Achieving Better Primary School Outcomes in a Context of Weak Education Governance: A Case Study of Bangladesh

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Abstract

The primary school completion rate in Bangladesh has increased dramatically since 2008, but average learning levels in the final grade (grade five) are very low. In an attempt to explain this emphasis on “quantity” over “quality”, we analyze institutional problems in the national primary school system, using a principal-two-levels-of-agent (PA) model. As precondition for realizing major improvements in school quality, the national government needs to address these PA problems. If it does so, the two essential components of reform are effective decentralization of authority, and implementation of well publicized core competency school assessments. If the government is unwilling to address PA problems, domestic philanthropists and social entrepreneurs, owners of “low fee” private schools, individuals and groups interested in madrassas, NGOs and foreign donors can attempt to “work around” the government by expanding non-government school options. There are other means to promote student and school performance. For example, these non-government actors can undertake regular large-scale in-home surveys of children’s capacity to read and do basic mathematics. Use of Pratham’s instrument (used in conduct of annual surveys in rural India) would enable cross-country school quality comparisons.

KEY WORDS – Bangladesh, primary education, school quality, core competency assessments

[Editors’ Note: Professors Richards and Vining have characterized the pervasive education governance problems and their effects on student and school performance in Bangladesh as an issue of principal-agent interaction (between parents, on the one hand, and central education authorities and local authorities including individual institutions, on the other). They postulate solutions in terms of reforms in the public system with greater decentralization including accountability through independent assessment of student and school performance for all types of schools. They also suggest expanding options for parents and competition among education service providers through expansion of low cost non-government providers of acceptable

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quality. The article raises at least three sets of questions: a. How workable is this agenda given the root causes of weak education governance; b. What consequences may this have for fulfilling the right to education and the principle of basic education as a public good; and c. How best can the ideal and the pragmatic be reconciled. We hope that this article will provoke a thoughtful discussion.

1. Introduction

The administration of national school systems requires multiple hierarchical levels, the coordination of many levels of government, and a large work force of professional teachers plus administrative and support workers. Even in countries blessed with generally effective national governments, education policy is subject to significant “agency loss”. In countries with relatively weak national governance, the potential for agency loss is much more severe. In these countries, administration of schools, especially government-run schools, may become stuck in a low-quality equilibrium, a “trap”. Major improvements in quality are unlikely without some (probably external) destabilizing shock.

In this article we discuss the current educational system in Bangladesh using a principal-agent (PA) model. Whether explicitly or implicitly, this approach is widely used to analyze educational systems. The aspect of the PA model on which we focus is collusion among various kinds and levels of agents, leading to an equilibrium with less than ideal student outcomes. Many low-income countries are stuck in this situation. This reality suggests that reform requires pursuit of at least two strategies: 1) policies for government schools that, making due allowance for the state of national governance, may realize improvements, and 2) policies that “work around” poor macro-institutional governance by expanding the potential for non-government schools.

We first describe some of the principal-agent dynamics within the national education system of Bangladesh. They are sufficiently severe, we argue, to warrant describing the status quo in the government school sector as a low-equilibrium “trap”. Second, we discuss incremental reform policies in the government sector, and policies that attempt to expand non-government school options.

2. Is the Bangladesh school system caught in a low-equilibrium “trap”? 

The “government effectiveness” dimension of the World Bank’s (2016) governance indicators measures perceptions of overall quality of public service delivery. Table 1 shows the percentile rank of the effectiveness dimension for the five major South Asian countries and three other Asian countries. Bangladesh scores consistently in the bottom quarter of all countries (approximately 200) included in the World Bank calculations. This is suggestive...
that low national government effectiveness is a factor, certainly not the only factor, to explain national outcomes in a wide range of social policy outcomes, in health as well as education (Richards & Vining, 2015).

