
| Days/month of operation | 27.7 | 27.7 | 28.5 | 28.2 | 27.8 |
| Hours/day of operation | 10.2 | 11.8 | 13.0 | 12.7 | 10.9 |

Source: Author’s estimate based on NPESB (2003).

The estimate of utility connection may be an under estimate as it is derived from responses of the enterprises about their expenses for utilities.
urban and rural MSM enterprises in non-farm sector itself. In rural areas, less than a third of firms have utility connections compared with more than 60 per cent in urban areas. MSM firms in both rural and urban fare worse in terms of ownership of generators – only 3 per cent of the firms reported owning it relative to 72 per cent of larger firms located in Dhaka and Chittagong (Investment Climate Assessment (ICA) Survey, 2003). Access to phone is equally dismal in rural areas. In terms of access to finance, less than a third borrows from formal sources including micro-finance institutions. In the ICA 2003 survey, 65 per cent of the larger firms have a line of credit/overdraft facility with formal banks. Within MSM non-farm sector itself, rural enterprises fare slightly better than other enterprises primarily due to access to micro-finance. Among MSM enterprises, less than a fifth are registered or members of business associations. This limits their ability to access market and technical assistance through these channels.

Table 10.5 Access to Factors and Services

<table>
<thead>
<tr>
<th>Enterprises with access to services</th>
<th>Rural</th>
<th>Other</th>
<th>Peri-urban</th>
<th>Metropolitan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility connection</td>
<td>31.49</td>
<td>59.65</td>
<td>57.05</td>
<td>59.88</td>
<td>40.00</td>
</tr>
<tr>
<td>Generator</td>
<td>1.81</td>
<td>3.96</td>
<td>3.40</td>
<td>4.15</td>
<td>3.00</td>
</tr>
<tr>
<td>Phone</td>
<td>1.51</td>
<td>5.94</td>
<td>4.54</td>
<td>9.79</td>
<td>4.00</td>
</tr>
<tr>
<td>Registered</td>
<td>13.20</td>
<td>37.93</td>
<td>22.05</td>
<td>41.78</td>
<td>21.11</td>
</tr>
<tr>
<td>Association member</td>
<td>16.21</td>
<td>25.08</td>
<td>16.04</td>
<td>21.95</td>
<td>18.41</td>
</tr>
<tr>
<td>Access to credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>41.25</td>
<td>47.03</td>
<td>54.62</td>
<td>49.06</td>
<td>43.74</td>
</tr>
<tr>
<td>Informal</td>
<td>22.23</td>
<td>20.96</td>
<td>27.23</td>
<td>32.86</td>
<td>23.71</td>
</tr>
<tr>
<td>Formal*</td>
<td>24.62</td>
<td>20.02</td>
<td>9.89</td>
<td>11.02</td>
<td>21.45</td>
</tr>
<tr>
<td>Both</td>
<td>11.90</td>
<td>11.99</td>
<td>8.27</td>
<td>7.06</td>
<td>11.10</td>
</tr>
</tbody>
</table>

Source: Author's estimate based on NPSESB (2003).
Note: *Formal includes micro-lending by NGOs.

Productivity of the MSM Non-Farm Enterprises

The productivity of the MSM firms, measured by total factor productivity (TFP) and labour productivity, varies widely across locations with firms

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8 The ICA 2003 survey collected information on relatively larger firms located in the Dhaka and Chittagong, two main metropolitan cities in Bangladesh.
Table 10.6 Productivity of the MSM Non-Farm Enterprises

<table>
<thead>
<tr>
<th>Strata</th>
<th>Labour TFP</th>
<th>Variance of productivity</th>
<th>Land</th>
<th>TFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>27978</td>
<td>8.8</td>
<td>1476976</td>
<td>0.003</td>
</tr>
<tr>
<td>Other urban</td>
<td>34454</td>
<td>9.2</td>
<td>3474341</td>
<td>0.005</td>
</tr>
<tr>
<td>Peri-urban</td>
<td>41377</td>
<td>9.3</td>
<td>9915979</td>
<td>0.009</td>
</tr>
<tr>
<td>Metropolitan</td>
<td>46064</td>
<td>9.5</td>
<td>5628973</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Source: Author's estimate based on NPSESB (2003).

Located in rural areas and smaller towns having somewhat lower productivity than their counterparts in urban areas (Table 10.6). Similar variations are evident across sectors, age categories and establishment types. TFP is lower in rural areas, in home-based enterprises, in manufacturing and construction, and in firms of age higher than 50 years. The average TFP is higher in urban areas, health and social work, in smaller firms, and in firms based in the industrial sites.

Significant differences in productivity exist within each size category of firms (Figures 10.1 and 10.2), within each sub-sector, each type of firms, and in each region. For instance, among firms of size equal to one, labour productivity varies from approximately taka 1 to about taka 180 thousand. Variation in TFP is much smaller, yet significant. Such large variations are observed for firms in each sub-sector (manufacturing, trade, etc.), for each type of firms (home based/with permanent structure, etc.). In a competitive and efficient market with free entry and exit, the force of competition is likely to push the inefficient firms out of business causing exit and hence wide productivity differences across firms are not likely to persist. The persistence of such huge productivity differences across wide spectrum of firms seems to

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9 For details, see Shilpi (2003).
suggest that lot of non-farm activities are either dealing with highly differentiated niche products or that there are significant constraints in acquiring technology and services which can allow firms to improve their performances or that entry and exit costs are too high. Indeed, a big bang in the growth of non-farm income and value added can be achieved simply by allowing inefficient firms to upgrade their technology and products. This will become feasible if critical bottlenecks in firm’s access to factors and services as well as entry and exit constraints are removed.

SECTION III: CONSTRAINTS TO ENTRY AND OPERATION: THE VOICES OF THE ENTREPRENEURS

The NPSESB 2003 collected information on the constraints faced by entrepreneurs at the start up and in running a firm using two different methods. First, the entrepreneurs were asked to indicate what were the two most important problems encountered when they started the firm and in operating
an existing firm.\textsuperscript{10} Second, responses on a list of possible constraints were gathered on a scale of 1 ('no problem') to 3 ('severe problem') only after responses for the open-ended questions were recorded. We utilise responses from both of these two sets of questions to identify possible constraints faced by the entrepreneurs.

From the responses of the firms to open-ended questions about main constraints, access to finance comes out to be the most pressing constraint in starting and operating an enterprise (Table 10.7). More than half of the firms reported lack of access to finance as the biggest problem in starting an enterprise. About 44 per cent of entrepreneurs noted it as the biggest problem in running a firm. A finer analysis of the entrepreneurs reporting finance problem indicates that an overwhelming majority of the entrepreneurs (89 per cent) identified lack of investment funds as the biggest problem for starting up a firm and about 60 per cent identified lack of working capital as the biggest problem in operating a firm. Interestingly, about 35 per cent of the entrepreneurs reported having no problems in starting a firm and another 26 per cent reported no problems in running it.

<table>
<thead>
<tr>
<th>Constraint type</th>
<th>Starting-up (%)</th>
<th>Current (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>53.35</td>
<td>44.34</td>
</tr>
<tr>
<td>Tools/Machinery</td>
<td>0.32</td>
<td>0.45</td>
</tr>
<tr>
<td>Market</td>
<td>2.91</td>
<td>15.05</td>
</tr>
<tr>
<td>Government/Regulatory</td>
<td>0.57</td>
<td>0.92</td>
</tr>
<tr>
<td>Shop/Rental space</td>
<td>1.81</td>
<td>1.96</td>
</tr>
<tr>
<td>Input problem</td>
<td>0.22</td>
<td>1.22</td>
</tr>
<tr>
<td>Transport</td>
<td>1.11</td>
<td>2.16</td>
</tr>
<tr>
<td>Labour</td>
<td>0.41</td>
<td>0.66</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.42</td>
<td>1.21</td>
</tr>
<tr>
<td>Technical</td>
<td>1.15</td>
<td>0.28</td>
</tr>
<tr>
<td>Misc.</td>
<td>1.99</td>
<td>3.39</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.96</td>
<td>1.58</td>
</tr>
<tr>
<td>No Problem</td>
<td>34.76</td>
<td>26.77</td>
</tr>
</tbody>
</table>

From a fixed response questionnaire, entrepreneurs stated flood and disaster, electricity, road condition, access to finance, transport to market as five most severe problems in running an enterprise. Figure 10.3 plots the percentage of firms reporting a given problem as a 'severe problem' for firms.

\textsuperscript{10} The enumerators were specifically instructed not to make any suggestions in order to avoid creating a bias towards the suggested problems.
located in rural areas and metropolitan cities. Among the rural firms, flood and natural disasters ranked first with 37.1 per cent of firms indicating it as a severe problem. Nearly an equal percentage of rural firms (37 per cent) reported electricity availability as a severe problem. Road conditions rank a close third (36 per cent reporting, it as a severe problem) followed by access to finance (34 per cent), transportation to market (18 per cent), and crime, theft and disorder (10 per cent). There are some interesting differences between rural and urban metropolitan firms. Among the urban firms, electricity is ranked as a severe problem by largest number of firms (24 per cent), followed by flood and natural disasters (21 per cent), access to finance (20 per cent), road condition (18 per cent) and too many competitors (15 per cent). Among major constraints identified by both rural and urban firms such as electricity, flood and natural disaster, road conditions and so on, the percentage of firms reporting these as severe constraints are significantly larger in rural areas – the percentage of firms complaining, for instance about road condition in rural areas, is double the percentage of firms in urban areas. On the other hand, more urban firms complained about competition and anti-competitive practices (20 per cent vs. 9 per cent), water availability and sewer and rubbish disposal (23 per cent vs. 11 per cent), corruption, political influence and taxes (11 per cent vs. 4 per cent).

![Figure 10.3 Severe Constraints to Enterprise Operation](source)


From the responses of entrepreneurs reporting a pre-identified constraint as somewhat or severe problem, electricity, flood and natural disaster, road, access to finance, transportation to markets come out to be most pressing constraints (Figure 10.4). Although the five top ranked problems remain the same, there are some changes in the relative ranking. For instance, road conditions ranks right behind flood and disaster, the most frequently reported problem among rural firms (71 per cent). What is interesting to note is that
majority of rural firms (more than 50 per cent) view flood and natural disaster, roads, access to finance and electricity as problematic. The rural-urban differences are similar in this case too with the exception of electricity – now slightly more urban firms (56 per cent) complain about electricity than rural firms (53 per cent).

![Figure 10.4 Constraints to Enterprise Operation](image)

*Source: World Bank Staff Estimates using National Private Sector Enterprise Survey (ICG and MIDAS 2003).*

The ranking of the problems by MSM enterprises and by large urban firms surveyed in ICA 2003 are quite different indicating that MSM firms, particularly in rural areas face constraints largely different from those faced by their counterparts in urban areas (Box 10.1). Comparison with larger firms located in two metropolitan cities (Dhaka and Chittagong) highlights differences between urban and rural firms, and MSM firms and larger firms covered in the Investment Climate Assessment (ICA) survey (World Bank 2003a). According to ICA 2003, in terms of physical infrastructure, electricity is rated as the biggest obstacle followed by customs, transportation (road) and telecommunication (a distant fourth). Firms reported experiencing power fluctuations about 250 days per year. For the rural firms and for MSMEs, access to power itself appears to be a more pressing problem with a large number reporting no access. Only a small fraction of rural firms and MSMEs in general own a generator (4 per cent) compared with large firms in urban metropolitan areas (72 per cent). Hence, electricity problem appears to impose much higher costs in rural areas: (i) because of lack of access, (ii) even for those with access, because of power outages and surges (no generators), and (iii) those with generator is estimated to pay 50 per cent more per unit of

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11 In terms of size distribution, firms with equal or less than 10 workers constituted only around 3 per cent of the sample in the ICA 2003 compared with 96 per cent in the NPSEB 2003.
Box 10.1 Regulatory Burden and Corruption: Large Firms v. Micro, Small and Medium Firms

The governance issues related to regulatory burden and corruption are ranked as major problems by large urban firms but not by MSM firms. For instance, more than half of the firms in ICA 2003 survey ranked corruption as a severe or major problem. Firms reported paying large amount of bribes for custom clearance, tax authority and utility connections. The study reported that smaller firms (less than 50 employees) bear a much higher cost of regulatory burden and pay much higher bribes (as a percentage of their total cost). That does not appear to be the case for the micro, small and medium sized firms. While about 30 per cent of the MSM firms complained about crime, theft and disorder as somewhat or serious problems, other governance measures such as corruption, tax, political influence, etc., received much better ratings from most firms. For instance, only 13 per cent of urban and 4 per cent of rural firms reported corruption to be somewhat or severe problem. This result from the NPSEB appears to be puzzling particularly in the light of popular perceptions about corruption in Bangladesh. Two facts may explain this apparent anomaly. First, two surveys focused on two different parts of the distribution of firms in terms of size. In the ICA 2003 survey, firms employing 10 or less employees constituted only about 3 per cent of the sample whereas they represent 96 per cent of the sample in NPSEB 2003 survey. Second, most of the MSM enterprises covered in the NPSEB 2003 fall outside the administrative and regulatory web – only about 13 per cent of the firms in rural areas, and 21 per cent in entire sample are reported to be registered. These firms appear to be catering domestic markets using mostly domestically produced inputs and very few capital equipments and tools. These firms are unlikely to be importing equipment and intermediate goods directly. Thus, it is reasonable that these firms are more concerned about access to most basic factors and services such as finance, electricity, and market access than regulatory burden. The governance problems identified in the ICA 2003 represent second-generation problems to be faced by those fortunate few who will make the transition from MSM to larger enterprises.

The severity of constraints faced by firms varies across sectors, firms of different sizes and regions. For instance, electricity is rated as a severe problem more frequently by firms in manufacturing (42 per cent) and services (38 per cent) sectors. Flood and natural disasters appear to cause severe problem for firms in transportation and construction sectors more frequently. 40 per cent of the firms in transportation sector rated road conditions as severe

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12 For detail analyses, see Shilpi (2003).
problem. Complains about access to finance came more often from firms engaged in services, trade and manufacturing. In the case of finance, smaller firms complained more about access compared with micro (size = 1) and medium sized (size > 4) firms, confirming one of the long held view about 'missing middle' in credit delivery. Flood and natural disasters affect micro and medium sized (20+ employees) firms more adversely. Crime and theft is more of a problem for the small firms (size 2 to 5). Similar to pattern observed in the case of access to finance, the micro and medium sized firms complain less about electricity. Such non-linear pattern is consistent with expectations – the micro firms do not complain so much, for instance about electricity, as the scale of their operation and focus of their activity are such that electricity may not be as important for them. This may also be due to the fact that these firms have already adopted a line operation which would not require electricity as much simply because they do not have access to electricity. In terms of 'severe problems' Barisal and Rajshahi divisions come out to be the areas where firms face disproportionate share of problems by most measures.

Firms located further away from urban markets have greater propensity to face problems with accessibility to services and factors. In the regression analysis of a firm's satisfaction with the state of different services and factors (electricity, road, finance), the accessibility to urban centers, measured by distance to poles, comes out to be statistically significant with a negative sign after controlling for a wide range of firm, sector and region specific characteristics. The peril of the missing middle is evident in the cases of access to finance and electricity. Firm size is correlated significantly with an entrepreneur’s satisfaction with access to finance and electricity. In the case of finance, firms with size bigger than one employee but less than or equal to 10 employees complained much more and there appears to be a concave response curve with firms of size equal to 4 complaining the most (Figure 10.5). Almost similar pattern is observed in the case of electricity.

Tackling the Constraints: The Challenges and Options

According to the rural investment climate analysis presented in the previous section, for rural entrepreneurs, access to bare minimum services (e.g. infrastructure) remains simply inadequate and even when access is not the issues, reliability of services is questionable. The policy debate in Bangladesh's development arena has recently been dominated by concerns of large urban firms which are disproportionately affected by the governance issues as reflected in their responses in the investment climate assessment survey. Rural entrepreneurs, however, face different set of constraints and hence a different set of policy and investment instruments, perhaps specific to rural space, will be needed to address those constraints. A better understanding of the roles of public, private and other stakeholders in promoting this sector calls for a deeper
SECTION IV: RURAL INFRASTRUCTURE: INADEQUATE ACCESS AND UNRELIABLE SERVICES

Transport

Demand for transport services will continue to grow in Bangladesh, making it even more important for the continued expansion of agriculture and non-farm activities. Providing transport services raises challenges at many levels. At local scale, there is a need for reliable, year-round rural feeder roads that allow farmers and rural non-farm producers to bring their products to local markets or trading centers cheaply and quickly. At the other extreme, it requires a national transport system that allows farmers and producers in the hinterland to ship products to major national markets and to the major export hubs (ports and airports). Overall, demand for transport services is likely to grow strongly in Bangladesh as the share of trade in the country’s GDP increases. For instance, the 1998 Bangladesh Integrated Transport Study estimates that a transport sector growth rate of 8-9 per cent is required to sustain GDP growth of 7 per cent per year as targeted in the Fifth Five-Year Plan.

Road density per square kilometer (sq. km.) in Bangladesh is among the highest in South Asia, yet the rural entrepreneurs lack access to reliable, timely, and year-round transportation services. Transportation in Bangladesh relies on three main modes: road, which accounts for 73 per cent of passenger

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13 The high degree of heterogeneity and spatial dispersion of the rural entrepreneurs along with their small scale of operation makes delivery of some critical services such business development services a daunting issue. The broader issue of rural service delivery, particularly institutional option, is not covered in this chapter and can be found in World Bank (2004).
kilometers and 63 per cent of freight transport; rail (13 per cent/7 per cent); and inland waterways (14 per cent/30 per cent).

The share of road transport continues to increase for both passengers and freight, while the importance of railways is declining and inland water transport remains fairly stable. Bangladesh's primary road network consists of national and regional highways and Zila roads (Table 10.8). It has a length of 12,400 km and is managed by the Roads and Highways Department. Another 92,000 km make up the secondary road network – Upazila and Union roads – that is managed by the Local Government Engineering Department (LGED). The remaining tertiary village roads represent over half of the total road network and are managed by local government institutions. As already noted, Bangladesh ranks high in road density, and except for investing in filling the critical gaps in existing network, the return to investment in new road construction is likely to be small and diminishing. Instead, the critical challenges for the road transport sector include. (i) poor maintenance of rural roads making them available only for part of the year, (ii) lack of integration of transport modes, and (iii) lack of complementary transport and trading services.

Despite the extensive road network in Bangladesh, poor construction and maintenance of roads, particularly rural roads, impose high costs on the users. A large proportion of rural roads were constructed through the 'Food for Work' and other rural development programmes. Because of the emphasis on labour-intensive technology, and lack of attention to engineering design, nearly 80 per cent of the roads are of poor quality. Only a relatively small proportion of the total road network consists of paved roads. For instance, among the Upazila roads (Feeder Road B), only about one-third are paved.

### Table 10.8 Bangladesh Road Network Length

<table>
<thead>
<tr>
<th>Category</th>
<th>km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td></td>
</tr>
<tr>
<td>National highways (NH)</td>
<td>3,086</td>
</tr>
<tr>
<td>Regional highways (RH)</td>
<td>1,751</td>
</tr>
<tr>
<td>Zila roads (ZR) (former feeder roads A)</td>
<td>7,543</td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
</tr>
<tr>
<td>Upazila roads (UZR) (former feeder roads B)</td>
<td>23,434</td>
</tr>
<tr>
<td>Union roads (UR) (former Rural Roads 1)</td>
<td>68,639</td>
</tr>
<tr>
<td>Tertiary</td>
<td></td>
</tr>
<tr>
<td>Village roads (VR) (former rural roads 2 and 3)</td>
<td>114,126</td>
</tr>
<tr>
<td>Not classified</td>
<td>1,960</td>
</tr>
<tr>
<td>Total</td>
<td>220,539</td>
</tr>
</tbody>
</table>


15 This section builds on PPIAF (2003) which details the problems in the transport sector and outlines possible options to increase efficiency in each transport area.
Table 10.9 Quality of Rural Upazila Roads

<table>
<thead>
<tr>
<th>Type of upazila road surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bitumen carpet</td>
</tr>
<tr>
<td>Herring bone bond</td>
</tr>
<tr>
<td>Water bound</td>
</tr>
<tr>
<td>Earth macadam</td>
</tr>
<tr>
<td>Per cent of all upazila roads (%)</td>
</tr>
<tr>
<td>Good</td>
</tr>
<tr>
<td>Fair</td>
</tr>
<tr>
<td>Poor</td>
</tr>
</tbody>
</table>


roads (Table 10.9). Of those, 80 per cent are considered in good condition. Of the earth roads, 96 per cent are in fair condition. Almost none of the Union roads are all weather roads. In addition to the roads themselves, there is also a large need for bridges and other infrastructure to cross the huge number of streams and rivers. Many of roads themselves largely need bridges and other infrastructure to cross the huge number of streams and rivers. Many of those are in poor repair. In addition to making roads impassable during monsoon, poor maintenance imposes high costs on users as vehicle operating costs increase strongly when road conditions deteriorate. Indeed, road maintenance projects have been shown to have a higher rate of return than transport or other infrastructure projects in general (Gwilliam and Shalizi 1999). In the presence of chronic shortage of public funds for road maintenance, as is the case in Bangladesh, a second generation or commercially managed road fund provides an important alternative path to sustainable road maintenance financing. Improved financing approaches have also to be paired with better targeting of maintenance of the secondary and tertiary feeder road network.

With economic activity outpacing road construction and lack of proper maintenance and upgrading, major highways have become overly congested, contributing to major delays and higher transport costs. A large proportion of the major highway network carries a heavy volume of traffic that approaches or surpasses its capacity. For instance, the most heavily used national road (Tongi-Joydevpur road, with four traffic lanes) carries about 34,000 vehicles per day. Along with traffic delays, road death has emerged as a major source of accident-related death among young and adults.

Long haul transport in Bangladesh remains underdeveloped because of poor integration of different modes of transportation. Major challenges remain in the integration of all different modes of transportation such as road, ferry, river transport, railways, and air transport.
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Road-Ferry

The major rivers—especially the Padma (Ganges) and Jamuna (Brahmaputra)—effectively divide the country into three zones. River crossings by ferry delays freight by many hours. Bridges across these vast rivers, which are characterised by shifting riverbeds, is expensive, yet they can significantly contribute to increased inter-regional trade. The Jamuna Bridge linking Tangail and Sirajganj zila, for example, has reduced travel time from Bogra to Dhaka by about four hours. Anecdotal evidence suggests that farmers in Bogra district, for instance, have started to produce higher value crops that are shipped to Dhaka overnight by truck. However, currently the tolls charged by the Jamuna Multipurpose Bridge Authority concessionaire are high compared to the cost of ferries, and utilisation of the bridge remains low. Clearly, tolls are needed to be reassessed if the bridge is to develop its full economic benefit to the regions it connects.

Road-river transport

Only about 3,500 km of waterways are available for navigation in the dry season, while more than 6,000 km are navigable in the wet season. Major barriers to using waterways more efficiently are the lack of dredging and poor management and maintenance of landing infrastructure such as jetties. While inland water transportation is widely used for long-distance travelling, especially among the poorest population groups, use for cargo transport may well be below potential. In addition to the formal inland water transport system, there are an estimated 2,80,000 country boats operating.16 These are increasingly motorised (see Box 10.2). But their potential in addressing transport needs has diminished, because waterways are often obstructed by other infrastructure development.

Road-rail

Because of the inefficiency and resulting high cost of the rail system, rail transport has lost a considerable share of both passengers (from 20 per cent to 13 per cent) and freight (from 17 per cent to 7 per cent) between 1985 and 1998.17 This trend is likely to continue without major revamping of the system. On the other hand, for export oriented RNF products, an efficient container shipment system could provide a flexible and cost-effective way to export products through the shipping hub in Chittagong. Currently, rail is used to ship less than a third of container cargo unloaded in Chittagong.

16 In 1999–2000: Motorised: 65,000; Passenger: 1,38,000; Cargo: 74,000 (Statistical Yearbook 2000).
Box 10.2 Unintended Effects of Trade Liberalisation Promote Rural Water Transport

Increased use of motorised water transport is, in part, a consequence of the liberalisation of agricultural inputs in Bangladesh during the 1980s. Farmers imported a large number of small diesel engines that were used for pumps or shallow tube wells. During the off-season these engines could be used to propel river boats or to power rice dehullers. These uses were not anticipated, but had a tremendous effect on increasing rural transport and income opportunities in the rural non-farm sector. By some estimates, this process has contributed to the establishment of 30,000 small rural dehuller mills (Chowdhury and Haggblade 2000, Haggblade et al. 2002).

Road-shipping (containers)

With rapidly rising demand for port services, the main port at Chittagong is unable to supply sufficient capacity and efficient transactions to meet the needs of exporters and importers. Delays at the port due to inefficient management and lack of investment in new loading/unloading technology, cause high turnaround times of 6–9 days for a standard container ship compared to 1-2 days in Colombo or Singapore. Bangladesh moves a container for US dollar 600, compared with US dollar 150–300 in neighbouring ports such as Bombay and Shanghai. The system of container transport has yet to become important because of a lack of modern high-capacity trucks that could provide point to point shipments to and from the ports. Expansion of trade will require long-overdue reform of container port management in Chittagong and a removal of barriers to the adoption of modern container trucks.

Road-air (export)

Air freight is used to ship horticultural products such as fresh produce to overseas markets. The total amount of air freight from Bangladesh is currently over 85,000 tons of which 17.5 per cent are fresh produce exports mainly of ethnic vegetables to Gulf States and Europe. The structure of current freight charges in Biman Bangladesh Airline flights – currently the only air-freight option available to fresh produce exporters – leads to a preferential access to freight space of readymade garments at the expense of other freight such as horticultural or high value agricultural products. There is a consensus that the main bottleneck to increasing these exports is the shortage of cargo space for perishables, the lack of dedicated handling services (e.g. specialist cargo consolidators, cold storage), and the fragmented nature of producers and export agents. Investment in these services can be expedited by encouraging foreign carriers to enter the business of transporting perishable goods, providing incentives for additional flights from and to Dhaka, and promoting productivity...
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gains and complementary services (packaging, marketing, etc.) in the horticultural sector (Dixie 2002).

Road only

The road transport is characterised by lack of complementary services lacking options both at the larger and smaller ends. Most cargos in Bangladesh are transported by 8 ton trucks, which are manufactured in India and assembled in Bangladesh. So far, modern high capacity trucks, including the ones with refrigeration capacity, are not widely used in Bangladesh, limiting the prospect of developing a container shipping system especially for perishable goods. Smaller trucks, on the other hand, could address transport needs between bicycle rickshaws and medium size trucks and could serve as a more efficient link between local producers and regional markets. The use of large trucks for local transport also puts a large strain on rural roads that are not built for heavy loads. The limited use of small trucks, which could be purchased with smaller investment, is caused partly by high import tariffs to protect the domestic assembling operations for larger trucks. Achieving a more diversified transport fleet mix among private service providers will require the lowering or removal of taxes, tariffs and regulations that currently prevent import or local production of such vehicles.

Access to Power

Despite recent improvements in electricity coverage, access to power remains a major issue in rural Bangladesh. Only 31 per cent of all households in Bangladesh and 19 per cent in rural areas have access to electricity (HIES 2000). Similarly, only about 40 per cent of enterprises located in rural areas are reported to have electricity access. Bangladesh ranks low among South Asian countries in terms of electricity access. Access to electricity in Bangladesh remains less than half of that of India, and per capita use is less than a third (WDI 2001). Of the total energy use in the country of 12.7 billion kWh, 41 per cent is used by households (mostly in urban areas), 47 per cent by industry and 7 per cent by commercial users. Irrigation consumes about 4 per cent.

The lack of access to electricity imposes large costs on rural economy and rural household's welfare. Both the household and enterprise level analyses in Chapters 3 and 5 already pointed out the positive correlation of electricity connections (at household and village level) to RNF employment and performances of the RNF enterprises. A recent impact evaluation study (Barkat et al. 2002) also confirms that rural households in Bangladesh with access to electricity tend to be better off than households in villages without electricity. The study estimates that the average annual income of households with electricity is 64.5 per cent higher than that in the households of non-electrified
villages. For shops and trading activities, the study estimates that rural electricity's contribution to sales turnover is 17.3 per cent for retail and 11.2 per cent for wholesale businesses. The off-farm income produced by electrified households was estimated to be 33 per cent higher than households in non-electrified control villages and 66 per cent higher than non-electrified households in villages with access to electricity. In the industrial sector, firms with electricity are estimated to generate about eleven times more employment than the firms without. Over the past five years, output (measured by weight) in electrified firms has increased almost 80 per cent compared to 8 per cent in firms without electricity.

Even for those enterprises and households with access, unreliability of electricity supply causes major disruptions, leading to its under-utilisation in productive activities. In the Barkat et al. (2002) study on rural electricity, about 85 per cent of respondents complained about irregular supply, with 72 per cent stating that power interruptions occur almost daily. In rural areas, electricity is often cut-off in the evening hours, when it would be most beneficial to households (World Bank 2001). These findings are consistent with those reported in Chapter 5 and investment climate assessment study by World Bank (2003). Unreliability is perhaps one of the major reasons for low utilisation of electricity in production activities in rural areas.

To stimulate and sustain rural growth, Bangladesh will need to ensure a much higher rate of rural electrification and greater reliability of electricity supply in rural areas. If current new connection rates of about 2,00,000 customers per year continue, it will take until 2010 to double the proportion of rural households with access (World Bank 2001). Even if the rate of new connection could be doubled, it would take 25 years to reach half of the rural population. Given the shortage of power throughout the country, it is unlikely that new power plants will benefit the rural areas in the short-run as investment in power plants is likely to occur in or near large agglomerations. More promising avenues for increasing access to electricity in rural areas quickly include decentralised generation systems and reliance on distribution through independent micro grids.

The inadequate access in rural areas and unreliability of power supply in both rural and urban areas are results of an existing institutional mechanism, dominated by the public sector, for generating, transmitting, and distributing power. The power sector is dominated by the Bangladesh Power Development Board (BPDB), a public sector utility that accounts for 81 per cent of

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18 This study does not discuss possible endogeneity in that electricity lines may have been preferentially placed in already better-off areas where customers are more likely to afford the connection charges. But at least some of the difference in household welfare is likely due to access to electricity.
generation, 55 per cent of transmission, and 43 per cent of distribution. While transmission and distribution are entirely controlled by public utility companies, the Independent Power Providers (IPPs) account for 17 per cent of power generation. The power sector suffers from huge under-investment because of limited private sector participation, particularly in downstream activities, and because of the financial fragility of the public sector. Private sector participation has remained well below its potential because of the absence of a coherent strategy, including an appropriate regulatory framework, and the entrenched presence of public utility agencies. The public sector has been unable to generate surplus for required investment because of high system loss, poor financial management (e.g. inadequate pricing, poor billing and collection), and ineffective governance.

Bangladesh has to build on the success of Rural Electrification Board (REB) and Palli Bidyut Samities (PBS) in ensuring wider access to electricity in rural areas. Power distribution in rural areas is coordinated by the Rural Electrification Board (REB), which negotiates prices with the Bangladesh Power Development Board (BPDB) and the five Independent Power Producers (IPPs). Distribution systems are owned and operated by 67 consumer cooperatives (Palli Bidyut Samitis, PBS), which currently reach about 20.5 million people. In contrast to the performance problems associated with BPDB’s urban distribution system, the rural distribution system is well managed. Although tariffs in rural areas are below purchase costs, they are higher than that in urban areas and high compared to rural power prices elsewhere in South Asia. The main problems faced are reliance on external power suppliers, e.g. BPDB cuts supplies to PBSs if there is an increase in urban demand, and infrastructure problems in supplying customers in low density rural areas. With a reasonable distribution system in place, improving coverage of REB and PBSs and removing the unfair load shedding policy will not only improve household’s access but also encourage more productive and efficient enterprises to emerge and sustain in rural areas.

Given higher capital costs of supplying power from the grid in rural areas, alternative power generation and distribution by private sector should also be encouraged. New innovative approaches of developing Remote Area Power Supply Systems (RAPSS) seem to be more promising for Bangladesh as well. These are community based programmes that encourage private

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20 The system loss on account of power pilferage and inadequate maintenance has been as high as 35 per cent of power generation and purchase in 2000. There are significant delays in bill collection, resulting in large account receivables (12 months of sales revenue for BPDB in 2000). In addition, low power tariffs compared with marginal costs amounted to large subsidies to consumers (households and agricultural use), and contributed to BPDB’s financial difficulties.
suppliers to develop local generation and grid infrastructure. Renewable off-the-grid technologies, such as photovoltaic systems, are options for households with limited electricity needs particularly in remote areas, but they are still too expensive for most customers and tend to be insufficient for industry or commercial activities.

Access to Telecommunication

With increasing dependence on markets beyond local areas, the need for access to telecommunication by rural producers has been rising sharply, yet actual access remains inadequate in rural Bangladesh. Despite the recent widely publicised increase in cell phone coverage, Bangladesh continues to have a low tele-density (number of telephone lines per hundred person) of 0.8 per cent, compared to India’s 4 per cent. Tele-reach (the proportion of the population with access to a telephone) is higher. For instance ‘Grameen Mobile’s Village Phone’ programme is now available in 20,000 of 68,000 villages. According to the HIES (2000) data, 31 per cent of rural non-farm enterprises had a telephone in their village compared with only 14 per cent among farm enterprises. India has achieved a tele-reach of about 70 per cent in large part thanks to a programme of making public call offices (PCOs) available in rural areas. Bangladesh has one PCO per 32,000 population, while India has one per 1,000. In addition, cost of telephone services are very high in Bangladesh. The cost of a fixed line is USD 171 compared to India’s USD 18 or Nepal’s USD 28 (World Bank 2003a).

The mobile phone network has expanded rapidly in rural areas in recent years, and will continue to be the main source of tele-coverage in the coming years. There are now almost a million cell phone subscribers compared to 6,05,000 fixed line connections. Among four cell phone providers, Grameen and Aktel have extended their network significantly into rural areas. Coverage is highest in major cities and along major transport routes, while some major gaps remain in the rural areas in the northeast, south and center.

There remains significant unmet demand for telecommunications, due to slow growth in the coverage of private mobile phone networks caused by regulatory constraints, and even slower progress in the expansion of fixed-line networks due to poor performance of the Bangladesh Telephone and Telegraph Board (BTTB), a public sector telecom agency. The unmet demand for basic telephone services is estimated to be around 3.5 million, and is expected to grow to 10 million within next three years. The BTTB has a de facto monopoly on domestic fixedline public and international telephony. Lack of investment in capacity expansion by BTTB has restricted growth in

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21 There are an additional 26,000 lines operated by rural service providers, Bangladesh Rural Telecom Authorities and Sheba Telecom-Rural (see PPIAF 2003).
the supply of telecom services. A major problem of cellular phone networks is that the integration between the cellular and landline networks is limited – more than half of the cell phone subscribers are unable to connect to telephones on the BTTB fixedline network. This lack of interconnection capacity is one of the greatest bottlenecks in the expansion of tele-networks managed by the private sector. The current interconnect environment is based on revenue-sharing agreements between BTTB and the mobile operators. These agreements are based on retail prices and asymmetric payments (BTTB does not compensate mobile operators for call termination, but mobile operators pay BTTB for termination).

![Figure 10.6 Borrowing Status of the MSM Enterprises](image1)

![Figure 10.7 Sources of Formal Credit](image2)

**The Rural Financial System – ‘Reaching the Missing Middles’**

A well functioning rural financial market plays a critical role in both agriculture and rural non-farm growth by mobilising savings and financing working capital and long term investments in farm and non-farm enterprises. The rural financial markets in Bangladesh are characterised by the coexistence of formal and micro-finance institutions and informal sources and continue to be inadequate.
to meet the demand for financial services by a large proportion of the rural population.

Because of expansion of microcredit in rural areas, the percentage of firms borrowing for working capital and investment are higher in rural areas compared with rural towns, peri-urban and urban areas (Figure 10.6). For instance, nearly 60 per cent of rural micro, small and medium (MSM) borrow from formal and informal sources compared with around 50 per cent in urban areas. The percentage of firms not borrowing at all is highest in the peri-urban areas. Interestingly, access to formal loans including micro-finance is much higher in rural areas whereas firms in urban areas appear to be relying disproportionately on informal loan. Among the firms located in rural areas, smaller urban towns and peri-urban areas, Micro Finance Institutions (MFIs) are the sources of credit for nearly 60 per cent of all firms borrowing from formal sources compared with 38 per cent in urban SMA (Figure 10.7). Nearly half of all firms borrowing from formal sources and located in urban SMAs borrow from the formal banks. Among different sources of informal finance, interest free loan from family predominates (60 per cent of all informal) in all different geographical locations and for firms of different sizes.

The micro, small and medium (MSM) enterprises rely mainly on borrowing from the MFIs, whereas access to formal bank is much higher among larger enterprises (Figure 10.8). Indeed, as clear from Figure 10.8, the importance of MFIs declines steadily with an increase in firm size and the opposite pattern is observed in the case of access to bank loans. The MFIs are the main source of finance for about 60 per cent of the firms of size one compared with 20 per cent for firms of size 20 and over. This pattern is observed in other developing countries as well. The lack of information on loan sizes precludes any analysis on the size of loan advanced by MFIs and the formal banks. The loan size for MFIs are usually small with most loans ranging between dollar 100 - dollar 150. The average loan size from formal banks is much larger. Thus, while the MFIs play an important role in providing credit

![Figure 10.8 Formal Credit by Enterprise Size](image-url)
to the smaller firms, their overall contribution to total rural credit supply is likely to be much smaller than their share in the total number of borrowing firms.

The credit constraint seems to affect the small and medium sized firms disproportionately. While there are no significant differences in the percentage of firms not borrowing across firm sizes, it does not necessarily imply that the non-borrowing firms are credit constrained. Similarly, firms borrowing from both formal and informal sources can be credit constrained even though they had access to finance. In order to find out the extent of credit constraint firms, direct responses of the firms to questions about the severity of the problem of accessing finance are used. The regression results from ranking of the severity of finance problem suggest that small and medium sized firms tend to be more credit constrained in the sense they complain disproportionately more about it. A detailed analysis of data on reason for not borrowing also indicates that a large fraction of firms are indeed credit constrained, as about 60 per cent of those not borrowing would like to borrow.

The transaction costs of providing and receiving financial services in rural areas are high, from the point of view of both lenders and borrowers, thus contributing to thinness of rural financial markets. From the point of view of the banks, including formal banks, reaching out to rural customers involves high transaction costs because of smaller loan sizes, more dispersed geographical coverage, lack of information about potential borrowers, high risk of default, and difficulty of enforcing contracts in the case of default. Bangladesh’s vulnerability to frequent natural disasters such as floods, droughts, and cyclones also increases the income volatility in rural areas, raising the risk of default. From the borrowers’ side, a significant proportion of the firms surveyed reported that they did not borrow because of uncertainty about their credit rating, their ability to repay, complicated bank forms, high interest rates, lack of collateral, and lack of knowledge about finance opportunities (Figure 10.9). For instance, 16 per cent of the firms did not borrow because either they did not know where to go for borrowing or because bank forms were too complicated. About 12 per cent were priced out because of lack of collateral and too high interest rate. Interestingly, a larger share of the small firms (size of 4 and 5) complained about high interest rate (12 per cent) compared with about 6 per cent of the firms of all sizes complaining about it. This confirms the findings from other studies that it is this ‘missing middle’ who are often priced out by MFIs because of high interest rate.

The performance of public sector banks catering the rural areas has been poor, raising serious doubts about their long term sustainability in the absence of significant reforms. Bangladesh Krishi Bank (BKB), and Rajshahi

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22 ICG and MIDAS (2003).
Krishi Unnanyan Bank (RKUB), two public sector banks, have a large rural network, with 1,155 branches in 2000, comparable to the branch network of Grameen Bank (1,160). These banks, along with other private and public banks, disbursed about dollar 1.9 billion in rural areas in 1998-99,\(^*\) though the expansion of rural credit was slower (5.8 per cent rate) than overall credit expansion (8.5 per cent) during the second half of the 1990s. Weak internal governance, persistent political interference, loan write-offs (undermining credit discipline), lack of a legal and regulatory framework for enforcing contracts and loan recovery, poor management systems, and lack of investment in human capital have all compounded the financial fragility of these public sector banks. These banks have been used more as a window for disbursing credit than as institutions to promote financial intermediation. The government of Bangladesh has committed to reforming the nationalised commercial banks, but the existing reform programme does not include these two agricultural banks.

As opposed to the public sector agricultural banks, the outreach of the MFIs and microcredit programmes administered by the NGOs has grown considerably, but they are not still able to meet the need of an important segment of rural entrepreneurs, i.e. the middles. The microcredit programmes, including the two MFIs (Grameen Bank and BRAC\(^*\) Bank), have about 15 million active borrowers/members. However, the average size of loans from the MFIs remains low – between dollar 100 – dollar 150. The repayment schedule is also rigid – repayment starts within a week of a loan disbursement. Moreover, interest rates charged by the MFIs, though not sufficient to cover their costs, are high enough to discourage larger and long term borrowing. Because of its

\(^*\)The disbursement figure also includes disbursement by Grameen Bank.

\(^*\)BRAC was formerly known as Bangladesh Rural Advancement Committee.
targeting of poorer households, medium-sized enterprises and marginally richer households are often not eligible for these loans. However, some of the MFIs, notably BRAC Bank, Grameen Bank, and ASA, are moving toward flexible loan instruments with longer duration and larger size, in order to reach small and medium enterprises. Despite this progress, the sustainability of a large number of MFIs and lack of a legal framework to regulate these institutions are two major issues that need to be resolved.

Investing in Flood and Natural Disaster Management

Most of Bangladesh lies in the gangetic floodplain which is characterised by low elevation. Three-quarters of the country lie below 10 meters - even areas far inland along the upper Meghna river – and only about 5 per cent rises above 100 meters. Almost all of these higher elevations are in the southeastern Chittagong hills. In a normal year, 30 per cent of the country gets flooded, but often floods are much more severe. Sixty per cent of the country experiences a flood every hundred or so years. The most flood-prone areas are along the Ganges-Brahmaputra-Meghna (GBM) river system, the northeastern region just west of Sylhet, and the low lying coastal regions that are subject to tidal surges and cyclones.

Bangladesh suffered from major floods in 1954, 1955, 1974, 1987, 1988 and 1998. The major flood in 1998 inundated two-thirds of the country and affected some 30 million people, and caused over 1,100 deaths. The flood also severely damaged an estimated 15,000 kilometres of roads, 14,000 schools, hundreds of bridges and culverts, and close to 5,00,000 homes. Like, floods, cyclones occur annually in low lying coastal regions and cause widespread devastation and loss of life. Major cyclones have occurred in November 1970, May 1985, November 1988, and April 1991. The cyclone of 1991 caused 1,40,000 deaths and severe damage to the eastern coast of the Bay of Bengal.

Because of the loss of life and severe damage to infrastructure, crops and the overall economy, management and mitigation of natural disasters (floods and cyclones) is a major priority in Bangladesh. Since Independence in 1971, the Bangladesh government, aided by its development partners, made large investments in both structural and non-structural measures to protect from floods and cyclones. Structural measures include aspects such as embankments, compartmentalisation with controlled flooding, and polders in coastal areas. Non-structural measures include aspects such as improved flood forecasting and warning systems, evacuation, education, flood proofing such as village mounts, better construction, flood insurance and floodplain zoning. Such investment in flood and cyclone protection measures have been effective in limiting the damages from these disasters in recent floods and
cyclones. Yet, natural disaster management requires continuous efforts from the government as embankments and other physical infrastructure need continuous maintenance and rehabilitation.

The inadequate provision for operation and maintenance, along with the institutional inefficiencies of the Bangladesh Water Development Board (BWDB), threaten the sustainability of embankments and other physical infrastructure, which require frequent rehabilitation. Past structural projects have not involved local stakeholders in any major way, leading to local opposition and often resulting in physical damage to the new installations by aggrieved groups. In addition, environmental considerations have not received adequate attention in water management particularly in the construction and maintenance of flood management structures.

SECTION V: CONCLUSIONS

The MSM enterprises engaged in non-farm activities have made significant contribution to Bangladesh economy both in terms of employment and income. While most of these enterprises are small, generating self-employment for their proprietors, and are mostly engaged in trading activities, they are not engaged in residual activities providing supplementary employment following agricultural production cycle. Most enterprises are in fact full time engagement for their owners and employees. The age and size profiles of the enterprises suggest that non-farm activities provide rich breeding grounds for entrepreneurs in both urban and rural areas. The sector has shown strength over the last decade, both employment and number of enterprises have grown strongly. While average labour productivity in the sector is higher than agricultural wage, there are large variations in labour productivity and total factor productivity implying existence of constraints in technological upgrading and large entry and exit costs.

The investment climate analyses indicate that these smaller enterprises are concerned more with bare bone services and infrastructure. Among many different constraints, enterprises predominantly identified electricity, road and transport, flood and natural disasters, finance and crime and theft as five major problems. Bangladesh’s vulnerability to frequent floods and other natural disasters severely hampers operations of more than a third of rural firms. The next most important constraint to RNF growth is the lack of access to electricity, which is available to only 19 per cent of rural households (as compared to 31 per cent of all households). Third, Bangladesh ranks quite high in terms of road density, however, because of poor construction of roads and bridges, lack of maintenance of roads and waterways, lack of integration of different modes of transportation due to inefficiencies at the container port and in the rail system – road conditions and transportation to markets are reported to be severe problems by 36 and 18 per cent of rural firms, respectively.
In addition, inadequate access to investment finance and to working capital disproportionately affects small and medium-sized firms (the 'missing middles'). The lack of access to telecommunications adversely affects the start up, growth, and performance of the micro, small and medium sized (MSM) firms.