Table 1: Government Effectiveness and Gross Primary School Completion Rate, Selected South, Southeast and East Asian Countries

<table>
<thead>
<tr>
<th>Government effectiveness</th>
<th>2004</th>
<th>2009</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>21</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Cambodia</td>
<td>18</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>China</td>
<td>59</td>
<td>58</td>
<td>66</td>
</tr>
<tr>
<td>India</td>
<td>55</td>
<td>56</td>
<td>45</td>
</tr>
<tr>
<td>Nepal</td>
<td>21</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Pakistan</td>
<td>40</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>43</td>
<td>51</td>
<td>57</td>
</tr>
<tr>
<td>Vietnam</td>
<td>41</td>
<td>48</td>
<td>52</td>
</tr>
</tbody>
</table>


Complex institutions, such as school systems, require “agents” to realize the institutional goals. Agents are groups that share relevant expertise and resources (such as financial and/or political power) that the principals lack. Thanks to their knowledge and control of resources, agents inevitably exercise considerable autonomy within institutions. Ideally, agents contribute effectively to realization of the institutional goal; they may however use their autonomy in a manner that unduly exaggerates their own benefits, and unduly hampers realization of the institutional goal. To be somewhat more specific, we consider a model with principal and at least two levels of agents (Tirole, 1986), as shown in Figure 1. Low-income parents, who lack access to high-quality private schools, are the principals: their goal is a reasonable quality education for their children. In the highly centralized Bangladesh school system, the central government and senior officials in the Ministry of Primary and Mass Education (MoPME) comprise the first-level agents. They provide national-level supervisory functions, which include distribution of public funds and certification, via the Primary Education Completion Exam (discussed below), of students who successfully complete the primary cycle.

There are important second-level agents responsible for delivery or monitoring of education services. Both individual members of parliament (MPs) and senior local government
We identify two additional second-level agents. Ebtedayee madrassas and NGO-operated nonformal schools are significant providers of primary education. Combined, their students represent roughly a tenth of the total primary student population. Both have little choice but to pursue government accreditation for their graduates via the PECE. However, these schools maintain autonomy over curriculum and teacher selection.

What evidence exists to justify describing the school system in terms of agents pursuing autonomous goals that potentially run counter to the realization of reasonable quality education?

Allegations of payment to local politicians and officials to obtain teaching position in government school

There are widespread allegations that in many upazila the prerequisite for an aspiring teacher obtaining a teaching position is to provide a payment to relevant local politicians and education officials. Newspapers often write about what is called Niyog Banijjo (“employment trading”), the practice of arranging government employment in lieu of payment, a practice in which influential politicians including elected representatives allegedly engage. Evidence on the frequency and size of such payments is obviously hard to obtain. But, based on personal interviews with many education professionals, such payments are widespread throughout Bangladesh. The current level appears to be in the range of US$5,000 – US$10,000.

The damaging impact on school performance is obvious. These payments introduce a problem of adverse selection in choice of teachers. Parents presumably want teaching ability to be the major criterion for teacher selection. However, the major criterion for selection is not indicators of merit but an applicant’s ability to raise the necessary payment. In addition, the payment requirement presumably induces moral hazard in the context of teacher training. It lowers the motivation of students pursuing teacher training to devote appropriate time and effort to their studies, and of their teachers to take seriously the obligation to train them.

In 2007 the military-led caretaker government abolished any formal role for MPs in school management and the courts subsequently banned MPs from formal membership on school management committees. But their informal influence in school decisions persists.

Ebtedayee madrassas follow the government curriculum and seek accreditation, while Qwami madrassas do not, and do not receive money from the government.

The government-managed school sector includes students of the “newly nationalized” schools (formerly Registered Non-Government Primary Schools) that, until 2013, were private. The Directorate of Primary Education estimates the 2015 primary student population at 19,100,000. The principal school types include 14,300,000 in government-managed schools, 1,200,000 in Ebtedayee madrasas, 2,300,000 in for-profit private schools (“kindergarten”) and 600,000 in nonformal schools. The majority of students in the nonformal sector attend BRAC schools (DPE, 2015: 9).

Upazila are sub-national administrative units. There exist approximately 500 upazila in Bangladesh, with an average population each of 250,000.
officials play a role in local school management. Teachers unions comprise another set of important second-level agents exercising considerable autonomy.