The effects of the constraints are more severe for rural firms, which accounts for three-quarters of all enterprises in non-farm sector. This ranking of the constraints stands in contrast with the ranking observed for larger firms located in two metropolitan cities (Dhaka and Chittagong); the Investment Climate Analysis survey 2003 results suggested a much more damaging role of corruption and governance, with finance ranking well behind corruption and governance. The MSM enterprises in rural areas (and in towns and cities as well) are less concerned with governance issues partly because they remain 'informal' and outside the realm of regulatory and other governance institutions, and partly because most lack access to minimum infrastructure. Indeed, lack of access to basic physical and financial infrastructure seem to impose disproportionate cost on these enterprises particularly those in rural areas.

The demographic, geographic and economic reality of Bangladesh puts the onus of generating employment and reducing rural poverty squarely on the growth of non-farm activities. In view of the investment climate analysis of MSM enterprises, the policy options for stimulating future growth of the non-farm sector are clear. Bangladesh has to start providing the very basic physical and financial infrastructure to enterprises in the non-farm sector. Specifically, an enabling rural investment climate will require actions to:

- ensure access to basic physical infrastructure, by investing in rural electrification, removing regulatory obstacles to expansion of telecommunications coverage in rural areas, ensuring adequate funding for maintenance of rural road infrastructure, reforming the container port management in Chittagong port, and ensuring integration of intermodal transport links;
- reform the rural financial system, along with the overall financial sector reforms, to mobilise rural savings and to improve delivery of credit particularly to small and medium sized firms while ensuring credit discipline and the sustainability of financial institutions. Legal reforms will also be necessary to enable greater financial intermediation, the sustainable expansion of microfinance programmes, and the securitisation of transactions;
- sustain progress in natural disaster management through continued investment and maintenance and institutional reforms.

This set of measures assigns a pivotal role for the government in maintaining and enabling an investment climate in rural areas. Without these
institutions and policy reforms, the dynamism in the RNF sector observed during the last decade risks being eroded.

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11
Scaling Up of Microfinance

Hassan Zaman

SECTION I: INTRODUCTION

The fact that the microfinance industry has been able to provide access to credit, currently, to nearly thirteen million poor households in Bangladesh is truly remarkable. There are around twelve hundred microfinance institutions (MFIs) in Bangladesh (CDF 2002) but the industry is dominated by four large MFIs (BRAC, Grameen, ASA and Proshika) that serve around 11.5 million or ninety per cent of all clients. After the ‘big four’, the next largest NGO has 0.7 million clients and there are only ten NGOs who have more than 100,000 borrowers. The bottom line is that the majority of the MFIs are small (less than five thousand borrowers) and that the bulk of the access to microcredit is supplied by the four large MFIs. As such, the experiences of scaling up discussed here draw primarily upon these large MFIs.

This paper is structured as follows. Section II describes the evolution of the microfinance industry over the past three decades in Bangladesh. Section III proposes several factors that contributed to its scaling-up. Section IV summarises the evidence on the impact of microfinance on poverty, vulnerability and female empowerment. Section V concludes by discussing key lessons from the Bangladesh experience.

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1 An earlier version of this paper was written as a background paper for the ‘Scaling Up Poverty Reduction’ conference held in Shanghai, China in May 2004.
2 Latest figures indicate that BRAC has 3.5 million borrowers, Grameen Bank has 3.1 million clients, Proshika 2.9 million and ASA 2.1 million clients.
3 Swarnivar Bangladesh.
SECTION II: THE EVOLUTION OF MICROCREDIT INDUSTRY IN BANGLADESH

The growth in access to credit by the poor took place in several distinct phases over the last three decades. The origins of the current microcredit model can be traced back to action-research in the late 1970s, carried out by academics as well as practitioners in organisations that were created to deal with the relief and rehabilitation needs of post-independence Bangladesh. The 1980’s witnessed a growing number of non-governmental organisations (NGOs) which experimented with different modalities of delivering credit to the poor. The various models converged in the beginning of the 1990s towards a fairly uniform ‘Grameen-model’ of delivering microcredit. It sparked a sharp growth in access to microcredit during this decade. In recent years the standard ‘Grameen-model’ has undergone more refinements in order to cater to different niche markets as well as to different life cycle circumstances.

The Seventies

Experimentation in providing credit to households considered ‘unbankable’ by the formal financial system has its origins a few years after Bangladesh’s independence war in 1971. The independence movement gave rise to a new generation of young activists who were keen on contributing to the reconstruction of this war-ravaged country. The new government and a myriad of aid agencies that arrived on the scene were unable to cope with the scale of destitution non-governmental organisations emerged to meet the challenges. The early years of the NGO movement in Bangladesh focused on relief and rehabilitation with an emphasis on community development. However, by the mid-1970s, two of the NGOs that would subsequently expand in scale, BRAC and Proshika, found that ‘elite capture’ was a serious impediment to their development objectives. As a result, a separate focus on the poor through a ‘target-group’ approach was introduced. Moreover, an ideological debate within both these organisations began to brew, between those who favoured ‘economic tools’ (credit, savings, etc.) to support poverty reduction and those who believed that social mobilisation against existing injustices would suffice and financial services were unnecessary.

Around the same time a team of researchers at Chittagong University, led by Professor Yunus, began an action-research programme that provided loans to poor households in a few villages. Borrowers were mobilised in ‘peer groups’ composed of four-five individuals who were jointly responsible for each other’s repayment. Several of these small ‘peer monitoring groups’ were organised into a larger unit which would meet weekly with the primary purpose of repaying loan instalments. The process of trial and error included combining males and females in the same credit group and then changing this to separate groups divided by gender. It also included forming
'occupational groups' but this was dropped in favour of village-based groups. The demand for loans grew rapidly and Professor Yunus enlisted the support of the Bangladesh Bank and commercial banks to provide the 'Grameen Project' – as it was then called – with resources. The success of this experimentation paved the way for the establishment of the Grameen Bank under a special ordinance in 1983.

The Eighties

In the early 1980's several NGOs experimented with different ways of delivering credit. One important mode tested was the efficacy of providing loans for group projects compared to offering loans to individuals with peer monitoring. The broad lesson was that the latter was more effective due to incentives and 'free-rider' problems compared with lending to a group. Hence by the late 1980s the predominant model became one of providing individual loans to a target group of poor households, with peer monitoring and strong MFI staff follow-up.

The Association for Social Advancement (ASA) is a classic example of this shift. Its initial emphasis was on forming 'peoples organisations' mobilised for social action against oppression. It changed to the 'target group' approach and then towards the provision of financial services in the late 1980s. Now ASA is the fourth largest MFI in Bangladesh in terms of clients and its unique low-cost credit delivery mechanism is being replicated in several other countries. ASA keeps paperwork requirements to a minimum, has decentralised most decision-making to the field and overall has a very lean operation (Choudhury 2003).

The 1980's and early 1990's was also important in the development of management capacity within several of the large MFIs which allowed them to expand their microcredit programmes. What is particularly interesting is that the development of the know-how and confidence to implement large programmes arose, in some cases, from the experience of scaling-up programmes not related to microcredit. For instance in the case of BRAC, the first major experience with a nationwide programme came about when it implemented an oral rehydration programme to combat diarrhoeal disease. Thirteen million women were trained to use a simple but effective rehydration solution and BRAC staff were paid based on how many of their trainees used and retained this knowledge.4

4 In addition to this innovative staff incentive system, a detailed evaluation of the oral rehydration experience also point to a number of other 'success factors' – (i) systematic recruitment and training of staff, (ii) an effective feedback loop and the willingness of senior management to learn from the lessons from the field and (iii) support from government, donors and professional experts. (Chowdhury and Cash 1996).
Early to Mid-1990s

The early 1990s was the period of rapid expansion of the Grameen-style microcredit approach (Ahmed 2003). The growth was fueled largely by a ‘franchising approach’ whereby new branches replicated the procedures and norms that prevailed in existing branches. The product that was offered to the client at the time was fairly narrow, focusing mainly on a standard microcredit package offered to all clients. The view was that it was easier to recruit new staff and train them quickly in a simple product during a phase when branches were opened at a rapid rate. This growth was clearly aided by the high population density and relative ethnic, social and cultural homogeneity in Bangladesh.

A notable shift that took place during this expansion phase was a greater emphasis on individual borrower accountability for loan repayment and less reliance on peer monitoring. Staff follow-up of loans became more rigorous and professional with the use of computerised management information systems. Donor funds also contributed to expanding the revolving loan funds for MFLs during this expansion phase. Moreover this period saw the emergence of PKSF as a wholesale financing institution (see Section III). Following this expansion, a geographical mapping of microfinance suggests that all districts in Bangladesh have microcredit services, though there are many smaller pockets with little or no coverage (e.g. Chittagong Hill Tracts). A closer look shows that there is somewhat greater coverage of poor households in the central and western districts. The south-east and pockets of the north-east are areas with room for more expansion (PKSF 2003).5

Mid-1990s Onwards

Feedback from the field, academic research and international experience contributed to an increasing emphasis on providing diversified financial services for different groups of households from the mid-1990s onwards. The benefits of a narrow focus on microcredit during the ‘expansion phase’ was that it kept costs low, operations transparent and relatively straightforward management oversight. However, it became clear that the standard Grameen model of providing microcredit with fixed repayment schedules, with standard floors and ceilings on loan sizes, was not sufficient to meet the needs of the extreme poor or the ‘vulnerable non-poor’ group.

Moreover, existing microcredit borrowers also required complementary financial and non-financial services. The standard practice for MFLs until the late 1990s was to collect compulsory weekly savings from their clients, holding the money as a de facto lump sum ‘pension’ returned when a client left the organisation. Access to these deposits was otherwise limited, which curtailed

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a potentially important source of consumption-smoothing. Recognising these limitations an increasing number of MFIs in Bangladesh have introduced an open access current account scheme in addition to the fixed deposit scheme. Moreover, many MFIs have life insurance products whereby, outstanding microcredit debts are written off and other benefits are paid following the death of a borrower. Non-credit services can also take the form of input supply, skill training and marketing support for micro-entrepreneurs. A complementary package to microcredit can also take the form of providing education for the children of borrowers. Grameen Bank for instance has a scholarship programme for female secondary education and a student loan programme for tertiary education. Similarly, many MFIs have community health programmes, legal literacy training and provide information on accessing local resources.

MFIs began to experiment with catering to new niche markets as the traditional microcredit business became standardised (and horizontal expansion slowed) and required less attention. For instance several NGOs began providing larger loans to ‘graduate’ microcredit borrowers and in some cases to households who were not part of the microcredit system but which wanted a micro-enterprise loan. These loans typically range from taka 20,000 (around dollar 320) to taka 200,000 (dollar 3,200). Innovative solutions are also emerging to address the problem of access to finance for the small enterprise sector. For instance, BRAC established a separate financial institution, BRAC Bank, that focuses on lending to the “smaller end” of the small enterprise sector, with loans averaging taka 400,000.

Moreover, evaluation studies pointed out that extreme poor households were struggling to benefit from the standard microcredit model, even if they joined the programmes. The main reasons were: (i) minimum loan floors for a first loan that sometimes exceeded their own perceived needs; (ii) fixed weekly loan repayments could be difficult to commit to in light of sharp seasonality of income; (iii) other members of peer-monitored groups sometimes do not wish to guarantee loans for extreme poor households, etc.; (iv) residing in remote or depressed areas.

Programmes that have been developed to cater for these constraints include: (i) introducing more flexible repayment schedules such as ASA’s Flexible Loan Programme; (ii) lowering first loan floors so that amounts as small as taka 500 (dollar 9) can be borrowed; (iii) Grameen’s programme that offers zero interest loans to beggars; (iv) the Resource Integration Centre’s programme that specialises in offering loans to a specific vulnerable group –

6 For instance in the sericulture sector BRAC supplies the eggs to the silkworm rearer, plants the mulberry trees, trains the entrepreneur in silk rearing, arranges for extension services by a BRAC rearing specialist, purchases the cocoons from the rearer from her homestead and supplies these to a BRAC silk reeling centre.
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the elderly poor; (v) various programmes that combine food aid with microcredit and training, e.g. BRAC’s IGVGD programme; (vi) targeting remote areas through, for instance, ASA’s cost-effective mini-branch system and Integrated Development Foundations work in the Chittagong Hill Tracts.

SECTION III: FACTORS THAT LED TO SCALING UP

Institution Building – Leadership, Staff Incentives and Learning by Doing

It is unquestionable that the vision and persistence of the leaders of the NGO/MFI movement are a key factor behind the success of the microfinance industry in Bangladesh. Leadership skills were instrumental at the initial stages in persuading a skeptical public that providing credit to the poor could become a viable and replicable proposition. These skills were equally important during the process of scaling up. These included being able to recruit and motivate staff, decentralising authority away from the centre, building management information systems and internal controls as well as having the humility to learn from mistakes. Moreover, once the leaders of these organisations showed that scaling up is possible, this view became part of the staff culture and other staff had the confidence to expand the programmes within their own jurisdiction.

Staff recruitment, motivation and retention are particularly important for large organisations – BRAC for instance employs around 28,000 staff in its various programmes, Grameen has around 12,000 in its microcredit programme and ASA’s microcredit programme employs around 8,000 staff. A critical element in this process is an objective performance evaluation system for staff that is linked to career mobility and a myriad of other incentives for staff to perform well both individually and in their teams. For instance Grameen Bank has introduced a system of rating branch offices based on the achievement of specific targets which not only include standard loan recovery, but also factor in social indicators such as the proportion of Grameen children going to school. Staff motivation is also enhanced by decentralising significant amounts of responsibility to the lower tiers of the administrative structure. ASA is the best example of a lean credit delivery structure with high levels of decision-making authority given to field offices, from loan sanctioning decisions to staff human resource issues. Moreover, the structure within field offices is relatively flat with a branch manager who works with individual field workers to resolve problems and typically shares living quarters with other field staff (Jain and Moore 2003).

Effective internal controls are also important in ensuring effective staff performance. First of all the fact that financial transactions are carried out publicly, in the weekly meetings and in the branch offices, is a major check
against any form of discretionary behaviour by field workers. Many NGOs, particularly the ones that have successfully expanded in scale, have developed measures that include frequently rotating staff within and between branches, regular field visits by senior management, a strong internal audit team and annual external audits.

A fundamental part of the scaling up of Bangladesh’s NGOs and more specifically the microfinance movement, has been the ability to learn from experiences and adapt programmes accordingly. This learning process takes place both through informal feedback by field staff during regular interactions with management as well as through a formal monitoring and evaluation process. BRAC’s Research and Evaluation Division has around twenty professionals whose key function is to evaluate BRAC’s multi-dimensional programmes and give timely feedback to programme staff and management. This process of feedback occurs through longer term research as well as ‘quick-turnaround’ assessments. The shift to more flexible financial services that took place in recent years is largely based on adapting to client feedback and analysis of the limitations of a uniform microcredit model.

Many of these lessons have also been shared with the rest of the microfinance industry as there are many examples of smaller MFIs being managed by former employees of the large MFIs.

A Constructive Donor-client Relationship

External resources played an important part in the experimentation process, subsequent growth in outreach and institutional strengthening of the microfinance industry. At the same time, the large microfinance institutions have been successful in ‘managing donors’.

Northern NGOs, such as the Ford Foundation, Oxfam and the Aga Khan Foundation, played an important role at the initial stages of the NGO-MFI industry in Bangladesh. The subsequent expansion and consolidation stage was funded largely by official bilateral agencies7 and later by multilateral agencies once northern NGOs could not match the growing resource requirements of the larger MFIs. A large part of these donor investments went to the capitalisation of MFIs loan funds, crucial to the rapid expansion that took place in the 1990s, as well as into developing institutional capacity through management information systems and human resource development. Finally, the 1990s have seen dependence on donor resources progressively declining for the large MFIs – Grameen Bank, ASA and BRAC do not receive any grant financing for their microcredit operations. Moreover, out of BRAC’s

7The Department for International Development (DFID) has been one of the largest of the bilateral donors having provided around dollar 130 million over a twenty year period to MFIs in Bangladesh.
total dollar 160 million expenditure on development programmes in 2002, more than 80 per cent was financed from its own resources, through the interest income on microcredit as well as surplus from its commercial enterprises. Two facets of these trends are worth highlighting.

First, the decisions to subsidise these operations were not free from controversy. The advocates for funding these loan funds had to argue their case with officials within their own agencies who believed that the capital base for loan operations ought to be enhanced only by savings mobilisation or borrowing from commercial sources. In retrospect, these decisions to help contribute to MFIs loan funds were by and large correct as almost all of the MFIs that received this support have either reached financial self-sufficiency or are well on their way to doing so. Donors also invested in organisational systems and MFI staff training in order to strengthen the capacity to administer these growing programmes.

Second, large NGOs in particular have been reasonably successful in ‘managing donors’. Investing in the capital base of expanding MFIs with a strategic sustainability plan required donors with a long term vision but crucially required MFIs who were able to persuade donors of the soundness of this strategy. In other countries MFIs have not been able to provide this type of strategic view on the best use of donor resources with the result that these resources have often been used to either subsidise final on-lending rates or support MFIs without a solid business plan. BRAC, with its large multi-faceted programmes, has had a long history of working with donors and the evolution of this relationship is worth highlighting. Donors who have their own incentives to commit resources and demonstrate results on the ground, have been eager to provide resources to implementing organisations with a proven track record. Hence the likes of BRAC, have had to deal with multiple donors where each wanted to fund specific projects.

These uncoordinated donor missions and disparate disbursement and reporting arrangements taxed BRAC’s internal capacity and led to its management proposing changes for how its donors ought to operate. In the early nineties, donors shifted their approach from financing specific BRAC projects to financing BRAC programmes. Donors also formed a ‘consortium’ that pooled funds, negotiated jointly with BRAC and had common reporting requirements. An important part of the consortium funding arrangement and the move towards programme funding has been to improve the predictability of resource flows – for instance BRAC secured financing for its Rural Development Programme for a five year period from the donor consortium. Moreover, the establishment of a donor liaison office for BRAC also acts as a buffer between BRAC staff and the various visitors, consultants and evaluators.
An Enabling Macro-economic and Regulatory Environment

The early experimentation and later scaling-up of the microfinance industry in Bangladesh was helped by an appropriate 'enabling environment'. First the macro-economy has been, by and large, soundly managed and one should not underestimate the significance of this. The rate of inflation has been kept to single digits and economic growth over the past decade has averaged around 5 per cent per annum, thereby creating economic opportunities for microcredit financed investments.

Second, the government of Bangladesh has thus far maintained a balanced approach towards regulating and supervising the activities of the NGO sector. This has been critical in ensuring the operational flexibility that is the cornerstone of service delivery by NGOs. While this long relationship has not been free from tensions on both sides, the government of Bangladesh has thus far been able to place the interests of the poor foremost in its mind while dealing with NGO issues. A less charitable view is that the scaling up of NGOs went largely unnoticed and once this took place the combined clout of large NGOs and donors has led to the government taking on a largely laissez-faire approach. Ultimately the relationship between government and NGOs also depends on individual personalities and social ties (Hossain 2003) as there have always been widely varying views regarding NGOs within the civil service and the cabinet. Individuals in key positions within government have time and again proved instrumental in facilitating the growth of the microcredit sector. The early development of the Grameen project, its registration as a bank and the decision to grant it managerial autonomy are clear examples (Yunus 1999), as was the establishment of PKSF with a strong autonomous board. The prevailing consensus position is supportive of NGOs though accusations of involvement in party politics by a handful of NGOs has strained the overall government-NGO relationship of late.

Looking forward, it is clear that both the overall umbrella legislation governing NGO activities and the regulatory framework for microfinance needs to be strengthened, particularly in light of the large amounts of deposits mobilised for the poor. The Central Bank, PKSF and representatives of MFIs are currently working to produce a set of guidelines and standards that will strengthen the regulatory framework for microfinance.

Population Density, Ethnic Homogeneity and Religious Tolerance

Aside from the Chittagong Hill Tracts area, Bangladesh is ethnically a relatively homogenous country, with a high population density and good communication networks. Moreover, this largely homogenous market is also very large in absolute terms. The contrast with Nepal for instance is striking.
and the difference in microcredit outreach between these two countries is partly due to these factors. It is also striking how in Pakistan, Afghanistan, Egypt and certain other Muslim countries, MFIs have found religion to be a factor that has led to a relatively lower demand for microcredit and MFIs who are more cautious about expanding. In contrast, even conservative religious forces in Bangladesh have been largely tolerant of microfinance activities and the greater economic empowerment and mobility of women.

**A professional Apex Body for Microfinance**

The Palli Karma Sahayak Foundation (PKSF) was created in 1990 and is governed by a board composed of both public and private sector representatives. It is a public-private apex body that channels funds for microfinance to MFIs has been critical in the expansion and improved professionalism of the microcredit industry in Bangladesh. PKSF’s core functions include: (i) lending money to MFIs which meet certain eligibility criteria to expand their microfinance operations, (ii) capacity building and hands-on assistance to strengthen MFIs and move them towards financial sustainability, (iii) advocacy on microfinance issues and helping develop an appropriate regulatory framework for the industry.

PKSF has been instrumental in contributing to the sharp increase in access in microcredit that took place in the 1990s by expanding the capital base for MFIs to on-lend to the poor. For instance, as of December 2003, PKSF loans constitute around 30 per cent of ASA's current revolving loan fund. PKSF is also widely credited for sharpening the focus of many MFIs towards financial sustainability and also in setting appropriate standards that will ease the way for a strengthened regulatory structure for microfinance. Moreover, PKSF’s funding arrangements are in line with the MFIs cashflow requirements and the transaction costs of dealing with PKSF are kept to a minimum.

There is a growing experience with setting up apex institutions worldwide, e.g. PPAF in Pakistan, RMDC in Nepal, FONCAP in Argentina, LID in Bosnia-Herzegovina and MISFA in Afghanistan. One of the fundamental factors behind the success or failure of an apex is the underlying retail capacity in a particular country. The overall strength of the MFIs in Bangladesh has been key to PKSF’s success. An overestimation of the capacity to absorb funds by the MFIs on the ground is likely to lead to a failure of an apex body. However, if a realistic assessment of the underlying retail capacity is made, then apexes offer many benefits such as the ability to screen MFIs on standard criteria and creating a ‘level playing field’.

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8 This point was made by Stephen Rasmussen in a personal communication.
SECTION IV: THE IMPACT OF MICROFINANCE IN BANGLADESH

The evidence on the impact of microcredit can be assessed from two interrelated angles. Firstly, who does credit reach and secondly, how does it affect the welfare of different groups of individuals and households?

Land ceilings, occupational criteria and asset valuations are standard targeting tools used by microcredit providers in Bangladesh in order to direct resources to the rural poor. These indicators have been shown to be relatively accurate correlates of poverty by programme administrators who do not have the time, resources or expertise to carry out more sophisticated calculations of poverty for each household in their targeted area.

In practice, the land criterion is the one that is more closely adhered to in the field. A large proportion of extremely-poor households, measured by initial landholding size, join microcredit programmes (Zaman 1999, Khandker 2003). For instance in Khandker's sample, sixty per cent of the sampled members have less than twenty decimals of land.

However, several studies also show that between 15 and 30 per cent of microcredit members are from 'non-target' households measured in terms of land (Mustafa et al. 1996, Montgomery et al. 1996, Zaman 1999, Khandker 1998). However, these households are typically marginal farmers and can be considered part of the 'vulnerable non-poor' group, prone to transient bouts of poverty.

There is also evidence which suggests that households who join microcredit programmes a few years after the village group has been established tend to be less poor compared to the members who join at the start of the programme (Matin 1998). This feature of better-off households joining over time has also been noted as a general rule of thumb in many targeted anti-poverty programmes worldwide (Lipton 1996). The presence of wealthier households do not appear to affect the credit supply to poor households though there is evidence to suggest that poorer households use a larger share of their loans for consumption purposes compared to better-off households. The bottom line is that the literature on targeting suggests that microfinance programmes are reasonably successful at reaching the poor, and that those households who fall above the stipulated landholding criterion tend to be marginally above the poverty line and are susceptible to transient poverty in certain years.

The literature broadly supports the hypothesis that access to microcredit contributes to poverty reduction in Bangladesh though the evidence is not

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9 It is interesting to compare this figure with Copestake's (1992) evaluation of India's Integrated Rural Development Project (IRDP) where the proportion of non-poor households ranged up to 36 per cent.
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entirely clear-cut. For instance, data collected by the World Bank in 1992 have been used to show widely varying results depending on the methodology chosen to assess impact. Khandker (1998) estimates that for every taka 100 lent to a woman, household consumption increases by taka 18, interestingly the figure is taka 11 if the same amount was lent to a man. Moderate poverty falls by around 15 per cent and ultra-poverty by 25 per cent for households who have been BRAC members for up to three years controlling for other factors according to the author. Similar results are found for Grameen Bank and Bangladesh Rural Development Board (BRDB) members. On the other hand, using the same data and a different way of correcting for selectivity bias, Morduch (1998) finds that microcredit does not have a significant impact on consumption levels and therefore, on income poverty. Consumption data from 1,072 households in one district of Bangladesh is used to show that the largest effect on poverty occurs when a moderate-poor BRAC client borrows more than taka 10,000 (dollar 200) in cumulative loans (Zaman 1998). In other words, there may be a threshold level of credit above which a household gains most in terms of increases in income.

Recent evidence from a re-survey of the same households suggests that microcredit has significantly contributed to reducing poverty (Khandker 2003). Somewhat surprisingly, the impact appears to be greater for households who started off extremely poor (18 percentage point drop in extreme poverty in seven years) compared to moderate poor households (8.5 percentage point drop). These results differ from earlier evidence that pointed to moderate poor borrowers benefitting more than extremely poor borrowers due to the fact that the poorest have a number of constraints (fewer income sources, worse health and education, etc.) which prevent them from investing the loan in a high-return activity (Wood and Sharif 1997). This feature of better-off households benefitting more was also borne out by detailed case-study evidence (Farashuddin et al. 1998) and by comparing participants of credit programmes who cater to different socio-economic groups (Montgomery et al. 1996).11

10 The methodological problems associated with impact assessment of microcredit are complex. The literature typically uses ‘control groups’, usually ‘eligible non-members’ or ‘recently joined members’ in order to address the problem of the counter-factual. There have been attempts to cater for the ‘selectivity bias’ problem but with varying degrees of success.

11 Montgomery et al. compare the performance of BRAC borrowers with the borrowers from a government-run microcredit scheme, the Thana Resource Development and Employment Programme (TRDEP). TRDEP’s borrowers’ initial endowment conditions is shown to be higher than BRAC’s (average pre-loan landholding is 46 and 30 decimals for TRDEP and BRAC members respectively and the percentage of income derived from daily labour is 5 per cent and 32 per cent respectively) whilst the credit-delivery mechanism and average loan size are broadly speaking very similar. The typical TRDEP borrower’s increase in assets and income during the course of the most recent loan is higher than BRAC’s giving rise to the author’s contention that better-off borrowers benefit more than poorer borrowers.
The Bangladesh Institute of Development Studies (BIDS) carried out an extensive study of the impact of PKSF POs microcredit programme using longitudinal data of three thousand households between 1997 and 2000. One of the key findings was that microcredit has a positive and significant effect on poverty status of the programme households (BIDS 2001 page 155). The study also finds that microcredit members are less vulnerable when struck by crises. Moreover improvements in other social indicators (child immunization, use of sanitary latrines, contraceptive prevalence) are also more noticeable for microcredit programme members compared to non-members.

There has been limited work on the aggregate poverty reduction impact of microcredit at the local or national level in Bangladesh. Khandker (2003) uses the panel data discussed above to suggest that there is some positive externality due to microcredit programmes but that the overall spillover benefits are somewhat limited. For instance, the net contribution of microcredit on moderate poverty for non-participants is a small decline of 1.1 percentage points between 1991–92 and 1998–99 compared to a decline of 8.5 percentage points by borrowers in the same village. The impact on extreme poverty is estimated to be somewhat greater – 4.8 percentage points for non-borrowers and 18.2 percentage points for borrowers over this seven year period.

There is strong evidence that microcredit contributes to reducing household vulnerability. Morduch shows that consumption variability is 47 per cent lower for eligible Grameen households, 54 per cent lower for eligible BRAC households and 51 per cent lower for eligible BRDB households compared to a control group. This consumption smoothing is driven by income smoothing as evidenced by the significantly lower labour supply variability experienced by microcredit members compared to the control group. The importance of this result cannot be over-emphasised given the fact that seasonal deficits play a key part in the poverty process in Bangladesh (Rahman 1995). Essentially Morduch’s results indicate that programme participants do not benefit in terms of greater consumption levels, but they participate because they benefit from risk reduction.

Asset creation is important to reduce household vulnerability to various livelihood risks. The findings of an impact assessment of ASA borrowers conducted in 2003 suggests that the average value of physical assets increased by 127 per cent in rural areas and grew by about 150 per cent in urban areas over a five year period. Moreover, the average increase in cash savings rose by 133 per cent and 111 per cent in rural and urban areas respectively over

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12 Morduch only includes households who fulfil the targeting criteria of the three organisations and labels them ‘eligible households’.
13 These results are statistically significant at the 95 per cent level.
14 Morduch’s estimates of labour supply variability is 39–46 per cent lower for microcredit members compared to a control group.
this same five year period. Similar evidence is found in studies of BRAC, Grameen and PKSF's partner organisations.

Another pathway by which microfinance appears to reduce vulnerability is through the emergency assistance provided by many microfinance organisations during periods of acute natural disasters such as the recent floods in Bangladesh. The fact that these organisations turn into de facto relief agencies is crucial in sustaining these households in the immediate aftermath of a natural disaster. Moreover, the post-disaster rehabilitation assistance, in terms of both financial and other services, is also highly valued by microcredit clients.

The pathways by which microcredit reduces vulnerability, that have been discussed here, relate to income and consumption smoothing and asset building. However, the impact of credit on female empowerment, or a reduction in ‘female vulnerability’ has also received considerable attention.

Female empowerment in Bangladesh, can be viewed against the backdrop of ‘patriarchy’, defined by Cain et al. (1979) as a set of social relations with a material base that enables men to dominate women and hence can be thought of in terms of an improvement in intra-household gender relations (Naved 1997, Hashemi et al. 1996). Moreover, given the institution of purdah (loosely translated as ‘veil’), a pervasive social construct which restricts the female sphere within a typical Bangladeshi household, ‘female empowerment’ can also be viewed in terms of a woman’s interactions outside the homestead and the acquisition of skills, knowledge and confidence that such interactions can bring (Amin et al. op.cit., White 1992, Mahmud 1994).

Amin et al. (1994) work in thirty-six villages in Bangladesh showed that membership in microcredit programmes positively affected a woman’s decision-making role, her marital stability, her control over resources and mobility but has less impact on her attitude regarding marriage and education of their daughters. Naved (1994) finds that the women credit-programme participants in her sample felt their status had improved due to the fact that they were seen as income earners for the family through their access to credit.

Hashemi et al. (1996) develop an ‘empowerment index’ based on eight empowerment indicators. Their analysis establishes that contributing to her household’s income is a significant contributing factor to a woman’s own empowerment. However, Hashemi et al. also show that credit programmes can empower women independently of whether they contribute to family income or not, after controlled for other factors.

The focus of those skeptical about the empowering effect of microcredit has been on the issue of women’s control over loans. Goetz et al. (1996) used

15 Naved (1994) uses Participatory Rural Appraisal (PRA) techniques to identify the effect of participation in Save The Children’s savings and credit programme in Manikanj.
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a sample of 253 female borrowers from four rural credit providers in Bangladesh. Their investigation of loan histories led the authors to conclude that: About 63 per cent of the cases fall into the three categories of partial, very limited or no control indicating a fairly significant pattern of loss of direct control over credit. The authors disaggregated their data in terms of loan activity and concluded that investing in traditional women's work increased their chances of being able to control the loan. Montgomery et al. (1996) also have reservations about the 'empowering effect' of microcredit. Their argument is based largely on secondary sources and a small field survey focusing on the issue of control over loans. Whilst the authors admit that their sample is small, they on balance support Goetz et al. (op.cit.) view that microcredit reinforces existing gender patterns and inequalities by promoting traditional income generation activities, which they believe do little to alter the social status quo.

On the whole, the evidence presented by those who argue that microcredit improves female status within a household appears more convincing than that argued by the 'skeptics' camp. There are two main reasons for this contention. First, the underlying thread of the 'positive' argument, that access to an important household resource (credit) enhances a female's status within the household is both intuitively appealing and resonates with the theoretical literature on bargaining models of the household (Lundberg and Pollak 1993). Second, the focus on female control over loans as a key component of the 'skeptics' argument fails to recognise that credit enters the overall household income pool and that household members jointly participate in the loan investment. The role of several family members in managing the loan-financed investment is now explicitly recognised by MFIs who now give loans to women for 'male-activities' such as rickshaw loans, that many did not permit in earlier days.

SECTION V: CONCLUDING LESSONS AND FUTURE CHALLENGES

Lessons

This paper proposes six lessons from Bangladesh that could be relevant to microfinance growth and impact in other countries.

First, is the importance of an 'enabling environment' for microfinance. A critical part is maintaining a stable macroeconomic environment with both interest rates and inflation kept at reasonable levels. The lack of macro-stability has seriously constrained the growth of microfinance in several countries, e.g. Malawi. Government regulations and policies are also crucial in creating the appropriate environment for the growth of the sector. These policies need to strike a balance between protecting the interests of depositors, in micro-
finance institutions that collect savings, and not regulating the sector excessively with unnecessary red tape. The scaling up in Bangladesh benefitted significantly from good communications networks – hence government investments in road networks is important to reduce the transaction costs of microcredit.

A second lesson is that microcredit may be a more effective remedy against poverty and vulnerability if it is complemented with other interventions. These interventions may be particularly appropriate for the poorest households which face the greatest risks of income fluctuations and have the greatest need for a range of financial and non-financial services. Moreover, whilst the provision of microcredit can enhance a woman’s status in the eyes of other household members, social mobilisation and legal education interventions in conjunction with credit are likely to have a more significant effect than credit alone. However, this does not imply that microfinance institutions ought to provide these services. In many cases organisations may prefer to specialise in providing microfinance and facilitate linkages to providers of other non-credit interventions.

Third, there is a role for donor financial assistance in expanding the capital base in emerging microfinance institutions as well as in developing technical capacity that leads to organisational sustainability. Hence, subsidies can be justified to support ‘infant’ microfinance institutions as long as there is a viable route to institutional sustainability. The duration of these subsidies would vary according to local conditions and level of poverty of the clients.

A fourth lesson is that while visionary leadership cannot simply be ‘franchised’, the systems and formal rules that govern the successful microfinance industry in Bangladesh can to an extent be replicated. These vary according to the size of the organisation but by and large, these organisations delegate significant decision-making authority away from head-offices, are able to monitor individual staff performance and have linked staff incentives with programme targets. Client feedback and programme monitoring are also crucial. As organisations grow, the willingness to change products based on this feedback and to tailor products for niche markets is critical for success.

A fifth lesson from the Bangladesh experience is that the creation of a microfinance wholesaler has the potential to play an important role in expanding access, developing professional standards and in advocacy for MFI issues. However, apex bodies are not a panacea and a rigorous analysis of the underlying retail capacity and demand for funds needs to be carried out before they are established. The Bangladesh experience suggests that if an apex is to contribute significantly to scaling up then it needs to ensure that the flow of funds is synchronised with the needs of growing MFIs, that it should have clear requirements for MFIs to implement solid business plans and that it should not overburden MFIs with high transaction costs.

Sixth, it is clear that the bulk of the scaling up took place through four
institutions which currently serve ninety per cent of all microcredit borrowers. Hence another lesson from the Bangladesh experience could be that it is not necessarily a sound strategy to support many different institutions, and risk spreading resources thinly, in order to reach large numbers of poor people. This is particularly in light of the fact that the leadership skills and professional capacity to go to scale are in limited supply in most countries. However, this needs to be balanced by the risks of having a concentrated market structure such as the industrywide consequences of poor performance within one institution. A related point is that the ‘franchising’ model of setting up virtually identical field offices was possible due to the relatively simple credit delivery system that was offered at the time. The introduction of more diversified products, catering to different niche markets, was only introduced after the rapid expansion phase slowed down. This deliberate sequencing strategy for scaling up services is a notable lesson from the Bangladesh experience.

**Challenges**

While this paper focused on the lessons from the scaling up of the microfinance industry, and its impact on the poor, the story would be incomplete without mentioning the future challenges that the industry faces in Bangladesh.

First, the microfinance sector needs to build a stronger domestic constituency that understands the economics of microfinance and in particular the reasons for why interest rates are higher than commercial banking rates. Demands for lowering and capping interest rates have gained ground in recent months and greater public debate around these issues need to be fostered. In turn the apex microfinance body, PKSF, has a role in improving transparency by publishing information on interest rates, operating costs, profit margins, etc.

Second, the industry needs to accept that their current operating spreads will need to shrink as donor-grant funds for microfinance diminish and they move towards more commercial sources of funding. Hence, MFI managers will need to balance greater efficiency with their ultimate objective which is to provide quality financial services to the poor. The reduction in spreads will also imply less cross-subsidisation of social programmes that many NGO-MFIs operate which in turn requires a financing strategy for these programmes.

A third challenge is developing an appropriate regulatory framework for the industry. Recent progress on this, led by the Central Bank, PKSF and industry representatives, needs to be built on. Given the large variety of institutions that exist, a tiered regulatory structure, as in the Philippines, is likely to be appropriate for Bangladesh. A related issue is the fact that governance arrangements of MFIs need to be strengthened and lines of accountability made more explicit.

Finally, as the competition for new microcredit clients intensifies, MFIs
will need to further refine the services that they offer and cater to niche markets. The capacity to identify these markets and design appropriate products will require investments in institutional capacity building as well as in publicly accessible market information and research.

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Human Development Strategy to Achieve MDGs

Anil Deolalikar

SECTION I: INTRODUCTION

Since the launch of the Millennium Development Goals (MDGs) at the Millennium Summit held in New York in September 2000, the MDGs have become the most widely-accepted yardstick of development efforts by governments, donors and NGOs. The MDGs are a set of numerical and time-bound targets related to key achievements in human development. They include: halving income-poverty and hunger; achieving universal primary education and gender equality; reducing infant and child mortality by two-thirds and maternal mortality by three-quarters; reversing the spread of HIV/AIDS; and halving the proportion of people without access to safe water. These targets are to be achieved by 2015, from their level in 1990.

Almost all the countries in the world, including Bangladesh, have committed themselves to attaining the targets embodied in the Millennium Declaration by 2015. Unfortunately, there is little understanding of whether Bangladesh will be able to attain all of the MDGs, and whether there are some MDGs that Bangladesh will be able to attain. There is even less understanding of what it will take – by way of economic growth, infrastructural investments, and social-sector interventions – to attain the different MDGs.

This paper focuses on the attainment of four major human development-related MDGs by sub-national units in Bangladesh – under-five mortality, child malnutrition, schooling enrolment and completion, and gender disparities in schooling. It is mainly concerned with answering the questions: how likely

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1 The paper is based on a World Bank report on the subject led by the author. See World Bank 2004.
Human Development Strategy to Achieve MDGs

is Bangladesh to attain the MDGs in these four areas, and what will it take to attain these MDGs?²

Data, Methodology and Caveats

Virtually all of the analysis in this paper is based on three sets of national household surveys. First, data from three rounds of the nationally representative Bangladesh Demographic and Health Survey (BDHS), which were collected in 1993-94, 1996-97, and 1999-2000, are used to analyse the levels and correlates of infant and under-five mortality and malnutrition. Second, unit record data from the 2000 Child Nutrition Survey (CNS) conducted by the Bangladesh Bureau of Statistics (BBS) are also used to analyse the levels and correlates of child malnutrition. Finally, unit record data from the 2000 Household Expenditure and Income Survey (HIES), also conducted by the BBS, are used to analyse the levels, patterns, schooling enrolment and completion, and gender disparity in schooling.

The methodological approach adopted in this paper consists of applying econometric estimation techniques to household survey data in order to analyse the socio-economic and policy correlates of the selected MDG indicators. These estimates are then used to simulate the likely trajectory of the MDG indicators under alternative scenarios of change between 2001 and 2015.

By its very nature, any empirical analysis is predicated on assumptions about data quality and measurement, inferences of causality between variables, and potential biases of statistical and econometric estimates. The analysis presented in this paper is not immune to these same concerns. It is, therefore, important to note at the outset that while the results and simulations presented in this paper may give an impression of precision, they are not that.³ They should be treated as indicative of possible broad trends, and could usefully be complemented with other analyses using different methodological approaches. As long as the results are used with this understanding, they can be helpful in 'rough-order' planning for MDG attainment.

Finally, it is important to note an important limitation of the simulations performed in this paper. The simulations are based on statistical analysis of household survey data. By its very nature, such analysis tends to over-

² The selection of these MDGs for detailed analysis was based in large part on the availability of reliable sub-national data. For example, reliable data on disease prevalence at the district or divisional level are simply not available, and this hampers useful sub-national analysis of the communicable disease-related MDG. The same is true of another important MDG indicator – maternal mortality.

³ In addition to lack of precision, the estimates presented in this paper, like other econometric estimates, may be subject to systematic biases arising from measurement errors in the independent variables and from the omission of important variables and unobserved heterogeneity from the analysis.
emphasise readily-measurable variables, such as household income or consumption, adult schooling levels and access to infrastructure, and under-emphasise qualitative variables, such as the quality of institutions, governance, and empowerment. Obviously, this does not imply that the latter variables are irrelevant to the MDG indicators; indeed, institutional reform and good governance are critical to the attainment of the MDGs. It is, therefore, important to view the messages of this paper as complementing those from the numerous qualitative (and detailed) studies of health, nutrition, schooling and poverty that have been conducted in the past.

Source: See Appendix Table A12.2

Figure 12.1 Infant Mortality Rate, 1911–99

SECTION II: INFANT AND UNDER-FIVE MORTALITY

The mortality of children is often seen as the criteria of ‘success and failure of nations’ (Sen 1998). It is an important indicator of well-being in its own right, as recognised by its inclusion among the MDGs. The mortality of children not only represents an enormous waste of human resources, but also a major cause of suffering in the population. The millennium development goal for Bangladesh is to reduce the infant mortality rate to 31 by 2015.

Trends

The historical trends in infant mortality, culled from various sources and surveys, are shown in Figure 12.1. The IMR appears to have dropped sharply in the early 1900s, but barely dropped from 168 infant deaths per 1,000 live births to 161 deaths during the two decades between 1951 and 1971. In the immediate aftermath of Bangladesh’s independence, the IMR actually
increased to 173. But since then the IMR has fallen secularly and rapidly, reaching a level of 125 by 1984-85, 80 in 1994-95, and 66 for currently. It is only after 1989 does one see a definitive and a faster trend of decline.

Two data sets provide much of the recent information on infant mortality. One is the vital registration survey (VRS) data of the BBS and the other is the BDHS data. Both suggest dramatic improvements in infant mortality in the 1990s. The VRS data of the BBS represents the longest series on IMR based on a single source. The VRS data show virtually no improvement in infant mortality during 1980–88 (and an increase in 1980–82) (Figure 12.2). In 1988, the IMR still stood at 116, but by 1995 it had dropped to 75. The rate fell even faster during the late 1990s and early 2000s to 57 by 1998, 53 by 2000 and 51 by 2002. While the very low infant mortality rate of 51 estimated by the VRS for 2002 is probably the result of a death registration system that is not complete, the rate of decline in infant mortality in recent years suggested by the BBS data is confirmed by the BDHS data, which also show the IMR halving from its levels in the last decade (Figure 12.2).

![Figure 12.2 Infant Mortality Rate Estimated from the Vital Registration System and the Bangladesh DHS, 1980-2002](image)

**International Comparisons**

How does Bangladesh’s performance at infant mortality reduction compare to that of other countries in the region? Over the period 1970–2000, infant mortality has fallen by anywhere from 2.6 to 5.6 per cent annually in the countries shown in Figure 12.3, with South Korea and Sri Lanka being the stellar performers. Bangladesh has, however, done very well, managing to reduce its infant mortality rate at a rate comparable to that of Thailand and much faster than that of India. Indeed, what is surprising is that the level of infant mortality is now lower in Bangladesh than in India – a country whose per capita GDP is about two times that of Bangladesh’s.
Role of Family Planning and MCH Programmes

The importance of family planning interventions in bringing about infant and child mortality decline cannot be discounted. It is well known that fertility decline and mortality decline often go hand in hand with each other. Bangladesh has had one of the most successful family planning programmes in the developing world. The programme has achieved extraordinary results by building an extensive network of health and family welfare clinics throughout the country, training thousands of female workers to take family planning advice directly to women, and using mass media campaigns to create awareness about family planning in the population. The programme has enjoyed strong political commitment from the government, grassroots-level partnership with NGOs, and generous and coordinated assistance from donors. Indeed, Bangladesh's experience has shown that it is possible to bring about fertility and mortality decline in poor countries even in the absence of strong economic growth and improving socio-economic conditions.

Some of the best evidence of the role of effective family planning and MCH interventions on infant mortality decline in the developing world comes from the Matlab area of Bangladesh, where the Maternal Child Health and Family Planning (MCH-FP) Project has been operating since 1977. This project has provided more accessible and better quality family planning services to a 'treatment' area in comparison to those offered in nearby 'control' areas. The more accessible and better quality family planning services have included more frequent visits from female welfare assistants who provide counselling and deliver contraceptives, as well as closer access to a network of family planning sub-centres operated by the International Centre for Diarrheal Diseases Research (ICDDR, B). Figure 12.4 suggests that the MCH-FP project has contributed to a decline of 10 to 30 per cent in infant mortality since its inception.
Projections to 2015. The Bangladesh DHS data suggests that the decline in infant mortality in Bangladesh between 1979–83 and 1995–99 has averaged an impressive 3.6 per cent annually. The decline during the 1990s has been even more rapid – about 4.7 per cent annually. Figure 12.5 suggests that if the rate of infant mortality decline experienced between 1979–83 and 1995–99 continues into the future, infant mortality rate in Bangladesh could be expected to reach a level of 34 in 2015 – just slightly above the MDG level of 31. If the future rate of decline remains at the (higher 4.7 per cent) rate experienced in the 1990s, the infant mortality rate could decline to 29 by 2015. Thus, on the surface, it would appear that Bangladesh could expect to attain the infant mortality MDG – or come very close to attaining it – if it simply continues the trend it has seen in the recent past.

Figure 12.4 Infant Mortality Rate by Area, 1966–2000

Source: Centre for Health and Population Research, ICDDR, Bangladesh

Figure 12.5 Actual and Projected Infant Mortality, 1981–2015
In fact, however, this is unlikely to be the case. The decline in infant mortality experienced by Bangladesh during the past 10–15 years is unprecedented – both in relation to the country’s own earlier experience as well as in relation to the experience of other developing countries. The latter suggests that declines from very high initial levels of infant mortality are driven largely by reductions in the number of post-neonatal deaths (i.e. deaths occurring between the age of one month and twelve months). These deaths are more easily averted by the typical (and relatively inexpensive) child survival interventions, such as child immunizations and oral rehydration therapy. However, as the overall level of infant mortality comes down, further reductions in overall infant mortality can only be obtained via reductions in neonatal mortality. Averting neonatal deaths typically requires more expensive interventions, such as professionally-attended deliveries or deliveries in institutions, as well as post-delivery and hospital-based emergency care. Thus, sustained infant mortality reduction becomes increasingly more difficult and expensive.

Bangladesh’s extraordinary success in bringing down the infant mortality rate has meant that neonatal mortality currently accounts for about two-thirds of infant deaths and more than half of the deaths among children under 5 years of age. In fact, the ratio of neonatal mortality to under-five mortality has increased by about 40 per cent over the last decade (Status of Performance Indicators 2002). Therefore, future interventions to reduce infant or under-five mortality will need to focus on averting neonatal deaths. Although neonatal mortality reduction typically requires hospital-based care, it is possible to provide a relatively inexpensive package of home-based neonatal services, as shown by a highly-successful field trial in India’s Maharashtra state in 1995–08 (see Appendix Table A12.1 for a detailed description of the intervention).

Correlates of Infant Mortality. In order to undertake further simulations about the likelihood of Bangladesh meeting the under-five mortality MDG, we have estimated a multivariate model of under-five mortality using unit record data from the Demographic and Health Survey 1999.4 The multivariate model has the advantage of controlling for several variables that may be simultaneously associated with under-five mortality. The estimation results are reported in Appendices Table A 12.1.

After controlling for the other factors associated with under-five mortality, urban areas are actually observed to have significantly higher under-five mortality than rural areas. This suggests that the urban areas enjoy lower rates of infant and under-five mortality than rural areas because of their higher

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4 Since the dependent variable is dichotomous (viz., whether or not a child dies within 60 months of its birth), the model has been estimated by the maximum-likelihood probit method.
living standards and adult schooling and generally better health services. Once these variables are controlled for, urban residence is actually correlated with higher under-five mortality rates.

The results also confirm that while the risk of mortality is not significantly different between girls and boys, higher-order girls have a significantly greater likelihood of dying than higher-order boys. These results are consistent with many earlier studies that indicate a peculiar form of intra-household gender discrimination in South Asia against higher-order daughters.

The results also highlight the extreme vulnerability of multiple (twin) births. Controlling for other factors such as parental schooling and household living standards, a multiple birth is nearly 20 times more likely to end in death than a single birth.

As in other studies from around the world, maternal schooling – but not father’s schooling – is observed to be significantly and inversely associated with under-five mortality, with each additional year of schooling (of the mother) reducing the under-five mortality rate by about 4 deaths per 1,000 live births. Even after controlling for mother’s schooling, the mother’s age at the time of a child’s birth has a strong inverse association with the risk of that child dying within 5 years of its birth. A delay of each year in bearing a child reduces the under-five mortality rate by about 4 deaths per 1,000 live births.

The standard of living of a household, as proxied by predicted log of monthly consumption expenditure per capita,5 has a strong and significant (inverse) association with under-five mortality, with a one per cent increase in household consumption expenditure per capita being associated with a decline of 0.25 per cent in under-five mortality.

Surprisingly, neither the availability of piped drinking water nor access to toilet facilities is observed to have any significant association with under-five mortality, after controlling for household living standards and parental schooling. While a number of studies in South Asia have failed to find a significant association between the availability of piped drinking water inside

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5 In the probit model, we have included an explanatory variable – predicted log of household consumption expenditure per capita – to proxy household living standards. The DHS is a rich data set, but it has the limitation that it does not contain information on income or expenditure, both of which are widely used as measures of household welfare. Using data on land ownership, ownership of consumer durables (radio, TV, bicycle, refrigerator, motorcycle, watch or clock, and sewing machine), and the type of materials used for the roof and wall of the household’s dwelling (which are available in both the DHS 1999 and the HIES 2000), we predicted log monthly consumption expenditure per capita for each of the DHS households on the basis of an econometric relationship between actual log monthly consumption expenditure and land assets, consumer durables and housing quality variables that was estimated with unit record data from the HIES 2000 data. The distribution of predicted log monthly consumption expenditure per capita in the DHS sample was observed to be very similar to that in the HIES sample.
Table 12.1 Assumptions about Various Interventions to Reduce Under-Five Mortality, 2001 to 2015

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Starting value in 2000</th>
<th>Assumed change per year</th>
<th>Ending value in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult female schooling (year)</td>
<td>2.5</td>
<td>0.3</td>
<td>7.0</td>
</tr>
<tr>
<td>Mother's age at child's birth (year)</td>
<td>23.8</td>
<td>0.2</td>
<td>26.8</td>
</tr>
<tr>
<td>Mean of district monthly consumption expenditure per capita (taka)</td>
<td>900</td>
<td>2.7%</td>
<td>1,342</td>
</tr>
<tr>
<td>Measles vaccination coverage in district (%)</td>
<td>63</td>
<td>2.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>
the household and infant/child mortality, the lack of significance of
the sanitation access variable is surprising. Electricity coverage in the district
also does not have a significant association with under-five mortality.

Bangladesh has made tremendous progress in expanding child
immunization coverage over the last two decades. The WHO Vaccine
Preventable Diseases Monitoring System indicates that Bangladesh went from
virtually no measles vaccination coverage in 1980 to 72 per cent coverage
by 1998. The empirical results suggest that district-level immunization
coverage of measles has a strong (inverse) association with under-five
mortality, with each percentage point increase in measles vaccine coverage
being associated with a reduction of 0.4 child deaths per 1,000 live births.
These estimates imply that universal measles vaccine coverage would be
associated with a reduction in under-five mortality of about 16 deaths per
1,000 live births.

Simulations to 2015. Based on the multivariate probit model estimated above,
we have undertaken simulations of the under-five mortality rate in Bangladesh
to 2015 under certain assumptions. The nature and magnitude of the
interventions are detailed in Table 12.1. The scope and magnitude of the
assumed interventions are only meant to illustrate the likely reduction in under­
five mortality under one possible scenario. It is obviously not possible to
predict whether the assumed interventions will indeed take place, and even if
they do, whether they will proceed at the pace assumed in Table 12.1.

Based on the estimates presented in Appendices Table A12.1, we have
projected the likely decline in the under-five mortality rate under the
assumption that the policy variables change over time as shown in Table
12.1. Figure 12.6 shows the projected trajectory of the under-five mortality
under this scenario. The under-five mortality is observed to decline
substantially – by more than 50 per cent – over this period. The largest decline
(of 18 deaths per 1,000 live births) comes about from the expansion of female
schooling, followed by expanded measles vaccination coverage (15 deaths
per 1,000 live births). Delayed child bearing, which reflects both a delayed
age at which the first child is borne as well as better spacing among subsequent
children, is also associated with a large reduction (of about 11 deaths per
1,000 live births) in the under-five mortality rate. The smallest association
is observed with living standards improvement. The results suggest that real
annual GDP per capita growth of 4 per cent (or annual growth of household
consumption expenditure per capita of 2.7 per cent) would be associated
with a reduction in under-five mortality of 8 deaths per 1,000 live births.
Together, the four interventions are associated with a reduction of 52 deaths
per 1,000 live births in the under-five mortality rate – bringing that rate
below the MDG level (46 deaths per 1,000 live births).

Thus, the simulation confirms the results of the simple trend analysis
conducted earlier. It should be possible for Bangladesh to attain the child mortality-related MDG, but only with a package of interventions that includes strong economic growth, expansion of female schooling, family planning programmes that motivate women to delay child bearing, and expanded child immunization coverage.

![Graph showing projected under-five mortality rate to 2015](image)

**Figure 12.6** Projected Under-Five Mortality Rate to 2015
(graph shows cumulative effect of each intervention)

**SECTION III: REDUCING CHILD MALNUTRITION**

Reducing child malnutrition is one of the surest ways of reducing income-poverty. A high degree of child malnutrition is one of the most important factors constraining the future productivity of a country. Child malnutrition leads to poor schooling and cognitive outcomes, which shapes occupational choice, which in turn has implications for future productivity as well as intergenerational mobility. Child malnutrition also has a direct adverse impact on labour productivity in adulthood. In addition to giving better child nutrition for its impact on future labour productivity and income potential, improved child nutrition is also an important human development goal in itself, since malnutrition significantly reduces the quality of life of children. In addition, of course, child malnutrition is an important contributing factor to the high rates of infant mortality in developing countries; by some estimates, as many as half of all the infant deaths in poor countries are directly or indirectly related to child malnutrition.

**Trends**

Child malnutrition rates in Bangladesh are very high – among the highest in the world. The two most recent child nutrition surveys – the Child Nutrition Survey 2000 and the Demographic and Health Survey 1999-2000 – indicate that nearly one-half of children below the age of 5 or 6 years are moderately...
underweight or stunted (Figure 12.7). About 10 to 18 per cent of children are severely underweight or stunted in the sense of being more than three standard deviations below the relevant NCHS standards. This suggests that children in Bangladesh suffer from short term, acute food deficits (as reflected in low weight-for-age) as well as from longer term, chronic under-nutrition (as manifested in high rates of stunting).

**International comparisons**

The levels of child malnutrition in Bangladesh are among the highest in the world. For instance, during the period 1995–2000, Bangladesh ranked second (after North Korea) in terms of the proportion of underweight children aged 0 to 5 years and fourth in terms of the proportion of stunted children (after North Korea, Bhutan and Cambodia) (UNDP 2004). Bangladesh also had the dubious distinction of having the second-highest percentage of infants with low birth weight (i.e. less than 2,500 gm) in the world (after India) (UNDP 2004). Thus, Bangladesh’s child malnutrition problem is more severe than that of most other developing countries, including the countries of sub-Saharan Africa.

But Bangladesh is also among the poorest countries in the world and child malnutrition rates are typically strongly correlated with household living

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6 As in the literature, a child is considered underweight when his or her weight-for-age is more than two standard deviations below the NCHS reference weight. A child is stunted when his or her height-for-age is more than two standard deviations below the NCHS reference. Severe underweight and stunting occur when the relevant nutrition indicator is more than three standard deviations below the NCHS reference.

7 Note that not only were the CNS and DHS surveys conducted during slightly different periods, but the age groups of children covered by the two surveys were also somewhat different (see Figure 12.7).

8 Note that the UNDP data are 1995–2000 averages, so the reported figure for Bangladesh in Figure 12.8 is different from the number shown in Figure 12.7.
standards. Is Bangladesh's child malnutrition level in line with what would be expected of a country at its level of per capita income? Figure 12.8, which plots the relationship between child underweight levels and per capita GDP for 16 countries in Asia, suggests that the percentage of underweight children in Bangladesh is approximately 16 percentage points higher than would be expected at its level of per capita GDP, given the observed relationship between child underweight rates and per capita GDP across the 16 Asian countries. In other words, based on its per capita GDP, Bangladesh would be expected to have a child underweight rate of 40 per cent (similar to that of Lao PDR) – not the 56 per cent it had in 1995–2000.

How does Bangladesh compare to other countries in South Asia? Bangladesh's overall child underweight rate is comparable to that of India, although it is significantly larger than the underweight rates observed in Pakistan and Sri Lanka (Figure 12.9).

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Figure 12.9 Underweight Rates in South Asia, Circa 2000

Source: Various DHS reports.

9 These include Myanmar, Nepal, Bhutan, Cambodia, Lao PDR, Bangladesh, Mongolia, Pakistan, Vietnam, India, Indonesia, Sri Lanka, China, Philippines, Thailand and Malaysia (in order of increasing per capita GDP).
Trends

Bangladesh has made impressive gains in reducing its child underweight rates during the last 15 years. The decline in underweight rates has been especially steep since the early 1990s (Figure 12.10). For instance, between 1992 and 2000, underweight rates dropped from 68 per cent to 51 per cent, implying an annual decline of 3.7 per cent. The decline is confirmed by the Demographic and Health Surveys (DHS) of 1996-97 and 1999-2000 (Figure 12.10).

Figure 12.10 Child underweight rates in Bangladesh 1985–2000 (% of children in relevant age group who are underweight)

Figure 12.11 below shows that the decline in child malnutrition rates during the 1990s occurred in both the rural and urban areas of the country. Indeed, the rate of decline in both indicators of malnutrition was approximately similar in the urban and rural areas of the country (26 per cent v. 24 per cent).

How does the decline in child underweight rates in Bangladesh compare to those observed in other countries of the region? Data from India (two rounds of the National Family Health Surveys) indicate a decline of about 1.9 per cent per year between 1992-93 and 1998-99 (from a rate of 52.7 per cent to 47 per cent). Thus, Bangladesh’s rate of decline of 3.6 per cent per year in child underweight rates is significantly greater than India’s rate of decline. However, the underweight rate in Sri Lanka (based on DHS data) fell from 38 per cent in 1993 to 29 per cent in 2000 – an annual decline of 3.9 per cent. Vietnam, where data on underweight rates are available for roughly comparable periods, the child underweight rate fell from 49 per cent in 1992-93 to 36 per cent in 1998-99 – an annual rate of decline of 5.3 per cent. Thus, while Bangladesh performed better than India, its performance is roughly on par with that of Sri Lanka but pales in comparison to that of Vietnam.

Projections to 2015

The Bangladesh CNS data suggest that child underweight rates in Bangladesh have declined at an annual rate of 2.4 per cent between 1985 and 2000. The
Transforming Bangladesh into a Middle Income Economy

Figure 12.11 Children Underweight Rates Among Children Aged 6 to 71 Months, by Residence, 1992–2000

The decline during the 1990s has been even more rapid – about 3.5 per cent annually. Figure 12.12 suggests that if the rate of decline of child malnutrition experienced between 1985 and 2000 continues into the future, the child underweight rate in Bangladesh could be expected to reach a level of 36 in 2015 – just slightly above the MDG level of 34. If the future rate of decline remains at the (higher 4.5 per cent) rate experienced in the 1990s, the child underweight rate could decline to 30 by 2015. Thus, Bangladesh could expect to attain the child underweight MDG – or come very close to attaining it – if it simply continues the trend it has seen in the recent past.

Figure 12.12 Actual and Projected Children Underweight Rates, 1985–2015

However, this is a simplistic projection that does not recognise the underlying factors that determine child malnutrition. A projection based on the underlying factors is attempted below.

Correlates of Child Malnutrition

To examine the likelihood of Bangladesh attaining the child underweight MD goal, we have estimated a multivariate model of child underweight rates, using unit record data from the CNS 2000.\(^{10}\) The multivariate model has the

\(^{10}\) Since the dependent variable in the model is a dichotomous variable (i.e., whether or not a child is underweight), the model has been estimated by the maximum-likelihood probit method.
advantage of controlling for several variables that may be simultaneously associated with child malnutrition. The estimation results are reported in Appendices Table A12.2.

After controlling for other variables, neither age nor gender is observed to be a significant correlate of malnutrition. However, birth order is, with higher birth-order children being significantly more likely to be underweight than lower birth-order children.

Maternal schooling has a strong association with underweight rates, with each additional year of schooling of the mother being associated with a decline of about 2 percentage points in the child underweight rate. The log of monthly consumption expenditure per capita (proxying for the household’s living standard) also has a strong association, with a one per cent increase in per capita consumption expenditure being associated with a 0.2 per cent decline in underweight rates. However, consumption inequality, as measured by the Gini index of per capita consumption expenditure, has no significant association with child malnutrition.

Infrastructure generally has strong associations with child malnutrition. Children in households having a flush toilet are, on average, 15 per cent less likely to be underweight than children in households not having access to a flush toilet. Village electrification is observed to not have any significant association with underweight rates. However, proximity to a bus station appears to have a significant association, indicating the importance of transport and road access to the probability of a child being underweight.

The results also indicate that natural disasters — in particular, floods — have a significant inverse association with child nutritional status. Children residing in villages that experienced a flood in the 5 years preceding the CNS 2000 were 7 per cent more likely to be underweight than children in villages that did not experience a flood.

Among the various government nutritional programmes, the ‘Food-for-Work’ programme appears to have a significant inverse association with child underweight rates. Controlling for other variables, children in villages having a food-for-work programme are 5 per cent less likely to be underweight than children in villages not having such a programme.11

Finally, the results indicate that, even after controlling for household living standards, the scarcity of land in a community (as proxied by mean per capita land ownership in a child’s district of residence) is significantly and inversely associated with child underweight rates. A one per cent increase in per capita land availability in district is associated with a reduction of about 0.1 per cent in child underweight rates.

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11 Of course, this result might reflect that the ‘Food-for-Work’ programme is located in better-off communities that happen to have lower child malnutrition rates. However, such a possibility appears unlikely, given the design of the programme.
Table 12.2 Assumptions about Various Interventions to Reduce the Child Underweight Rate, 2000 to 2015

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Starting value in 2000</th>
<th>Assumed change per year</th>
<th>Ending value in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult female schooling (years)</td>
<td>2.5</td>
<td>0.3</td>
<td>7.0</td>
</tr>
<tr>
<td>Food-for-Work programme coverage (%)</td>
<td>68</td>
<td>1% points</td>
<td>83</td>
</tr>
<tr>
<td>Monthly consumption expenditure per capita (taka)</td>
<td>900</td>
<td>2.7%</td>
<td>1,342</td>
</tr>
<tr>
<td>Flush toilet coverage (%)</td>
<td>9</td>
<td>0.5% point</td>
<td>17</td>
</tr>
<tr>
<td>Distance to nearest bus station (km)</td>
<td>5.4</td>
<td>0.15</td>
<td>3.15</td>
</tr>
<tr>
<td>Mean of district land availability per capita (acres)</td>
<td>0.16</td>
<td>-2%</td>
<td>0.12</td>
</tr>
<tr>
<td>Probability of village experiencing a flood in 5-year period</td>
<td>0.80</td>
<td>-0.1</td>
<td>-0.65</td>
</tr>
</tbody>
</table>
Simulations to 2015

Based on the multivariate probit model estimated above, we have undertaken simulations of the child underweight rate in Bangladesh from 2001 to 2015 under certain assumptions. The nature and magnitude of the interventions are detailed in Table 12.2.

As in the previous chapter, we assume that mean district monthly consumption expenditure per capita will grow annually at about 2.7 per cent to 2015, which would be consistent with an annual per capita GDP growth rate of 4 per cent, given the historical relationship between GDP and consumption growth in Bangladesh over the 1990s. In addition, we assume that per capita land availability will continue to decrease at the rate at which it has declined during the 1990s. Finally, we assume that flood prevention and management measures, such as construction of storage reservoirs in the upper catchments of the Ganges, the Brahmaputra and the Meghna Rivers (in cooperation with other countries sharing the basins of these rivers) drainage improvements and use of better embankment materials will reduce the likelihood of floods. As noted earlier, none of these assumptions are sacrosanct – they are only meant to be illustrative. The projections could be undertaken for any combination of changes in the policy or environmental variables.

Figure 12.13 shows the projected path of the child underweight rate in Bangladesh to 2015 with all of the seven policy and environmental changes shown in Table 12.3. As would be expected, the declining availability of land per capita is associated with rising underweight rates (from about 51 per cent to 53.5 per cent). However, all the other interventions contribute to reductions in poverty. The largest decline in child underweight rates (about 8 percentage points) is associated with the expansion of female schooling, with economic growth also contributing to an appreciable decline (of 3½ percentage points).

The other interventions – flood control and management measures, improved bus transport, sanitation access, and improved coverage of the food-for-work programme – are all associated with smaller declines (of about one percentage point each) in child underweight rates to 2015. Together, the seven interventions are associated with a reduction of about 12 percentage points in the child underweight rate – bringing the child underweight rate down from 51 per cent to 39 per cent – about 5 percentage points above the MDG level (34 per cent). This suggests that even though attainment of the child nutrition MDG will be very challenging in Bangladesh, it should be possible to bring child underweight rates down sharply (and relatively close to the MD target) with a package of interventions that includes economic growth, flood control and management, expansion of female schooling, improved physical infrastructure (transport and sanitation access), and greater coverage by food assistance programmes, such as food-for-work.
SECTION IV: PRIMARY SCHOOLING

Universal primary enrolment is one of the main education-related MDGs. The millennium development goal is to ensure that, by 2015, all children are in school, the net primary enrolment ratio is 100 per cent and that all the pupils entering grade I are retained until grade V (typically the last year of primary school).

The numerous benefits of schooling are well known and have been widely discussed in the literature on economic development. Schooling is one of the most powerful instruments for reducing poverty, unemployment and inequality, improving health and nutrition, and promoting sustained, human development-led growth. It is also self-perpetuating across generations, with educated parents much more likely to provide schooling to their children. Both the pecuniary and non-pecuniary returns from schooling have been well-documented in the literature for several countries, including Bangladesh.

Overall Trends

Enrolment rates

Bangladesh has achieved rapid progress in schooling during the last two decades. The gross primary enrolment rate, which was only 61 per cent in 1980, increased to 72 per cent by 1990 and to 96 per cent by 2000.

However, as in other developing countries, gross enrolment rates tend to be greater than net primary enrolment rates because of the late entry of children (i.e. beyond age 6) into primary school and the resulting enrolment of overage children (i.e. those above age 10) at the primary level. In the case of Bangladesh, the net primary enrolment rate from administrative data is estimated to be about 86 per cent in 2000.
Household surveys present yet another set of estimates. For example, data from the HIES 2000 indicate a net primary enrolment rate of only 65.4 per cent in 2000.\textsuperscript{12} There are many reasons for the discrepancy between household survey-based and school administrative records-based enrolment rates. First, household surveys typically obtain information on whether a child is attending school at the time of the survey, while administrative data refer to students enrolled in the registers of the school at the beginning of the school year. The latter may be greater than the former if students enrol in school at the start of the school year but then do not attend it during the remainder of the year. Second, gross enrolment rates from administrative records are very sensitive to incorrect estimates of the population of school-aged children. Third and finally, there are incentives for school administrators and district officials to overstate the number of enrolled students, since many types of government education expenditure allocations to districts and schools are often based on the number of enrolled students.

![Figure 12.14 Per cent of Children Attending School and Primary School, by Age, 2000](image)

Figure 12.14 shows the percentage of children of different ages who were attending school and those that were attending primary school in particular, in 2000, based on the HIES.\textsuperscript{13} School enrolment rates are observed to increase from 29 per cent at age 5 to 55 per cent at age 6 and then peak at 86 per cent at age 9. Thereafter, enrolment falls gradually until age 14 and sharply beyond that age. For the age group 6-10 years, the school enrolment rate is 75.2 per cent – significantly larger than the 65.4 per cent net primary enrolment rate. The difference arises largely because a number of children

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\textsuperscript{12} Data from UNICEF's Multiple Indicator Cluster Survey (MICS) indicate a much higher net primary enrolment rate - 79.8 per cent for 2000.

\textsuperscript{13} In what follows, we use the term 'enrolment' for rates estimated from both administrative and survey data, since the term 'attendance rate' refers to the percentage of school days that a student attended school. Data on such rates are rarely available from most multi-purpose household surveys.
aged 6-10 years attend pre-primary school. The HIES data indicate that one-third of enrolled students aged 6 and 16 per cent of students aged 7 do not, in fact, attend primary school. This suggests the age of entry into primary school to be closer to 7 or 8 years instead of the 6 that is officially expected. On the other hand, nearly half of all enrolled students aged 12 and 30 per cent of students aged 13 paper attending primary school. This overage enrolment results in high rates of gross (relative to net) primary enrolment.

**Primary completion**

Getting out-of-school children into school is only one of the instruments of universalising primary education. Another instrument is retention of students, viz., to ensure that the entire cohort of children who begins grade I remains in school until grade V. School retention is an indicator – albeit imperfect – of the quality of schooling. It is possible that in the rush to expand access to schooling, policymakers might compromise the quality of schooling. The compromise in quality would likely show up in lower rates of student retention and primary school completion.

Calculating the true primary retention rate or completion rate requires longitudinal data on children, but in the absence of such data, one can use household survey data on children’s ever-schooled, currently-in-school, and current grade status. The HIES 2000 data papers whether a child ever went to school, whether he/she was currently attending school at the time of the survey, the grade currently attending and the grade last completed.

The above information can be used to calculate the primary completion rate for children aged 12 years. Obviously, 12 year olds who never attended school are excluded from the calculation of the primary completion rate. A child is considered to have completed primary school if he/she reported having completed class 5 at the time of the survey and if he/she was not reported as never having attended school. In 2000, the primary completion rate thus calculated was 66.3 per cent. A similar calculation for India for approximately the same year (1999-2000) yields a primary completion rate of 61.4 per cent (World Bank 2004).\(^{14,15}\)

**Correlates of primary school enrolment and completion**

To examine the likelihood of Bangladesh attaining the child education-related MDGs, we have estimated multivariate models of net primary school

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\(^{14}\) Increasing the potential pool of children from age 12 to those aged 12-13 years does not make an overly large difference to the estimated primary completion rate. In 2000, the estimated primary completion rate goes up from 66.3 per cent to 71.6 per cent when the age group 12-13 years is considered.

\(^{15}\) Another, more widely-used method of calculating the primary completion rate is to compare the size of the first grade cohort in a given year with that of the sixth grade cohort five years later.
enrolment and completion, using unit record data from the HIES 2000. The multivariate models have the advantage of controlling for several variables that may be simultaneously associated with primary school enrolment and completion. The estimation results are shown in Appendices Tables 12.3 and 12.4.

**Net primary school enrolment.** The empirical results show older children having a higher probability of primary school enrolment (as compared to children aged 6 years) with primary school enrolment peaking at age 9. Interestingly, after controlling for age and other factors, girls are significantly more likely than boys to be enrolled in primary school, although the difference (about 3.6 percentage points) is modest.

Household living standards, as measured by the log of monthly consumption expenditure per capita, have a strong positive association with primary school enrolment, with a one per cent increase in per capita consumption expenditure being associated with a 15 percentage point increase in the net primary school enrolment rate.

Interestingly, however, while the likelihood of primary school enrolment is significantly and positively associated with adult female schooling in the household, it has a stronger association with adult male schooling. Each additional year of schooling of the highest-educated adult male in the household is associated with a 1.4 percentage point increase in the net primary enrolment rate, but the corresponding increase associated with the schooling of the highest-educated adult female in the household is only half as much (0.7 percentage points). This result is counter-intuitive and flies in the face of evidence from around the world indicating stronger associations between mother’s and children’s schooling than between father’s and children’s schooling. The result might reflect the fact that the highest-educated adult female in the household may not necessarily be a child’s mother, nor might the highest-educated adult male be a child’s father. At any rate, since it is merely net primary school enrolment that is being analysed here, there is nothing in the results to suggest that adult female schooling in a household is less important than adult male schooling to regular school attendance and improved learning outcome among children.

Infrastructure generally has mixed associations with primary school enrolment rates. Paved roads in a district are strongly associated with primary school enrolment, with a one point increase in the percentage of roads in a district that are paved being associated with a 0.4 percentage point increase.

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16 Since the dependent variable in the model is a dichotomous variable (i.e., whether or not a child of a given age is attending primary school or has completed primary school) the models have been estimated by the maximum-likelihood probit method.

17 The results do not, however, show a statistically significant (at the 5 per cent level or below) difference between the point estimates of adult male and adult female schooling.
in the net primary school enrolment rate. Similarly, proximity to a bus station has a significant inverse association with primary school enrolment, reflecting the importance of transport and road access to schooling decisions. The results suggest that every one kilometer reduction in the distance of a village from the nearest bus station is associated with an increase in the net primary enrolment rate of about 0.6 percentage points. However, electricity coverage does not appear to be a significant correlate of primary school enrolment.

Among the various government programmes, the food-for-education programme appears to have a very significant and large association with primary school enrolment. Controlling for other variables, the net primary enrollment rate in villages having a food-for-education programme is 8.5 percentage points higher than the corresponding rate in villages not having a food-for-education programme. The Vulnerable Group Development (VGD) programme is also observed to have a very strong positive association with net primary school enrolment – VGD villages on average have a net primary enrolment rate that is 6 percentage points greater than non-VGD villages.\(^\text{18}\)

An interesting question is the extent to which access to schools and the quality of schools in a community are associated with net primary school enrolment rates. The distance (as measured in minutes of walking) to the nearest primary school in a village – an indicator of school access – has no significant association with primary school enrolment. The lack of significance of access is surprising, but perhaps reflects the fact that 85 per cent of villages in Bangladesh have a primary school located in the village. On the other hand, lowering the pupil-teacher ratio at the primary level in a district – an indicator of increased schooling quality – is significantly associated with higher rates of school enrolment. The absolute size of the association is small, however; the results suggest that, controlling for other factors, a one per cent reduction in the pupil-teacher ratio in a district is associated with an increase of only 0.1 per cent in the net primary enrolment rate. These results thus indicate that primary school enrolment in Bangladesh is currently not constrained by the availability of primary schools, but that enrolment would likely benefit (modestly) from school quality improvements in the form of a reduction of the pupil teacher ratio.

The results also suggest that the number of female teachers in the village school is not significantly associated with net primary school enrolment rates. This result is surprising, as there is a great deal of anecdotal evidence from Bangladesh and other countries indicating that parents are less reluctant to send their children, especially daughters, to school when the school teacher is female. However, it may be the case that having female teachers in school

\(^{18}\) Of course, these results might reflect that the food-for-education and VGD programmes are (unintentionally) targeted at better-off communities that happen to have higher net primary enrolment rates.
is especially important to improving regular school attendance and learning among children, especially girls – effects that this analysis is unable to capture. **Primary completion.** The results on primary completion are disappointing, since few explanatory variables are significantly associated with primary completion. The only variables that are significant are log of per capita consumption expenditure, adult male schooling and the presence of the food-for-education program in the village. Of these, the last variable has a perverse (negative) association, suggesting that the food-for-education programme is associated with lower rates of primary completion. Such a result makes little sense, especially given the earlier finding that the food-for-education programme is strongly associated with higher rates of primary school enrolment. Likewise, the significance of adult male schooling, but lack of significance of adult female schooling is troubling, given the large body of evidence indicating stronger associations of mother’s (relative to father’s) schooling with children’s primary school enrolment and completion. Interestingly, this result is consistent with the earlier finding that net primary enrolment rates have a stronger association with adult male schooling in a household than with adult female schooling. However, it is not clear how much credence one can place in these unusual and counter-intuitive findings.

The empirical results suggest that a one per cent increase in consumption expenditure per capita is associated with a 0.25 per cent increase in primary completion rates. The observed association of primary completion with adult male schooling is also strong, with a one-year increase in the schooling of the highest-educated male in the household being associated in the primary completion rate. None of the other variables, including adult female schooling, is significantly associated with primary completion.

**Simulations to 2015.** Based on the multivariate probit models estimated above, we have undertaken simulations of the primary school enrolment and completion rates in Bangladesh from 2001 to 2015 under certain assumptions. The nature and magnitude of the interventions are detailed in Table 12.3.

![Figure 12.15 Projected net Enrolment Rate to 2015, Under Various Intervention Scenarios (graph shows cumulative effect of each additional intervention)](image-url)
Figure 12.15 shows the projected changes in the primary school enrolment rate in Bangladesh when the eight interventions shown in Table 12.3 are pursued simultaneously. It is obvious that, while each of the interventions contributes to the increase in primary school enrolment, the ones that are associated with the largest increases in primary school are expansion of male and female schooling, increases in household consumption expenditure per capita and paving of rural roads. Together, the eight interventions considered are associated with an increase of about 21 percentage points in the net primary enrolment rate – bringing that rate to 86 per cent or well below the 100 per cent MDG rate.

Figure 12.16 shows the projected changes in the primary completion rate when the only three interventions that are significantly associated with primary completion are pursued simultaneously. Given the (perverse) inverse association between primary completion and the food-for-education (or its successor, the Primary Education Stipends Programme), an expansion in the coverage of that programme is projected to reduce primary completion rates by about 2 percentage points. Expansion of adult male schooling is associated

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Starting value in 2000</th>
<th>Assumed change per year</th>
<th>Ending value in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult male schooling</td>
<td>4.5</td>
<td>0.3</td>
<td>9.0</td>
</tr>
<tr>
<td>Adult female schooling (years)</td>
<td>2.5</td>
<td>0.3</td>
<td>7.0</td>
</tr>
<tr>
<td>Primary education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stipends programme (successor to food-for-education programme) coverage (%)</td>
<td>22</td>
<td>points to maximum of 40</td>
<td>40</td>
</tr>
<tr>
<td>VGD programme coverage (%)</td>
<td>56</td>
<td>1</td>
<td>71</td>
</tr>
<tr>
<td>Monthly consumption expenditure per capita (taka)</td>
<td>900</td>
<td>2.7</td>
<td>1,342</td>
</tr>
<tr>
<td>% of roads in district that are paved</td>
<td>13</td>
<td>0.5</td>
<td>20</td>
</tr>
<tr>
<td>Distance to nearest bus station (km).</td>
<td>5.4</td>
<td>0.15</td>
<td>3.2</td>
</tr>
<tr>
<td>Pupil teacher ratio in village primary school</td>
<td>78</td>
<td>-1</td>
<td>63</td>
</tr>
</tbody>
</table>
with an increase of 11 percentage points in the primary completion rate, while annual per capita GDP growth of 4 per cent is associated with an increase of 9 percentage points. Thus, the primary completion rate is projected to increase from its base level of 66 per cent to 83 per cent by 2015.

What these simulations suggest is that there is a great deal of scope for raising both the primary school enrolment and the primary completion rate in Bangladesh over the next 12 years with a package of interventions that include economic growth, expansion of adult male and female schooling, improved physical infrastructure (mainly roads) and greater coverage by food assistance programmes, such as the Primary Education Stipends Programme. However, the achievements are likely to fall short of the levels called for by the education MDGs.

Figure 12.16 Projected Primary Completion Rate to 2015, under Various Intervention Scenarios (graph shows cumulative effect of each additional intervention)

SECTION V: GENDER DISPARITY IN SCHOOLING

One of the millennium development goals is to reduce gender disparities in schooling, such that the ratio of girls to boys enrolled at all schooling levels – primary and secondary – is 100 per cent. This paper focuses on the gender disparity situation in Bangladesh and explores how far Bangladesh is from attaining that MDG.

Trends

Levels and trends

School-based administrative data suggest that Bangladesh has made impressive gains in reducing gender disparities in primary and secondary schooling. Data from the Directorate of Primary Education show that the ratio of females to males in primary schools has steadily increased from about 83 per cent in 1991 to 96 per cent in 2000 (Figure 12.17). At the secondary level, thanks
Transforming Bangladesh into a Middle Income Economy

Figure 12.17 Ratio of Females to Males in Primary School, 1991–2000

largely to the Bangladesh Female Secondary Stipend programme, there are already more girls enrolled than boys. In 2000, Ministry of Education statistics indicate that, of the 7.65 million children enrolled in junior secondary and secondary schools, 4 million were females, which would imply a ratio of females to males in secondary schools of 112 per cent.

Figure 12.18 Percentage of Children Attending School, by Age and Sex, 2000

Gender patterns by age

Figure 12.18 shows the pattern of male and female school attendance by age. Until age 9, approximately the same proportion of males and females attend school. However, beyond age 9, the per cent of females attending schools is consistently higher than the per cent of males attending school, and this trend continues until age 18.

These results are nothing short of astonishing, since they are so different from the pattern found in the other countries of South Asia as well as in other countries at Bangladesh's level of per capita GDP. Figures 12.19 and 12.20 contrast the pattern of sex-specific schooling attendance in Bangladesh against that found in India (using data from the 55 round of the National Sample Survey conducted in 1999-2000). Between ages 10 and 18, age-specific school attendance rates for girls are higher in India than in Bangladesh (Figure 12.19).

However, the pattern is completely reversed for boys (Figure 12.20). At
virtually every age, Bangladesh enjoys higher age-specific rates of school attendance than those observed in India.

**Female secondary school stipend program.** What is responsible for these unusual results in Bangladesh? The uncommonly large enrolment of girls in secondary school is largely the result of a government initiative – the Female Secondary School Stipend (FSSS) programme – launched in 1994. Under the FSSS, the government provides a cash incentive or stipend to cover full tuition,\textsuperscript{19} examination costs, and an increasing proportion of school fees, textbooks, school supplies, uniforms, shoes, transport and kerosene (for lamps), to girls as they progress from Grades VI to X. The coverage of other costs rises with grade because extra incentives are needed in the upper grades to reduce high dropout rates. The programme also simultaneously has

\textsuperscript{19}Unlike primary schools, which are free, secondary schools require payment of tuition fees in Bangladesh. In addition, households have to incur all other costs, such as transportation, books, uniforms, school supplies, and examination fees.
attempted to raise the number of teachers – especially female teachers – in secondary school – provide occupational skill training to girls who are about to graduate, make schools more attractive to provide a healthier and safer setting for girls, and strengthen government institutions for secondary education.

The program appears to have been widely successful in its twin objectives of increasing the number of girl students entering secondary school as well as keeping them in school until graduation. Clearly, with this programme, Bangladesh has become a pioneer in increasing female secondary enrolments and in narrowing gender disparities at the secondary level among the nations of South Asia.

Since Bangladesh has already achieved the MDG related to gender disparity in schooling opportunities, as the ratio of females to males in primary and secondary schools was 97 per cent in 2000, simulations through 2015 are not done.

SECTION VI: CONCLUSIONS

What do we conclude about Bangladesh’s progress on the MDGs? First, it is clear that, of the four MDGs analysed here, Bangladesh has already attained the goal relating to elimination of gender disparity in schooling opportunities. Bangladesh is the only country in South Asia other than Sri Lanka to have achieved virtual parity in male and female enrolments not just at the primary level but also at the secondary level. This is an impressive achievement for a country that is one of the poorest countries in the world, with a per capita GDP of only US dollar 1,600 (in PPP terms) in 2001. The analysis in this paper suggests that attainment of one other MDG – the reduction of under-five mortality – is also feasible with a combination of interventions, including sector-specific interventions (such as expanding immunization coverage and reducing pupil-teacher ratios), economic growth, improved coverage of infrastructure, and social safety-net programmes (such as the District Education Stipends Programme and the Vulnerable Group Development programmes). However, it will be challenging for Bangladesh to attain the child malnutrition-related MDG as well as the education MDGs relating to universal net primary enrolment and primary completion. In the case of child malnutrition, the projections suggest that Bangladesh could come very close to – within 5 percentage points of – the MD goal of having no more than 34 per cent of its children underweight. However, it will be very challenging for the country to attain rates of net primary enrolment and primary completion exceeding 83 to 86 per cent by 2015.

It is important, nevertheless, to note that the above represent very substantial progress for a country that was until a couple of decades back considered an international basket case. As a result of its achievements,
Bangladesh, for the first time in its independent history, has graduated from being the ‘test case of development’ (Faaland and Parkinson 1975) to the league of ‘medium human development’ countries (UNDP 2004).

The simulations carried out in this paper suggest that economic growth will have to be an important element of a strategy to attain the MDGs. For example, real per capita GDP growth of 4 per cent per annum in Bangladesh could alone bring down the under-five mortality rate by about 8 deaths per 1,000 live births between now and 2015. In addition, this growth could bring about an increase in the net primary enrolment rate of 5 percentage points by 2015. In other words, rapid economic growth could make significant contributions to an improvement in all the MDG indicators between now and 2015.

The analysis in this paper highlights the importance of infrastructure to MDG attainment. Access to sanitation, electricity, roads and bus transport are variously observed to be correlated with MDG outcomes. Infrastructure development is one area where the Bangladeshi economy has lagged behind its neighbours – it will need to make substantially more progress in infrastructure improvement during the decade ahead than it has in the past.

The paper also suggests that carefully-targeted sectoral policies are important to the attainment of the MDGs. For instance, expanding immunization efforts to attain universal measles vaccination coverage by 2015 could alone bring the under-five mortality rate down by 15 child deaths per 1,000 live births. Likewise, expansion of the food-for-work programme, vulnerable group development programme and the primary education stipends programme would be associated with appreciable declines in child malnutrition and increases in school enrolment. Likewise, the paper suggests that improving the quality of schooling (via reductions in the pupil-teacher ratio) could significantly enhance primary enrolments.

Although this paper has not focused on the institutions of service delivery, it is important to note that many of the interventions discussed in this paper are unlikely to work in improving the MDG indicators unless they are simultaneously accompanied by systematic reform of the institutions of service delivery in Bangladesh. Lower pupil-teacher ratios are unlikely to increase enrolment or school completion if teachers frequently are absent from school. Expansion of health services coverage is unlikely to reduce infant and child mortality and child underweight rates if health workers are not sufficiently motivated to reach out into the community and deliver the package of essential health services to the poor and most at risk. Like other countries in South Asia, Bangladesh has had serious problems with governance and service delivery in the social (and other) sectors. Better delivery of public services – whether in health, schooling, nutrition, or infrastructure – is a complex and difficult task that entails the creation of the right institutions and incentives.
Finally, the importance of systematically monitoring MDG outcomes at disaggregated levels and evaluating the impact of public programmes cannot be overemphasised. There is a paucity of reliable, time-series data on most MDG indicators at the district and Upazila (sub-district) levels. The lack of such data makes it virtually impossible to monitor progress toward attainment of the MDGs at lower levels of administration. In addition, with the exception of a few food assistance programmes, most public programmes and interventions in Bangladesh have not been subjected to rigorous, independent evaluation. In order to choose the right set of interventions with which to attain the MDGs, it is critical to know which programmes have been successful in improving MDG indicators and which have not.

REFERENCES


### Table A12.1: Maximum Likelihood Probit Estimates of the Probability of a Child Dying before the Age of 60 Months

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Parameter</th>
<th>Asympt. z-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whether urban resident?*</td>
<td>0.0279</td>
<td>2.44</td>
</tr>
<tr>
<td>Birth order</td>
<td>0.0009</td>
<td>0.34</td>
</tr>
<tr>
<td>Whether child female?*</td>
<td>-0.0154</td>
<td>1.60</td>
</tr>
<tr>
<td>Whether child female* x Birth order</td>
<td>0.0044</td>
<td>1.65</td>
</tr>
<tr>
<td>Predicted log of monthly consumption expenditure per capita</td>
<td>-0.0224</td>
<td>-2.03</td>
</tr>
<tr>
<td>Gini index of inequality of predicted household consumption expenditure per capita</td>
<td>-0.0003</td>
<td>-0.51</td>
</tr>
<tr>
<td>Per capita availability of land (acres) in district</td>
<td>0.0201</td>
<td>0.84</td>
</tr>
<tr>
<td>Whether piped water available to household?*</td>
<td>0.0059</td>
<td>0.38</td>
</tr>
<tr>
<td>Whether household has no access to toilet?*</td>
<td>-0.0020</td>
<td>-0.28</td>
</tr>
<tr>
<td>Mother's schooling years</td>
<td>-0.0043</td>
<td>-3.55</td>
</tr>
<tr>
<td>Father's schooling years</td>
<td>-0.0007</td>
<td>-0.72</td>
</tr>
<tr>
<td>Whether child was multiple birth?*</td>
<td>0.4024</td>
<td>13.96</td>
</tr>
<tr>
<td>Mother's age at child's birth</td>
<td>-0.0038</td>
<td>-4.96</td>
</tr>
<tr>
<td>Whether household head is female?*</td>
<td>0.0062</td>
<td>0.51</td>
</tr>
<tr>
<td>% of children in district who have been vaccinated for measles</td>
<td>-0.0004</td>
<td>-2.92</td>
</tr>
<tr>
<td>% of pregnant women in district who had professional prenatal care pregnancy</td>
<td>-0.0001</td>
<td>-0.46</td>
</tr>
<tr>
<td>% of households in district with electricity connection</td>
<td>-0.0001</td>
<td>-0.75</td>
</tr>
<tr>
<td>Number of observation</td>
<td>10,761</td>
<td></td>
</tr>
<tr>
<td>Log likelihood ratio</td>
<td>-3,280</td>
<td></td>
</tr>
<tr>
<td>Chi-squared test</td>
<td>3088.91</td>
<td></td>
</tr>
<tr>
<td>Pseudo R-squared</td>
<td>0.045</td>
<td></td>
</tr>
<tr>
<td>Log likelihood ratio</td>
<td>0.045</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Estimation employs unit record data from the 1999 DHS. Standard errors are corrected for heteroscedasticity using Huber-white method. All coefficients are expressed as marginal effects (i.e. the change in probability of a child dying with a one-unit change in the right-side variable). An “x” implies the variable is dichotomous. Figures in bold indicate statistical significance of the marginal effect at the 10% or lower level.*
Transforming Bangladesh into a Middle Income Economy

Table A12.2 Maximum Likelihood Probit Estimates of the Probability of a Child Being Underweight

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Parameter</th>
<th>Asympt. z-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (months)</td>
<td>0.0037</td>
<td>1.51</td>
</tr>
<tr>
<td>Age squared</td>
<td>-0.0001</td>
<td>-1.63</td>
</tr>
<tr>
<td>Log per capita consumption expenditure</td>
<td>-0.0933</td>
<td>-4.09</td>
</tr>
<tr>
<td>Mother's schooling years</td>
<td>-0.0187</td>
<td>-5.27</td>
</tr>
<tr>
<td>Whether child female?</td>
<td>-0.0348</td>
<td>-0.96</td>
</tr>
<tr>
<td>Birth order</td>
<td>-0.0129</td>
<td>-1.94</td>
</tr>
<tr>
<td>Whether child female? x Birth order</td>
<td>0.0067</td>
<td>0.70</td>
</tr>
<tr>
<td>Whether village has food-for-work programme?</td>
<td>-0.0480</td>
<td>-2.20</td>
</tr>
<tr>
<td>Whether village is electrified?</td>
<td>0.0132</td>
<td>0.60</td>
</tr>
<tr>
<td>Distance (km) from nearest bus stop</td>
<td>0.0027</td>
<td>1.87</td>
</tr>
<tr>
<td>Whether village experienced flood in last 5 years?</td>
<td>0.0707</td>
<td>2.65</td>
</tr>
<tr>
<td>Gini index of inequality of household consumption expenditure per capita</td>
<td>-0.0030</td>
<td>-0.97</td>
</tr>
<tr>
<td>Per capita availability of land (acres) in district</td>
<td>-0.6356</td>
<td>-2.29</td>
</tr>
<tr>
<td>Number of observations</td>
<td>2,625</td>
<td></td>
</tr>
<tr>
<td>Chi-squared test</td>
<td>123.42</td>
<td></td>
</tr>
<tr>
<td>Pseudo R-squared</td>
<td>0.034</td>
<td></td>
</tr>
<tr>
<td>Log likelihood ratio</td>
<td>-1,753</td>
<td></td>
</tr>
</tbody>
</table>

Note: Estimation employs unit record data from the 2000 CNS, merged with household data from the 2000 HIES and with relevant village-level data. Standard errors are corrected for heteroscedasticity using the Huber-white method. All coefficients are expressed as marginal effects (i.e. the change in probability of a child being underweight with a one-unit change in the right-side variable.) An "x" implies the variable is dichotomous. Figures in bold indicate statistical significance of the marginal effect at the 10% or lower level.
Table A12.3 Maximum Likelihood Probit Estimates of the Probability of a Child Aged 6–10 Years Attending Primary School

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Parameter</th>
<th>Asympt. z-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whether child aged...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 years?*</td>
<td>0.2341</td>
<td>9.70</td>
</tr>
<tr>
<td>8 years?*</td>
<td>0.3383</td>
<td>14.76</td>
</tr>
<tr>
<td>9 years?*</td>
<td>0.3654</td>
<td>15.84</td>
</tr>
<tr>
<td>10 years?*</td>
<td>0.3225</td>
<td>14.11</td>
</tr>
<tr>
<td>Whether child female?*</td>
<td>0.0358</td>
<td>1.98</td>
</tr>
<tr>
<td>Log monthly household consumption expenditure per capita</td>
<td>0.1484</td>
<td>6.27</td>
</tr>
<tr>
<td>Whether household head female?*</td>
<td>-0.0196</td>
<td>-0.51</td>
</tr>
<tr>
<td>Schooling years of highest-educated adult male</td>
<td>0.0136</td>
<td>4.71</td>
</tr>
<tr>
<td>Schooling years of highest-educated adult female</td>
<td>0.0070</td>
<td>1.73</td>
</tr>
<tr>
<td>% of roads in district that are paved</td>
<td>0.0038</td>
<td>1.89</td>
</tr>
<tr>
<td>Whether village has electricity?*</td>
<td>0.0114</td>
<td>0.55</td>
</tr>
<tr>
<td>Whether village has food-education programme?*</td>
<td>0.0853</td>
<td>4.04</td>
</tr>
<tr>
<td>Whether village has food-for-work programme?*</td>
<td>-0.0024</td>
<td>-0.11</td>
</tr>
<tr>
<td>Whether village has Vulnerable Group Development programme?*</td>
<td>0.0564</td>
<td>3.00</td>
</tr>
<tr>
<td>Distance (km) from nearest bus stop</td>
<td>-0.0062</td>
<td>-3.69</td>
</tr>
<tr>
<td>Time (hours) to reach nearest primary school in village</td>
<td>0.0721</td>
<td>1.12</td>
</tr>
<tr>
<td>Pupil teacher ratio in village primary school</td>
<td>-0.0007</td>
<td>-2.72</td>
</tr>
<tr>
<td>Number of female teachers in village primary school</td>
<td>-0.0028</td>
<td>-0.42</td>
</tr>
<tr>
<td>Gini index of inequality of household consumption expenditure per capita</td>
<td>-0.0026</td>
<td>-1.27</td>
</tr>
<tr>
<td>Per capita availability of land (acres) in district</td>
<td>-0.1783</td>
<td>-1.11</td>
</tr>
<tr>
<td>Number of observations</td>
<td>3083</td>
<td></td>
</tr>
<tr>
<td>Chi-squared test</td>
<td>586.93</td>
<td></td>
</tr>
<tr>
<td>Log likelihood ratio</td>
<td>-1706</td>
<td></td>
</tr>
<tr>
<td>Pseudo R-squared</td>
<td>0.1467</td>
<td></td>
</tr>
</tbody>
</table>

Note: Estimation employs unit record data from the 2000 HIES, merged with relevant district-and village-level data. Standard errors are corrected for heteroscedasticity using the Huber-white method. All coefficients are expressed as marginal effects (i.e. the change in probability of a child aged 6–10 years attending primary school with a one-unit change in the right-side variable.) An "x" implies the variable is dichotomous. Figures in bold indicate statistically significance of the marginal effect at the 10% or lower level.
### Table A 12.4 Maximum Likelihood Probit Estimates of the Probability of a Child Aged 12 Years Having Completed Primary School (Class V)

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Parameter</th>
<th>Asympt. z-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whether child female?</td>
<td>0.0067</td>
<td>0.14</td>
</tr>
<tr>
<td>Log monthly household consumption expenditure per capita</td>
<td>0.1676</td>
<td>2.50</td>
</tr>
<tr>
<td>Gini index of inequality of household consumption expenditure per capita</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per capita</td>
<td>0.0012</td>
<td>0.20</td>
</tr>
<tr>
<td>Per capita availability of land (acres) in district</td>
<td>0.2935</td>
<td>0.62</td>
</tr>
<tr>
<td>Whether household head female?</td>
<td>0.0151</td>
<td>0.14</td>
</tr>
<tr>
<td>Schooling years of highest-educated adult male</td>
<td>0.0253</td>
<td>3.85</td>
</tr>
<tr>
<td>Schooling years of highest-educated adult female</td>
<td>-0.0017</td>
<td>-0.20</td>
</tr>
<tr>
<td>% of roads in district that are paved</td>
<td>0.0024</td>
<td>0.50</td>
</tr>
<tr>
<td>Whether village has electricity?</td>
<td>0.0756</td>
<td>1.29</td>
</tr>
<tr>
<td>Whether village has food-for-education programme?</td>
<td>-0.1454</td>
<td>-2.45</td>
</tr>
<tr>
<td>Whether village has food-for-work programme?</td>
<td>-0.0173</td>
<td>-0.31</td>
</tr>
<tr>
<td>Whether village has Vulnerable Group Development programme?</td>
<td>-0.0739</td>
<td>-1.44</td>
</tr>
<tr>
<td>Distance (km) from nearest bus stop</td>
<td>0.0011</td>
<td>0.22</td>
</tr>
<tr>
<td>Time (hours) to reach nearest primary school in village</td>
<td>-0.0520</td>
<td>-0.31</td>
</tr>
<tr>
<td>Pupil teacher ratio in village primary school</td>
<td>0.0001</td>
<td>0.14</td>
</tr>
<tr>
<td>% of female teachers in village primary school</td>
<td>-0.0111</td>
<td>-0.65</td>
</tr>
<tr>
<td>Number of observations</td>
<td>410.0000</td>
<td></td>
</tr>
<tr>
<td>Chi-squared test</td>
<td>-237.8900</td>
<td></td>
</tr>
<tr>
<td>Log likelihood ratio</td>
<td>50.5800</td>
<td></td>
</tr>
<tr>
<td>Pseudo R-squared</td>
<td>0.0961</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Estimation employs unit record data from the 2000 HIEM, merged with relevant district- and village-level data. Standard errors are corrected for heteroscedasticity using the Huber-white method. All coefficients are expressed as marginal effects (i.e. the change in probability of a child aged 12 years having completed primary (class 5) with a one-unit change in the right-side variable.) An "x" implies the variable is dichotomous. Figures in bold indicate statistical significance of the marginal effect at the 10% or lower level.
PART IV

Reforming Public Sector to Promote Growth and Poverty Reduction
13

Governance and Institutions

Syed M. Ahsan

SECTION I: INTRODUCTION

This paper addresses the poor state of governance in Bangladesh, and attempts to provide a set of feasible ideas in order to ameliorate these. Since the term governance is used in many varied contexts, we would prefer to give it a somewhat precise interpretation. To this end, we embrace the framework of the New Institutional Economics (NIE), where the primary concept of relevance is that of institutions. Here one conceives of institutions as the enabling framework that facilitates economic and non-economic exchanges. The central tenet of new institutional economics is that institutions (political and economic ones) are generally incomplete in any setting, and hence, transactions are costlier than they ought to be in a full efficiency setting. To North, institutions are the ‘rules of the game’, and demands that ‘institutions must not only provide low-cost enforcement of property rights, bankruptcy laws, but also provide incentives to encourage decentralised decision-making and effective competitive markets’ [1997, p. 4]. Among ‘formal rules’, he enumerates the polity, the judiciary, and the laws of contract and property. Thus the terms rules and institutions are used interchangeably in this literature.

Now we can come to the term of governance, which also originates in the NIE literature. It relates to institutions that a society must possess in order to monitor the ‘plays of the game’. Williamson argues that transaction is the basic unit of analysis and regards governance ‘as the means by which order is accomplished in relation to which potential conflict threatens to undo or upset

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1 An earlier version of the paper was presented at the 6 Workshop of the European Network of Bangladesh Studies, University of Oslo, Norway (14–16 May, 2000).
2 Coase (1984) attributes the origin of the term ‘new institutional economics’ to Oliver Williamson.
opportunities to realise mutual gains’. (1998, p. 76). Conflicts in exchange may occur due to asset specificity of agents (‘bilateral dependency’) or wherever contractual hazards (e.g. succumbing to opportunism or rent-seeking) may arise.

The formal rules including those of governance are complemented by what is generally referred to as ‘informal’ ones. Variously different authors have identified routines, customs, traditions, culture, and above all, trust as among the fundamental elements of informal rules or what Williamson (1998) has called ‘societal embeddedness’. These are also collectively known as social capital in the modern interdisciplinary development literature (e.g. see Coleman [1988] and Collier [1998]). Early citation of trust and its economic externalities have been found in the works of David Hume, Adam Smith and Antonio Genovese over two hundred years ago. However, Kenneth J. Arrow may have been the first modern economist to reflect on the possible role of social capital in helping agents allocate resources, and hence overcome the market inadequacies, although he did not coin the phrase. He argued: ‘Norms of social behaviour, including ethical and moral codes’, may be interpreted as, ‘reactions of society to compensate for market failures’. (1970, p. 70). Arrow singled out the norm of mutual trust as one capable of serving the non-market allocative power alluded to above. He noted that ‘in the absence of trust, it would have been very costly to arrange for alternative sanctions and guarantees, and many opportunities for mutually beneficial cooperation would have to be foregone’. (ibid. p. 70).

It is useful to clarify two important aspects of institutions. First, the NIE literature holds that institutions facilitate transactions both within and outside the market mechanism. Note that the formal institutions cited above are primarily responsible to allow markets to function smoothly, while typically the informal ones, namely, social capital, is the catalyst for non-market transactions. Secondly, is the claim that quality institutions are indispensable for facilitating both ex ante and ex post exchanges. Here again there may be a dichotomy of sorts – clear formal rules (e.g. property rights) may suffice in drawing up ex ante contracts, but eventual sustainability of such contracting over time would require quality social capital and/or governance/monitoring institutions. In other words, a high level of social capital would minimise the need for formal monitoring. Further, non-governmental organisations (NGOs) and other civil society groups may be viewed upon acting directly or reinforcing the existing stock of social capital.

Figure 13.1 outlines the evolution of both formal and informal institutions and their interrelationships, while Figure 13.2 focuses on these aspects exclusively for the governance or monitoring of exchanges (Ahsan

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3 Also see, among others, Arrow (1970), Matthews (1986) and North (1997)
4 See the papers by Bruni and Sugden (2000) and Quibria (2003).
Evolution of Social Capital and Civil Society

Mutual Recognition and Sustenance

Evolution of Formal Institutions: Legal, Political, Economic and of Governance

Coordination of Economic & Other Exchanges

Preferences & Technology

Figure 13.1 Institutions and Coordination Flows

Legend:

- Dotted arrow: \( \rightarrow \) Inevitable, if informal, process
- Broken arrow: \( \rightarrow \) Informal linkage
- Double-headed arrow (broken): \( \leftrightarrow \) Informal mutual linkage
- Solid arrow: \( \rightarrow \) Indicates formal linkage
- Block arrow: \( \rightarrow \) Element of design
Transforming Bangladesh into a Middle Income Economy

Mutual Recognition and Sustenance

(Two-Way Flow)

Legal Institutions

Legal and Regulatory Status

Bureaucracy & Law Enforcement

Civil Society

Figure 13.2 Governance Structure

Legend:

Broken arrow: \(\text{---} \) \(-\text{\rightarrow}\) Informal linkage

Double-headed arrow (broken) \(\text{\leftrightarrow}\) Informal mutual linkage

Solid arrow: \(\text{\rightarrow}\) Indicates formal linkage

Block arrow: \(\text{\rightarrow}\) Element of design

Double-headed arrow (solid) \(\text{\leftrightarrow}\) Collaboration mandated by polity

Note that even informal interactions between the civil society and the set of social values and norms are capable of endowing the society with good governance by keeping contests of legal edicts/law enforcement to a minimum.
Governance and Institutions

and Nica 2004, forthcoming). It is clear, therefore, that governance is a subset of institutions that constitute the enabling anchor that allows transactions to take place.

Given the above review of the notion of governance in a theory of institutions, we shall now make the argument that the crisis of governance in Bangladesh arises out of the weakness of its formal institutions, namely, those designed by the polity and the monitoring mechanism thereof. In other words, the informal institutions that have emerged over the history of its rich traditions and culture have largely survived the past decades of bad rule making and of rule breaking by those in authority. We substantiate this thesis by reference to the remarkable growth of NGO – civil society mediated activities in credit, health and educational services especially in rural Bangladesh, areas in which Bangladesh is a role model for the rest of the world to emulate. Many believe that the peer-monitoring model of micro lending pioneered by the Grameen Bank (GB) in Bangladesh and replicated pretty much worldwide succeeds due to the social capital (e.g. trust within the group, and between the group and the lender) that emerges in an NGO type of setting. The essential idea is that group lending allows the lenders to overcome informational asymmetries typical of any credit delivery mechanism. Moral hazard and adverse selection are the usual impediments to the functioning of the market in such a context. The principal devices by which the latter are minimised include peer monitoring and social sanctions within the group (and possibly within the local community) as safeguards against excessive risk taking, misuse of funds, and default behaviour. The above devices work even when the borrower puts up no formal collateral (as in the case of GB).5 It is the strength of informal institutions that are also attributed to be the source of resilience of its people as manifested by the rapid recovery from frequent disasters such as flood, drought and tropical storms.

To be more precise, we argue in this paper that the chief source of poor governance in Bangladesh has been the inadequacy of its political institutions, starting with the nature of parliamentary democracy that it practices. Each civilian government in succession, and this goes right back to the period since independence, appeared to have run what essentially is a one-party show. Each has been functioning in a vacuum in the sense that the wider public has been left out of the political process. It is none the better now that it has had three general elections over the past 12 years, and each of which have been generally free and fair. The factors leading to the floundering of democracy may be many. In our view, however, the following behavioural features appear to have played primary roles. First, whether because of inadequate role accorded to the official opposition or otherwise, those in opposition have

largely boycotted the proceedings in the National Assembly for a good part of the tenure of each of these elected parliaments. This has deprived the public the benefit of informed debate on issues of national interest.

Secondly, we believe that there is too little devolution of authority by the central government, thereby extending the legacy of a poorly functioning government to the local level as well. The lack of a model of political and fiscal decentralisation suitable for the Bangladesh context may have led to further corruption down the administrative ladder, thereby disenfranchising the electorate.

Thirdly, while corruption in some branches of the government had existed for a very long time, over the last three decades it has reached virtually all levels and organisations within the public sector including state owned enterprises (SOEs). The process of politicisation of public entities, especially the bureaucracy and the judiciary, appear to have stimulated the cancerous growth of corruption. The non-transparency of the justice system may have arisen out of de facto absence of judicial independence and selective (i.e. politicised) nature of law enforcement. Organisations such as student bodies and faculty associations at higher seats of learning, as well as the official administration of these and many public sector organisations have all fallen prey to politicisation, resulting in little enlightened and/or objective debate on policy alternatives.

Fourthly, we suggest that a robust democracy can only thrive amidst wholesome participation by the public at large. Meaningful participation (e.g. voting at various levels of government, formation and communication of opinions on major public issues) is impossible without free and timely access to information relevant to the choices at hand. These tasks have been compromised by a partisan focus maintained by the public media (especially radio and TV) and by heavy-handed regulation (or manipulation) of private outlets. We argue that these inadequacies have led to the government's inability to deliver information that is rightfully in the public domain, which we term informational failure.

It is, therefore, argued in this essay that, while not exhaustive, these four elements, namely, (a) the dysfunctional state of the parliament, (b) the lack of devolution of political authority, (c) growing politicisation and the attendant corruption in the bureaucracy, judiciary and public institutions, and (d) informational failure are among the chief manifestations of poor governance in Bangladesh. The mutual synergies among these elements may be posed in the following terms. While parliamentary impasse, the lack of

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In keeping with the functional approach to the concept adopted here, note that the factors identified above are relevant in characterising poor governance in the present Bangladesh context. It is quite plausible that a quite distinct set of elements may characterise a state of acute governance failure in another context.
decentralisation, and the politicisation of the civil administration may trigger
corruptive behaviour, the lack of an independent media and a non-transparent
justice system ensures that corruption remains undetected or at least
unpunished. We should hasten to add that the context is not unique to the
present situation – most of it has persisted for a long time. The momentum
has, however, gained pace over time, and consequently, the combined force
seems poised to tear the system apart.

The central objective of this paper is, therefore, to explore the efficacy
of a package of policy reforms that may alleviate the situation. Our proposal
consists of a specific remedy targeted at each of the elements identified above
as channels (or agents) of poor governance, as well as suggesting reforms in
order to strengthen the overall environment. While the present ideas are
advanced as a package, each has a distinct role and may well be conceived as
a stand alone device on its own merit. However, a combination, due to strong
mutual synergies we hope to demonstrate would pack a bigger punch. As part
of the latter task, we single out corruption, and show how the joint effect of
the proposed reforms would contribute to fighting corruption at all levels.

The rest of the paper proceeds as follows – In the next section, we develop
the principal theme that the factors identified above serve as principal conduits
of poor governance and corruption, and suggest a set of policy changes (‘the
proposal’) in order to remedy the ills. We next (Section III) focus on corruption,
and illustrate how the proposal and the interrelatedness of its components
would combat corruption behaviour at various levels of government. We then
go on to elaborate why the policy changes proposed here need not be viewed
as undermining the primacy of the parliament or the role of the elected
government (Section IV). Indeed we argue that these changes are essential
for the survival of Bangladesh as a democracy. In Section V, we raise the
difficult question of who to bell the cat? Here we discuss some plausible
ideas as how the reform package may be implemented, especially in view of
what may be termed the ‘structural constraints’ to be discussed below. We
also raise the issue of a possible prioritisation in the implementation of the
package components. Finally in Section VI we draw some conclusions.

SECTION II: NATURE OF GOVERNANCE FAILURE AND
THE ELEMENTS OF THE POLICY REFORM PROPOSAL

Dysfunctional Parliament

We first deal with what we shall call the dysfunctional state of the
parliamentary processes prevailing in the country since the first general
election held in 1991. It is plausible that the past experience with the military
rule and the dramatic level of violence with which governments have been
deposed in the first decade of Bangladesh as an independent country had left
imprint in the mindset of the major political leaders that encouraged them to try and rule as autocrats in the guise of elected governments. The subsequent malaise is purely a governance issue since neither the party in power nor the elected opposition were found keen to play by the rules of pluralistic politics seen in mature democracies. Parliamentary procedures were subverted to serve party interests, and to take an example, the office of the speaker has consistently failed the mandate of non-partisan behaviour. Consequently the political payoffs following elections have been of the ‘winner take all’ variety. In this paper we suggest means by which the pay-offs may be made more equitable, i.e. allow for a broad and meaningful participatory role for all.

A brief background of the inadequate functioning of the parliament may be gleaned from the following quote taken from Sobhan (2000). He writes that ‘over the last 10 years very few major policy issues have been fully and constructively discussed on the floor of the house, where parliamentary debate has been characterised by incendiary and personalised rhetoric. Successive speakers of house have been less than neutral in the discharge of their mandate and have tended to deny enough time to the opposition to have their say in the house. In response to the perceived unfair behaviour of the ruling party, successive oppositions have moved on to a highly confrontational political path, leading to boycott of parliament, invocation of hartals and a relocation of opposition political activity away from the parliament and into the streets’ (Sobhan 2000).

Note that the above crisis may not be addressed merely by changing the constitution say to adopt the principle of proportional representation since the problem is largely with the play of the game. In order to prevent a potential parliamentary crisis from disrupting good governance, we propose a constitutional amendment that establishes national advisory bodies (NABs) to deal with specific issues of great national importance. The kind of situations that would call for the setting up of NABs would have to be clearly stipulated in the bill (or ordinance) to be passed by the parliament. To illustrate, the likely contexts may include undertakings such as a free trade agreement with neighbours, major infrastructural and environmental engineering works (e.g. embankments for flood control and construction projects such as river training works, major bridges and the like). These bodies would be struck with the widest level of participation, which would of course include the government in power, the elected opposition, the NGOs, technical experts, and representation from the civil society. National advisory bodies would operate on a suitable time frame and make its reasoned recommendation to the

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7 Although this may help at least from the point of view that under proportional representation, the chances of a minority government is more likely in a multi-party system than under the allocation of seats according to majority.
parliament for approval. Thus the decision-making authority would continue to remain fully with the parliament. However, the NAB findings will be simultaneously released to the general public (presumably to the extent national security concerns are not compromised). The report then can be discussed in greater detail by the media, interested citizen groups, NGOs, and the public for informed awareness and opinion formation.

While the organisational details of the NAB mechanism are not of prime focus at this point, we may nevertheless spell out a rough structure. Depending on the nature of the project, a particular government ministry may liaise with the NAB, and may receive the recommendation, which will be forwarded to the parliament, as submitted by the NAB. The minister would be free to add any comments while forwarding it to the parliament. If more than one ministry is involved in the work of an NAB, the report may be formally received by one of them (determined in advance). The ministry in question and the parliament each will have one opportunity to refer the report back to the NAB for further clarification. In special cases, one can imagine, a particular NAB directly dealing with the office of the Prime Minister. The chair of the NAB shall carry the minimum rank equivalent to the full secretary to the government. Ordinarily the mandate of an NAB would terminate once the report has been received by the parliament.

The process described above would add a great deal of transparency to the political process. One may liken the above device to be of the check and balance variety designed to induce parliamentary functioning. Importantly, in a poorly run government, this process would make it harder for the party in power to implement policies to its own liking without regard to public opinion. The said procedure is likely to serve even well run government machinery just as well, which would expect to gain public accolade for adding a degree of transparency in the nation’s business.8

Note that in mature democracies, parliamentary sub-committees are often charged with the task of arriving at recommendations of the type and context envisaged in the NAB framework cited above. The only difference here is that the management and process of arriving at the committee’s recommendation is external to the parliament. Once submitted, the parliament takes full control of the agenda. Our proposal would also advance the cause of participatory politics, which Rodrick contends to be able to ‘elicit and aggregate local knowledge and thereby build better institutions’ (2000, p. 19). We have already noted that participatory role of democratic institutions

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8 One can also imagine the relevance and the usefulness of the NAB device in parliaments where, in spite of fair elections, the opposition parties remain fragmented, and thus unable to play the role of an effective opposition. Similar remarks may also apply, mutatis mutandis, if one were to deal with a totally corrupt and unreliable civil service determined to mislead the minister and the parliament.
are essential to conflict resolution. We shall return to this theme later in this essay.

It is very likely that many of the projects under NAB purview would be facilitated by external sources (financed by borrowing or grants of aid), and often corruption at high levels is tied to large projects, which are frequently administered in a non-transparent fashion. Hence parliamentary decisions, given the backdrop of NAB recommendation, would imply the soundness of policymaking, which has not been tarnished by undue influence of a corrupt nature. Even if the parliament were to act contrary to the NAB recommendation, the onus would be on the house to explain and to convince the public of the rationale of its decision. In the event where the public dislikes the actions of the government, the electorate would be better informed when the next election comes around. The record of the incumbent administration would speak volumes.

**Lack of Devolution of Authority**

We next address the crisis arising out of centralisation of authority. The Bangladesh constitution (article 59) provides for political decentralisation and most past prime ministers have promised or even commissioned a review of necessary reforms of local government, but little tangible progress has been accomplished to date. We observe that crisis in devolution has been primarily a deficiency of formal institutional design. In the absence of a strong local voice, the central government authorities have only paid lip service to the constitutional directives. Hence the remedies must be along the lines of a redesign of rules. This is what we shall argue below.

A recent UN report captures the crisis as follows: ‘Since independence in 1971, successive governments have tried to use local government system for their own political interest. The party or regime in power wanted to make the local government representatives their power base and manipulated the system to this end’ (UN, undated, p. 12). Referring to the structure prevailing in 2000, Westergaard states that ‘like the previous local government systems, the local bodies are controlled by the central government in all aspects’ (2000, p.7). Consequently, local governments function on an ad hoc basis, often with little public participation, and the level and quality of service provided varies a great deal with no real coherence. Financial inadequacies are often cited as a principal reason for their poor performance. Many have argued that

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9 Westergaard reserves the term ‘devolution’ to denote ‘transfer of resources and political authority to independent, lower level elected authorities’ (2000, p.23). Thus in the terminology followed here devolution amounts to decentralisation in both political and fiscal dimensions.

10 The most recent reform proposal was submitted by an expert committee in 1997 (GOB 1997).
the evident lack of devolution of authority contributes to corruption (Crook and Manor 1998).

The guiding principle behind the issue of political decentralisation is that all citizens must enjoy equal access to public goods and services of a local nature, regardless of their location, rural or urban. It would then appear logical to ask what should be the range of services one wanted this level of government to provide. The conceptual answer is that these be what society deems to be the relevant set of local public goods in the Bangladesh context.\(^\text{11}\) We believe that the goods and services of relevance would vary from urban to rural areas, and again along this divide, one has to take into account the size, economic and demographic composition of the local population. Presumably primary health care, literacy and elementary education, the maintenance of local infrastructure, protection of persons and property (including crop and livestock) ought to be the target set for local governments to deliver.\(^\text{12}\)

**How many Levels of Government?**

Once the choice of a desirable range of local public goods has been made, one has to dwell on the hierarchy of governments. The efficiency criterion should guide the determination of the allocation of public sector responsibilities among the political jurisdictions within the government. Consequently, one would ask, if a service (e.g. elementary education or local law and order) would be better provided if administered by the government at the local, regional or national level. Indeed in the economics literature there is a presumption that efficiency in allocation would call for decentralisation whereby only local government units would deliver local public goods (Tiebout 1956 and Musgrave and Musgrave 1983).\(^\text{13}\) The rationale for the role of a local level government happens to be premised on the belief that at higher levels, voter preferences become harder to incorporate in the tax-expenditure decisions. Evidently the quality of the service ought to be paired off with the

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\(^{11}\) The economics literature defines local public goods as those whose benefits accrue only to those residents in a locality (e.g. nightly security patrol or local health centers) as opposed to goods that reach the entire citizens of the country, such as national defense.

\(^{12}\) Recently Bardhan and Mookherjee (2000) have argued that anti-poverty measures are better implemented via a decentralised political structure.

\(^{13}\) Charles Tiebout (1956) discussed the issue of the level of government that should deliver the local public goods. In a context where residents were free to choose where to settle down, he established the result that an efficient allocation would result if individual communities competed against each other in delivering the services that residents wanted. Noted public finance scholar, Richard Musgrave, has also dwelt on the subject of the efficiency gains from fiscal decentralisation. He states that where there are no significant externalities spilling over to other jurisdictions, local preferences ought to matter in the determination of local services and the means of finance (1983).
cost of programme delivery. Most importantly, however, all local/regional governments ought to be directly elected by popular vote for these levels of government to have any credibility, or have the authority to negotiate fiscal arrangements with the central government or vis-à-vis, other local government units.

We must clarify early on that it would be helpful to examine what the smallest unit of a government should be in Bangladesh, which has historically been taken as the union parishad (or council). In many countries, the larger municipalities operate a greater range of tasks, which typically includes elementary public education, police, courts, and civic amenities. Smaller units may find it difficult to run courts and the police, but may well look after local elementary education and recreational facilities. The tasks that are too onerous for smaller municipalities would become the responsibility of the (next higher) regional governments. Evidently the logistics would ultimately influence what the final structure should be. Clearly one would require the local government units to have an area (in terms of both land and population) and distances small enough for people to conveniently access the facilities (e.g. educational and health). From the potential revenue base angle, the area must be large enough to yield some minimum threshold of revenue base (be it solely on land and property). Thus the focus on the union parishad in the Bangladesh context is predicated by an understanding that such units fulfil the conditions outlined above. The issue, however, requires further scrutiny. The above is merely an outline of what we think ought to be the principles involved, while a fuller discussion would take us far afield.

In terms of the hierarchy, let us make a general point. Between the central and municipal level, one would require a regional (i.e. a third) level of government for two very important reasons. First and as noted above, not all municipalities would be equally competent to carry out the responsibilities typically assigned to local governments, which necessitates the intermediate unit. Moreover, in a country, where large areas suffer from significant difficulties of physical communication a good part of the year (i.e. due to flooding and other natural hazards), it is again necessary to have a level of authority endowed with both responsibility and ready resources in relative proximity to the (affected) region.

Fiscal Decentralisation

Having stressed the rationale for a multi-tier government, we move on to discuss the crucial element of the fiscal autonomy of various levels of government. While the scope of political decentralisation comes up in many discussions on governance, rarely is the deliberation linked with the question of an appropriate framework of revenue sharing among different levels of government. Here the principle would appear to be simple. Given the
assignment of tasks (as described above), it is an easy matter to figure out the likely magnitude of budget that each local government unit would need. One can then explore how much of the required revenue may be raised locally by the government in question. Clearly any excess requirement ought to be funded by means of a transfer from a higher level of government. Revenue collection responsibility, in turn, ought to be allocated among governments according to the expediency. It is also important to stress that any fiscal transfer (say, from central to local government) designed to be spent on local public goods must be facilitated by means of a multi-period negotiated agreement among the governments involved. This would allow the governments involved in the exchange to plan in advance, and prepare a proper budget for the gradual implementation of its goals over the horizon. Needless to say, any vested revenue – expenditure authority must accompany the obligations to strictly adhere to the international accounting and audit standards.

Elsewhere the author has argued that without an element of fiscal autonomy, political decentralisation is vacuous (Ahsan 1995a and 1995b). One thus requires progress along the twin objectives of administrative and fiscal decentralisation (AFD). While the eventual target is to decentralise revenue and spending authority to the regional and local levels of government, a gradual start is more feasible and less likely to receive strong resistance at the top. Land revenue would be a case in point. In reviewing the scope of fiscal devolution, Ahsan concluded, ‘it is likely that the land revenue tax will be implemented with more zeal if the local government ... were to be entrusted both with its collection and disbursement. Possible earmarking of the revenue against operation of local primary schools, maintenance of the rural infrastructure, etc., may be appropriate. With such added responsibilities vested in local government, it is plausible that persons of skill and ability would take interest in its governance than may be the case presently’ (1995b, p. 216).

It is interesting to note that several key elements of the AFD proposal discussed here find resonance in the writings of Roy Bahl, a distinguished scholar in the field. Foremost is the concurrence with the position taken in this paper, namely, of the importance of tying both political and fiscal decentralisation together. Bahl (1999) notes that in order to capture the efficiency gains alluded to above, it would be necessary for the local government to have ‘a significant set of expenditure responsibilities and a significant amount of taxing powers’ (p. 7). On the levels of government, he cites the example of many countries in the developing world, where the common number is three (as is proposed here). Though, as he notes, some have experimented with more, notably Philippines. On the relative efficiency of revenue collection, especially say on land, Bahl suggests that decentralisation would allow an expansion of the tax net since the local government officials would know the tax base better.
Which other local tax bases may prove to be viable? He believes that services may generally be financed by user charges to the extent feasible, otherwise by local taxes. And, ‘goods characterised by significant externalities should be financed by region-wide taxes and intergovernmental transfers’ (p. 10). While Bahl cites the role of user charges, no specific illustration is given. On the subject of intergovernmental transfers, he appears to favour a top-down approach – ‘The central government must establish expenditure needs for each level of government before tackling the question of revenue assignment’ (p. 10). We hasten to add that the spirit of our analysis is to propose a revenue sharing arrangement that would be negotiated after careful deliberation among delegates representing different levels of government. The local governments should propose a budget first, and ensure that the revenue assignment is such that it would be sustainable in the immediate future.

Let us briefly reflect in this context on the four-tier hierarchy proposed in the 1997 commission on local government reform in Bangladesh. For rural areas, these start with gram (village) parishad (40,000), union parishad (4,403), thana/upazila parishad (460), and zila/district parishad (64). Municipalities (42) are the basic urban units; however, the larger and smaller units are given different names (i.e. corporations and pourashavas).\(^4\) The first remark is that while a structure such as above is organisationally logical, in terms of revenue authority, a four-tier system of revenue generation is not viable in the Bangladesh context. The 1997 commission fails to adequately address the fiscal aspects of effective decentralisation. In the current regime in place, a substantial amount of locally raised revenue goes to the central coffers, with little regard to the expenditure implications of the services designated to local authorities (Westergaard 2000, p.9).

We note that the union level government has been practised in one form or other in this part of the world for a very long time. This is also the only level at which direct elections have been held consistently over the past decade (in 1992, 1997 and 2003). Indeed there are taxes, notably land rents that can be effectively collected and accounted for at this level. There would appear to be no natural revenue base for the other levels. Consequently these units will have to depend on central government transfers for their activities. Given the population size, eventually one may devise a revenue authority for the zila/district level units (via some form of revenue sharing agreement with the central government). But until that happens, this level of government would appear largely ornamental. However, the lowest units (gram) would be a useful structure to retain so that the union level governments may delegate responsibilities and resources to the grass roots level to carry these through.

\(^4\) The figure in brackets are the potential number of these units in each category.
It may be too resource consuming to have the village level units raise any revenue. The thana/upazila parishads may also play a useful coordinating role to ensure a pattern of consistency among the union level local government activities (e.g. in disaster preparedness, public health and educational areas) without any own revenue at all. A small administrative budget (negotiated with the centre) may suffice for that.\footnote{One may in due course lay out a detailed and rational design of the revenue and tasks that these various levels of government may face.}

**Chittagong Hill Tracts**

It would be useful to apply the general principles developed here to address the combined goals of political and fiscal decentralisation for the Chittagong Hill Tracts (CHT) area in light of the recent treaty between the Government of Bangladesh (GOB) and the tribal leaders of the region. Clearly the conventional ideas of a local government may well be inadequate in scope in this context – instead one may have to think in terms of a full-fledged regional unit of government. From the available media sources, it does not appear that the agreement has gone into the finer points of fiscal decentralisation that would be compatible with the level of political autonomy being envisaged for the region. It remains to be seen to what extent it would be meaningful to integrate the CHT type of fiscal and political arrangement within a broader framework of regional government for Bangladesh as a whole.

In concluding this section, we note that it may be opportune to focus on the scope of AFD in a thorough manner through public debate. Indeed in line with the thrust of the proposal for good governance discussed in this essay, it would appear natural that an NAB be formed to deal with this very important issue. The terms of reference would focus on the level of decentralisation that is feasible in view of a plausible model of central-local fiscal arrangements, and one that is consistent with the idea of an equitable sharing of power among the government, the opposition and civil society as advance in the preceding sub-section. As already stressed, in order for the regime of political devolution to be durable, one has to strike a balance between the range of tasks that may be more efficiently administered locally (or regionally, for that matter) and the fiscal resources that would be at its disposal or those that can be committed from the centre to this level of government on a sustainable basis.

**Corruption and Politicisation in the Public Sector**

In contrast to the preceding two elements, both corruption and politicisation are strictly governance issues as interpreted above, namely, these are the outcome of poor implementation (and/or monitoring) of established rules.
However, this also implies that perhaps there may be better institutions (or rules) that will be less amenable to opportunism. In what follows we shall explore such avenues. Anecdotal evidence of widespread corruption in all branches of the public sector (including so-called autonomous bodies indirectly controlled by the state as well as SOEs) abounds. Recently Transparency International-Bangladesh (TIB) has carried out a careful and elaborate (three-tier) survey of the extent and the depth of corruption from both the service receiver's and provider's perspective. The research revealed 'the existence of pervasive corruption at almost all hierarchical levels and sections of the departments. ...Corruption is on the whole an institutional phenomenon in three of the four departments examined-Power Development Board (PDB), Roads and Highways Department (RHD) and the state-owned banking sector' (TIB, 2000b, p. 20).

We view politicisation as a major source, rather a medium, of corruption. Politicisation makes it easier for public officials to subvert the public interest, and engage in gross misuse of position and authority. The politicisation issue has several dimensions including the judiciary, which we deal with separately in the next sub-section. Presently, we focus on the civil administration and the other publicly financed entities, though not all publicly run.

Politicisation has been characterised by Sobhan (2000) to be an element of the structural constraints that stand in the way of good governance in Bangladesh. A reference is enlightening: '...If politics is to serve as an instrument for accessing resources then political persons will remain inclined to subordinate the (bureaucracy) to this objective. Bureaucrats thus had to be incorporated into the business-political nexus because they remain the direct instrument through which public resources are accessed .... Bureaucrats recognise this particularistic element in their links with politicians and are happy to serve these interests for both their material gain as well as career advancement' (Sobhan, p. 19-20). In Sobhan's interpretation, politicisation need not imply an affiliation with the political ideologies of a specific party – it merely calls for the public officials to submit to the immediate political leadership. Depending on the position and rank of the civil servant, they either need to liaise with the minister, a local member of parliament (MP) or with the local political leaders (p. 20).

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16 In the first (i.e. pilot) stage, TIB surveyed education, judiciary, grameen shalish (rural justice), police service, land administration and the financial sectors. This was followed up by a baseline survey consisting of 2,500 households, which extended the sectors covered by adding in the municipal services (water supply, electricity supply, holding tax, business and trade license), public transport and the news media (TIB 2000a, p. 1).

17 This aspect of the study focused on only four departments, where the fourth one was the Customs Department.
We submit that a principal tool that one can devise in order to strike at this unethical alliance between bureaucrats and the political leadership (or its agents) is the institution of NABs as already proposed above. Major projects, which are typically the sources of most spoils, will be deliberated openly under the auspices of the NABs. In an attempt to further bolster the battle against politicization, we propose the adoption and entrenchment of a system of peer review (SPR) for the allocation of jobs. By allocation we include all appointments, promotions (through the career hierarchy) and related incentive rewards at all levels of civil administration, and all publicly funded organisations (including all public educational institutions). It is a widely observed fact that in many developing countries public sector jobs form a large fraction of all salaried employment, and in many such contexts, the entire process (i.e. hiring, promotions and rewards) is shrouded in non-transparency, which makes it easier to practice corruption. The existing system of patronage, bribing, etc., leave most officials authorised to allocate jobs in a manner that is largely unaccountable to still higher authorities. Secondly, once a person has been offered employment, which is undeserved on ground of competence, it is far easier to manipulate that person for continued corruption and poor governance. The proposed changes, if practiced, would only permit qualified individuals to hold a position, thereby improving the day to day functioning of the bureaucracy. It may thus be easier to reward the effort (via incentive pay), an issue we visit below.

In order to ensure the enforcement of the peer review model enunciated above, we call for the creation of an entity, Bangladesh Administrative Service Commission (BASC), which will replace the existing Public Service Commission. It would be run as an independent agency and would be a permanent body. Commission members (and the chairperson) would each serve a fixed one term (say of four years’ duration). An all-party committee of the parliament would nominate eligible candidates for membership (drawn from the pool of retired judges and senior bureaucrats, academics, professionals, and distinguished members of the civil society). The commission would have a permanent secretariat staffed by competent individuals, and may on occasion recruit specialists as consultants. BASC’s major task would be to lay down the qualifications required of all public sector job vacancies, determine the appropriate selection process (written tests, interview, etc.) for all levels of public employment, implement, and of

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We should clarify that the proposed BASC would only deal with the civil administration (including the police) and the SOEs. Autonomous bodies such as the universities and other academic or research organisations who are in receipt of operating budget directly from government sources would simply undertake to implement a rigorous peer revenue mechanism. The latter modalities must be in conformity with the academic and scientific norms as practised within the relevant sphere of activity and in keeping with international practices.
course, monitor the implementation. It would also articulate the mechanism for ensuring the practice of SPR in various branches of public employment. It would have the authority to ask for changes in procedures if these were found deficient. The commission may set up separate standing committees to deal exclusively with matters such as promotions, salary and benefit structure for the different cadres (e.g. the civil service, police, hospitals, schools and colleges, and SOEs). Moreover, an office of an ombudsperson may be created within the BASC framework to deal with grievances (individual or group) against their superiors in a reasoned fashion (following due protocol). Most importantly, BASC would strive to inject a much-needed air of transparency in the public service management.

Focusing on the universities, which would remain outside the purview of BASC, let us reflect for a moment that the internal functioning of the publicly funded universities are very much alike those in Canada and the UK. Like Bangladesh, universities in these countries are largely state financed. But one finds no example of the prime minister appointing the vice chancellor, either in Canada or the UK. Must we continue to live under the vestiges of our colonial past? Why cannot the universities choose who they want as their leader? In the politicised framework obtaining in the country, a compliant VC would prove to be a useful step toward furthering the party’s influence and reach among the faculty, senior staff and the student body. These institutions all operate under a charter that spells out the code of governance, which can be suitably redrafted to absolve the role of government intervention from the internal functioning. We believe that breaking of this appointment nexus at the top would have a huge morale boosting effect on the professoriate.19

We should note in passing that institutions such as the Bangladesh Bank (the central bank) should also remain outside the BSAC purview, but be given total independence in the conduct of monetary policy. However, it would be expected to implement personnel management practices consistent with BSAC guidelines.

Let us turn to the question of incentive clauses in employment conditions. It would appear logical that if jobs, responsibilities and promotions were all peer reviewed through a transparent process, it would be far easier to design a socially acceptable incentive reward structure than in a regime of nepotism and currying favours. It is frequently mentioned that many public sector jobs offer little morale for the rank and file employees, who see no prospects of climbing out of the rigid job-and-pay ladder. The situation gets worse once corruption rules in the career decisions. This essay would make the claim

19 In a similar vein, the university charters may be amended to allow their board of governors or trustees to adopt a selection procedure for the position of the chancellor itself.
that it is possible to offer suitably qualified persons both significantly improved job and career prospects, and at the same time, make all employees feel well treated in the process. In a peer review model, colleagues would accept, without malice or ill feeling, that some of them would finish ahead even when they all had sprinted out of the same starting blocks. Otherwise, efficiency would be undermined. For the rank and file, we must ensure that all face a level playing field.

The existing situation of civil service personnel management, as described in the World Bank (1996) document, is one of a major crisis. The said report attributes the poor efficiency, low morale, absenteeism, the deterioration in the quality of entrants to the decline in real salaries over the past three decades (p. 118). Aside from salary levels, significant anomalies persist in matters of promotions, salary differentials, and random deployment of officials without regard to the skill requirements of the position to be filled. On salaries, the report makes the compelling argument that while senior civil servants (deputy secretaries and up) were at par with comparable private sector positions in the early 1960s, the former fell to a mere fraction (ranging from a fifth to a seventh, depending on the actual rank) by the early 1990s. This is a serious anomaly, which have been allowed to go on for too long. Departures of this magnitude from the market parameters are unsustainable, and the situation ought to be taken care of expeditiously. Indeed the same World Bank (1996) report calculates several scenarios where changes of this order may be implemented in a cost-neutral basis by lopping of redundant staff at the bottom end of the scale (i.e. class III/IV employees, Table 7.12, p. 122) over a five-year period. It also argues for the monetisation of benefits (such as free housing, personal use of vehicles, and other perks) in order to add transparency to the process while gaining cost-effectiveness at the same time. Given that changes of the order described here are very large, it would be even more opportune that these be undertaken under the auspices of an independent agency such as the BASC procedures proposed in this paper. Compensation based on realistic market norms must be part of a larger design of the transparent allocation of jobs, promotions and benefits for all.

Regarding the political influence in the naming of the most senior public sector positions (such as secretaries to the government, the governor of the Central Bank and the like), as cited by World Bank (1996, p. 127), we have already argued for a committee within the BASC framework to deal with this. The recommendation of the independent BASC, following due input and procedure so set up, would then be forwarded to the prime minister’s office (PMO) for clearance, as is customary.

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20 We deal with the appointments in the judiciary including the naming of the Supreme Court judges in the next section.
However, it would be irresponsible not to highlight the fact that the high unemployment and underemployment prevailing in the country must imply that junior level (i.e. class II and below) public sector jobs would continue to be rationed out in the foreseeable future.21 Thus, it would be of enormous importance for the BASC to devise and implement a most transparent means of recruitment. If very many were to make the cut-off (say in some written or other appropriate tests), perhaps a lottery or some fair system of queuing may be the best allocative device. Most importantly, the allocation of scarce public sector positions must not rest with the immediate bosses or merely the ones higher up.

Finally, let us dwell briefly with the growing importance of lobbying by the collectives of public employees of all ranks (from blue collar to senior civil servants). These collectives serve those covered from any attempt by the government to discipline the corrupt and the non-performers, implement service reorganisations and other administrative reforms. This behaviour, Sobhan suggests, has emerged as a defensive response to being used by successive regimes for the latters’ partisan and private agendas (p. 23). The party in power accepts this behaviour somewhat passively lest they lose control over the bureaucracy completely. How should one deal with this situation? We believe that a suitable model of the grievance mechanism when combined with a firmly entrenched SPR, under BASC auspices, would go a long way toward curbing the appetite for such undemocratic means of protest. Transparency in personnel matters would appear to calm the fears and anxiety being faced by many. Most importantly, the government in power must gather its political will and explain to the public employees that they must follow due grievance procedure with the BASC, and refrain from taking unauthorised steps (such as strikes and gherao) to press their demands.22

Corruption and Politicisation in the Justice System

Let us now deal with the other half of the politicisation issue, and start by providing a definition. By a transparent justice system (TJS), we mean the transparency in the system of judicial and quasi-judicial proceedings, as well as the enforcement of legal decisions rendered by these bodies.23 Reform of

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21 Regrettably, a discussion of the issue of job creation through skill diversification and related human resource strategies are beyond the scope of the present discussion.

22 In order to induce such behaviour, it may help if the constitution were to disallow any political party from calling a general strike shutting down all activities. The hardship for the poor and the loss of output are well-documented outcomes of such actions. Disapproval of government behaviour may be better exercised by alternative means of civil disobedience such as picketing the parliament or other functions concerning the elected government.

23 The term quasi-judicial bodies is used in a broad sense in this paper to include bodies such as the National Election Commission, the labour courts, the income tax courts and similar bodies.
TJS, therefore, would deal mainly with formal (legal) rules/regulations and monitoring (i.e. a governance issue) thereof. However, as we argue below, informal institutions and a strong civil society may provide further embellishment.

We shall argue in this essay that legal transparency forms an essential component of the infrastructure of a democratic society. As outlined in the introduction, the mere exchange of commodities, assets and the undertaking of contracts ordinarily presupposes a system of private property rights, which are at the same time, both verifiable and enforceable by courts and civil law enforcement agencies (e.g. the police). Likewise, public acceptance of democracy and its institutions cannot be expected in a legal vacuum. People would accept and abide by the voting outcome if they are convinced that elections had been free and fair. If there are questions on the latter front, there ought to be a legal recourse.

One cannot overemphasise the critical importance of a corruption-free justice system in safeguarding competitive forces in both economic and political exchanges. In this context, it is sad to reflect on the TIB finding that ‘the two main institutions of the administration which came at the top of the league table of corruption are Thana Police Service (97 per cent of households) and the Judiciary (89 per cent)’ (TIB, 2000a, p. 4). In particular, ‘the survey revealed that almost 9 out of every 10 households . . . agreed that it was impossible to get quick and fair judgment from the court without money or influence’ (ibid. p. 2). In this context, we would stress once more that an adequate system of peer review (SPR) in all personnel matters as argued above must also hold for the judiciary. In view of greater scope of opportunism, the relevance of a fair compensation structure is perhaps of even greater significance here than in the case of civil administration.

We believe that a full implementation of the principles of judicial independence (JI) would go a long way toward curbing opportunistic behaviour and rid the justice system of the elements of politicisation. While the Supreme Court in Bangladesh is constitutionally guaranteed its independence, the de facto practice has been less so. None of the successive elected governments have been sympathetic to the cause of judicial independence. Indeed several amendments have diluted the constitutional guarantee over the years (ADB 2003). Worse, even by law, the remainder of the judicial system, i.e. the lower courts (district and below), and especially the magistracy where most criminal litigations occur, remains a part of the executive branch. The practice of appointments to the Supreme Court (to the Appellate and the High Court divisions) directly made by the president is open to political influences. In 1999, the Supreme Court in a landmark case brought before it by a judge (on behalf of 400 other subordinate judges), directed the government to formally separate judiciary from the executive branch. While nominally bound by the above directive, the government has
been moving half-heartedly by asking the Court to allow delays in the full implementation. The 1999 verdict went on to propose the establishment of an agency, to be run by judges, to deal with all personnel matters pertaining to the judiciary. While for the sake of judicial independence we endorse the creation of an independent entity such as the Bangladesh Judicial Service Commission (BJSC) as required by the judgement cited above, the composition may still be broader, of course with judges and legal experts forming the majority. We also concur with the Former Chief Justice Kamal’s plea that judiciary, both in the high and subordinate branches, should also gain total financial independence (Kamal 1999, p. 2).

On law enforcement, the governance link in the justice system, the critical role belongs to the cadre of police officers, and related units. Public complaints about incompetence and corruption in the police department are overwhelming. We have just cited above the outcome of a TIB survey, which found that the public held police services as the most corrupt (nearly cent per cent) in the country. The extent of corruption is so pervasive that ‘more than two-thirds (68.1 per cent) of the complainants reported to have made payments to the police for filing complaints as First Information Report (FIR)’ (ibid. p. 2).

The prevailing situation is one of a full-blown crisis. Here the shortcomings reside in the competence of officials, their morale, the incentives to perform on the job, and the attendant chain of corruption. The essence of transparency in the appointment, promotion and a market based salary structure discussed above in the context of the public service employees in general is applicable with greater vigour in the case of law enforcement officials. Here again the peer-monitoring model is relevant, and one may find advantages in novel schemes of incentive awards in teams.

Sobhan has highlighted a critical feature of the crisis in law enforcement in his recent piece on governance. The crisis relates to the growing use of the law enforcement system for partisan interests. The latter need not always be political in orientation (e.g. secure election outcomes favourable to the party) – often they extend to arson, assaults, extortion, kidnapping, mugging, theft, and even murder perpetrated against members and activists belonging to opponent political parties, and even, ordinary persons of no evident political affiliation. This process of submitting the local law enforcement agencies to these illegal and unethical tasks is often intermediated by the direct engagement of musclemen (mastaans) loyal to the political party in question. Sobhan notes that ‘here party workers intervene with the machinery of law and order to ensure that it is not deployed against party workers who violate the law or participate in criminal behaviour. . . . This partisan approach to law

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24 Naturally, the law enforcement, an administrative service, will remain under the purview of BASC. However, we review the necessary reforms in this sub-section as these relate to the justice system implementation and monitoring.
enforcement extends from the top to the bottom of the political system and applies to the behaviour of both the parties when in office' (p. 16).

The emergence of *mastaans* as an important breed of activists has had very grave consequences for the political processes and the means of financing political activities in the recent history of Bangladesh. These are individuals, who primarily pursue private wealth enhancing goals (via largely unlawful means). When affiliated with the political party in power, they negotiate immunity from legal prosecution in exchange for 'loyalty' to the party. The loyalty would typically take the form of serving party goals by such means as personal intimidation and harassment of political opponents, disrupting activities of opponents and whatever else that may minimise the electoral chances of non-party members. *Mastaans* have also been employed by the major political parties to infiltrate the ranks of their student wings, where of course, the primary motivation is to entrench their respective political followings.

The sources of immediate profit available to *mastaans* aligned to the opposition parties must lie in direct compensation and/or promise of future gains (material and law evading) once the party comes to power. Thus the opposition parties must have to spend large sums of money to retain a loyal army of *mastaans* under its control. Clearly the *mastaans* pledging support to the party in power would have the upper hand in a show of force, largely on account of their immunity from prosecution.

The above phenomenon indicates the important role of financial resource that any political party must garner in order to perpetuate the status quo arrangements. This is where wealthy business houses come into the picture. Sobhan cites the increasingly important role of campaign money as preventing many from seeking political office. Another twist in the chain of electoral corruption, notes Sobhan, has been via businesspersons investing 'in particular political persons who thereby became captives to the business agenda of their patrons' (p. 18). The situation has been aggravated by the lack of transparency in the system of electoral and political financing. A further dimension to the collapse of governance has been that business enterprises are hard to run in an apolitical manner. From legal permissions or licenses to loans, or to evade the unlawful demands of the *mastaans* (and possibly bureaucrats), businesspersons need the protection of political parties. Since mere pecuniary contribution to party coffers may not suffice, many have assumed active role in politics themselves. And this process runs both ways – politicians have also become businesspersons. ‘Elective office’, Sobhan contends, ‘is seen as a mechanism to improve access to scarce resources’ (p. 19).

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25 In a recent study, the above phenomenon has been put this way: ‘...each businessman ...mastaans’ (World Bank 2000, p. 37).
Electoral Reforms

The package of policies labelled ‘reform of the justice system’ (RJS) would have to include those relating to the entire gamut of the electoral process. Given the foregoing review one has to rethink the full range of issues of electoral inadequacies. These would include the party nomination procedures, the eligibility rules for office, preparation of voter list, campaign rules (including means of finance and spending guidelines), equitable media coverage of all candidates and parties, gender issues, and finally the settlement of disputes at all levels of the process. It is also abundantly clear that without a truly independent and powerful unit, call it Bangladesh Election Commission (BEC), these tasks cannot be deployed to the fullest. Naturally the election commission ought to be a permanent body. Moreover, BEC must have full powers to bring charges and disqualify persons if they (or seemingly third parties acting on their behalf) violate the electoral laws. Speedy resolution of disputes would be necessary for the smooth progress of the election timetable (especially for the national elections), and special election tribunals (with clear jurisdictions) may be necessary. All these ought to be part of the electoral laws enacted by the parliament.

The constitution presently calls for elections to be held under an independent (non-partisan) caretaker government. This is a quite unique experiment and it may be seen as a further device to help bring about electoral fairness. Added to the independent election commission, these institutions are expected to inject an element of unpredictability as to the electoral outcome in the sense that true voter preferences are likely to prevail. What remains difficult to explain is that the confrontational style of politics cited above has been the mainstay of political reality of the last decade in spite of the promise of essentially fair elections. Why would a political party perpetuate the disregard for democracy while in office, especially given the risks of future electoral results? The answer in part may lie in the fact that the life of the caretaker government is perhaps too short to level the playing field. The incumbent administration may anticipate that the regime’s advantages while in office such as disproportionate access to the public media, absence of effective spending limits, and the politicisation of the law enforcement authorities and possibly the election commission itself will serve as safeguards. Some have even questioned the neutrality of the interim (namely, the caretaker) government as well. However, voter frustration over poor governance has

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26 Mr Rashed Khan Menon appears to be among the minority of political leaders to have publicly endorsed the principle of an independent election commission with adequate powers. The leader of the Workers Party also believes that major reforms on spending limits in elections are a primary requirement for the survival of democracy in Bangladesh. See Farooque (2000) for additional details.

27 Reference is made to Mr Menon’s recent remarks as summed up by Farooque (2000).
served as sharp rebukes as neither party managed to retain power in each of
the past two elections (1996 and 2001).

However, as the events repeat themselves, one surmises why the major
parties fail to learn from the experience of past electoral misfortunes. The
residual hypothesis boils down to this. Flushed with money from business
houses, and with the mastaans, the bureaucracy and law enforcement
authorities in tow, an incumbent government may well behave in a most
arrogant manner and engage in confrontational politics during the term of
office. It does so since it expects its fortunes to prevail even when polling is
conducted under the auspices of a neutral interim government.

The above characterisation would strengthen our call for sweeping
electoral reforms over and above the practice of installing a caretaker
government on the eve of national elections. Indeed we believe the package
of reforms labelled ‘reform of the justice system’ (RJS), judicial independence
being the corner stone, would go a long way to meet the challenge. The other
components of RJS being the independence of the election commission and
the system of peer review implemented by an independent BJSC (for the
judiciary) and BASC (for the law enforcement departments).

Information Failure and Media Independence (IF-MI)

Participatory democratic institutions cannot thrive without a broad public
involvement. Enthusiastic participation cannot occur in the absence of
unbiased and timely flow of information relevant to the decisions facing the
public. By ‘information’ we mean the easily interpretable objective details
that facilitates the task at hand. To be concrete, let us illustrate the issue by
referring to the present arsenic crisis in Bangladesh, which has been described
as the ‘largest mass poisoning of a population in history’ as literally tens of
millions are potentially at risk (Smith et al. 2000, p. 1093). It is of utmost
importance for the public to know the true extent of the crisis, including the
location of such contamination and the availability of arsenic free drinking
water in a given region. There ought to be continuous education and monitoring
of how to deal with the health hazards (both near and long term) from exposure
to arsenic contamination, including both the preventive and the therapeutic
care that may be available. Evidently, anything short of accurate and unbiased
information would aggravate the situation even more, and would be highly
unconscionable. Easy access to information must be viewed as a basic right
of each and every citizen in a democracy.

It is appropriate at this stage to discuss the relative scope of public and
private sector role in information dissemination. Information in the broad
sense defined above is of value both to the individual and collectively –
personal precaution by an individual against a contagious ailment benefits
the whole society. Whenever such interactions (externalities) arise between
the private and social benefits, it is well known that private markets fail to provide the socially correct level of service. This is a classic case of market failure. Therefore, in view of the wider public interest, it is opportune that the government intervene and make adequate and unbiased information available. Indeed the inadequacies in serving the public informational need may be referred to as a case of informational failure.28

In the rich countries of the north, information gathering and dissemination is far less costly than in LDCs, and the private demand is high. Consequently, private agencies abound. The role of the government as a provider is, therefore, greatly minimised, though it still remains to be of critical importance in many areas. In a developmental context, the public sources of available information often suffer from a very narrow base, and worse, frequently the output is highly partisan in focus. Consequently, media (broadly understood to include print, electronic, web and television) independence assumes a large role towards correcting the situation.

Since the birth of Bangladesh, though the media has been nominally free it has nevertheless often been subject to undue restrictions and harassment. As elsewhere this is primarily a monitoring or governance failure, the formal rule making is not so much at fault.29 Even with over a thousand dailies and weeklies published in the country, the print media is not independent (World Bank 2000, pp. 32-33). The above-cited report attributes the weakness to, among other, the government’s partisan manner of allocating advertising funds.

Rather than guided objectively, say by the rate of circulation, public sector advertising is primarily targeted to publishing houses sympathetic to its views. It may be noted that public sector advertising revenues may often be a deciding factor in the profitability of a newspaper. Reporters sans frontiers (2002) claim that each elected government in turn has been intolerant of an independent press, and allowed their supporters to mount numerous attacks on journalists, even on occasion leading to death.30

The officially controlled public broadcast agencies appear to serve partisan interests of the government in power. Major national news bulletins are frequently littered with references to the routine attendance by ministers of the many public functions and their pronouncements of little import. News

28 We should note that a World Bank study (WB 1996) has deplored the widespread practice of labelling all sorts of documents as ‘classified’, which ought to be in the public domain. Most reports prepared by ‘national commissions’ of no national security concern remain confidential. This is also an example of informational failure.

29 Article 39 of the Constitution guarantees ‘freedom of expression’, but subjects this freedom to ‘any reasonable restriction imposed by the law’. Importantly, Bangladesh has not signed onto the International Covenant on Civil and Political Rights, an international treaty drawn up in 1976.

30 It cites no less than 110 attacks and 25 arrests alone in 2002. It is unclear whether all of these were politically motivated.
events unrelated to the participation of ministers, or those related to the opposition politicians take a back seat in these broadcasts. There appears to be a singular absence of objectivity and professionalism in the manner the news events are analysed and presented, especially for news of domestic origin. Even newspapers are not free from wide public disapproval. Indeed the TIB study cited earlier found that 'a very large number of households (83.5 per cent) who kept themselves aware of news thought that newspapers were professionally unethical and partisan' (TIB 2000a, p. 4).

Objectivity may also be enhanced by the active presence of large international networks such as Associated Press (AP), Agence France Presse, (AFP), Reuters as well as television networks such as BBC, CNN and ITN. The perceived regulatory environment may be an obstacle that prevents Bangladesh from benefitting from such services. It is also worth noting that without an independent media serving as an intermediary, the average Bangladeshi would hardly benefit from the internet revolution due to lack of direct connectivity.

Hence both in order to improve the quality of public broadcasts and to safeguard media independence, we propose that a permanent organisation, indeed an independent entity, call it the Bangladesh Bureau of Information (BBI) be created. This would be an apex body set up by the parliament, and answerable to it. Essentially BBI would replace the existing Ministry of Information, and would coordinate information gathering, processing and its dissemination by liaising with all ministries and relevant public and private agencies.\footnote{Evidently matters of national security is dealt with by the Home Ministry in liaison with possibly that of Foreign Affairs.} The management of the bureau would rest on a board of governors who would represent the society at large, thus adding on to the participatory process.\footnote{To be consistent, the head of the BBI should carry the rank and status equivalent to that of a full minister to the government, but like other heads of independent commissions, would not be a part of the cabinet.} In particular, there would be equal representation for the government in power and its parliamentary opponents, and representation of civil society (including NGOs). In other words, the structure would be similar to that of BASC and BEC as discussed above. Additional details of management may easily be worked out in a manner consistent with the remainder of the proposal advanced here.

The structure of BBI proposed above would be the appropriate body to regulate and monitor the media. Regulation need not be heavy handed. All media agencies may be asked to undertake a simple pledge (offering allegiance to a code of conduct consistent with public interest), and submit an acceptable mission statement by way of registration. Should any person or group find a particular media unit serving against the public interest, they may bring this
to the attention of the BBI, who may decide to investigate the allegation, and if necessary pursue legal proceedings (in civil courts) against the unit in question. BBI officials in their routine review may also detect anomalies of media practice (i.e. inconsistent with the mandate), and thus launch an enquiry.

Clearly the above suggestion does not argue against a public radio/TV service – indeed as noted above, public intervention may be called for on grounds of market failure. The BBC in the UK is a prime example of an enlightened broadcasting and news dissemination agency. It is financed mainly by the British taxpayers, but the management is entirely independent. The government does not meddle as to the content of the agency’s programmes. The key point is whoever enters the market, public or private, must abide by the same regulatory regime and uphold public interest.

**A Sum-Up of the Reform Proposal**

In the foregoing sections we have highlighted measures designed to lead to a more hospitable environment for democracy and rule of law to flourish in a country like Bangladesh. These deal with the goals of (a) striking a balance in the sharing of powers among all political contestants, (b) improving local governance with sustainable fiscal arrangements, (c) ensuring professionalism (and thus eliminate politicisation) in public service, and implementing full independence of the judiciary, and (d) pledges timely and unbiased information flows (via guaranteeing the independence of the media). The principal tools devised to achieve these four goals by primarily establishing (1) broad-based NABs, (2) institutions of administrative and fiscal decentralisation (AFD), (3) implementing a rigorous peer review model via independent employment commissions (BPEC and BJSC) and making the central bank and the election commission independent, and (4) an independent BBI, respectively.

The overly partisan flavour of the parliamentary functioning would be curbed by the air of independence and the broad participation introduced via the institution of the NABs. The centralised administrative structure presently obtaining in the country would be dealt with by the devices of political and fiscal decentralisation, thereby strengthening democratic principles at the grass-roots. Politicisation ills would be cured by entrenching a rigorous process of peer reviews (SPR) and by fully implementing the principles of judicial independence (JI). However, in order to implement these one would need recourse to independent commissions entrusted with personnel matters as proposed by the creation of BASC and BJSC, respectively for the civil administration and judiciary. The same goal of eradicating politicisation would be further enhanced by creating an independent election commission (BEC), and giving it a quasi-legal status for speedy (judicial) resolution of routine disputes. Ensuring an independent media would further the cause of
governance in general, and this would be done by creating an independent unit (BBI) to deal with information gathering and dissemination as well as to regulate the media and the web.

SECTION III: THE MUTUAL SYNERGIES OF THE PROPOSAL COMPONENTS: AN EXAMPLE (FIGHTING CORRUPTION)

Below we develop some plausible scenarios in order to: (a) show how the channels of poor governance as outlined above combine to lead to (and sustain) corruption, and (b) further illustrate how the proposed remedies would deal with the situation. Dysfunctional state of the parliament may allow a government to hurt public interest by entering into contracts and agreements on trade, accepting tenders for major procurement or infrastructural-engineering works, and the like. A politicised and overly centralised bureaucracy would also come in handy (in the role of accomplices) in such quests. Control over the media would then provide the needed enabling backdrop such that there is little adverse publicity and general awareness of the corruption. Judicial inadequacies would be a further source of encouragement for such behaviour.

The remedies suggested above are most direct in this case. The projects cited here would likely be subject to NAB review, which would immediately place the issue at the level of a national debate. This minimises the direct influence of the senior civil servants. Such a limit to the direct authority of the bureaucracy or of the relevant minister would curtail the scope of corruption for the simple reason that the vested quarters would be in disarray as whom to influence to get decisions beneficial to their private interests. Here, of course, the reliance on an independent media and judiciary would be indispensable.

The above example may be illustrative of corruption at high levels, or at least those relating to major public projects. Routine corruption by officials in various administration branches and other public enterprises (SOEs) would not necessarily involve direct NAB intermediation. Indeed most pervasive corruption (misuse of authority, demand for bribe for routine activities, delays, harassment, theft, etc.) would be of this format. Ordinarily, the incidence of these types of corruption (not all petty) would be exacerbated by a politicised bureaucracy, presumably in the expectation of immunity from the rule of law. In such cases (say for example, a senior Finance Ministry official influencing a loan demand by a client of a nationalised commercial bank) politicisation itself may serve as the trigger mechanism for corrupt behaviour. The independence of the central bank and its exclusive jurisdiction over the commercial banking system would make this task difficult to begin with. The related remedies we have proposed are the institutions of SPR and BASC in the allocation of all public sector jobs and benefits. Assurance of an
independent media should play an important role here as well. All citizens would be better informed both on what the duties of various officials are, and what each of them are entitled to (in terms of service or benefit from the public sector). The transparency of information flow would assist citizens to effectively deal say with public health officials (say, in public distribution of vaccines against epidemics) or in the Agricultural Ministry (regarding the policy in the distribution of seeds).

Similarly one can develop plausible scenarios of corruption perpetuated at the local levels of government (or equivalently, by SOEs operational in that context). Here the lack of devolution may serve as the trigger device. The direct remedy we have proposed is the decentralisation of both political and fiscal authority, which would add a dimension of transparency in the dealings between local public officials and the citizens. Local officials would no longer be able to hide behind the excuses that fault the central government for their own failings. As before, the role of BBI is also important here in giving the correct information to the residents. Legal recourse is perhaps too far reaching a device for most local residents to benefit from, costs and delays would serve as impediments. Nevertheless, one can think of an appropriate layer of justice system (i.e. small claims) under the reform of the judiciary as outlined above.

The discussion above illustrated the manners in which the proposed remedies would target the relevant channels from which the corruptive behaviour may emanate. Of course, there would be events where the trigger mechanism may be a combination of factors, and consequently, where only a multitude of the measures would have the potential capacity to contain the situation. Indeed we have highlighted the synergies within the individual remedies (namely, NABs, AFD, SPR/BASC-BJSC, BEC, and BBI). The credibility of a given measure would then depend in part on the ready availability of the remaining (and relevant) policy instruments. Therefore, in terms of policy, while each of the measures cited above has merits of its own, the full potential resides with actions in concert.

SECTION IV: ROLE OF THE GOVERNMENT, THE PARLIAMENT AND THE BUREAUCRACY

We have argued above that the ideas proposed here would go a long way toward strengthening democracy and curbing wide spread corruption in Bangladesh and possibly in the wider LDC context. One may, however, wonder that the proposal examined here would take powers away from the elected representatives of the people, or it would undermine the bureaucracy and cause a crisis of morale. This essay argues that neither fear is well founded. Let us elaborate on this view.

First let us take the case of the government in power. The elements in
the proposal that may appear as curtailing the scope of the ruling administration most are the role of NABs, the separation of the judiciary, and truly independent agencies such as BASC, BJSC, BEC and BBI. We note that all recent governments in the recent history of Bangladesh have had standing advisory committees that at least give the appearance of carrying on the tasks as outlined above, namely, to deliberate and recommend. The incidence of ad hoc (i.e. as and when needed) committees is much more common, such as the national pay commission, the law commission and the like. In all these cases, the procedure is very similar to that proposed here for the NABs – the parliament would make the final and binding decision. What we propose differs from the extant institutions in terms of the content, composition and the transparency of its deliberations. Let us review these implications more closely.

On the issue of content, the major departure is that our proposal would call for the setting up of an NAB for all major projects or reforms, while historically the decision to set up a commission of the existing variety has been of a ‘pick and choose’ sort. Clearly there has to be some clear guidelines in this matter, otherwise parliamentary functioning would be hampered and stalled by the lengthy process of obtaining an NAB report before anything got done. NAB intermediation may be invoked in case of reforms that target a major sector of the economy (e.g. energy, banking and finance, textiles), or those relating to the major policy instruments. Examples of the latter would be a tax-tariff system overhaul, international trade agreements, and regulation of public sector enterprises. Alternatively, projects using up a good share of the annual development budget (say, exceeding a figure of five per cent of the budget, or 100 million USD, over the relevant time frame, whichever is smaller) may be declared to come under NAB purview. The above rule may be applied regardless of whether the funds are donor assisted or otherwise.

While no doubt the scope reserved for NABs here is of greater depth than has been the case with current practices with advisory commissions, we do maintain that the proposal does retain the primacy of parliamentary powers. Not only does the parliament make the binding decision – it does so in a considerably better informed environment. While the NAB process would consume time, the parliamentary deliberations may well be expeditious. Indeed the parliament gets a report that includes views held by a wide cross section of society. These virtues of the NAB proposal have to be evaluated in a context where, largely due to non-cooperation of the opposition, the BGD parliament

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33 One may cite standing bodies such as the National Economic Committee or the Planning Commission.

34 The above are in the nature of an illustration of the kind of rules a society may set for itself. This is not the occasion to offer definitive blueprints. Doubtless, alternative working rules may be devised, say by experimentation that may work just as well.
debates over the past decade have been generally poor and uninformed even when the subject related to major policy issues (Sobhan p. 11).

On the structure of the committee, we note that NABs would embrace a greater degree of sharing of responsibilities, not only with the political opposition, but also with members of civil society. Naturally the composition may be designed so as to preclude any of these three groups from commanding a majority. These steps would hopefully induce a cooperative style of politics than one premised on confrontations. Indeed, such sharing is common in mature democracies in the west. In the US political system, for example, many important tasks are primarily in the hands of committees (both in the Congress and the Senate), which are staffed by elected members from both the parties. Moreover, these committees invariably receive expert and civil society advice and reasoning in all serious matters. Likewise, bi-partisan committees review all senior appointments proposed by the US President, including appointments to the Supreme Court and the Chairman of the Federal Reserve (i.e. the central bank governor). What is materially different is the chairing of the NABs is by non-parliamentarians chosen by the parliament. Thus the NAB device as construed here simply formalises the mechanism of participatory political processes where the role of the government, the opposition, expert and civil society have been aligned for democratic governance.

These ideas would, therefore, appear to eliminate all the weaknesses that are evident in the current functioning of the parliamentary committees (PC) mechanism, as has been portrayed by Sobhan. His description goes as follows: ‘The closed nature of the PCs continues to leave the members dependent on the bureaucracy to service the committees and to regulate the flow of information needed to guide their deliberations. . . . Unless the PCs are opened up to public hearings and can access independent outside opinion brought to assist the PC in challenging the bureaucrat’s monopoly of information, the PCs will tend to underperform.’ (Sobhan, p. 12).

The only group whose influence is materially altered in this proposal is the bureaucracy. Insofar as matters under the NAB purview are concerned, the senior civil servants would represent the administration and work alongside experts and civil society representatives rather than work exclusively for the government of the day, as is the practice now. For the dedicated individuals, this is a mere change of style, and not substance. The proposed changes would blissfully relieve the pressure of influence peddling exerted on the senior bureaucrats by the vested interest groups. Nevertheless, to some it would imply a loss of authority (as the rent seeking scope is greatly minimised) and influence vis-à-vis, the status quo.

The openness of the deliberation, namely, the release of NAB reports to the public at the same time it were being submitted to the parliament would
add a substantive measure of transparency into the goings on at the committee level. It would also provide a backdrop against which to interpret the parliamentary deliberation and decision. Again similar practices are common in advanced democracies. (Even the minutes of the deliberations of the US monetary policy body, the Federal Reserve Open Market Committee are made public, albeit with a delay of a few days.) As far as we see, the above changes can only be viewed as win-win pay-offs.

The AFD is in the nature of reforms that strengthen arrangements whose origins have been present in the various local government regimes in place throughout the history of Bangladesh. Presumably the central government may oppose the devolution which drastically reduces its direct influence into the structure of local government, which may have implications for party politics. Within the bureaucracy, direct recruitment (under BASC auspices) for local government positions may be launched leading to greater efficiency. The fiscal arrangements may be resisted by the central government, but once the structure of political devolution is in place, there may be little in the way of vested interests in opposing the financial arrangements.

The proposed peer review system accompanied by the creation of a more powerful and independent public employment commission (BASC) would suggest deep-rooted changes in the way civil service (including police administration) is run, and minimise the scope of corruption in matters of job allocation, assignments, and promotion. This process is essentially self-contained within the bureaucracy, and has little direct bearing on the power balance between the political parties making up the parliament. Of course, if successfully implemented, the administration in power and other elites would see the scope for meddling and interfering with the routine bureaucratic functioning greatly compromised. These reforms would of course benefit the whole society including the bureaucracy in the event of the latter being wrongfully maligned.

The full implementation of the independence of the judiciary would be facilitated by placing the magistracy under its control and by creating an independent BJSC. These measures of RJS would undermine the partisan interests of the government in power, but surely improves the society at large. Much the same can be said of the proposal for an independent election commission, BEC, a body of sweeping authority and responsibility, and by granting it a quasi-judicial status as discussed above.

The scope of the BBI as that of a permanent and independent body engaged in the collection, processing and dissemination of information (that is in the public domain), as well as a regulator in the market for media services including the web is novel. A similar arrangement may be without precedence. Here with one stroke, the government in power relinquishes the hitherto prerogative to control, manipulate and otherwise regulate the information
flows. While this reduces the reach of the government in daily life, the degree of transparency that would be gained by this process is one of its greatest benefits.

By way of summarising this section, we note that by formalising the role of NGOs and the civil society in the participatory model of democracy as expounded above would actually help strengthen the social capital both in urban and rural centers. We have also argued above that social capital is a catalyst for mutually beneficial transactions both within and outside the market mechanism, and thus extremely valuable for economic advancement of the nation. The reforms proposed above provide for a participatory process while the current regime (as practised in the last three elected parliaments) has pursued strategies consistent with the motto of ‘winner take all’. The perpetuation of absolute power while in office has been the apparent goal of these regimes. The proposed reforms empower the political opposition by formalising its prominence in all stages of decision-making. The role of the bureaucrats is rightfully restored to that of serving the public interest, freed from influence mongering, and where excellence in performance would be justifiably rewarded. In the Rawlsian parlance, since in the original situation no party would know in advance its likelihood of electoral success, why should not all vote for a reward system where the losers are also gainers?

SECTION V: HOW TO INTRODUCE THE PROPOSED CHANGES?

Supposing that a set of principles similar to that outlined above (following broad public reviews and discussions, and suitably amended to accommodate suggested improvements) are agreed to by all who care to participate in the deliberations. How does one carry it forward for the eventual goal of implementation by the parliament? First we note that if the ideas have intrinsic merit, and where these are championed by individuals who have no political baggage to speak of, the public at large should favour its implementation. Thus the first order of business would be to explain the proposal to the people. Who will do the explaining? An easy answer would be civil society groups, such as an organisation of academics and/or other professionals, NGOs and the like. The initial task of awareness building may be carried out by means of extensive communication in the public domain such as newspaper writing and other media exposures, dialogues with citizen groups and NGOs, conferences and the like. Of course, as the ideas gain currency, the core support base would likely encompass like-minded civil society groups, NGOs and ordinary citizens. Elements within the collectives of public employees, independent trade unions, business chambers may also be expected to sign on once the ideas gather steam. The next and difficult stage would be to receive endorsement from major political parties, preferably on a consensus
basis, or at least a majority of the main stream parties would have to be convinced of the merits and the urgency of the case. Once the political parties are on side, parliamentary procedures may be started.

The above may be an optimistic scenario. We must at this point directly address a major concern that has been reiterated by Rehman Sobhan for some time. Simply put, he thinks that any meaningful reform process must overcome the major 'structural constraints'. The chief elements comprising the latter include the collusive links of mastaans and wealthy business classes in political parties and the politicization of law enforcement agencies, in particular and the bureaucracy in general. While the set of reforms advanced in this essay does adequately deal with these issues, the existing political culture would be against large and meaningful reforms. It is plausible, however, that once people believe that the reforms proposed here can and will actually be implemented, civil servants, judges, police and law enforcement agencies may very well welcome the call for change. Here reference is made to the creation of independent bodies such as proposed BASC, BJSC, BEC and BBI, as well as the acceptance of the principle of peer reviewed determination of market based salary and compensation packages for public employees. Even the employee collectives and lobbies may be persuaded by the appeal. The ideas of meaningful political and fiscal decentralisation should appeal to the civil society, particularly NGOs active in rural development. The goal of media independence should also bolster the ranks of professional journalists and entrepreneurs running the media services.

Major political parties may not easily endorse the reforms described above, especially if they harbour the ambition of waiting out a term in order to take their next turn at power (much like musical chairs). It is also clear that business lobbies and possibly the politicised elements within the bureaucracy would also oppose the reform package analysed here since they too have losses to entertain. These interest groups have already invested in building up their respective political and business establishments, and any sudden change of regime in the middle of the game must burden them with losses which cannot be recuperated once the reforms become the rule. The above argument runs much like the unavoidable transitional costs of any regime switch. However, if real reforms do succeed in spite of such opposition, the transitional losses incurred by the vested interest groups should prove to be a credible deterrent never again to indulge in such an unethical alliance (of money, law enforcement and political processes).

The question still remains as what would be the trigger mechanism for the vested interest groups to give in to the call for change. The World Bank (1996) document cited earlier suggested that change may occur through the working of a set of 'reinforcing' elements such as: (a) the impatient public demanding public service, (b) emergence of reform minded politicians and
the media, (c) dedicated farsighted and innovative public officials, and (d) donor impatience (p. 137). One may also add to this list activists and sympathisers belonging to smaller (and thus disenfranchised) political parties. It is our view, however, it is hard for individuals, farsighted or otherwise, working in personal capacities to accomplish much. Indeed persons of vision and energy may serve as catalysts in motivating the civil society group they may belong to (or join, if necessary), and make a case for the reform campaign on behalf of the group. This process may well lead to a network of a host of civil society and NGO groups, eventually galvanising the silent majority.35

On the subject of donor initiated reform proposals, the experience would appear to be very mixed. A recent study notes that ‘poor donor coordination, ... undermine the “voice” of the donor community. The more direct ... civil society’ (World Bank 2000, p. 38). The latter suggestion is very much in line with the thrust of the present argument. The silent majority is surely capable of making a change, even a sea change, but only via elections. Surely one has to ensure that the latter follow a free and fair process. But prior to that the silent majority has to be brought up to speed with the issues at stake. Here lies the crucial role of civil society, an independent media and NGOs.

In the history of Bangladesh (from the Pakistan days on), it is fair to say that the established political parties have always caught on to popular movements such as the great language movement of the early 50s, and the removal of several military governments, the last being the Ershad regime. In many of these instances civil society in the shape of student bodies, which in the early days had much less of a direct link with the sponsoring political parties, was in the forefront of change. Clever politicians appeared to have jumped on the wagon and assumed leadership – they were rarely the direct initiators of the movement. Thus it is hard to imagine that if large sections of society appear poised to endorse a reform package, the politicians would fail to show their colours.

On the question of a gradual or a staged implementation of the package, our view is that a full commitment for the complete overhaul, namely, full adherence to the entire set of tools proposed here (of course suitably modified in light of civil society deliberations) is a minimum point of departure. One may however debate on a committed time frame by which the different components will be fully in place. Both these points would require immediate concurrence. The actual implementation of some of the tools (e.g. those relating to AFD and RJS) may take longer than the implementation of the NAB mechanism, the setting up of independent BASC, BSJC, BEC and BBI. The implementation of the peer review methods (SPR) as it applies to the

35 Note the dual character of NGOs as implementation bodies of government (and donor) funded projects, and the independent role that some of these may play in helping build social capital in rural societies, especially among women. See World Bank (2000), ch. 3.
different cadres may take a while to articulate and put in place, but all efforts must proceed simultaneously, and on an agreed upon schedule.

SECTION VI: SUMMARY AND CONCLUSIONS

This paper has reviewed some salient features of poor governance in the Bangladesh context, and concludes that there is a crisis over the 'ownership' of political and bureaucratic institutions in their current shape. While not exhaustive, we believe that the primary channels by which this process of disengagement has proceeded are the ones identified here. These are the dysfunctional state of the parliament, the lack of devolution of political and fiscal authority, politicisation of academic institutions, public sector agencies, and in all levels of public service, and finally by manipulating and regulating the media. Endemic corruption in all layers of the administrative, judiciary and law-enforcement hierarchy is a manifestation of poor governance.

We have proposed here that in order to eliminate (or minimise) the ills, a thorough reform is in order which would target both the channels of governance (or monitoring) as well as the shortcomings in the formal institutional design. In order to induce parliamentary compliance, we have proposed a mechanism of interaction of the parliament and the civil society (via the functioning of national advisory bodies). A suitable model of administrative and fiscal reform would address the inefficiencies arising out of the lack of devolution of authority. The politicisation issues will be dealt with a series of measures. Extensive application of the peer review model (SPR) would target patronage system in the appointments, promotions and incentive rewards in the public sector (civil administration including the police as well as the judiciary) and by fully implementing the principle of judicial independence. We also call for sanctioning the independence of the election commission. Similarly, we argue the case for an independent bureau of information (BBI), which would ensure that public interest be upheld and thus overcome the informational failure. The reforms suggested here require setting up new formal institutions since the existing ones were amenable to rent seeking on the part of vested interests.

We have argued that these measures would yield a compliant government and bureaucracy as well as address corruption in a big way. Further these reform policies were shown not to compromise the legitimate authority of the parliament or that of elected officials. While each of the elements of reform had a case of its own, we are convinced that the synergies among them are too great for piecemeal implementation. The full potential can only be harnessed in a joint application.\footnote{The above claim does not necessarily suggest that improvements or fine tunings cannot be offered for greater effectiveness following further thinking and analysis. To contrary, the author is most open to suggestions and discussions.} We then turned to the difficult task of
determining how a package as proposed here may be implemented and who may mediate in the process. We concluded that in order to be worth implementing, it must command wide public approval, and once such approval is evident, political parties have to be convinced of the people’s wish. Ideally an all-party consensus should emerge, which would make it easier to implement. Short of that, at least some of the major parties must endorse, and use their political machinery to explain the measures to the electorate, and undertake to implement the same upon winning and forming the next administration. Significantly, however, we have left out of discussion of two sets of issues, both quite relevant to governance in general. In the first group, we can cite the relative role of public versus private sector in the economy, a discussion of which would involve the subject of privatisation, and regulation of SOEs. These questions (and there remain many more) are extremely important, but farther away in scope to be brought under the rubric we have here. The second set of related topics is rather too specific in nature (such as governance issues or corruption in revenue collection or the customs authorities). However, the general principles discussed in the paper continue to have bearings on these important but narrow questions as well.

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Transforming Bangladesh into a Middle Income Economy


SECTION I: BUDGET’S ROLE IN GROWTH AND POVERTY REDUCTION

The government budget is probably the most powerful established order, principle or law that affects the functioning of the modern society. Budget provides the government legal authority to tax earnings of a private citizen. Budgetary principles and laws influence the functioning of the markets in ways that no other single institution can possibly do in today’s modern economy. Formulation of the budget reflects the multitude of political interests and coalition that underlie the political governance of a society. Having a voice in budget formulation and implementation is perhaps the most effective way of giving voice to the civil society to affect its well-being. It is, therefore, hardly surprising that the government budget is perhaps the single most important public policy instrument for influencing growth and poverty outcomes in modern economies, especially in developing countries.

The influence of the budget on growth and poverty reduction is well recognised. This can happen through a variety of ways. For example, budgetary decisions through taxation, borrowing and spending affect incentives for business and household decisions in such key areas as savings, investments, exports and imports that have implications for employment and growth. Budgetary spending can also affect poverty through the direct provision or funding of core services and targeted poverty reduction programmes. There is a rich body of empirical research that one can draw upon to illustrate the role of the budget in affecting growth and poverty reduction. We will return to this subject later in the paper.

Against the backdrop of this introduction, the remainder of the paper is organised as follows. In Section II, I develop a brief analytical framework
that shows the different institutional dimensions of the budget and how they need to be reformed to ensure that the budget is indeed supportive of higher economic growth and poverty reduction. In Section III, I apply this framework to the specific context of Bangladesh. Finally in Section IV, I provide some concluding remarks.

SECTION II: CORE INSTITUTIONAL DIMENSIONS OF THE BUDGET: AN ANALYTICAL FRAMEWORK

The budget is an inherently political instrument and is used as such. Therefore, formulating and implementing a budget is essentially the outcome of the interplay of coalition of a number of political and social interest groups. 'The budget is the critical link on the long route of accountability connecting citizens to providers through politicians and policymakers', notes the WDR 2004 (page 181). Consequently, securing a good budget, which I define as a budget that minimises the disincentive effect of taxation and borrowing while ensuring that resources thus mobilised are spent for promoting growth and reducing poverty, will require that the underlying political decisions are consistent with the outcome of a good budget. This in turn requires attention to a number of core institutional aspects that are critical for ensuring that the budget indeed contributes to the desired outcomes.

For analytical purposes, these core institutional dimensions can be described as follows:

• Budget Deficit and Debt Management
• Taxation Management
• Managing Public Spending
• Allocating Responsibility by Levels of Government
• Predictability and Transparency of the Budget
• Expenditure Tracking and Monitoring
• Public Accounts

How are these institutional components related to each other and how do they work to lead to good or bad budget outcomes?

Budget Deficit and Debt Management

Budget deficit and public debt are obviously interrelated. The deficit outcome and associated financing decisions can have major effects on growth and poverty reduction. For example, the budget deficits were insignificantly small or in surplus in the 1990s among the best-performing countries but averaged over 10 per cent of GDP among the worst-performing countries (WDR 2003). Sustained large budget deficits can easily lead to debt explosion and economic decline, causing tremendous political, economic and social difficulties. The
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The world today is replete with such examples, including the well known HIPC (highly indebted poor countries) phenomenon. Despite well known adverse consequences of prolonged large fiscal deficits, many countries are only too willing to let this happen. Why? And what can be done to address this problem? The level of deficit is a political decision and politicians are often happy to leave the problem alone if they can get away with it (i.e. they do not face a crisis situation) because correcting these deficits are politically painful (higher taxation and/or spending cutbacks are both unpalatable to politicians because they tend to create adverse political reactions in the short run while benefits normally occur in the longer term). So, while the obvious solution to lower deficit is to raise revenues and restrain spending, these reforms are not easy to obtain. However, a number of institutional arrangements related to budget management can help. These include: a strong finance ministry with authority to resist budgetary amendments, fiscal responsibility bills, and restriction on borrowing at lower levels of government. Evidence suggests that all these rules and regulations if used well can have a positive impact in limiting budget deficits (WDR 2002).

**Taxation Management**

The budget deficit and public debt in turn are the results of two other related institutional aspects of the budget: taxation and spending decisions. Taxation is inherently unpopular and has been so in all societies and in all times. Public spending on the other hand is welcomed by beneficiaries. The management of taxation brings out tremendous political challenges of vested interest of all types, especially in developing countries where tax administration is very weak. Elite capture and corruption in many developing countries have often lead to low tax collection as well as reliance on inefficient taxes that distort resource allocation. The outcome is often negative impact on growth and equity. For example, except in Sri Lanka, on average annual total tax collection in the South Asia Region (SAR) is not only quite low, ranging between 9 per cent of GDP to 13 per cent of GDP, income tax compliance is only between 6 and 16 per cent (Ahmed 2002). Such low income tax compliance is reflective of the political power of the elites and vested interests. Addressing this requires among other things bringing the relevant information out to the general public in order to have an important debate how to solve the following problem of the collective: raising sufficient revenue in an equitable and efficient way to pay for public good provision. Demonstrating compliance with tax laws by the politicians and elites will be helpful. Also, the government's ability to

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1 Even for Sri Lanka, the average tax collection per annum (17 per cent of GDP) is low relative to spending (25 per cent of GDP).
offer quality public services to citizens is a critical determinant of tax compliance.

On the institutional front, the low income tax compliance is a reflection of poor tax administration. International evidence suggests that establishing an autonomous tax agency can help improve tax administration (WDR 2002). However, simply declaring a tax administration as autonomous on paper will not work. Along with strong political commitment that backs up the working of this agency by withdrawing protection of the offenders and letting the penalty system work, partnership with the business community to support an efficient and equitable tax agency will be necessary.

Managing Public Spending

Spending decisions are equally political in nature. Elite and vested interest capture are common phenomenon. Spending capture can reflect interests of powerful specific institutions such as the military (defense spending), the civil service (levels of employment and wage and pensions bills), public enterprises (levels of subsidy), and farmers (subsidy on power, water, food procurement). Equally worrisome, public spending is often constrained by fixed commitments due to poor fiscal management of past governments (e.g. interest payments on public debt). Consequently, it is often the case that public spending for supporting growth (e.g. infrastructure) and human development (health, education, water supply) are a relatively a small share of total spending. For example, in SAR countries, on average a dollar of public spending is distributed as follows: 20 cents goes to interest payments, 11 cents to defense, 16 cents to upkeep of civil servants and 13 cents for largely untargeted subsidy payments. Only the remaining 40 cents goes for basic infrastructure and human development (Ahmed 2002). Recognising the importance of managing public spending for service delivery for the poor, the WDR 2004 notes as follows: ‘When services fail poor people, a good place to start looking for the underlying problem is almost always how the government spends money. If politicians and policymakers spend more than they can sustain, services deteriorate. If budgets are misallocated, basic services remain underfunded and frontline providers are handicapped. And if funds are misappropriated, service quality, quantity and access suffer’ (p. 181). So, securing an efficient and equitable tax system as well as ensuring that public spending is channeled to areas that support growth and poverty reduction are major institutional challenges in most developing economies.

Allocating Responsibility by Levels of Government

The effectiveness of public spending in terms of contribution to growth and poverty reduction outcomes is in many instances limited by poor service
delivery. It is not just the level of funding but how the money is used to provide service which matter. Service delivery weakness of the public sector often result from its highly centralised structure, leading to disconnect between providers and beneficiaries and poor accountability. So, a proper allocation of responsibility for budget formulation, financing and implementation by appropriate levels of government is a key institutional challenge for good budget management. However, as the WDR 2004 notes, decentralisation by itself cannot be a panacea for resolving public sector service delivery problems. Successful decentralisation should be based on the key principles of accountability, transparency (to the public) and clear lines of responsibility in revenue and expenditure assignment. So, making decentralisation deliver the intended outcomes requires a careful design of the intergovernmental fiscal relations, getting the administrative structure of local governments in place, developing local government capacities, establishing clear accountability mechanisms and ensuring transparency at all levels.

**Predictability and Transparency of the Budget**

Budget decisions are typically carried out on an annual cycle (known as fiscal year) whereas outcomes require longer term commitments. Fluctuations in revenues and uncertainties about availability of foreign aid on an annual cycle along with lumpiness of many public capital spending means considerable uncertainty in matching resource needs to revenues on a yearly basis. Yearly budgetary fluctuations can cause major difficulties in meeting financial commitments or completing projects efficiently and on time. Often, the budget is based on incomplete or inadequate information, especially at the sectoral expenditure level, either because of poor planning or because line ministries hide true costs to get project approvals. These in turn can have serious adverse effects on efficient use of public resources. One possible option to improve the transparency and predictability of the budget is the use of medium term budgetary framework (MTBF). These are now becoming increasingly popular in developing countries. A well-designed MTBF can be a powerful instrument for improved budgetary management, provided adequate capacity is in place including efforts to improve the information base.

**Expenditure Tracking and Monitoring**

While proper allocation of budgetary responsibility by levels of government can be very helpful in establishing better accountability, it is still important to know how public resources are actually being spent at all levels of government. This information is necessary not only to make midway corrections as necessary, but also to assure both public officials and citizens that money is actually being spent for the intended purpose. Also, good analysis
of the impact of public spending on economic outcomes is needed. Both these information can be very powerful in giving citizens a voice when there are concerns about the effectiveness of public spending.

Public Accounts

Finally, proper audit of the budget to account for all revenues mobilised and all monies spent is a essential to ensure financial discipline and accountability, which are critical for the overall effectiveness of the budget. Without independent audits that are made available to the public and a system of diligent follow up to the reservations expressed in the audit report, there is a serious risk that public resources will be wasted either through corruption or through inefficiency or both. Poor performing budgets are often a reflection of the lack of institutional arrangements for ensuring the formal accountability for public funds.

SECTION III: BUDGET'S EFFECTS
ON GROWTH AND POVERTY REDUCTION IN
BANGLADESH: HISTORICAL CONTEXT

Much has been written about Bangladesh's development performance, its achievements and challenges. Recent work among others includes those of Quibria (1997); Ahmed (2002); World Bank (2003); Ahmed and Mahmud (2004). The evidence shows that following an increase in poverty in the early 1970s, Bangladesh made good progress in reducing poverty in the late 1970s through the mid-1980s, and then again in the 1990s (see Figure 14.1 for recent trends). The achievements in terms of progress with human development is also remarkable and better than the average for low income countries (Figure 14.2). The growth outcomes have depicted a pattern similar to poverty trends: low growth in the early 1970s, followed by recovery since the late 1970s and further improvement in the 1990s (Figure 14.3). However, the growth path fluctuated significantly due to effects of natural disasters (floods, droughts, cyclones). The adverse effects of the natural disasters impacted severely on rural incomes, thereby hurting the rural poor.

These development outcomes are the consequences of the interaction of a large number of policy and institutional variables. The works cited above and other research analyse these factors in detail. This paper focuses on the role of the government budget in explaining these outcomes. By doing so, the objective is not to belittle the importance of the whole range of other variables,

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3 On this point about growth volatility, see Mahajan 2004.
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Figure 14.1 Bangladesh’s Progress in Poverty Reduction 1984–2000

Figure 14.2 Human Development Index v. Per Capita GNI

Figure 14.3 Trends in GDP
Transforming Bangladesh into a Middle Income Economy

Table 14.1 Tax and Non-Tax Revenues (Per cent of GDP)

<table>
<thead>
<tr>
<th>Countries</th>
<th>FY99</th>
<th>FY00</th>
<th>FY01</th>
<th>FY02</th>
<th>FY03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax revenue</td>
<td>7.2</td>
<td>6.8</td>
<td>7.6</td>
<td>7.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Non-tax revenue</td>
<td>1.8</td>
<td>1.7</td>
<td>1.4</td>
<td>2.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Total revenue</td>
<td>9.0</td>
<td>8.5</td>
<td>9.0</td>
<td>10.2</td>
<td>10.4</td>
</tr>
<tr>
<td>Total revenue:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>16.1</td>
<td>17.1</td>
<td>17.4</td>
<td>17.0</td>
<td>n/a</td>
</tr>
<tr>
<td>Pakistan</td>
<td>16.6</td>
<td>17.3</td>
<td>17.3</td>
<td>19.5</td>
<td>n/a</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>17.7</td>
<td>16.8</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Thailand</td>
<td>15.4</td>
<td>15.1</td>
<td>15.1</td>
<td>16.1</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: World Development Indicators and World Bank staff estimates.

but instead to show the importance of budgetary reforms for supporting growth and poverty reduction in Bangladesh. To do this, the paper uses the framework presented in Section II above.

Fiscal Deficits and Debt

When Bangladesh became independent in 1972, it inherited a very difficult fiscal situation but also a number of advantages. These advantages were in the form of low debt obligations and low defense spending. The other important advantage it secured subsequently was relatively generous access to concessional foreign assistance. While these features supported the growth process, overall fiscal management showed some worrisome trends since the 1990s. This is reflected in a rising debt to GDP ratio and growing interest burden of public debt.

The creeping interest cost of debt accumulation is shown in Figure 14.4. From a modest level of 10 per cent in 1972, the debt to GDP ratio grew steadily throughout the past three decades reaching 47 per cent in 1998 and 55 per cent in 2003. The rise has been particularly sharp in the 1990s, not withstanding a higher GDP growth. While the initial rise in the debt/GDP ratio is explained by access to concessional financing, which was necessary to build up the war-ravaged economy in the 1970s and the 1980s, fiscal management became an issue in the 1990s. On average, fiscal deficits were 5 per cent of GDP per annum during the 1990s, higher than the average of 3 per cent of GDP in the 1980s and 3.5 per cent of GDP between 1972 to 1980. Importantly, there was a significant shift in the financing pattern of these deficits (see Table 14.1) with a larger share of funding coming from more expensive domestic and foreign financing sources.

The rising interest cost and growing debt to GDP ratio was not
accompanied by commensurate increase in debt servicing capacity in terms of tax revenues, although export performance fared better (Ahmed 2002a). The budgetary problem has been slowly becoming worrisome, since the share of interest cost in total spending and total revenues has begun to rise since the mid-1990s, leaving an increasingly lower share of resources for financing Bangladesh's development needs (see Figure 14.4).

![Figure 14.4 Trends in Interest Spending](image)

Efforts to secure reduction in fiscal deficits met with limited success in terms of sustained progress, fluctuating around 5 per cent of GDP but then rising from a low of 4 per cent in 1998 to over 6 per cent in 2000 (Figure 14.5). More recently, there has been some progress in containing the fiscal stimulus, with the deficit, falling from a high of 6 per cent of GDP in 2000 to about 4 per cent in 2003. How sustainable this effort will turn out to be is yet to be seen.

![Figure 14.5 Trends in Fiscal Deficit (% of GDP)](image)
Tax Management

The key factor underlying the constrained fiscal management in Bangladesh is poor tax performance. This is easy to see from Figure 14.6 that shows the path of public sector resource mobilisation over the 1984–2002 period, broken down by tax revenue, income tax revenue and non-tax revenue. Two striking results are: First, as a share of GDP, the tax ratio has shown very limited upward flexibility, growing from around 5 per cent in the early 1980s to only 7.7 per cent of GDP in 2002. This is the lowest tax effort in South Asia and amongst the lowest in the world. Second, non-tax revenue, which includes proceeds from public services and profit transfers from the Central Bank operations, also grew very slowly from around 1 per cent of GDP in the early 1980s to around 2 per cent in 2002. Overall, total public revenue is among the lowest in South Asia (Table 14.1) and the low level of public revenue has been a major constraint to the ability of Bangladesh to expand basic services for the poor and provide critical infrastructure services for growth. Within the context of this poor overall resource mobilisation performance, the income tax performance has been miserably weak. The tax debacle is the direct manifestation of a major institutional problem in Bangladesh – poor tax management.

The problem of tax management has two interrelated dimensions. One is the tax structure, and the second is tax administration. Bangladesh's tax structure has traditionally been characterised by the dominance of indirect taxes – international trade taxes, domestic sales taxes and excise duties. As noted above, direct taxes, such as income tax and tax on wealth, have been a low proportion of total tax revenue. Thus, Figure 14.7 shows that while the share of income tax in total tax has improved modestly, this is from a very low base. Quite apart from the issues of equity and tax buoyancy, this
inefficient tax structure has distorted incentives for investment and exports, thereby weakening the growth impact of the budget. Within the indirect tax category, however, there has been some recent progress. Importantly, the share of international trade taxes has come down from 30 per cent in 1995 to 16 per cent in 1999 and to 11 per cent in 2002. As well, Bangladesh succeeded in introducing a value-added tax in the early 1990s, that has performed relatively well with revenue growing from 1 per cent of GDP in 1990 to 4 per cent of GDP in 2002. Correspondingly, its share in total tax revenues has grown from 25 per cent in 1990 to some 50 per cent in 2002.

![Figure 14.7 Income Tax/Total Tax (%)](image)

Regarding tax administration, poor political governance has constrained tax mobilisation effort in Bangladesh. There are a number of reasons for the low income tax yield. First, the tax base is very narrow because a large segment of the economic activity base is out of the tax loop due to the lack of proper documentation (the gray economy). A second reason is the weak administrative capacity and corruption of the tax administrative machinery. A third and related reason is the willful non-compliance by the elite class based on political patronage.

These three factors are interrelated. Thus, inadequate documentation and low tax compliance are partly explained by poor tax administration, but also by the political patronage of the elite-type willful tax defaulters by the ruling class. Non-compliance with tax obligation is especially a problem with the politicians and big business with political connections. Poor tax administration simply makes it much more convenient. Armed with inadequate record keeping, including lack of computerisation, tax officials have often entered into private deals to under-report income and collect low income taxes for the government.

Recognising the importance of tax reforms, the government is now preparing a broad strategy to modernise its tax department – National Board of Revenue (NBR) – to increase revenue and enhance taxpayer services. The
recent Revenue Reform Commission report suggested ways of improving revenue raising. Reports, sponsored by donors (including the IMF and Bank) have concluded that revenue collection might be raised by perhaps 30 to 50 per cent, equal to 3 to 5 per cent of GDP, if the government sustained a medium term reform strategy. The NBR's current tax-by-tax organisation is not well suited for modern tax administration. The government, therefore, plans to move in phases towards a functional approach instead, which would allow greater standardization of work processes across taxes, more effective division of labour, improved monitoring of staff, and reduced compliance costs for taxpayers. The strategy should include institutional changes to strengthen the board, secure better voluntary taxpayer compliance but also improve audit and enforcement, coupled with human resource changes, better business practices and an information technology strategy. NBR might be given enhanced powers to manage its budgetary and human resources. Such a strategy would need to be sustained over several years to be effective. Organisational changed will need to be accompanied by improvements to the tax structure. A further strategic shift is necessary, away from reliance on trade taxes, which distort incentives, to taxes based on domestic activity, such as income tax and VAT. Coverage of income tax will need to be expanded. The VAT base will need to be broadened, and its structure revised to ensure that it is indeed a tax on value added rather than a surrogate excise tax. Trade taxes will need to be rationalised to reduce the scope for rent-seeking and speed customs clearance. Current initiatives to enhance revenue collection include:

Income tax
In a country with 140 million population, only 1.2 million are registered taxpayers, and barely 5,00,000 pay income taxes. Some 90 per cent of income tax revenues come from 1,000 taxpayers. The NBR, assisted by the DFID, has set up a large taxpayer unit (LTU) to facilitate tax recovery from the largest taxpayers.

VAT
The NBR is also committed to create an LTU for VAT before the end of 2004. In the long term, it would be more effective for the NBR to have a single LTU for both income taxes and VAT, but in the short term this was considered administratively infeasible.

Trade taxes
The Finance Minister committed in December 2003 to rationalise the tax system by reducing trade taxes in the FY05 budget. Nevertheless, there is still scope for plugging revenue leakages in customs and facilitating swift
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clearance of cargo through application of IT systems, such as ASYCUDA++, which is already operational in four key customs ports. It is crucial that the system operate within a 'closed loop' environment excluding any manual interference.

The initiation of these timely tax reforms is welcome. Yet, these may not fully meet the needs of a sound budget management. The policymakers in Bangladesh should think hard about establishing a truly autonomous tax department. International evidence shows that such an effort will likely pay off in terms of a much stronger tax performance. There is no magic to this; all that this requires is strong political will.

Managing Public Spending

Bangladesh is generally credited with a positive scorecard for setting the broad expenditure priorities on a right track for over a long period of time. This is in sharp contrast to Pakistan where expenditure priorities have been of major concern (Ahmed 2002a). Figure 14.8 shows that successive governments have emphasised social spending relative to defense spending. This has served Bangladesh well and partly explain why Bangladesh has done better than Pakistan in improving its social indicators. Yet, it is also clear that relative to needs the allocation of resources for human development is quite low (World Bank 2002c). Thus, as compared with a level of social spending (health and education) of 5 to 6 per cent of GDP in East Asian countries, Bangladesh spends only 3 to 4 per cent of GDP. Low spending is also an important reason for the low observed quality of health and education services in Bangladesh (World Bank 2002c). There is also considerable scope for both improving equity and the quality of public spending in Bangladesh (World Bank 2002c). Evidence suggests that health and education spending are not well targeted to the poor. Similarly, there is considerable corruption and leakage in public spending for health and education (World Bank 2002c).
Allocating Responsibility by Levels of Governments

Public administration in Bangladesh is heavily centralised. Within the civil administration, almost all authority is exercised by the head of the government and the cabinet. Local governments are very weak, with little administrative and financial authority (World Bank 1996; World Bank 1997; World Bank 2000; UNDP 2002). There have been a number of attempts to establish a stronger system of local governments. These have had very limited success due to lack of strong political commitment at the top. Consequently, the setting of expenditure priorities, allocation of resources, procurement of goods and services, and the implementation of projects are largely centralised at the ministry level in the capital city of Dhaka. District administrations are run by the civil servants with little independent authority. So, local level involvement is limited to running public facilities at the district level and maintaining law and order. Additionally, local level civil servants are not accountable to the local governments but to the ministries at the central level.

At both the central and local levels, day to day general administration is run by the civil servants. This system was inherited from the British colonial times and has changed very little in terms of basic attitude and accountabilities. In the early days after the independence of India and Pakistan from the British, the standard for the selection of civil servants was tough leading to high quality of these officers. The high quality of officers and the prestige value of the job sometimes motivated them to take a missionary zeal and make an effort to contribute to local development. Over time, though, the quality of civil service weakened. The pay and benefits also fell drastically in real terms. Currently, the civil service is plagued with a plethora of problems including low quality, poor remuneration, weak accountability, and corruption. Consequently, service quality is low and bureaucracy is often a serious hurdle to the efficient functioning of the private sector and the economy (World Bank 1996; World Bank 2002a).

The political progress on decentralisation has suffered in Bangladesh from the unsupportive attitude of both the large political parties (Awami League and the BNP), even though the rhetoric has been different. At the heart is the contentious issue of division of power between the national legislators and the local governments. While similar conflicts arise in other countries as well, in Bangladesh this has become particularly complicated because of the small physical size of the country, the homogenous nature of the people and the relative ease of physical mobility. Consequently, national legislators have tended to argue that they can take care of their constituencies without the need for an intermediary political agent (elected and empowered local governments). Civil servants have also found this convenient since this has given them more authority without accountability, especially at the local level.
What has been the outcome of this heavily centralised administration for development performance? Even though the jury is out on the international evidence on the role of decentralised governments in service delivery (World Development Report 2004), a priori it can be argued that the centralised system of public service delivery is likely to be an important contributor to the poor service quality in Bangladesh and needs to be revisited. The example from Pakistan in the delivery of social services is one negative experience of the ineffectiveness of a heavily centralised service delivery model (World Bank 2003a). In the case of Bangladesh, this is perhaps best illustrated by the experience with delivery of basic social services (education, health, water supply) through NGOs who tend to work very closely with the local communities as compared with centralized public services with poor accountability. It is generally acknowledged that on average health and education services delivered by NGOs involving community participation has been significantly better than comparable services provided by public facilities (see for example Ahmed and Nath 2004 for a review of BRAC experience in delivery of primary education). This is not surprising. The NGO facilities have typically involved heavy participation of local community members in the design and delivery of these services and with better accountability by NGO officials, whereas on average public services have suffered from lack of community participation and accountability of service providers. Centralised management has meant that there is no functioning mechanism to ensure accountability of the local public service providers. Thus, for example, the teacher or the health worker continues to get paid whether or not the person shows up because these service providers are not hired by the community or get punished for non-performance.

Predictability and Transparency of the Budget

The budgetary process in Bangladesh suffers from a number of weaknesses that reduce the effectiveness of the budget (World Bank 2002c). These include:

- lack of strategic focus and clarity on sectoral priorities;
- inadequate information on the cost of policies, programmes, and services;
- short term horizon for budget decision-making that fails to account for the long term costs and benefits;
- an artificial separation of development and recurrent budgets, weakening the integrated, strategic content of the budget; and
- end of year spending incentives that reduce the efficiency of spending.

The presence of these drawbacks has typically meant inefficient spending decisions. For example, the separation of development and recurrent spending has meant inadequate attention to the recurrent cost implications of capital
spending. Indeed, operation and maintenance (O&M) has typically tended to be short circuited causing low returns from capital spending. Lack of good costing analysis of public programmes and policies has similarly meant inappropriate or inadequate funding of many programmes, leading to poor efficiency of these programmes. Many public programmes are based on political expediency rather than based on a careful analysis and choice of competing priorities, again contributing to low returns from such spending.

Improving budget formulation to link policy planning and budgeting should be a priority, if the government is to embark on strategic planning initiatives such as the PRSP. The government aims to move gradually towards a medium term expenditure Framework (MTEF). The government has already reclassified around 50 development projects and aligned them with the overall budget classification. It plans to continue until all projects have been reclassified and the revenue and development budgets have been fully realigned. With regard to budget strategy formulation, the government plans to proceed gradually by using selected ministries (starting with the education sector) as pilots for the preparation of sectoral medium term expenditures. The goal is to extend the approach to other sectors and then the entire budget.

These are important positive steps, but there is a long way to go. Among the issues that need more effort and resolution include: assigning clear responsibilities between different levels of governments and line ministries in the formulation of the MTEF; capacity to do detailed costing of programmes and policies; establishing sectoral and programme priorities; setting realistic programme goals and targets; and strengthening the relationship between the PRS and the annual budgets.

**Expenditure Tracking and Monitoring**

One key factor underlying the low effectiveness of public expenditure in Bangladesh has been a dysfunctional expenditure monitoring system. The traditional monitoring emphasis has been on spending of budgetary allocations rather than on outcomes. Thus, the success of budget implementation is judged on the basis of how closely actual spending matched the allocated budget. The tracking of expenditure has also been constrained by inadequate attention to data quality and timeliness.

Very recently, as a part of the PRS, an effort is now underway to establish a fairly detailed mechanism to monitor poverty-related expenditure, along with their intermediate indicators and outcomes, in relation to the specific human development and poverty targets in the PRS. This mechanism, when fully functional, can provide a powerful analytical tool to assess the

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4 Overall budget classification refers to the classification of expenditures into administrative units, functional, sub-functional and economic categories according to the General Financial Statistics or UN internationally recognised standards.
effectiveness of public spending in achieving stated outcomes. The success, however, requires a long term effort to increase monitoring and evaluation capacity and strengthen the underlying data base in terms of quality, comprehensiveness and timeliness at the district level and moving upwards.

Public Accounts
Although on paper Bangladesh has a reasonably sound financial accountability set up, in practice weak financial accountability has been a fundamental institutional constraint on quality of public spending (World Bank 2001). Major concerns include:

- ineffective parliamentary and executive control of the budgetary spending – audit reports on annual accounts are heavily qualified and accounts do not currently meet the expectations of the Constitution and associated laws and regulations; for example, the audit reports focus only on irregularities in individual transactions without sufficient attention to significance and systematic weaknesses of financial management system. Similarly, the legislative oversight of the accountability system is weak. The accountability of the executive is not sufficiently supported by information that would enable it to become focused on results and outcomes;
- the separation of audit and accounts took a long time to come; even now the process is yet to be completed;
- although a system of penalties exist, these sanctions and associated implementation are inordinately cumbersome and lengthy;
- the quality of audit suffers both from quality and timeliness of data as well as from lack of automation and low staffing quality.

To address some of these concerns, since 2002 Bangladesh has initiated important reforms to improve financial management. As a result, significant progress has been made toward resolving the longstanding problems of financial reporting, reconciliation, transparency and oversight. The auditing and accounting functions have been separated. The Controller General of Accounts (CGA) no longer reports to the Controller and Auditor General (C&AG). Six Divisional Controller of Accounts (DCA) offices have replaced 20 regional accounting offices. Unions and districts now send their monthly accounts and report directly to the DCAs. A central reconciliation unit is working in the office of CGA. Budget Monitoring Committees have been formed in a number of ministries. Financial Management Units are being set up in five ministries in addition to seven previously done. The authorities have recently accepted an Inception Report for a Financial Management Reform Programme (FMRP), funded jointly by DFID and the government of
Norway. The FMRP will help develop these FMUs, depending on the size of their ADP budgets. The Public Accounts Committee has been re-established and is functioning.

Further reforms are still needed to improve data reliability and timeliness, the comprehensiveness of government accounts, reporting and disclosures following international public sector accounting standards (IPSAS), quality and timeliness of audit reports and effectiveness of parliamentary oversight and other watchdog institutions. Staff in the audit and accounts cadres should be totally separated to prevent conflict of interest. CAOs should receive monthly accounting data from the project directors along with the bank statements of donor funded special accounts to include them in the government accounting system. Transaction should be computerised in CAOs, DAOs and UAOs. Treasury functions by Bangladesh Bank and Sonali Bank should also be computerised. Responsibility for accounting for receipts in Dhaka should be moved from DAO Dhaka to the concerned CAO. A cell in CGA should record and account reconciled figures for foreign debts, based on regular input from FABA(ERD), Bangladesh Bank and project offices. The IPSAS (cash standard) should be adopted in phases in all ministries in transition to accrual accounting. The government payroll system should also be computerised in phases. The effectiveness of PACs need to be ensured through adequate logistic support and participation by opposition. Secretarial and technical support is needed to review the audit reports, issue recommendations and directions, formalise the PAC review processes and monitor follow up.

SECTION IV: CONCLUDING REMARKS

Management of the government budget has been an important challenge in Bangladesh. While Bangladesh maintained generally prudent budget management in the 1970s and the 1980s, financing fiscal deficits through concessional foreign assistance and avoiding major build up of expensive foreign and domestic debt, this discipline slackened in the 1990s, especially during the later half of the 1990s. Consequently, there has been a rising cost of public debt. Regarding the structure of the budget, Bangladesh has done reasonably well in setting up its broad expenditure priorities with emphasis on human development. But public resource mobilisation, especially tax resource mobilisation has been chronically weak over the longer term. Overall budget management is also weak in terms of expenditure planning, assignment of responsibilities by levels of government, monitoring and evaluation and financial controls and accountability.

Bangladesh has among the lowest tax effort in the developing world. This, coupled with poor non-tax revenue performance, has resulted in very low total revenue for the government. This has constrained the ability of the government to adequately fund many of the core public services in health,
education, water and infrastructure. Clearly, among the highest budget management priority is to sharply accelerate the revenue mobilisation effort through a well-thought and comprehensive tax reform programme. The recent effort to raise revenues and modernise the tax department is welcome, but careful thought is needed to allow the establishment of an autonomous tax department in order to substantially strengthen tax collection and protect it from adverse political influence. Strong political will is needed for this.

While broadly speaking expenditure priorities reflect the government’s commitment to human development, there is considerable scope to enhance the effectiveness of public spending. In this regard, careful thought needs to be given to strengthen local governments and assign them the responsibility for such services as basic health, education, water and sanitation. Related reforms needed include establishing elected local governments with clearly assigned service delivery responsibilities, ensuring their financial solvency, ensuring that these governments have adequate capacity, establishing a system of accountability between beneficiaries, service providers and local governments, establishing performance monitoring and evaluation system, and oversight by the higher levels of government. This is a major challenge for Bangladesh, as there are no serious political champions willing to push this critical agenda.

Regarding public expenditure management, efforts underway to prepare a medium-term expenditure framework (MTEF) is a welcome development. The strategic content to the MTEF needs to be properly aligned to the PRS. The implementation of the MTEF, however, has a long way to go. International experience suggests that this can be a powerful tool to improve the effectiveness of public spending provided it is well implemented. This requires a serious effort, including enhancing the capacity of the Ministry of Finance and other line ministries to undertake this exercise, especially regarding ability to link the MTEF to the PRS, and update this as necessary. The underlying data needs (e.g. costing of sectoral programmes) are quite substantial.

The effort to improve monitoring and evaluation as a part of the PRS is a positive development, although progress is very slow. M&E needs are substantial and required for all government departments. Finally, despite recent progress with financial management, there remains a long term agenda for strengthening financial management and accountability, especially at the local levels. Establishing adequate oversight of parliamentary committees and follow-up to the recommended actions are particularly important.

REFERENCES

Transforming Bangladesh into a Middle Income Economy


Reforming the Tax Administration

William McCarten

SECTION I: INTRODUCTION

Comprehensive renewal of tax administration and tax policy has been neglected in Bangladesh for many decades. The external environment determining tax compliance and tax administration opportunities has changed radically for Bangladesh. During the 1990s Bangladesh became increasingly integrated with the global economy, with its trade doubling over the decade to reach 31 per cent of GDP by 2001. The population of business taxpayers has become much more heterogeneous, due to the growth of financial sophistication among some taxpayers and their intensive use of financial arrangements involving international transactions. Without a matching increase in professional and technological capacity by the revenue administration, its ability to monitor taxable activity, counter tax evasion, and supporting the legitimate service needs of diverse taxpayers is reduced.

The illiteracy rate fell from 71 per cent in 1980 to 55 per cent in 2000 and the capacity to maintain business accounts has similarly experienced a related increase. But tax policy and administrative practice have only just begun to address the challenge of increased heterogeneity among the nation's taxpayers. The tax policy reforms of the last few governments can be characterised by their cautious, incremental approaches and the absence of an overall strategic framework. Similarly, the tax administration system, as coordinated by the National Board of Revenue, has not been fundamentally changed since independence.

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1 The Revenue Reform Commission, comprising NBR staff, academia and the business sector, was established in 2002 with the mandate to formulate recommendations in order to improve revenue policy and administration. However, its recommendations have not been widely discussed in the public domain.
Over the last decade and a half many developing and transition countries have embarked on technological transformations of their tax administrations. Many have changed their organisational philosophy by adopting a taxpayer service ethos, while insisting on strong enforcement measures to boost compliance. It is now feasible and cost effective for even the poorest countries to adopt new and proven ‘off the shelf’ information and communications technology applications for tax administration. These instruments support better service delivery and guide the modernisation of business processes.

Close neighbours of Bangladesh, including India and Pakistan, have produced detailed strategies and action plans\(^2\) for the rationalisation of their tax systems, including the administrative dimensions and appear poised to achieve sustained implementation. Indonesia and Thailand are implementing second generation tax reforms. Consequently, the Bangladesh tax administrative system is fast becoming an outlier among its Asian counterparts, most of which have implemented or are beginning to implement major multiyear tax reform programmes. Nevertheless, by starting late, Bangladesh can learn much from the implementation experience of countries that have started much earlier.

In 2003, the government of Bangladesh established a set of quantitative revenue targets to improve accountability and acknowledged the need for pragmatic reforms to expand the tax base. With its FY05 budget, the government has made significant strides in reforming the trade system in order to improve competitiveness and reduce anti-export bias.\(^3\) The authorities have successfully implemented some administrative reforms in customs, including introduction of new cargo examination policies to reduce port congestion. Progress has been made in automating basic documentation for customs clearance under the Export Diversification Project,\(^4\) financed through a World Bank credit. The tax administration is beginning to build auditing skills for income tax and VAT, initially within large taxpayer units with support from a technical assistance programme.\(^5\) These reforms have scope for much additional deepening to dramatically reduce tax and custom duty compliance costs for taxpayers and to improve Bangladesh’s overall trade logistic

\(^2\) These reports are the Report of the Task Force on Implementation of the Fiscal Responsibility and Budget Management Act (2004) from India, known for its Chairman (Vijay Kelkar) as the Kelkar report and the report of the Task Force on Reform of Tax Administration in Pakistan of 2001, chaired by Syed Shafid Hussain and known as the Hussain report (2001). The Hussain report has formed the basis for an action plan drafted in 2003 to reform the Pakistan tax administration.

\(^3\) Tariff incidence will be reduced to less than 21 per cent from an estimated 25 per cent in FY04, through a significant reduction in the level and dispersion of customs and supplementary duties.

\(^4\) Funded through a World Bank loan.

\(^5\) RIRA is a technical assistance program funded by the UK’s Department of International Development.
performance. Yet beyond such individual measures, the tax administration requires a comprehensive organisational reinvention, within a multiyear programmatic framework, that will transform it into a high-quality institution capable of meeting the revenue needs and service requirements of Bangladesh society in the twenty-first century.

This paper first investigates the stylised facts of recent Bangladesh revenue performance and then identifies their causes. The paper discusses the elements of a feasible reform strategy and reviews some lessons on reform tactics and pitfalls from the reforms experience of other countries. The paper concludes with the suggestion that escaping from the institutional status quo may require a new bargain among key stakeholders in Bangladesh society. Econometric evidence on tax rate productivity is presented in the Appendix.

SECTION II: STYLISED FACTS OF BANGLADESH REVENUE SYSTEM

A decade ago, Syed M. Ahsan (1995) identified six stylised facts or characteristics of the Bangladesh tax structure. Despite the passage of time and the increased openness of the domestic economy, his description and observations remains largely valid today. These characteristics are reviewed below, with reference to the statistics reported in Table 15.1.

1. Inadequate and Stagnant Revenue Yield Relative to GDP

The average total revenue and total tax revenue yields in percentage of GDP for all Asia countries were 18.9 per cent and 14.1 per cent, respectively, from 1986 to 1992. The corresponding numbers for Bangladesh for the corresponding benchmark period were 9.5 per cent and 7.5 per cent for the 1986–89 period. This is also the same percentage contribution recorded for 1992-93, as reported in Table 15.1, indicating little change between the 1980s and 1990s. During the subsequent decade total revenue increased by 1.5 per cent of GDP to approximately 11.0 per cent in FY 2003 and total taxes increased to 8.9 per cent in FY 2002-03. Most of the improvement is accounted for by the increased contribution of VAT revenue, whose yield, inclusive of supplementary duties, grew from 3.0 per cent of GDP to 4.5 per cent over the decade. Despite a major reduction in tariff rates from 1995 to 2004, actual customs duty revenue contribution has remained relatively constant at approximately 2.4 per cent of GDP.

2. High Ratio of Indirect to Direct Tax Revenue

Taxes from personal income and corporate profits have made a relatively minor contribution to overall tax effort. In FY 2003 they accounted for only
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<tbody>
<tr>
<td>Total tax revenue</td>
<td>7.63</td>
<td>8.26</td>
<td>8.00</td>
<td>7.64</td>
<td>7.19</td>
<td>8.14</td>
<td>8.28</td>
<td>9.33</td>
<td>8.88</td>
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<td>NBR taxes</td>
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<td>7.75</td>
<td>7.48</td>
<td>7.19</td>
<td>6.78</td>
<td>7.72</td>
<td>7.85</td>
<td>8.69</td>
<td>8.49</td>
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<tr>
<td>Total VAT revenue</td>
<td>2.99</td>
<td>3.69</td>
<td>3.83</td>
<td>3.55</td>
<td>3.73</td>
<td>4.13</td>
<td>4.26</td>
<td>4.58</td>
<td>4.51</td>
</tr>
<tr>
<td>VAT on imports</td>
<td>1.45</td>
<td>1.64</td>
<td>1.68</td>
<td>1.50</td>
<td>1.46</td>
<td>1.60</td>
<td>1.50</td>
<td>1.35</td>
<td>1.58</td>
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<tr>
<td>VAT on domestic</td>
<td>0.69</td>
<td>0.92</td>
<td>0.90</td>
<td>0.85</td>
<td>0.96</td>
<td>1.10</td>
<td>1.26</td>
<td>1.61</td>
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<td>Sup. duties imports</td>
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<td>0.14</td>
<td>0.27</td>
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<td>0.55</td>
<td>0.55</td>
<td>0.59</td>
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<td>Sup. duties domestic</td>
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<td>0.80</td>
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<td>0.89</td>
<td>0.95</td>
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<td>Excise taxes</td>
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<td>0.14</td>
<td>0.13</td>
<td>0.12</td>
<td>0.11</td>
<td>0.11</td>
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<tr>
<td>Customs duties</td>
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<td>2.41</td>
<td>2.30</td>
<td>1.91</td>
<td>2.11</td>
<td>2.05</td>
<td>2.16</td>
<td>2.39</td>
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<tr>
<td>Income and profits</td>
<td>1.35</td>
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<td>0.99</td>
<td>1.15</td>
<td>1.09</td>
<td>1.35</td>
<td>1.38</td>
<td>1.75</td>
<td>1.41</td>
</tr>
<tr>
<td>Other taxes</td>
<td>0.12</td>
<td>0.13</td>
<td>0.13</td>
<td>0.15</td>
<td>0.05</td>
<td>0.08</td>
<td>0.04</td>
<td>0.11</td>
<td>0.18</td>
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<tr>
<td>Non NBR taxes</td>
<td>0.49</td>
<td>0.51</td>
<td>0.52</td>
<td>0.45</td>
<td>0.46</td>
<td>0.42</td>
<td>0.43</td>
<td>0.86</td>
<td>0.39</td>
</tr>
<tr>
<td>Non tax revenue</td>
<td>1.87</td>
<td>2.21</td>
<td>1.97</td>
<td>1.60</td>
<td>1.82</td>
<td>1.52</td>
<td>2.60</td>
<td>2.60</td>
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<td>Collections at border</td>
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<td>4.50</td>
<td>4.36</td>
<td>4.20</td>
<td>3.82</td>
<td>4.26</td>
<td>4.10</td>
<td>4.10</td>
<td>4.41</td>
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**Note**: B refers to budgeted and A to actual.

**Source**: IMF reports and Ministry of Finance, Government of Bangladesh.
1.4 per cent of GDP, much the same as their position in 1992, and their relative contribution to total revenue has actually fallen to 12.7 per cent of total revenue from 14.3 per cent a decade earlier.

3. **A High and Constant Level of Dependence on Imports to Achieve Resource Mobilisation**

Customs duties, which contribute a constant 2.4 per cent of GDP to total revenues should not be interpreted as the sole tax component that trade activities contribute to revenue generation. When the value added tax and supplementary duties collected on imports at the border are added, the contribution by importation is approximately 40 per cent of total revenue or 4.4 per cent of GDP.

4. **Narrowly-Based Domestic Indirect Taxes**

While Bangladesh has instituted VAT in 1991 and subsequently extended the coverage notionally to wholesale and retail trade, the VAT lacks one of the primary attributes of a full-fledged VAT through the retail stage. Specifically, the credit invoice system extends only up to the manufacturing stage and is not universally applied. Wholesale and retail dealers are taxed on the basis of their declared turnover and notional estimates of their trade margins. Fully or partially exempt sectors include domestic textiles, cottage industries, much of the retail and wholesale sectors, electricity, professional services, private transportation and the warehousing sectors. The narrow base and the scope for tax evasion, which varies substantially from sector to sector, undermined the principle of neutrality in the tax system and distorted production and consumption decisions. For example, selected exemption from VAT to textile yarns combined with the full imposition of a 15 per cent rate VAT on imported yarn relieves the domestic yarn sector from healthy competitive pressures.

5. **Virtual Exemption of Agricultural Sector from Taxation**

Both agricultural and non-agricultural lands are subject to tax at specific rates with a progressive rate schedule. But this instrument has not been a buoyant source of revenue because rates have not been revised periodically to keep pace with inflation. Hossain (1993) reported that the share of land revenue in total taxation receipts had fallen to one per cent of total revenue as early as 1990.

6. **Potential Regressivity**

The relative unimportance of direct taxes on income and profits and of
Table 15.2 Structure of Bangladesh Economy

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<tbody>
<tr>
<td>Agriculture</td>
<td>33.2</td>
<td>31.5</td>
<td>29.5</td>
<td>26.0</td>
<td>25.6</td>
</tr>
<tr>
<td>Industry</td>
<td>17.1</td>
<td>18.7</td>
<td>20.8</td>
<td>24.3</td>
<td>25.7</td>
</tr>
<tr>
<td>Services</td>
<td>49.7</td>
<td>49.8</td>
<td>49.7</td>
<td>49.7</td>
<td>48.7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<td>100</td>
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</table>

*Note:* Industry includes mining & quarrying, manufacturing, electricity, gas & water supply, and construction; services include all other sectors.


The presumptive tax on land is a *prima facie* indicator of the lack of progressivity in taxation. The liberalisation of private economic activity and greater integration of the domestic with the global economy have simulated growth and opportunities for private sector profit.

Table 15.2 reports on the sectoral composition of GDP between 1980 and 2000. It suggests that service remained relatively constant over the two decades, while agriculture declined by 8 percentage points and industry grew by 9 percentage points. The major structural shifts in sector proportions indicate a major rise on the industrial sector, but this increase has not been matched by a corresponding increase in corporate or personal income tax receipts relative to GDP.

The growth of corporate profits and business income outside of the corporate sector, which is likely to be highly correlated with the growth of the industrial sector, has not generated an increased tax contribution relative to GDP from this base. The low buoyancy of income and corporate profits taxation is partly explained by the policy of providing generous tax holidays for new investments. Additionally, under-reporting of personal income is believed to be widespread and voluntary compliance by wealthy self-employed individuals low.

7. Low Revenue Productivity and High Administrative

Many objective indicators of Bangladesh's tax administration performance, such as trade logistics costs, port clearance times, and the revenue productivity of a standard rate point of VAT suggest that Bangladesh is greatly underperforming its tax administration potential. The productivity of revenue generation can be judged by comparing actual revenue yields of a tax relative to its potential base and statutory rates. The evidence for Bangladesh reveals a very low observed revenue productivity for a single rate point under VAT relative to other developing countries. The observed productivity is also low relative to the predicted level of VAT productivity derived from econometric
modelling, which controls for the impact of illiteracy, the general level of anti-corruption capabilities of government and the importance of imports in the economy. In particular, econometric estimates undertaken for this paper, based on a large cross-sectional sample of 69 countries with value added taxes, indicate that for 2001 the predicted level of Bangladesh VAT revenue adjusted for differences in standard rates and normalised for aggregate private consumption is 40 per cent less than the actual tax yield. (See summary of estimated results in the Appendix)

The average level of unofficial payments or speed money made to officers of government agencies for various types of services had been estimated, based on responses to a recent survey of businesses in Bangladesh. Customs officials and tax inspectors are found to rank first and second in term of amounts transferred. This report, which uses a new survey of 1,001 firms in Chittagong and Dhaka, indicates that firms reported making unofficial payments totalling on an average, more than taka 70,000 in the previous year (see Table 15.1).

These results are consistent with findings from other countries. Based on worldwide evidence, Gill (2003) concludes that, ‘tax and customs administrations routinely figure near the top of public-sector organisations with a high incidence of corruption’. Such findings indicate that close interaction between taxpayer and tax administrator, in cases where tax officials have wide interpretive discretion over the law, should be reduced because they expose the tax administration to unnecessary vulnerabilities. They can be replaced with modernised business processes to strengthen transparency and productivity and with programme-driven risk assessment procedures for

![Figure 15.1 Bangladesh: Average Unofficial Payment to Government Agencies by Business in 2002](source: Improving the Investment Climate in Bangladesh, World Bank (2003)).

6 The survey was conducted by the Bangladesh Enterprise Institute and the World Bank.
audit selection. The cost of alleged informal payments is not limited to the revenue foregone by the exchequer. Enterprises contemplating investment are concerned, not only about the formal tax system, but also with how the system operated in practice and the degree of uncertainty surrounding tax obligations and compliance burdens.

SECTION III: HOW EFFICIENT IS THE BANGLADESH SYSTEM OF INDIRECT TAXATION?

One objective way to measure the productivity of indirect taxation, as discussed in Ebrill et al. (2001), is estimate an efficiency ratio defined as the ratio of VAT revenue to GDP or aggregate private consumption divided by the standard rate of VAT. When private consumption, rather than GDP, is used as the normalising factor, the indicator is referred to as the tax rate productivity or C-efficiency of a single VAT rate point. This measure is described as, 'both a summary indicator of performance and a useful gauge of the extent to which the VAT bears uniformly upon a broad base'.

As Figure 15.2 above shows, the C-efficiency ratios for 2001 vary dramatically across developing and transition economies, from less than 0.25 for Gabon and the Philippines to over 1.0 for Croatia and Russia. Bangladesh,

![Figure 15.2 C-Efficiency of VAT by Standard Rate 2001, Based on Ratio VAT Rev./Consumption/Standard Rate](image)

Reforming the Tax Administration

shown on the right of Figure 15.2, has an estimated C-efficiency ratio 0.237 when supplementary duty revenue is not included, compared to 0.396 for Pakistan and 0.390 for Nepal. Sri Lanka achieves a C-efficiency measure of 0.737, placing it among the top 10 countries in the sample of 69 countries. The fundamental reasons for Bangladesh’s weak revenue productivity include a high level of tax evasion, partly explained by underreporting of income and value addition from the formal economy and partly explained by the existence of a large, non-compliant underground or shadow. Legal tax exemptions are also likely to be an important cause of low productivity that have unnecessarily narrowed the statutory tax base of both the income tax and the VAT.

Additional insights can be derived from the C-efficiency concept by using econometric estimation to explain the determinants of the dispersal of C-efficiency for a large sample of developing and transition economies where data is available. The approach adopted taken here and reported in the annex is to regress the ratio of VAT revenue, divided by private consumption on a set of explanatory variables including the standard rate of VAT – the openness of the economy, as measured by the ratio of imports to GDP, and the level of illiteracy as an indication of the ability to maintain accounts and written records. To this list of potential regressors is added an index for controlling corruption, recently developed by Kaufman, Kraay and Zoido-Lobaton (2002) and an index reporting the cost of registering an enterprise in the formal sector as developed by Djankov et al. (2002). More formally, the equation of interest is:

\[ \text{VAT Rev/Consumption} = f(\text{SR, imports/GDP, illiteracy, control corruption index, cost entry}) \]

where SR is the VAT standard rate, and cost entry is the cost of registering a business in the formal sector divided by the average wage.

The regressors explain about 42 per cent of the variability of the dependent variable and all regressors, except the variable for the cost of registration in the formal sector, are significant. The divergence between predicted level of the C-efficiency numerator for Bangladesh, derived from the fitted regression and observed C-efficiency numerator is approximately 41.6 per cent (Table 15.3). This indicates that even given the constraints imposed by the average level of capabilities in controlling corruption and the challenge posed by the high rate of illiteracy, the VAT tax in Bangladesh underperforms its potential by about 40 per cent. This result indicates that the scope for improvement is vast.

A major cause of the low rate of both direct and indirect tax compliance is the very large size of shadow or underground economy in Bangladesh. Recently Schneider (2002) reported on the result of an exhaustive comparative
investigation of the size of the underground or shadow economy for most countries of the world, both developed and developing. Figure 15.3 reports his findings for the major countries of Asia.

Three techniques have been employed by Schneider (2002) to develop average estimates of the relative size of the shadow or underground economy for 2000. The results for the 26 Asian countries are shown in Table 15.2. The shadow economy for Bangladesh is estimated to be equivalent to 35.6 per cent of GDP and to ranks sixth from the largest, in terms of relative size. Thailand has by far the largest shadow economy equivalent to 52.6 per cent of official GDP, followed by Sri Lanka with 44.6 per cent and Pakistan with 36.8 per cent. Bangladesh may have a lower estimated shadow economy than some of its Asian neighbours because of the continued large size of its agricultural sector. Most of agriculture is legally exempt from taxation and regulation.

Dollar, Hallward-Driemeier, and Mengistae (2003) using a large sample of Bangladesh data for 2003, find that the average days needed to clear goods through customs in Chittagong is 12.8 days for imports and 8.6 days for

<table>
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<tr>
<th>Percentage difference</th>
<th>Observed ratio</th>
<th>Fitted</th>
<th>Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>41.56%</td>
<td>0.0356</td>
<td>0.0504</td>
<td>-0.0148</td>
</tr>
</tbody>
</table>

Figure 15.3 Asia – Shadow Economy in % of GNP 1999–2000

exports. Their analytical investigation based on port data from several countries predicts that, 'for countries to take advantage of opportunities in the international market, they need good infrastructure and a sound regulatory environment. The interaction of openness and sound investment climate creates a good environment for investment and production.' Bangladesh lags behind China in terms of global integration in part because of inefficiencies in customs clearance processes and related tax.

SECTION IV: ELEMENTS OF A REFORM STRATEGY

Although tax and customs administration reform strategies adopted by developing countries in recent years have had country specific variations, they have much in common. Most have sought to: improve the organisation and management of revenue administration, simplify the legal framework, modernise taxpayer registration, strengthen return processing and payment systems, improve collection enforcement, build effective audit programmes tied to risk factor analysis, develop better taxpayer services, simplify appeals procedures, automate standardised business processes, simplify customs procedures while adhering to international customs conventions and establish large taxpayer units. Comprehensive tax administration reforms (e.g. Tanzania, Kenya, and Nepal) are increasingly undertaken as multi-year tasks, guided with technical assistance funded with external resources. A standard set of performance indicators is usually specified with performance benchmarks to monitor the impacts of reform. Such reforms can also help reduce corruption (Box 15.1).

Tax policy reform is also needed in Bangladesh. Devarajan et al., (2001) find that, for Bangladesh economy, the marginal cost of public funds (MCPF) across different tax instruments varies greatly. Directions for revenue-neutral tax reform are readily apparent from their analysis. Consequently, assuming that these MCPF results remain valid, national welfare can be increased if the government switches some tax burden from goods with high MCPF to those with lower MCPF. Reform should permit lower the marginal cost of public fund across commodity for indirect taxes and across types of taxpayers (e.g. branches and subsidiaries of foreign banks are much more heavily taxed than the Asian norm). In general, this can be achieved by a reduction in the nominal rates of tariffs and taxation while implementing off-setting base-broadening measures. This approach to tax policy reform may permit an escape from the trap where high rates lead to evasion and evasion leads to higher nominal rates and even more evasion.

Organisational Strengthening

The main tax collection agency, National Board of Revenue (NBR) lacks a taxpayer service culture. The NBR is widely perceived as having a fragmented
and dysfunctional organisational design, rigid administrative and human resource policies and a weak ability to enforce standards of good governance and professional integrity. These weaknesses have stymied many past efforts at incremental administrative reform.

The management of the NBR has been organised around a chairman and an eight member board. In most national tax administration agencies, the top management team is assigned the task of monitoring overall performance, providing leadership for change, organisational motivation, budgeting financial resources of the organisation, allocating staff, and identifying measures to increase productivity, assisting the Finance Ministry in implementing budget changes and achieve performance targets. However, the nine member management team concentrates primarily on the last function, with their performance targets narrowly interpreted as achieving a single overall annual revenue target.

One of Bangladesh’s few major tax policy innovations has been the 1991 adoption of a value added tax. But this measure was only implemented

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**Box 15.1 Multi-year Initiatives To Improve Governance in Tax Administration Can Succeed**

A reform plan should fit into strategic vision of administration, guided by a good governance framework and matched to the countries current implementation capacity and business environment. To deal with corruption, Colombia carried out a systematic study of important business processes, resulting in preparation of Corruption Risk Maps to guide procedural changes to reduce opportunities of corruption. Strengthening of internal control systems, including vigilance against corruption has been undertaken in Latvia and Jamaica. Further, changes in tax and customs codes have been made to reduce discretion of revenue officials and simplify procedures. Workflows have been modified in Russia and Latvia to reduce interaction between tax officials and taxpayers. The access of taxpayers is restricted to the taxpayer service areas and they are prohibited from entering other offices. Also, as already mentioned, moving processing of returns and payments into DPCs that have no public contact has also distanced revenue officials from taxpayers. Other anti-corruption measures enabled by automation include restricting access of employees to scanned copies of original records to prevent tampering and creating audit trails of administrative decisions and changes made to taxpayer current accounts. In 1992, the Inland Revenue Authority of Singapore (IRAS) was established to overcome problems of inefficiency and malfeasance. An integrated, computerised approach to tax administration along functional lines was adopted. A completely new administrative system was introduced step by step over the next eight years. Today 95 per cent of taxpayers are satisfied with IRAS.

after major departures from a classic VAT design were agreed with domestic stakeholders. These deviations in design from best practice have seriously hampered the effectiveness of the VAT ever since. The adoption of VAT was not accompanied by a fundamental re-engineering of tax administration business processes or their automation. In contrast, most developing countries that have adopted VAT in the past fifteen years, have used the opportunity to automate a major part of their tax system and to introduce functional organisational elements into administrative practice. This story indicates that weaknesses in Bangladesh’s tax administration have become a binding constraint on reform of tax policy and implementation of an overall pro-growth fiscal strategy.

**Options for Management and Accountability**

Given the lack of management flexibility under civil service rules, several options should be explored to permit more effective human resource management within the NBR. Reforms in other countries have involved considerable experimentation with different organisational structures. One potential path of reform is to increase political accountability by shifting the executive functions of the board to a flexible pool of senior managers, reporting directly to a chairman. Oversight might be designed as a completely separate function by the management, either by having a part-time board of directors from outside the government or by having the Finance Minister or a new Minister of National Revenue assume this responsibility. Russia, for example, has established a full-fledged ministry of revenue with tight supervision, responsible for tax administration.

By contrast, a number of countries are moving in the opposite direction by creating independent or semi-autonomous revenue authorities (SARA). These SARAs operate outside the scope of the civil service and enjoy considerable autonomy. SARAs were a key feature of governance reforms in Latin America in the early 1990s, starting with Peru in 1991. Some SARAs have increased performance dramatically, whereas others have enjoyed limited success. (Box 15.2)

According to Taliercio (2004), those SARAs with the greatest autonomy and those which have addressed business process re-engineering have exhibited better performance. In these cases, managers were more empowered and were able to undertake reforms more boldly than in cases where managers had less autonomy. DasGupta and Mookherjee (1998) report international evidence on efforts that combined the creation of a relatively autonomous bureaucracy with a budget, linked in part to its success at collecting revenue. Reforms of revenue collection services in several African countries and Brazil have had similar features. Many countries have attempted to use revenue administration restructuring as an opportunity to combat malfeasance and
Box 15.2 Case of Peru: A Successful Semi-Autonomous Revenue Agency

Peru's revenue authority was one of the developing world's most successful examples of tax administration reform. By the late 1980s, Peru's tax administration had nearly collapsed and was plagued with corruption. Tax revenue had fallen from 14 per cent of GDP in 1978 to 9 per cent in 1988. Consequently, the government decided to radically overhaul tax administration and the first semi-autonomous revenue authority in Latin America was established. The reforms were highly successful with internal tax revenue recovering to 13 per cent of GDP by 1997 and 90 per cent of large taxpayers surveyed believed that taxpayer services had improved. The reforms had several key elements: (i) strong political support coupled with managerial expertise; (ii) granting administrative and financial autonomy to the institution; (iii) implementing radical personnel reform; (iv) investing in infrastructure and information technology and (v) generating public support. To guarantee financial autonomy, a certain percentage of taxes collected were automatically assigned to the agency. Management was committed to developing an honest and professional staff. All staff members were given the option of voluntary retirement or applying for a position in the new agency and taking a rigorous exam. To enhance morale and productivity, the new agency established salaries based on comparable employment in the private sector. The strategy of coupling the fight against tax evasion with better taxpayer services and honest administration enabled the institution to develop a constituency of support in the business community. After its successful start, it began to suffer from decreasing political support for efficient revenue collection, a decline in the quality of the tax policy framework and increased interference by the Ministry of Finance over its autonomy. SUNAT as a consequence has suffered a loss of standing in public opinion. Nevertheless, revenue collection, at 12 per cent of GDP in 2001, remains far above the pre-reform level.

See World Bank (2001) and Katherine Baer (2002).

...
remuneration policies, while continuing to be a government agency with direct ministerial oversight. Under existing plans the Government of Pakistan will constitute a high-level supervisory committee to monitor its reform process and the institution's performance. This hybrid model may be an attractive option for Bangladesh to explore as an alternative both to the status quo and the SARA.

**Organisation Design**

Tax administrations in any country can be organised broadly: (i) by type of tax with a second tier division by geographic zone, (ii) by function or (iii) by segments of taxpayers stratified by size of assets or turnover. The NBR administrative design reflects a tax-by-tax structure rather than a functional one.

The schematic framework presented in Figure 15.4, above, encapsulates a story of generic organisational change, reflecting recent international trends, beginning with the tax-by-tax approach and moving to functional and finally a taxpayer segment approach.

Within the NBR, attempts to readily share intelligence across taxes, adopt a single taxpayer ID number, and develop generic skills in tax administration managements, have not been successful. Legal penalties and procedures for dealing with taxpayers are inconsistently defined in the various laws governing each tax. Human resource management and training are also constrained by the division of staff into two separate cadres, one for income tax and one for customs and VAT. Taxpayer services, such as providing taxpayer with information on law and regulation changes are underdeveloped and delays in service delivery are long. Consequently, the rigidity of existing administrative staff rules and financial resources has made it very difficult to change the resource mix in response to emerging priorities.

Tax administration in Bangladesh has been organised by type of tax
with additional tiers determined by geographic zone, as reflected in 293 circle offices for income tax and 250 circle offices for VAT. This traditional design reflects the belief that close geographic proximity should be maintained between taxpayer and tax collector. Within this framework, tax officers specialise in acquiring knowledge of the businesses of those taxpayers whose assessments they finalise. Tax administrative work, in this setting, has a low incremental revenue productivity, because of inadequate specialisation of tasks and an inability to concentrate resources on the high risk components of the revenue base. The current circle offices are ill-suited units of administration for effective use of information technology and introduction of self-assessment with modern audit. Moreover, excessive direct contact between taxpayers and tax officers exposes the tax administration to unnecessary risk of administrative malfeasance.

Under a functional approach, responsibilities within a tax administration are divided by major categories of work – taxpayer education and service, registration, audit, enforcement, legal advice, information processing – but staff are involved with all types of taxes. A functional organisation allows for tax returns and tax payments to be processed in a single department, rather than in many tax specific departments. An important additional benefit of the functional approach is that it deters excessive direct contract between taxpayers and tax officers that expose the tax administration to a unnecessary risk of corruption. A functional organisation provided a strategic element of cross checking among staff, so that work performed by one function, such as collection and enforcement, acts as a control on other operations, such as auditing and accounting. Such an approach reduces the compliance burden on taxpayers, who have to deal with a single contact point and permits greater standardisation of work processes across taxes.

Another alternative is the taxpayer segment approach, recently adopted by a few developed countries. The rationale for this approach is that each size group of taxpayers, as defined by assets or sales, has different characteristics and tax compliance behaviours. Hence each presents different risks to the revenue base. According to this management philosophy, maximising voluntary compliance for each taxpayer segment requires delivering a set of strategies that are appropriate to the compliance issues posed by each group. Many developing counties have adopted a hybrid approach, by starting their reforms with an overall functional design, but subsequently grafted components of the segment approach, primarily by establishing a large taxpayer units.

In this era of globalisation, the profiles of taxpayers in developing countries can be categorised broadly into three diverging groups: (i) large taxpayers, who use sophisticated means to minimise their tax burden and interact with the tax authorities both as tax collecting agents of the government and as taxable clients; (ii) small and medium enterprises in the formal sector,
who maintain weak accounting documentation of their business activities and ultimately negotiate their assessments, and (iii) informal sector businesses, that may not pay direct taxes but pay indirect taxes through their purchases of goods that are subject to taxation. The business operations of large taxpayers are complex; they have high transaction volumes and they act as withholding agents for the taxes of other taxpayers. Very often large taxpayers are branches of foreign enterprises or they themselves own branches abroad, leading to issues of how their global profits will be distributed across tax jurisdictions. Large taxpayers employ highly qualified accountants and lawyers and sometimes use forms of avoidance that are difficult to detect, such as abusive transfer pricing and thin capitalisation strategies. These characteristics make it desirable to monitor large taxpayers using staff with specialised skills in accounting and auditing.

Large taxpayer units have been established in over 50 countries. The classic LTU monitors large taxpayers exclusively through registration, tax accounting, collections, auditing and taxpayer service provision covering more than one type of tax. Incubation of new business processes and new divisions of work, particularly new audit procedures and even modern layout of the office infrastructure in a large taxpayer unit is usually intended to be followed by a rollout of the reforms to the entire tax administration. The LTU should be organised in such a manner that its business processes follow functional lines and that it can readily pilot the utilisation of new revenue management systems for risk evaluation and audit selection. This concentration indicates the importance of a specialised and high quality audit function for the administration of large taxpayers. Indeed, in some countries, LTUs do only tax auditing. LTUs have facilitated major tax policy reforms, such as adoption of a VAT, as well as the reform of administrative procedures, including implementation of self-assessment, electronic filing of tax statements and the functional organisation of work. Strong performance is based on centralised supervision of operations and limited number of LTUs. Countries with strong government ownership of LTU operations have quickly improved tax revenue performance.

The NBR recently created two administrative units, the large taxpayer unit (LTU) for direct taxes and the Central Intelligence Unit (CIU) to address the problems of inadequate taxpayer compliance, inadequate sharing and utilisation of existing taxpayer information as well as pioneering the adoption of new business processes organised along functional lines. Over 1,000 large taxpayers, covering about 35 per cent of the tax base and including the 280 largest corporations, comprising banks and non-bank financial institutions, enterprises with high paid-up capital and their company directors have been included in the LTU coverage. An LTU for VAT has a similar mandate. By

8 See McCarten (1995) for a discussion of these issues.
increasing the professionalism of tax administration and providing better services to deal with the complex accounting and pricing problems of large enterprises LTU(s) can make a positive contribution to Bangladesh’s investment climate.

In determining a strategy for continuing reforms in NBR over the next five years, efforts must focus on consolidating current changes while deepening the philosophy of targeted risk management. Existing information technology capabilities are systematically under-employed by our staff. The NBR must place much greater reliance on information technology capabilities not only to assist in implementing rudimentary business procedures such as registration, collections and detecting of non-filing but also to implement modern risk assessment procedures needed to expand self-assessment beyond the LTUs.

Small and medium size taxpayers and their compliance issues should not be overlooked in a future administration reform programs. But presumptive tax regimes, that give substantial discretion to tax authorities and are not well grounded in easily observable descriptive attributes should be avoided solutions. The best way forward appears to be to explore simplified reporting and record keeping requirements for SMEs. Strengthening voluntary compliance should be the primary goal for SMEs. Hence taxpayer service, forms and audit procedures should be tailored to their needs. Terpker (2003) cautions that any programme that applies field inspections almost exclusively to large taxpayers will eventually undermine compliance among all taxpayers through its impact on taxpayer morale. The relative success achieved with implementing VAT at the distribution stage in many developing countries (e.g. Nepal) indicates that many small and medium enterprises can successfully comply under self-assessment programmes. Similarly, the results for Nepal and several African countries, documented by Terpker (2003), shows that semi-skilled staff in many small offices can be upgraded to implement simplified audits and enforcement programmes. As part of any phased reorganisation, NBR should consider a reduction in the number of local offices and moving local office functions requiring specialised skills, such as tax audits, to the regional level. The NBR will consider conversion of some local offices into taxpayer service centres as has happened elsewhere in Asia.  

**Strengthening the Revenue Base**

Authentic self-assessment is not the norm within the business operations of the NBR. Taxation of individuals and companies in Bangladesh under income

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9 Examples: South Korea and Pakistan.

10 According to the text of the Revenue Reform Commission there are actually 8 different types of assessment recognised in the Income Tax Ordinance.
Reforming the Tax Administration

tax and VAT is based on administrative assessment with some limited scope for a small group of individual and well-established companies for self-assessment. The revenue authorities impose assessments based on taxpayer declarations and desk audits. If the imposed assessments differ from the taxpayers' expectations, discrepancies often form the basis for the negotiation of an agreed assessment with associated loss of revenue. Confronted with high assessment targets, tax officers are apt to complete the majority of assessments in a perfunctory manner, so that the scrutiny process has only a marginal impact on revenue generation and tax evasion detection. The absence of self-assessment encourages taxpayer disputes and imposes significant compliance costs on taxpayers due to uncertainty about their final tax liability and the high likelihood of disputes.

Manual administrative assessments are very costly in terms of their opportunity cost in human resources. Examining NBR administrative data on income tax returns for the tax year 1996–97, classified by the size distribution of corporate income tax filers, one discovers that out of a corporate tax universe of 28,434 companies, 42.1 per cent had an income range before deductions of less than taka 100,000 and paid no taxes. In contrast, the 312 companies with gross income in excess of taka 10 million, making up only 1.1 per cent of the tax filers, but contributed 55.6 per cent of corporate tax revenue. Hence, the current administered assessment system, which distributes the work of completing assessments, in a manner broadly proportional to the number of tax filers, is very wasteful in its use of the administrative talent. The logical alternative would be to institute self-assessment in phases and redeploy staff to detect evasion and encourage higher levels of voluntary compliance through service-oriented support for taxpayers.

The Income Tax Ordinance (1984) together with its regulation is much more cumbersome than it needs to be and it poses many interpretive ambiguities. The opacity of tax laws and tax regulations provide opportunities for malfeasance and generally raise the cost of compliance. In Bangladesh, as in many developing countries, only a small number of non-compliant taxpayers are effectively punished. There are several reasons for the inadequate enforcement. First, the audit function is weak; second, audit coverage and staff devoted to modern auditing tasks is very tiny, although this defect is beginning to be addressed with the establishment of large taxpayer units. Next, the weaknesses of the legal system reduces the ability of the tax administrations to use that system to uphold the laws. Finally, the two stage appellate procedures allow taxpayers to readily challenge the tax administration and postpone imposition of penalties that are generally low. Those who engage in fraud do not appear to be pursued through the criminal justice system. In the case of VAT all disputed, even including outright misrepresentation, are pursued through the tax appellate system rather than criminal route.
In a modernised tax administration, compliance management would no longer be based on a pure enforcement focused approaches, but a combination of enforcement and taxpayer services. Self-assessment should enable the NBR to redeploy its resources in a more productive manner and reduce compliance costs for honest taxpayers. But self-assessment can pose significant risks. If it is not implemented properly self-assessment could do substantial fiscal damage. Self-assessment is based on the presumption that it is possible to achieve a reasonable level of tax compliance by test checking a small sample of returns. The success of the self-assessment strategy hinges on taxpayer perceptions. If the taxpayers perceive that the chances of their being caught with continued evasion are high and that they would face serious consequences once caught, then compliance will rise. If, on the other hand, taxpayers believe that the administrators do not have the capacity to detect tax evasion, or that, even when detection occurs, they can escape punishment through negotiation, political influence or tax appellate and court processing delays, the compliance level will fall. Self-assessment requires initiatives touching almost all aspects of the management and operations of the tax administration departments including office training, new approaches to audit selection, a reorientation of departmental resources and legal changes and measures to develop a culture of compliance within the broader society.

Self-assessment alone, as it has traditionally been conceived in Bangladesh, without auditing oversight, constitutes a type of tax amnesty. For example, under current practice, taxpayers whose income tax assessments increases by 20 per cent per annum, are excluded from any further scrutiny. Although this approach to self-assessment may increase the number of taxpayers and reduce taxpayer disputes, it often leads to an under-assessment of actual tax liability due. This approach should have no place in a modern self-assessment system that aspires to achieve a high rate of tax compliance.

Experience in other developing countries, such as those reported by Glenday (1997) for Kenya, indicates that scaling up self-assessment may require two years of work by the income tax authorities to prepare forms, information brochures, procedures internal documents and to implement personnel reorganisation and training requirements. Ebrill et al. (2001) also emphatically advise that VAT should be administered on a self-assessment basis.

Consideration and public debate, particularly among the legal community, might focus on the question of whether tax appeals should become an independent agency in a single-stage process. Then a revenue review tribunal might be constituted as an alternative to the current two stage tax appeals process performed by the Taxes Appellate Tribunal for Income Tax.

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11 This insight was suggested by Michael Engelschalk.
Reforming the Tax Administration

and other appeal bodies under the VAT Act. The criteria and terms of appointment should be improved to ensure that the desired qualities are brought to the Tribunal. This proposal might have greater effectiveness than establishing an office of Tax Ombudsman which, by comparison, appears to be a more cumbersome response to the public and government’s dissatisfaction with the existing system. Additionally, as evidenced by the operational statistics for the Pakistan Tax Ombudsman’s office, this agency can only take up and dispose a tiny fraction of the cases which annually lead to disputes between taxpayers and tax officers. The Pakistan Tax Ombudsman has been given a mandate to diagnose, investigate and rectify any injustice done to a person through malfeasance of the government officials administering the tax laws. He also has major powers for redress of grievances of taxpayers. (Table 15.3)

<table>
<thead>
<tr>
<th>Year</th>
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<th>Disposal</th>
<th>Balance</th>
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<td>60</td>
<td>2</td>
</tr>
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<td>127</td>
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<tr>
<td>2003</td>
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<td>197</td>
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Sources: Pakistan Central Board of Revenue.

Employing Human Resources More Effectively and Building a Framework of Accountability

The human resources of an organisation are its main underpinnings and the key to achieving the organisation’s strategic goals. Currently the 10,000 staff...
of the NBR are divided into two cadres. VAT and customs staff in one group and income tax staff are in another. The NBR operates two training academies to develop tax administration skills. The bifurcation of staff into these two groups, with the implicit assumption that all jobs within the organisation are reserved for one or another of the cadres, undermines the organisation’s ability to respond flexibly to changing needs.

The Public Service Commission is responsible for recruitment of officers in the income tax and customs cadres. Promotion and discipline of NBR officers up to the level of commissioner are handled by NBR itself, while NBR members have to be appointed through the Superior Selection Board. Compensation is set by the Pay Commission in accordance with grades and applies to all civil servants. Career progression is slow and tied strictly to seniority. Pay compression relative to private sector equivalents exists at the middle and upper end of the job hierarchy. Specialised skills, such as those of legal advisors, are not seconded into the board for a guaranteed period of service. These circumstances have contributed to the deterioration of the working environment and have made it difficult for the NBR to recruit staff with specialised skills.

Inadequate attention to career planning, unclear job descriptions and non-transparent transfer policies have bred a poor work ethics. The current NBR staff training system is supply driven, not oriented towards the specific professional and skill upgrading for the agency. Hence training policies lack the capacity to meet the change objectives of the NBR. The existing human resource policies of the training academies, under which staff are assigned to the academy for only a single year and never return to this assignment again, needs to be replaced in order to ‘make training of trainers’ cost effective and to develop a professionally-oriented staff with up to date skills and a multi-year commitment to excellence in training.

The direction of reform, as indicated by international trends, suggests that the NBR should have greater control over recruitment and performance management. The NBR needs more significant administrative responsibility over: (1) criteria for appointment by the Public Service Commission, (2) drafting and implementation of a human resource strategic planning, (3) oversight of skills development, (4) change management policies needed to guide the implementation of organisational changes and (5) the ability to explain its reforms to the public. A human resource strategy should adopt a more focused approach to recruitment procedures, performance incentive systems, workforce planning and career development, as well as programmes for management development.

The NBR should improve job-specific training, identify and implement career path planning and adopt transparent policies for rotating staff. These strategies should develop functional competencies, enhance motivation, impart
renewed ethical values and foster courteous service to the public. The NBR should link staffing requirements (i.e. numbers, grades, timing) to workforce planning processes, taking into account workload (current productivity) and modernisation developments (future productivity expectations).

Human resource incentives can have an impacts on performance. But changes in compensation policies and performance incentive systems should be evaluated both in terms of their impact on the NBR and their role as a point of entry for wider reforms. Compensation reforms in the NBR, in the absence of opting for a SARA model, would inevitably mark a departure from bad inter-agency consistency in public sector pay. International research by Rauch and Evans (2000) suggests that merit-based recruitment systems and long-term career path development have a significant positive impact on reducing corruption in the government. With regard to salaries, a reclassification of jobs might permit increases in compensation, although the outcome will not result in pay packages for senior positions being equivalent to even half of those found in the private sector. Working within this framework, the NBR should investigate the scope of both salary scale adjustments and job description reclassifications to ensure that it has a motivated staff and the skill mix needed to implement reforms.

The LTU for income tax has been organised along functional lines by creating specialised team covering taxpayer education and services, enforcement, audit, human resources and information technology. Incentive schemes for tax administrators have had positive effects in countries where they can be administered fairly. One potentially attractive approach is to link some portion of compensation to administrative performance within the framework of these institutional innovations. Promotion might be linked to performance with clearer work objectives and accountability standards, such as better services to taxpayers.

The incidence of administrative malfeasance and retail corruption appear to be distressingly high in the tax administration, based on the sample survey evidence, as discussed earlier in this paper. Hence, an anti-corruption strategy should be devised and integrated into any overall reform plan. The main elements to be considered when developing such a strategy for administrative integrity include: (i) simple and transparent procedures supported by a clear and precise legal framework, (ii) professional staff with clearly defined accountability and merit-based promotions, (iii) the enforcement of a special code of conduct for all employees, including enforcement of penalties in a timely manner, (iv) training for staff on integrity issues and for supervisors on the management of such corruption complaints, (v) reduction in the interface between tax officers and taxpayers, (vi) an effective internal audit process and periodic mandatory declarations of wealth holding by tax officials and their families and (vii) external audits and development of a transparent
relationship with taxpayers and the business community. A critical first step is for the tax authority to commit themselves publicly to achieving enhanced standards of conduct and resolve to dispense with the services of those, who through malfeasance or suspicion of corruption, do not meet such minimum standards. Implementing such a policy will require strong political support.

To realise the potential benefits of the LTU and client approaches, other systems of checks and balance need to be working effectively. One of the most important tasks of the tax administration is to set up internal audit and accountability systems to detect errors in tax assessments and police malfeasance. Currently vigilance or internal audit responsibilities are fragmented within the NBR and do not appear to be used as a tool for effective management. Precisely because of the great responsibilities given to the LTUs, the NBR has a stronger need for more vigilant arm's length oversight, as a counterpoise to the increased concentration of administrative resources and decision-making authority with LTU officers. A single internal audit unit, that would have a vigilance mandate covering all taxes, a direct report to the NBR Chairman and some external reporting requirement, such as to the newly legislated anti-corruption agency, would provide such a counterpoise. The NBR should also seek to safeguard the integrity of its employees by adopting a clear and well publicised code of employee conduct for all staff and a special additional code for those engaged in taxpayer audit work.

The implementation of an effective monitoring and evaluation mechanism is vital to the success of any planning process and improved management performance. The NBR should identify key results and establish clear, measurable and verifiable performance indicators. The monitoring and evaluation capacity of the board should be enhanced through the development of a formal management information system that pools relevant indicators of the board's performance including revenue, but also encompassing arrears, backlog of appellate cases, the number of prosecutions for fraud and their outcomes, indicators of customs clearance times and the number of inquiries and advance rulings provided to taxpayers.

Employing Information and Communications Technology Effectively

Previous efforts at modernisation and introducing changed policies and procedures, including computerisation during the last eight years have borne little success, with the exception of customs valuation and reform and introducing the ASYCUDA system for customs data. Explanations for this failure include trade union opposition, inadequate budgets for implementation, the concentration of political leadership and civil service managers on

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12 See World Bank 1999.
attainment of short term revenue objectives and the structure of the board itself as a decision-making body.

International experience indicates that extensive expansion of information technology should not be undertaken until the tax administration has adopted a unique taxpayer ID number system and has developed at least a simplified version of a comprehensive ICT plan. Bird (2004) observes that new computer systems have often developed in parallel with the continued use of traditional business processes (e.g. the Philippines). Failure to scale up and 'switch tracks' occurs because these reforms have not sufficiently recognised the skills of tax officers and the service needs of taxpayers. Vested interests, such as custom clearance brokers, may also resist ICT reforms because they threaten the high profits realised under non-transparent status quo procedures.

The NBR should explore the application of E-Government procedures to enhance taxpayer services. These have normally evolved through a four-stage process. The first stage includes the publication of information on a web site for citizens to seek information about procedures governing the delivery of different services. The second stage allows for interactivity online. Clients can download applications for receiving services. The third stage involves electronic delivery of documents. The fourth stage results in electronic delivery of services where more than one department may be involved in processing a service request or service.

SECTION V: LESSONS FROM OTHER COMPREHENSIVE TAX SYSTEM REFORMS

Partial reform can lead to new 'rules of the game', but not necessarily to a substantial drop in corruption or improved compliance. The coordinator of a major comprehensive tax reform project, Bahl (1989), has argued, in an evaluation of the 1980s Jamaican tax reform, that the conventional wisdom in favour of an incremental versus a big bang approach may be misplaced. He postulates that the irreversible, comprehensive reform occurs only when the tax system (covering policy and administration) is changed radically enough to shock the entire economic system. He also suggests that government and the public must have lost confidence in the current tax system to make a comprehensive reform an attractive option. This last requirement is one condition which the Bangladesh case appears to meet easily.

Experience from other countries that have attempted reforms of tax organisations indicates that it is important to have one individual or a small team to take overall responsibility for implementation of organisation change and project management. Change management training, providing information and reassurance to the staff affected by organisational change and adoption of new business processes can together make a significant contribution to
success. In addition, those implementing institutional reforms should undertake a stakeholder analysis of the process and attempt to mobilise the support of external stakeholders, who are likely to benefit from reforms.

Bates (1989), in an insightful discussion of the motivating forces and conditions for successful implementation of comprehensive tax reform, identifies a hypothesis derived from Bahl’s Jamaica case study. In discussing the Bahl hypothesis, Bates notes the contention that, ‘interests groups employ public power to gain private advantages while imposing costs upon others. The more encompassing the interest group the more difficult it is for them to externalise these costs.’ Therefore, developing countries seeking comprehensive reform that will strip away the rent generating entitlements of small vested interests and opportunistic behaviour of the police should look for support from centralised or national consensus organisation with broad interests, rather than to the stakeholders, who are more decentralised or have specific interests. Bahl reports that the Jamaica reform plans succeeded because the government was able to bring together in one committee, ‘the leaders of major national interest groups to strike a final bargain, in which each made sacrifices in its particular short run demands for offsetting concessions from others’. Bates conjectures from this example that the composition and level of participation of major national stakeholders is a vital determinant of success for any oversight agency or committee tasked with agreeing a tax reform plan. This conjecture may be particularly relevant in the context of Bangladesh society, where strong social cleavages make attaining national consensus difficult. Given the tremendous gains which tax administration and tax policy reform promise, as well as the modest record of past reform efforts, Bangladesh society should aim for nothing less than partisan support for a comprehensive tax reform initiative.

SECTION VI: CONCLUSIONS

Tightly coordinated tax administration and policy reforms should be placed near the top of the agenda for economic reform in Bangladesh. Improving the Bangladeshi tax system, in all its dimensions, has the potential to enhance the domestic investment climate, make exports more competitive and strengthen the quality of public governance as well as enhance the much needed revenue generation capacity. Each of these outcomes can boost growth. This paper has argued that a sustained programme of reform, made up of a set of many feasible measures – all well within the scope of what can be implemented readily by the authorities – would secure tangible improvements to the efficiency, fairness and transparency of the tax system and release the Bangladesh economy from its tax administration fetters.
ACKNOWLEDGEMENTS

In proposing suggestions for what might constitute a feasible and constructive agenda for tax system reform in Bangladesh I have drawn upon the insights and analytical work of many colleagues. These include Shantayanan Devarajan, Luc de Wulf, Michael Engelschalk, Carlos Ferreira Esperanza Lasagabaster, Tuan Le, Nick Manning, William Mayville Syed Nizamuddin and Zaidi Sattar among bank staff and Syed M. Ahsan, Arindam Das Gupta, Graham Glenday, Graham Holland, Chris Murray and Seth Terpker among academics and fiscal experts who have worked on the strategic issues of tax system reform. I wish to acknowledge their advice and support.

REFERENCES


———. ‘Designing Performance: The Semi-Autonomous Revenue Authority


APPENDIX

Table A15.1 Cross Sectional Model of Productivity of a VAT Administration Based on VAT revenue/Private Consumption/Standard VAT rate 2001

Model 1: Heteroskedasticity-corrected estimates
Dependent variable: ceffnum = VAT revenue/Private Consumption

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Const</td>
<td>0.152399</td>
<td>0.0211254</td>
<td>7.2140</td>
<td>&lt;0.0001 ***</td>
</tr>
<tr>
<td>Lnsr</td>
<td>0.0416384</td>
<td>0.0104857</td>
<td>3.9710</td>
<td>0.000186 ***</td>
</tr>
<tr>
<td>Imports</td>
<td>0.0459786</td>
<td>0.0206817</td>
<td>2.2232</td>
<td>0.029801 **</td>
</tr>
<tr>
<td>Illitera</td>
<td>-0.0302823</td>
<td>0.0159709</td>
<td>-1.8961</td>
<td>0.062536 *</td>
</tr>
<tr>
<td>Corrcontrol</td>
<td>0.0158922</td>
<td>0.00582424</td>
<td>2.7286</td>
<td>0.008232</td>
</tr>
<tr>
<td>Costformal</td>
<td>-5.27891e-05</td>
<td>4.56613e-05</td>
<td>-1.1561</td>
<td>0.252006</td>
</tr>
</tbody>
</table>

Statistics based on the weighted data:
Sum of squared residuals = 291.938
Standard error of residuals = 2.15266
Unadjusted $R^2 = 0.459109$
Adjusted $R^2 = 0.416181$
F-statistic (5,63) = 10.6949 (p-value <0.00001)
N = 69 observations

Statistics based on the original data:
Mean of dependent variable = 0.0808495
Standard deviation of dep. var. = 0.0394312
Sum of squared residuals = 0.0556312
Standard error of residuals = 0.0297159
Model 2 Heteroskedasticity-corrected estimates using the 69 observations 1–69; Dependent variable: ceffnum

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
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<td>Const</td>
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<td>0.0213396</td>
<td>7.4685</td>
<td>&lt;0.00001***</td>
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<tr>
<td>Lnsr</td>
<td>0.0442677</td>
<td>0.0108432</td>
<td>4.0825</td>
<td>0.000126***</td>
</tr>
<tr>
<td>Import</td>
<td>0.0388051</td>
<td>0.020614</td>
<td>1.8825</td>
<td>0.064321*</td>
</tr>
<tr>
<td>Illitera</td>
<td>−0.0398995</td>
<td>0.015016</td>
<td>−2.6571</td>
<td>0.009940***</td>
</tr>
<tr>
<td>Corrcontrol</td>
<td>0.018126</td>
<td>0.00529517</td>
<td>3.4231</td>
<td>0.001084***</td>
</tr>
</tbody>
</table>

Statistics based on the weighted data:
- Sum of squared residuals = 311.344
- Standard error of residuals = 2.20562
- Unadjusted $R^2 = 0.414833$
- Adjusted $R^2 = 0.414833$
- F-statistic (4, 64) = 13.0515 (p-value < 0.00001)

Statistics based on the original data:
- Sum of squared residuals = 0.0546801
- Standard error of residuals = 0.0292297
- Standard error are White adjusted
SECTION I: INTRODUCTION

Over the last decade, economic management in Bangladesh has been generally sound. Bangladesh achieved decent rates of growth, a steady reduction in poverty incidence, relatively low inflation, and fairly stable domestic debt, interest, and exchange rates. Although the fiscal deficit and the foreign exchange reserve position weakened steadily towards the end of the 1990s and early 2000, subsequent policy adjustments have restored these to more comfortable levels. Bangladesh’s investment - GDP ratio is near 24 per cent, of which one-fourth is public investment. In targeting an investment ratio of at least 30 per cent, which Bangladesh needs to raise its annual income growth from the current 5 plus per cent to 7 plus per cent, private investment will need to take the lead role. But public investments will also need to be kept up both in view of the lagged response of the private sector and to provide the infrastructure needed for the private sector to grow.

At less than 14 per cent of GDP, budgetary expenditures in Bangladesh are among the lowest in the world. Current expenditures are around 8 per cent of GDP (Table 16.1), by far the lowest in South Asia. This low level of expenditures results partly from the inability to mobilise the required resources domestically, with government’s own (tax) resources financing only 60 per cent of these expenditures. As a result, budget financing remains reliant on domestic borrowing which stayed at around 2 per cent of GDP over the last decade. The external financing (especially concessional) has been declining and now represents less than 2 of GDP.

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1 For a detailed review of public expenditure issues see World Bank 2003.
2 The first paper in this volume by Sadiq Ahmed reviews these developments in greater detail.
Public expenditures in Bangladesh have important positive attributes, and their broad allocation is consistent with goals of growth and poverty reduction. In particular, the 'bird's eye' view of allocation of public expenditures on such broad categories as interest payments, education, health, agriculture, transport, public order and safety, and others shows that expenditure allocations in Bangladesh are much better than in many countries. Interest payments are at 1.6 per cent of GDP, which is especially commendable when compared with India, Pakistan and Sri Lanka. Each of these countries spends over 6 per cent of GDP on interest payments. Defense spending is also comparatively low – at 1.3 per cent of GDP – which compares favourably with India, Pakistan and Sri Lanka which spend 2.4, 4.5 and 4.9 per cent respectively of their GDP on defense. Social spending increased over the years and produced impressive outcomes.

However, public expenditures suffer from the ills that often afflict developing countries: low effectiveness of capital spending, inadequate attention to operations and maintenance, inappropriate employment and pay policies, and the existence of fairly large subsidies. In terms of budgetary systems and processes, while there have been some improvements in recent years, there is still a long way from turning the budget into an effective instrument of economic management. The environment and culture surrounding the budget – from formulation to implementation and evaluation – are still archaic. The budget continues to be seen largely as a process unto itself. The links between policy, planning, and budgeting are weak – systems are fragmented, and accountability for outcomes is diffuse.

The weak expenditure management framework, combined with other institutional weaknesses, has compromised the quality of public services and contributed to creation of an unfriendly investment climate, constraining Bangladesh’s progress toward rapid poverty reduction. With regard to management of public expenditures, major growth and poverty reduction dividends could be reaped through improvements in three areas: (i) improving the institutional framework in budget management; (ii) raising returns to public investments, including improvements in the performance of state owned enterprises (SOEs) and quality of projects in the annual development programmes (ADPs); and (iii) improving efficiency and equity of social expenditures.

3 The most glaring examples of poor public service delivery are the deteriorating law and order situation (which results from an ineffective legal-judicial system and police); the high perception of corruption and citizens’ dissatisfaction with services; and an inefficient bureaucracy that still maintains tight controls over critical business processes.
Table 16.1 Bangladesh Central Government Operations, FY91–FY04 (% of GDP)

<table>
<thead>
<tr>
<th></th>
<th>FY91</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
<th>FY00</th>
<th>FY01</th>
<th>FY02</th>
<th>FY03</th>
<th>FY04 (p)</th>
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</thead>
<tbody>
<tr>
<td>Total revenue</td>
<td>7.2</td>
<td>9.2</td>
<td>9.3</td>
<td>8.4</td>
<td>8.4</td>
<td>9.0</td>
<td>10.1</td>
<td>10.3</td>
<td>10.3</td>
</tr>
<tr>
<td>Tax revenue</td>
<td>5.9</td>
<td>7.4</td>
<td>7.3</td>
<td>7.0</td>
<td>6.7</td>
<td>7.6</td>
<td>7.7</td>
<td>8.3</td>
<td>8.2</td>
</tr>
<tr>
<td>Non-tax revenue</td>
<td>1.3</td>
<td>1.8</td>
<td>1.9</td>
<td>1.4</td>
<td>1.7</td>
<td>1.4</td>
<td>2.4</td>
<td>2.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>12.7</td>
<td>13.5</td>
<td>13.3</td>
<td>11.6</td>
<td>13.2</td>
<td>14.1</td>
<td>14.8</td>
<td>13.7</td>
<td>13.6</td>
</tr>
<tr>
<td>Current expenditure</td>
<td>6.5</td>
<td>6.8</td>
<td>7.2</td>
<td>7.2</td>
<td>7.5</td>
<td>7.7</td>
<td>8.0</td>
<td>8.1</td>
<td>8.0</td>
</tr>
<tr>
<td>Annual development programme</td>
<td>4.7</td>
<td>6.0</td>
<td>5.6</td>
<td>4.1</td>
<td>5.4</td>
<td>6.6</td>
<td>5.6</td>
<td>5.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Non-ADP capital and net lending</td>
<td>0.5</td>
<td>0.4</td>
<td>0.4</td>
<td>0.0</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Overall budget balance (excluding grants)</td>
<td>-5.4</td>
<td>-4.3</td>
<td>-4.1</td>
<td>-4.3</td>
<td>-5.1</td>
<td>-5.0</td>
<td>-4.6</td>
<td>-3.4</td>
<td>-3.2</td>
</tr>
<tr>
<td>Net foreign financing</td>
<td>4.7</td>
<td>2.8</td>
<td>2.5</td>
<td>2.5</td>
<td>2.4</td>
<td>1.9</td>
<td>2.1</td>
<td>2.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Net domestic financing</td>
<td>0.7</td>
<td>1.5</td>
<td>1.6</td>
<td>1.8</td>
<td>2.7</td>
<td>3.1</td>
<td>2.5</td>
<td>1.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Of which, banking system</td>
<td>0.2</td>
<td>0.9</td>
<td>0.6</td>
<td>1.0</td>
<td>1.4</td>
<td>1.5</td>
<td>0.8</td>
<td>-0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Memorandum items:

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total external debt (% of GDP)</td>
<td>41.0</td>
<td>35.5</td>
<td>32.7</td>
<td>32.5</td>
<td>32.5</td>
<td>33.5</td>
<td>34.4</td>
<td>31.9</td>
<td>29.9</td>
</tr>
<tr>
<td>Economic growth</td>
<td>3.3</td>
<td>5.4</td>
<td>5.2</td>
<td>4.9</td>
<td>5.9</td>
<td>5.3</td>
<td>4.4</td>
<td>5.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Inflation (% change from previous year)</td>
<td>8.3</td>
<td>2.5</td>
<td>7.0</td>
<td>8.9</td>
<td>3.4</td>
<td>1.6</td>
<td>2.8</td>
<td>4.4</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Source: Ministry of Finance.
SECTION II: MAIN FEATURES OF FUNCTIONAL AND ECONOMIC COMPOSITION OF PUBLIC SPENDING

As a glass simultaneously half-full and half-empty, functional and economic composition of expenditures shows some unusual strength, but also several glaring weaknesses.

Strengths in Public Expenditures

The emphasis of public spending shifted from agriculture and industries to the social sectors during the last decade (Figure 16.1). Combined expenditures on education, health, the social safety net, and disaster management are currently about one-third of total budgetary expenditures (Table 16.2). Although somewhat below expectations (due mainly to the weak institutional framework for these expenditures), outcomes in the social sectors have been good and much better than in the physical infrastructure areas. This success in the social sectors can be attributed to three factors: (i) the priority given by successive governments in the last decade – manifested in sustained attention from public officials and sustained public expenditures; (ii) the strong support from various stakeholders in pursuing human development objectives, this is, where there is the largest number of NGOs, considerable donor financial support, and the full involvement of communities as well as substantial mobilisation of private resources; and (iii) an improved policy framework that enabled considerable innovation, e.g. demand side interventions in education, girl’s education, good targeting of emergency food assistance. The perceived shortfall in outcomes in the physical infrastructure areas on

Figure 16.1 Trends in ADP Expenditures (ADP expenditure in the sector as a percentage of the total ADP)

The large involvement of varied and numerous stakeholders has fostered the development of more efficient and innovative practices as well as institutions to ensure a minimum amount of accountability.
Table 16.2 Total Expenditure by Ministry/Division (per cent of GDP)

<table>
<thead>
<tr>
<th></th>
<th>FY02</th>
<th>FY03</th>
<th>FY04 (r)</th>
<th>FY05 (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest</td>
<td>1.7</td>
<td>1.5</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>General public services</td>
<td>1.4</td>
<td>1.7</td>
<td>1.5</td>
<td>2.2</td>
</tr>
<tr>
<td>Defense and public order and safety</td>
<td>1.9</td>
<td>1.8</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Education</td>
<td>2.2</td>
<td>2.2</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Health</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Social security and welfare</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Agriculture/Rural development/Housing</td>
<td>2.4</td>
<td>2.3</td>
<td>2.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Fuel and energy</td>
<td>0.9</td>
<td>1.0</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Transport and communication</td>
<td>1.9</td>
<td>1.9</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>14.4</td>
<td>14.5</td>
<td>14.8</td>
<td>15.4</td>
</tr>
</tbody>
</table>

(r): revised; (b): budget
Discrepancy with total due to a number of small items.
Source: Ministry of Finance.

the other hand is due to the less developed nature of the policy framework in these sectors, which failed to attract sizeable private sector involvement, and a poorly performing SOE sector.

Another salient feature of Bangladesh’s budgetary expenditures, particularly in relation to the rest of south Asia, is that the level of development spending has not been hamstrung by high share of interest payments. Unlike its neighbours, Bangladesh has avoided excessive reliance on domestic and foreign borrowing (Figure 16.2). However, debt servicing in the budget has increased significantly, reflecting the increasing cost of domestic borrowing through nationalised commercial banks (NCBs) and foreign suppliers’ credit.
Budget outlays on interest payments were equivalent to 1.7 per cent of GDP in FY04, compared with 1.1 per cent in FY98. As in most developing countries, 80 per cent of interest payments are on domestic borrowing.

Bangladesh has a relatively low level of defense outlays, representing 1.3 per cent of GDP (Table 16.3), less than half the average for low-income countries and considerably lower than those in the rest of South Asia. However, the non-monetary benefits (housing, food allowances, cadet colleges) accorded to military personnel are an additional source of controversy, and not all are included in the defense outlays. The role of Bangladesh’s defense forces in international peace keeping is a source of significant foreign exchange resources (about US dollar 200 million a year). Given the low revenue effort and the imperative of investing in health, education, and rural infrastructure, tight control should continue to be maintained on defense outlays.

Table 16.3 Defense Spending in South Asia, 2001
(percentage of GDP)

<table>
<thead>
<tr>
<th></th>
<th>Budget document</th>
<th>IISS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>1.3</td>
<td>1.8</td>
</tr>
<tr>
<td>India</td>
<td>2.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Nepal</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Pakistan</td>
<td>4.5</td>
<td>5.8</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>4.9</td>
<td>5.3</td>
</tr>
<tr>
<td>Bhutan</td>
<td></td>
<td>5.6</td>
</tr>
<tr>
<td>Low-income</td>
<td></td>
<td>2.9</td>
</tr>
<tr>
<td>countries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: International Institute for Strategic Studies (IISS).*

Bangladesh rightly accords enduring attention to disaster management. Because of Bangladesh’s topology – the massive flow of three great rivers, i.e. the Ganges, the Brahmaputra and the Meghna, in a flat delta topography – the biggest disaster management problem is flood management and drainage during the wet season. Consequently, large amounts of public resources (0.6 per cent of GDP) are directed to: (i) water management control, especially drainage; (ii) holding food stocks; (iii) emergency public works; and (iv) flood protection and cyclone shelters. Expenditures on disaster and flood management in particular are implemented through various line ministries, the largest allocations being on water management and irrigation, which take up 25 per cent of broad agriculture expenditure. Food stock holding often exceeds one million tons. The long term impact of sustained levels of expenditures in this area, in addition to the improved environment of cooperation with NGOs, is that the sensitivity of both agricultural and non-
agricultural sector components of GDP to natural disasters has declined dramatically over time. The trend towards greater resilience was amply demonstrated in contrasting the floods of 1988 with those of 1998, with the agricultural sector and the economy bouncing back much more rapidly post-1998.

**Weaknesses in Public Expenditures**

Bangladesh’s public investment programme, although large in relative terms (6 to 7 per cent of GDP or about half of total budgetary expenditures), suffers from weaknesses that drastically reduce its effectiveness, and its impact on growth is well below potential. Annual Development Programme (ADP) includes a significant number of projects with a questionable rationale, low priority for public investment, or doubtful viability or equity. Questionable projects regularly find their way into the ADP mainly because of the weaknesses in the system of project management: (i) insufficient scrutiny of projects; (ii) weak capacity in project selection, design, and implementation; (iii) overly long periods for project implementation; and (iv) the political imperative of satisfying numerous demands through an excessive number of small projects. For example, ADP expenditures under Roads and Highways Department (R&HD) include about 800 sub-projects with annual ADP allocations of about 2 to 3 per cent of their project cost, implying that it would take 30 to 50 years to complete these projects; the irrigation activities carried out by the Bangladesh Water Development Board lack cost recovery; and much of the investment of the other SOEs are questionable on grounds of public sector rationale, priority, viability, or cost effectiveness.

Weaknesses in project management are compounded by two other disturbing practices relating to development projects – the inclusion of a large number of unapproved projects in the ADP and the absorption of a sizable number of personnel from completed development projects in the recurrent budget every year. Inadequate capacity to prepare projects and a limited pipeline of worthwhile projects, together with continued pressure to maintain a predetermined ADP size, have sustained the practice of including unapproved projects (which have not been properly evaluated and scrutinised) in the ADP over the years. This practice originates from the fact that under existing fund release procedures, provisions made for unapproved projects in the development budget allow spending based on recommendations by the Planning Commission. This may have been complicated by the fact that although the development budget makes a distinction between approved and

---

5 Investment priorities in Bangladesh are set by the Five-Year Development Plans, and the Annual Development Programs (ADPs) represent the yearly implementation of programs within this medium term framework.
unapproved projects, in practice it allows fund release and spending for even unapproved projects.

About 25 to 30 per cent of ADP projects are completed each year, and most ministries request transfer of the completed project staff to the revenue budget. The transfers, coming mostly from the big projects, can constitute up to 0.5 per cent of total employment in the central government each year. These transfers often take place in defiance of operational rules, such as the requirement that staff of completed ADP projects compete with outsiders to be included in the cadre, and they give rise to complications in the integration of project staff into the national pay and cadre schemes.

Low level of non-wage operations and maintenance expenditures further compromises the effectiveness of capital investments. Partly because donor assistance is concentrated on the ADP, the government has tended to favour new investments, failing to provide for the recurrent costs of projects. Operations and maintenance (O&M) expenditures represent a meager 1.1 per cent of GDP (Table 16.4). To ensure the efficiency of past capital investments and the quality of service delivery, it is of utmost importance to

<table>
<thead>
<tr>
<th>Table 16.4 Economic Analysis of Revenue Expenditure (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY03</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Pay and allowances</td>
</tr>
<tr>
<td>Goods and services</td>
</tr>
<tr>
<td>Supplies and services</td>
</tr>
<tr>
<td>Repairs, maintenance and rehab.</td>
</tr>
<tr>
<td>Interest payments</td>
</tr>
<tr>
<td>Domestic</td>
</tr>
<tr>
<td>Foreign</td>
</tr>
<tr>
<td>Subsidies and current transfers</td>
</tr>
<tr>
<td>Subsidies</td>
</tr>
<tr>
<td>Grants in aid*</td>
</tr>
<tr>
<td>Contributions to intern.</td>
</tr>
<tr>
<td>Organizations</td>
</tr>
<tr>
<td>Pensions and gratuities</td>
</tr>
<tr>
<td>Block allocations**</td>
</tr>
<tr>
<td>Acquisition of assets and works</td>
</tr>
<tr>
<td>Acquisition of assets</td>
</tr>
<tr>
<td>Acquisition of land</td>
</tr>
<tr>
<td>Construction and works</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

* largely intended for salary subventions.
** partially used to pay salaries to the staff of completed development projects.

Source: Ministry of Finance; revised budget estimates.
secure an adequate amount of non-wage O&M expenditures at the earliest time possible in sectors such as education, health, and infrastructure, which have suffered heavily from the lack of such resources in the past. Over the medium term, however, O&M expenditures can be ensured only if they are dovetailed with the planned investments. Beneficiary supervision can be a useful instrument for gauging the adequacy of these expenditures, especially when maintenance is simple and beneficiaries are concentrated and identifiable such as in education, health, and public transport.

Wages and salaries reflect an oversized bureaucracy, especially at the lower level. The Bangladesh civil service is small compared with those in the other south Asian countries, and its size has remained unchanged for several years. Expenditures on wages and salaries have remained at around 2.2 to 2.4 per cent of GDP, reflecting reasonable control over salary increases. While the wage bill does not appear excessive by international standards, there are clear signs of reduced effectiveness and efficiency of government employees. Measures recommended by the Public Administration Reform Commission to halt or reverse this decline include monetising benefits, overhauling the compensation package for senior civil servants, reducing the large numbers of Class III and Class IV employees, accelerating implementation of the voluntary retirement scheme, and combining ministries and departments so as to minimise duplication of functions. These would be steps in the right direction.

There are large hidden subsidies and growing contingent liabilities which are not explicitly reflected in the budget. Currently, direct budgetary subsidies amount to less than 0.5 per cent of GDP and are provided for only a few items, including school textbooks, fertiliser distribution (with budgetary allocations only for imported urea), and several non-traditional exports (such as knitwear, leather, jute goods, flowers, frozen food and several agro-processed items). Indirect subsidies, however, are estimated at 2.6 per cent of GDP. These are provided through distorted gas and electricity prices as well as preferential interest rates on loans to SOEs. In these circumstances the first step for Bangladesh is to make the hidden subsidies more transparent in both the government budget and SOE finances. Similarly, large contingent liabilities have been accumulated on account of SOEs and the banking sector. Part of the increase comes from government-guaranteed non-concessional foreign suppliers’ credit, which increased by more than 2 per cent of GDP during the last three years. These could potentially exert considerable pressure on budgetary resources in the medium term.

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6 If pensions, gratuities, and grants-in-aid (which are spent mostly on the salaries of teachers in non-government primary and secondary schools and colleges) are included, the expenditure on wages and salaries rises to 4.2 per cent of GDP.
SECTION III: REGIONAL COMPOSITION OF PUBLIC SPENDING AND BENEFIT INCIDENCE

Using econometric analysis, Bangladesh’s public expenditures have been assessed on the basis of: (i) patterns of public expenditures from two ministries in social sectors – Ministry of Health and Family Welfare (MoHFW) and Ministry of Primary and Mass Education (MoPME) – and expenditures of the Ministries of Agriculture and Local Government Department relative to average per capita income of households across Bangladesh’s districts; and (ii) the incidence of health and education expenditures relative to income levels of user households – benefit incidence analysis (BIA). Both analyses show that public expenditures have a relatively good redistributive role, although there is considerable scope for improving their pro-poor bias.

In addition, the targeting effectiveness of three food assistance programmes for which data are available – the vulnerable group development (VGD), the vulnerable group feeding (VGF), and the food for education (FFE) programme – have been examined showing that these programmes are reasonably well-targeted towards the poor. However, any definitive conclusions about the ‘pro-poor’ nature of spending on these programmes are clouded by the survey findings which suggest that a large share of total resources devoted to these programmes disappear before reaching their intended beneficiaries.

District-Wise Distribution

Regression estimates of the relationship between the district-level expenditures of selected ministries and district-level per capita households’ income show that there is a small, but statistically significant, negative correlation between expenditures of three ministries (Primary and Mass Education Division, Local Government Department and Ministry of Agriculture) and per capita income, indicating that poorer districts tend to receive higher per capita allocations. Thus, distribution of expenditures at the district level is consistent with the redistributive role of the government. Allocations to MoHFW and per capita income show no significant statistical association (Table 16.5).

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7 Ministries were selected based on whether requisite data on expenditure were available.
8 Budgetary expenditures on all safety net programmes are equivalent to almost 1 per cent of GDP, and 95 per cent are directed towards targeted food transfer programmes. Three food transfer programmes (representing over one-third of all expenditures on food transfer programmes) have been examined here. They are: Food-for-Education and Vulnerable Group Development programmes – aiming at promoting human capital development and creating productive physical assets, and Vulnerable Group Feeding programme – aiming at responding to the calamities-related emergency needs. This analysis draws heavily on Murgai and Zaidi 2003. See also World Bank 2002.
9 These regressions are based on the estimation of the medians, rather than the means (command QREG in STATA) which allow to mitigate the effect of outliers.
Table 16.5 Median Regression of 1999–2000 Audited Expenditures Aggregated at a District Level (dependent variable) and Average District-Level Per Capita Household Expenditures (independent variable)

<table>
<thead>
<tr>
<th>Ministry</th>
<th>Coefficient*</th>
<th>Standard error</th>
<th>T-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary and Mass Education Division (current)</td>
<td>-0.083</td>
<td>0.027</td>
<td>-3.02</td>
</tr>
<tr>
<td>Local Government Division (current)</td>
<td>-0.025</td>
<td>0.002</td>
<td>-16.55</td>
</tr>
<tr>
<td>Ministry of Agriculture (current)</td>
<td>-0.015</td>
<td>0.001</td>
<td>-10.04</td>
</tr>
<tr>
<td>Ministry of Health and Family Welfare (current and capital)**</td>
<td>-0.016</td>
<td>0.018</td>
<td>-0.86</td>
</tr>
</tbody>
</table>

* Negative coefficient indicates that poorer districts receive higher per capita allocations.

** Excluding Dhaka district.

Benefit Incidence

Benefit incidence analysis (BIA) has been carried out using data from the 2000 Household Income and Expenditure Survey (HIES) in conjunction with government expenditure data, focusing on health and education. Results are summarised by expressing subsidies received by a group (a population quintile or those classified poor and non-poor) in terms of their percentage share in the total subsidy. Following the literature (Van de Walle and Ned 1995), a distribution is considered weakly pro-poor if the poor receive a larger share of education subsidy than their share in total consumption. It is considered strongly pro-poor (and more efficiently targeted) if the poor receive a share larger than their share in the total population. The methodology is spelled out in Appendix A 16.1.

The results show that public expenditures have an important redistributive role, although they are not strongly pro-poor overall. They compare favourably with many other countries at similar levels of per capita income, but offer

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10 Quintiles have been defined over the distribution of per capita expenditures (corrected for differences in cost-of-living across regions), with equal numbers of individuals in each.
<table>
<thead>
<tr>
<th>By quintile</th>
<th>By poverty status</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lowest</td>
<td>2</td>
</tr>
<tr>
<td>Per capita expenditure education</td>
<td>8.1</td>
<td>12.1</td>
</tr>
<tr>
<td>Private education spending</td>
<td>3.1</td>
<td>7.4</td>
</tr>
<tr>
<td>Primary education</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Secondary</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Tertiary</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>All education</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Female secondary stipend</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private medical spending</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Public health spending</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family planning and less control of common diseases</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Limited curative care</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>Maternal health</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>Child health</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>All health expenditure</td>
<td>16</td>
<td>19</td>
</tr>
</tbody>
</table>
considerable scope for improving the pro-poor bias. Table 16.6 presents the statistical results.

The main findings in the education sector are:

The overall system of public education in Bangladesh reduces inequality: while only 26 per cent of all private consumption resources accrue to the poor, 35 per cent of all government education expenditures benefits this group.

- Primary education (40 per cent of all current educational spending) is strongly pro-poor (56 per cent of public resources devoted to primary education accrue to 50 per cent of the population deemed poor), although this pro-poor bias is largely driven by the fact that poor households tend to have more primary school aged children.
- The pro-poor bias disappears at the secondary and tertiary levels.
- The conditional education transfer programme, 'Female Secondary Stipends' (FSS), which provides stipends and tuition waivers to females attending grades VI-X is pro-women, but not pro-poor.
- As households contribute a large share of education funding in Bangladesh, poor children have less total resources devoted to their education and are, therefore, most likely to receive inferior quality education.

The main findings in the health sector are:

- A higher share of all public health expenditures accrues to the wealthier strata of the population: the poor in Bangladesh represent 50 per cent of the population but their share of all public health expenditures is only an estimated 45 per cent.
- The poorest 20 per cent of the population are particularly disadvantaged, claiming only 16 per cent of the public resources devoted to health.
- Of all categories of health expenditures analysed, the distribution of subsidy for curative care is the least equal reflecting higher propensity to visit government facilities by the wealthy population. Forty-six per cent of the total subsidy for curative care are being accounted for by the non-poor, who make up 50 per cent of the population.
- Likewise, the distribution of expenditures on maternal health favour the wealthy, but this pattern is still more equitable than the distribution of private health expenditures or the distribution of income in the population.
- The Essential Services Package (ESP) allocations to ‘Child Health’ is the most equitable and strongly pro-poor, in large part because poor households tend to have more children.

1 Even at the primary level they provide more than a third of all resources. The private share increases to 67 and 44 at the secondary and tertiary level, respectively.
• Put in context, however, such a distribution of health expenditures reduces inequality and adds proportionally more to the welfare of the poor.

Findings of BIA suggest that there is considerable scope for improving the pro-poor bias of expenditures in Bangladesh. This will require improvements in the existing system of supply of health and education services as well as interventions to boost the demand for these services.

The benefit incidence analysis carried out has its limitations. It assumes that all expenditures allocated for specific purposes by the government translate fully into goods and services consumed by the public. This is a strong assumption, particularly in the case of Bangladesh where there are widespread allegations of misuse of public funds. For instance, the 2000 HIES indicates that the public is more likely to seek medical care from government-employed doctors working in private practice compared to those working in public facilities. If, as is likely, these government-employed doctors treat private patients during official hours of work, then part of the government health subsidy intended for the public is misappropriated by them.12

Targeting Effectiveness of Food Assistance Programmes

The description of food for education (FFE), vulnerable group development (VGD), and vulnerable group feeding (VGF) programmes is presented in Appendix A16.2. Several approaches were used to assess targeting outcomes of these three food assistance programmes. First, we estimate average participation rates which measure the fraction of the population that benefits from the programme. Second, we estimated incidence which measures the division of total benefits across the per capita expenditure distribution and allows us to examine the extent to which programme benefits accrue to the poor versus the non-poor. Third, we estimate the average transfers received by programme beneficiaries across per capita expenditure distribution. Finally, estimates of leakage from the system was done.

Tables 16.7 and 16.8 present the statistical results and the main findings of the study are summarised below:

12 Analytical tools such as Public Expenditure Tracking Surveys (PETS) have recently been developed to track budget flows through the various layers of the government system. In addition, concurrent quantitative surveys of facilities gather data from service providers’ own records on quantity of outputs, inputs and resource allocations within facilities. Taken in conjunction, data from these two sources permits an assessment of the amount of leakage and also identifies bottlenecks in the flow of funds and the location of leakage. It is desirable to undertake PETS and surveys of facilities in selected sectors where possible leakage of resources is of high concern.
Table 16.7 Participation Rates, Distribution and Average Transfers Received by Programme Participants (%)

<table>
<thead>
<tr>
<th></th>
<th>By quintile</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Average participation rates (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vulnerable group development (VGD)</td>
<td>8.5</td>
<td>7.0</td>
</tr>
<tr>
<td>Vulnerable group feeding (VGF)</td>
<td>4.9</td>
<td>4.0</td>
</tr>
<tr>
<td>Food for education (FFE)</td>
<td>5.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Overall</td>
<td>17.7</td>
<td>13.4</td>
</tr>
<tr>
<td>Distribution of eligible population*</td>
<td></td>
<td>29.0</td>
</tr>
<tr>
<td>Vulnerable group feeding (VGF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food for education (FFE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average transfers received by programme participants, wheat (kg/year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vulnerable group development (VGD)</td>
<td>78.0</td>
<td>59.1</td>
</tr>
<tr>
<td>Vulnerable group feeding (VGF)</td>
<td>71.5</td>
<td>57.7</td>
</tr>
<tr>
<td>Food for education (FFE)</td>
<td>69.4</td>
<td>82.1</td>
</tr>
<tr>
<td>Average transfers received by programme participants, rice (kg/year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vulnerable group development (VGD)</td>
<td>35.1</td>
<td>30.7</td>
</tr>
<tr>
<td>Vulnerable group feeding (VGF)</td>
<td>35.7</td>
<td>47.1</td>
</tr>
<tr>
<td>Food for education (FFE)</td>
<td>20.9</td>
<td>34.0</td>
</tr>
</tbody>
</table>

*Identifying the 'intended' beneficiaries for the VGF is not feasible since VGF transfers are targeted to disaster affected areas and households, and HIES does not identity which households have been affected by disasters.
Table 16.8 Programme Outlays v. Survey Estimates

<table>
<thead>
<tr>
<th>Programme</th>
<th>2000 HIES-based survey estimates (metric tons)</th>
<th>95% confidence interval for estimate</th>
<th>Program off-take for FY 1999-2000 (metric tons)</th>
<th>Survey estimate as % of aggregate programme allocation (confidence intervals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGD</td>
<td>99,978</td>
<td>[72,894, 127,061]</td>
<td>216,675</td>
<td>34–59</td>
</tr>
<tr>
<td>VGF</td>
<td>70,760</td>
<td>[44,251, 97,267]</td>
<td>149,138</td>
<td>30–65</td>
</tr>
<tr>
<td>FFE</td>
<td>49,951</td>
<td>[27,192, 72,710]</td>
<td>285,973</td>
<td>10–25</td>
</tr>
</tbody>
</table>

*Note: Aggregate Programme Off-take are from Bangladesh Food Grain Digest, World Food Program, Dhaka, Bangladesh.*
The average participation rate (the percentage of the population in the quintile who benefit from the programme) shows that overall participation rates in each of the three programmes were very low, ranging between 3 to 5 per cent of the rural population. Given the low coverage, while the programmes may be extremely important for the beneficiaries themselves, it is unlikely that any one of these could be expected to have a significant impact on overall poverty reduction.

While each programme serves only a small part of the poor population, joint coverage rates are higher. Approximately 10 per cent of the population received assistance from at least one of the three programmes in the 12 month period preceding the survey. The limited overlap in coverage by the three programmes (only 7 per cent of the beneficiaries received transfers from more than one programme) conforms with programme targeting criteria for the VGD and FFE programmes that restrict participation to those households that are not already assisted by other food-assistance programmes.

All three programmes are targeted towards the lower quintiles, with participation rates declining as expenditure per person increases. Overall, the average participation rates in at least one of the three programmes of the poorest quintile is 17.7 per cent, versus 3.9 for the richest quintile. FFE is slightly better targeted to the poor than the VGD and VGF.

Fifty per cent of the eligible population for VGD and FFE programmes fall in the bottom two quintiles, and approximately one-fourth of the population that meets the eligibility criteria actually falls in the richest two quintiles. The distribution of benefits (i.e. incidence) of these programmes is likely to be pro-poor. These outcomes are comparable to the performance of targeted programmes in other countries.

While the amount of transfers vary across expenditure quintiles, there does not appear to be any clear discernable pattern that would suggest that rich receive more than the poor. Since participation rates are decidedly pro-poor, accounting for differences in the quantity of transfers received still yields a pro-poor distribution of benefits. However, the table does suggest that average transfers received by beneficiaries in

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13 Some of the non-poor can be expected to be programme beneficiaries simply because the targeting criteria are an imperfect proxy for living standards.
14 Grosh (1994) reviewed the design and targeting outcomes of 47 government systems in Latin America, and found that a median targeted programme delivered about 70 per cent of all benefits to the poorest 40 per cent of the households. Subbarao et al. (1997) also review targeting efficiency for a number of different food based programmes, and find that it tends to be best for programmes involving work requirements, modest under food stamps, and lowest under price subsidies and quantity rationing.
both the VGD and FFE programmes are considerably smaller than their entitlements.

The HIES household questionnaire collected data not only on whether the household received any benefits from the programme during the past 12 months, but also on how much food grain was received, these data can be used to estimate the total amount of food grains received through these programmes by all households in the country. Estimates of aggregate household transfers for the VGD, VGF, and FFE obtained by ‘blowing-up’ the HIES data on household grain receipts are reported in Table 16.8. The survey estimates of aggregate transfers from the three programmes appear to be much lower than aggregate programme off-take statistics (Table 16.8). In the case of the VGD, the main reason for the discrepancy is because the total amount reported by each recipient household in the survey is considerably lower (around 96 kg per annum) than what might be expected (around 180 kg per annum) given the programme guidelines. In the case of the VGF and FFE, the main reason for the discrepancy was because a much lower percentage of households reported benefitting from the programme than might be expected given total programme outlays.

The survey-based estimates of leakage should be interpreted with caution, as various reasons could potentially explain why the survey reports such low coverage rates and receipts. (For instance, rather than due to misappropriation of resources, this could also be due to errors related to respondent misreporting, recall difficulties, and sampling errors). However, studies of other transfer programmes (e.g. Alderman 2001) find a closer correspondence between what households reported and what was authorised using the same methodology.

Yet, any conclusion, overall, as to the ‘pro-poor’ nature of spending on these programmes based on the analyses presented earlier must be balanced against the findings that suggest that a large share of the total resources allocated to the programmes fail to reach their intended beneficiaries. In addition, public sector institutions in Bangladesh have limited capacity to translate public spending into public services and desired developmental outcomes. This ‘weak link’ significantly reduces the poverty impact of government expenditures. Still, when all these factors are considered, it appears that on balance public expenditures in social sectors do have a redistributive role in Bangladesh.

SECTION IV: INSTITUTIONAL DIMENSIONS OF EXPENDITURE MANAGEMENT

As described above, sectoral policies in Bangladesh generally have pro-poor objectives and are supported by an appropriate allocation of expenditures,
given the country's fiscal constraints (the power sector is a notable exception). The outcomes of these policies are relatively good (growth, poverty reduction, progress towards MDGs) although they appear well below their potential.\textsuperscript{15} The most important reason for this apparent shortfall in outcomes is the extremely weak institutional framework through which these policies and expenditures are implemented. The biggest institutional failure is the lack of transparency and accountability of the agents entrusted with management of public resources. This failure is most apparent in both budget management and service delivery.

**Budget Management Needs Strengthening**

Budget preparation in Bangladesh is mechanical, and expenditure estimates are largely prepared on an incremental basis from previous years' allocations. It lacks a medium term strategic framework. This lack of MTF, combined with extensive political interference in the prioritisation of projects within sectors and little participation by line ministries in the planning process, have resulted in a situation where resources are spread thinly across a large number of projects. Parliamentary working committees do not get an opportunity to review and discuss budget proposals before they are tabled in the full house, and the budget is normally presented early in June for the fiscal year starting July. This falls well-short of the OECD Fiscal Transparency Guidelines.\textsuperscript{16} Notwithstanding recent efforts towards consulting with industry and business groups and academics, there remains considerable scope to improve the participatory process and transparency of the planning and budgeting operations.

Budget implementation is weakened by the fact that line ministries do not have clear indicators of what is expected as outcomes. The organisational and procedural separation of sectoral programmes into a revenue budget and a development budget leads to considerable loss of resource efficiency. There is no mechanism to ensure that project-related operating and maintenance costs are estimated and included in the revenue budget once development expenditures are completed. An accepted practice in Bangladesh, which undermines fiscal discipline, is to spend resources on initiatives that are considered to be of national importance, even if these have not been included in the approved budget.

\textsuperscript{15} In the 1990s India's per capita GDP grew at an annual rate of 4.2 per cent significantly higher than Bangladesh's 3.1 per cent.

\textsuperscript{16} The guideline stipulates that the budget should be presented to the legislature three months ahead of the commencement of the fiscal year to provide sufficient time for debate and revision, as necessary.
There is no procurement law and few standard procurement guidelines, which has resulted in increasing allegations of corruption at all levels. The system of budget accounting is cash-based and weak, with an excessive number of government funds which are not reflected within government accounts. Bangladesh Bank acts solely as a banker, and there is no check of aggregate payments against budgets. Shortcomings in cash management cause wide month to month fluctuations in government borrowing from Bangladesh Bank, which finances whatever deficits emerge each day. The management of government assets and liabilities also need substantive improvements to increase accountability.

A welcome development in recent years is the implementation of a project (RIBEC) to upgrade the system of government accounts, with support from UK-DFID. To date the project has completed the computerisation of budget accounts at the central level and for 7 out of 22 regional accounting offices (RAOs). There have also been important changes in account classification leading to significant simplification of management and comparability across budgets. Two to three thousand government accountants across several ministries have been trained in the new procedures. The next step is to reconcile expenditure transactions recorded by the accounting system with the cash transactions recorded by the banking system.

Budget oversight is not effective, leading to low fiscal discipline. The fiscal reporting system does not adequately monitor the fiscal deficit and its financing. There is no consolidation of central government accounts with local authority or with public enterprise accounts. Internal audit exists only in large agencies, and there is no central oversight on internal audit standards. Performance audit is virtually unknown. External audit is compromised as the separation of audit and accounts within the C&AG’s office (which as per the Constitution is supposed to be independent of the government) has not yet been implemented. Audit reports are generally not available to the public, although they are presented to parliament. Parliamentary committees lack capacity and resources, and their proceedings are not well documented and publicised. Proceedings are not open to the public or the media. Evaluation of expenditures is minimal and mostly focuses on inputs.

**Corruption and Inefficiency in Public Sector Service Delivery**

As challenging as the weaknesses in budget management are, the absence of checks and balances across the economy gives rise to widespread corruption and misuse of resources, ultimately reducing the impact of public expenditures.

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17 See World Bank 1999. More recently, though, progress has been made in both procurement and financial management.
Table 16.9 Satisfaction with Urban Services
(% of all households satisfied)

<table>
<thead>
<tr>
<th>Services</th>
<th>Dhaka</th>
<th>Chittagong</th>
<th>Khulna</th>
<th>Rajshahi</th>
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Evidence of widespread corruption is staggering: Transparency International’s Annual Report (2001), ranked Bangladesh as the most perceived corrupt government of all 91 governments surveyed, with ‘law enforcing agencies’ as the most corrupt sector in this ranking.\(^{18}\) Corruption of electricity and water meter readers is notorious also because of collusion and lack of mechanisms for accountability. A survey of public opinion, conducted by the World Bank in collaboration with several donors and a local NGO, confirms the deep distrust of public officials and dissatisfaction with public services (Table 16.9).

The financial sector is another area with weak governance and widespread diversion and misuse of funds. The biggest problem relates to the NCBs which are exempt from Bangladesh Bank supervision and consequently do not comply fully with requirements for loan provisioning and capital adequacy. Approximately 40 per cent of their loan portfolio is non-performing. Their financial statements are misleading, and those NCBs that are audited have their audits done by firms with no special skills or capacity for the job.

\(^{18}\) Nigeria, Uganda, Indonesia, and Kenya rank second through fifth respectively. (Corruption Database Report – July to December 2000). The Transparency International report expresses some reservation about Bangladesh’s ranking, largely because of the insufficient number of corruption-related surveys available for the country.
Since poor governance in the banking sector will ultimately affect government finances, it is an urgent priority to strengthen the legal framework in the banking sector to improve the management autonomy of the central bank and the NCBs. Fortunately, recent banking reforms are addressing these concerns.

SECTION V: CONCLUSIONS

Budgetary expenditures in Bangladesh are broadly consistent with government’s economic and social development policy objectives (particularly human development, disaster management, and rural development). For the most part, there is agreement among the various stakeholders and donors on the objectives of public policies and expenditures in many sectors (human development, agriculture research, disaster management). There is also considerable partnership between the government and the private sector and NGOs in addressing the country’s foremost problems.

There is widespread recognition that outcomes in the social sectors have been much better than in the physical infrastructure areas, and the social outcomes of Bangladesh appear quite impressive, even though below potential.

Public expenditures on health and education serve a good redistributive role, but there is scope to improve their pro-poor bias. Similarly, food assistance programmes have, by and large, done a good job of reaching the poor. However, any definitive conclusions about the 'pro-poor' nature of these programmes must take into account the fact that even though visible receipts of transfers are significantly pro-poor, a non-negligible share of resources allocated to these programmes cannot be accounted for when using survey data to estimate total resource transfer to beneficiaries. Strengthening monitoring systems to reduce leakage from the system is likely to yield high dividends, as it would enable the government to release additional resources to increase coverage.

The most pressing needs regarding public policy and expenditures are to:

- Strengthen the institutional framework through which these policies and expenditures are implemented. Priorities include developing a medium term expenditure framework, better integration of the development and recurrent budget, increased participation of stakeholders in the planning and budgeting process, improved procurement procedures for government expenditures, strengthened internal audit within government ministries and agencies, improved external audit and stronger oversight by parliamentary committees.
- Improve effectiveness of public interventions, in particular ADP expenditures, by focusing on core responsibilities of the government, and desist from intervention in areas where there is potential for greater
involvement by the private sector, NGOs or grassroots communities. The emphasis should be on consolidating gains achieved, rather than spreading scarce resources across too many activities.

• Ensure fiscal sustainability by urgently strengthening SOE reform. This will necessitate overhauling the policy environment in which they operate and embarking upon an aggressive programme of closures and privatisation.

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APPENDICES, TABLE

Appendix A16.1 Methodology for Benefit Incidence Analysis

Calculations of benefit incidence involve several steps. First, relying on 2000 Household Income and Expenditure Survey (2000 HIES) data, we obtain estimates of each household’s use of publicly financed services. The 2000 HIES is the thirteenth in Bangladesh Bureau of Statistics (BBS) long-standing series of household expenditure surveys dating back to 1973–74. This round covers a nationally representative sample of 7,440 households in 442 communities across Bangladesh. In the case of education, the 2000 HIES survey allows for a rich characterisation of participation by education level (primary, secondary, and tertiary education), gender of school attendee, and type of school (public, private, and other). In the case of health, use of a health facility can be assessed according to the type of health service provider and type of illness across different regions of the country. In both cases the extent and distribution of private spending could be assessed.

Second, we infer the subsidy provided to the users of education and health services based on 2000 Government of Bangladesh (GoB) expenditures in these sectors. Data on education spending come from actual expenditures of the Primary and Mass Education Division (PMED) (primary education) and Department of Education (secondary and tertiary). Data on health expenditures come from the Health Economic Unit (HEU) of the Ministry of Health and Family Welfare (MoHFW).19

The explicit assumption behind this analysis is that the differences in unit subsidies received by users are accounted for by the differences in government education and health expenditures across districts. This assumption is justified on the basis of the budget allocation rules, according to which allocations are largely driven by the number of posted staff. However, other factors may cause additional variation in unit subsidies or the district-level variation in unit subsidies may not capture the extent of differences in quality of education and health services consumed by different groups. To the extent that this variation in quality is related to income (which is an a priori expected relationship) this analysis might overestimate the amount of subsidies transferred to the user of inferior-quality services, presumably the poorer strata.

Calculation of user subsidies from data on government expenditures are different in the case of health and education. In the case of education,

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19 Both sources of data were made available to us by the staff of the Reforms in Budgeting and Expenditure Control (RIBEC) project. Supported by the Department for International Development (DFID), RIBEC’s objective is to move away from the current project by project inputs and implement a new classification system covering both revenue and development budgets. This allows a consolidated picture of budget and accounts as well as a regular tracing of expenditures against budgets.
government allocations do not cover operating costs of schools, which also collect fees to cover costs. Without fees (or 'donations' at the primary level) schools would not be able to operate because the per unit cost is higher than the per unit government expenditures available to them. The per student subsidy is calculated as total government expenditures (separately for primary, secondary and tertiary) divided by the total number of users (level-specific, estimated from the 2000 HIES). In the case of health, government finances cover all operating costs, but some of this is recovered through user fees. These fees are remitted to the treasury. Thus, in per unit terms, government health expenditure equals the cost of providing service and government subsidy equals government expenditure less user fees.

Operation of all primary schools is financed by the revenue budget of the Department of Primary and Mass Education. Development expenditures in DPME and the Department of Education are mainly used to finance construction and other line items. Broadly speaking, allocations from the development budget are not used for operating expenditures. We calculate per unit subsidy based on the revenue budget, and there are two reasons for doing this. First, many current capital expenditures in education are financed directly by donors (so called Direct Donor Assistance) and complete information on these, let alone regionally disaggregated information, is not available. Second, to incorporate the annual user cost of capital, lagged capital expenses should be constructed from capital stock series. These are not available either. Ignoring capital expenditures could skew results, especially if these are not distributed equally across groups and regions.

Expenditures on secondary and tertiary education are inferred from the revenue expenditures of the Ministry of Education. As in the case of primary education, we ignore capital expenditures.

For primary education, revenue expenditures were available in disaggregated form at the thana and district level, but for secondary and tertiary education they were not. Thus, while we are able to account for geographic variation in subsidies to primary-level students, we are not able to differentiate unit subsidies across secondary and tertiary level students in different districts. Undoubtedly, this leads to less precise estimates of benefit incidence in secondary and tertiary education.

The operation of medical facilities is financed primarily through the health and population sector programme (HPSP) of the MoHFW. As in the case of education, allocations are made from the revenue and development budgets, but contrary to education, development expenditures are mostly used to finance salaries and operating costs. In 2000, only 15 per cent of the total development expenditures were allocated to construction and works, and these were subtracted from calculations of the per user subsidy. Data on health expenditures are available in geographically disaggregated form (thana and district level) and by functional unit.
According to the HEU (HEU 2001), within the combined development and revenue HPSP budget the essential package of services (EPS) claims the largest portion – 58 per cent of the total, based on the calculations of the HEU and World Bank (World Bank 2002). In the case of the ESP component, the five main categories are ‘Child Health’ (30.4 per cent), ‘Curative Care’ (16.4 per cent), ‘Maternal and Other Reproductive Health’ (16.1 per cent), ‘Family Planning’ (25.2 per cent), and ‘Communicable Disease Control and Behaviour Change Communication’ (11.9 per cent). For the purposes of this study, it is assumed that the remainder of the combined MoFHW budget is allocated to curative care.

This expenditure data, in conjunction with utilisation episodes estimated from the 2000 HIES, was then used to infer per visit costs. Doing so entailed additional assumptions: (1) ‘Child Health’ expenditures benefit users of immunisation services and users of curative care for child illnesses, (2) ‘Curative Care’ expenditures benefit users of curative care in government facilities and from government doctors, and (3) ‘Maternal Health’ expenditures benefit women who utilised prenatal or post-natal services or delivered a child in an institutional setting, and (4) expenditure on ‘Family Planning’ and ‘Communicable Disease Control’ benefitted the population in a district as a whole.

Finally, to determine access to subsidies, we brought together information on service utilisation and per unit subsidies. We ranked households by their welfare ratio, calculated as household total expenditure divided by the poverty line for a particular household. We then divided households into five groups – or quintiles (each with equal numbers of individuals) – based on their poverty ranking in the overall, countrywide distribution, and in the urban and rural sectors. We also distinguished poor and non-poor households according to their per capita monthly expenditure (see R. Murgai and S. Zaidi 1993a, for derivation of the poverty line). Results are summarised by expressing subsidies received by a group (a population quintile or those classified poor and non-poor) in terms of their percentage share in the total subsidy.

Following the literature (Van de Walle and Ned 1995), a distribution is considered weakly pro-poor if the poor receive a larger share of education subsidy than their share in total consumption. It is considered strongly pro-poor (and more efficiently targeted) if the poor receive a larger share than their share in the total population.

The food-for-education (FFE) aims to remove economic barriers to primary school enrolment by the poor. An ‘in-kind’ stipend that links monthly

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20The HEU used data from the 2000 Facility Efficiency Survey to allocate personnel time across the five EPS functions. Personnel time represents the bulk of the total cost, for example it is 84 per cent in the case of Thana Health Centers (THC) and, most likely, an even higher proportion in the case of facilities below the thana level.
food transfers to poor households to primary school enrolment of their children, it promotes four objectives: increased school enrolment, better school attendance, lower dropout rates, and higher quality of primary education. Vulnerable group development (VGD) has evolved from providing relief to increasing self-reliance by tying food transfers to a package of development services – NGOs working in partnership with government provide poor rural women with skill, literacy, and numeric training; credit and savings mobilisation; and health and nutrition education. The programme also facilitates the entry of VGD beneficiaries (after training) into regular NGO credit programmes and acts as a transition from relief aid to a longer term development programme. The vulnerable group feeding (VGF) is one of the main programmes used by the government to provide emergency, short term relief to disaster victims. However, besides the short term assistance the transfer provides, it can also have extremely important longer term benefits in helping households to avoid costly and damaging risk coping measures (e.g. selling productive assets, reducing food intake, child labour).

Appendix A16.2 Description of Food for Education (FFE), Vulnerable Group Development (VGD), and Vulnerable Group Feeding (VGF) programmes

The FFE, VGD, and VGF programmes aim to reach different target populations (Table A16.1). The target group in the FFE naturally comprises those households that have children enrolled in primary school, but within this large potentially eligible group, local committees select the poorer households based on criteria that include households with distressed female heads, low income tradesmen, and the functionally landless. Because of its objective as a transitional welfare programme, the VGD is targeted to those women who have the capacity to learn and can engage in income generation activities. And similar to the FFE, within this large potentially eligible group, local committees select the poorer women using criteria such as female-headship, functionally landless women, women with extremely low or no family income, women day-labourers, and women who lack productive assets. VGF transfers are targeted to households affected by disasters, with priority given to those disaster-affected households that have low income, that lack agricultural land and productive assets, and that are headed by women or day-labourers.
Appendix Table A16.1 Description of Food for Education (FFE), Vulnerable Group Development (VGD), and Vulnerable Group Feeding (VGF) Programmes

<table>
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<th>Program</th>
<th>Region</th>
<th>Beneficiaries</th>
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<tbody>
<tr>
<td>Food for Education</td>
<td>Regions: In each rural thana, one or more economically backward unions, with low literacy rates are selected.</td>
<td>Schools: In each selected union, all government, registered non-government, satellite, and low-cost primary schools, as well as one independent madrasha are eligible for the programme. Beneficiaries: Children enrolled in these schools are eligible provided they come from families that meet one or more of the following criteria: (i) distressed female-headed; (ii) head is a day-labourer or low-income tradesman; (iii) functionally landless. In addition, household should not simultaneously be drawing benefits from other programmes. The child should attend at least 85 percent of the classes and the family should send all children of primary school age to school.</td>
</tr>
<tr>
<td>Vulnerable Group Development</td>
<td>Region: VGD cards distributed across all rural thanas of higher food insecurity rating receive a greater share of cards.</td>
<td>Beneficiaries: Women who meet following criteria are eligible: (i) functionally landless; (ii) extremely low or no family income; (iii) day labourers; (iv) lack productive assets. Preference is given to female heads of households and to women who are physically fit to train. Women who receive assistance from other programmes or have participated in the VGD in an earlier cycle are ineligible.</td>
</tr>
<tr>
<td>Vulnerable Group Feeding</td>
<td>Region: Distributed only among disaster-affected thanas. Among the selected thanas, two-thirds of the food is distributed according to population and the remaining one-third is allotted to thanas with a very high or high food insecurity rating.</td>
<td>Beneficiaries: In selected thanas, household selection criteria include: (i) head earns less than takas 300 in a normal month; (ii) no agricultural land or productive assets; (iii) head is a day-labourer. Priority is given to household that have been physically dislocated by the disaster and to female-headed households.</td>
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Source: Various programme documents.
Appendix Table A16.1 Description of Food for Education (FFE), Vulnerable Group Development (VGD), and Vulnerable Group Feeding (VGF) Programmes

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<td><strong>Schools:</strong> In each selected union, all government, registered non-government, satellite, and low-cost primary schools, as well as one independent madrasha are eligible for the programme</td>
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<td><strong>Beneficiaries:</strong> Children enrolled in these schools are eligible provided they come from families that meet one or more of the following criteria: (i) distressed female-headed; (ii) head is a day-labourer or low-income tradesman; (iii) functionally landless. In addition, household should not simultaneously be drawing benefits from other programmes. The child should attend at least 85 per cent of the classes and the family should send all children of primary school age to school.</td>
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*Source: Various programme documents.*
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