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Lax monitoring of teacher attendance in class and tolerance of private paid tutoring

Applicants are prepared to pay a sizeable amount to obtain a teaching position because the payment is, in effect, a means of sharing with politicians and officials future income that teachers expect to earn via private tutoring of their students. The prevalence of private paid tutoring is very widespread (CAMPE, 2015: 66-68). In South Asia, teacher unions support a regulatory regime of lax monitoring of teacher attendance and time spent teaching in class, which in turn facilitates teachers undertaking private paid tutoring outside of school hours (Kingdon et al., 2014; ASER, 2015). 6

The Primary Education Completion Exam

Prior to introduction in 2009 of the Primary Education Completion Exam (PECE), critics could point to numerous principal-agent problems in the administration of the public school

Figure 2

Bangladesh, Enrolment and Completion Rates, 2005-15

![Bangladesh, Enrolment and Completion Rates, 2005-15](image)

Source: DPE (2015, 122)

Note: The **gross enrolment rate** is the number of children, regardless of age, enrolled in grades 1 – 5 relative to the total population of children ages 6 – 10 (official primary school age range in Bangladesh). With an increase in enrolment effort the gross enrolment rate may exceed 100 percent for some period of time. The **net enrolment rate** is the number of children of the official primary school age (6 – 10) enrolled in grades 1 – 5 relative to the total population of children ages 6 – 10. The **gross completion rate** is the percentage of a cohort of pupils enrolled in the first grade of primary education in a given school year expected to complete primary education – at whatever age. The measure of completion is passing the PECE. Before 2009, completion required passing a school-based exam.

6 An important recent example of teacher union influence on policy is their successful lobbying to nationalize the registered non-government private schools in 2013. These schools started as private schools with an expectation of some government support. Before 2013, they provided some competition to government schools. With nationalization, this potential for improving school quality has disappeared.
system (Nath & Chowdhury, 2009; Sabur & Ahmed, 2010; Asadullah & Chaudhury, 2015). However, the assessment of primary school completion in government schools was decentralized to the upazila level and was not subject to a centralized operation that appears to have created a political incentive to inflate the completion rate. While decentralization did result in some lack of grading uniformity across the country, in general the test results were considered a reasonable reflection of student learning (Islam, 2016: see pp. 45-50 of this issue).

The government claims that introduction of the PECE, a centralized test administered across Bangladesh to all students in grade five, is a means to assure uniform certification standards for primary school completion. After its introduction, over 95 percent of those sitting the test have achieved at least a basic pass. Both secondary schools and employers now use a passing PECE grade to assess primary school completion (CAMPE, 2015).

As Figure 2 shows, the Bangladesh net enrolment rate exceeded 90 percent by 2005. Relative to the 45 percent estimate for the year 1989,7 the gross primary school completion rate in Bangladesh had increased only modestly by the 2005-08 interval (DPE, 2015: 122). The explanation for the large gap between enrolment and completion rates in the years prior to 2009 was high dropout and grade repetition rates (Nath & Chowdhury, 2009; Hossain, 2010). Beginning in 2009, the reported completion rate increased rapidly, and reached 79 percent by 2013. Based on our interviews, the only significant explanation offered to explain the post-2008 increase is introduction of the PECE. There are no major post-2008 discontinuities in other factors, such as government spending on education or student/teacher ratio.8

There are good reasons to conclude that the 30-percentage point increase represents little if any improvement in student learning outcomes relative to pre-2009. Grading of the PECE exam is lax. The pass rate has been set at a threshold of 33 percent on student exams, which has generated an average of 97 percent of students who write the test having achieved at least a basic pass over the years 2010-14 (DPE, 2015: 85). The average pass rate range among basic school types is very small (three percentage points). A higher pass threshold of, say, 50 percent would both lower the aggregate pass rate to approximately 75 percent, and reveal substantial differences in student performance across school categories. (See Figure 3.)

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7 UNESCO reports no completion rate estimates for Bangladesh in the 1990s.
8 Bangladesh expenditure data compiled by UNESCO are available only for the years 2006-09 (UNESCO, 2016). Government expenditure per students as a percent of per capita GDP averaged 8.4 percent over the first three years; it declined to 7.8 percent in 2009, the first year of the PECE. The analogous statistics for share of government spending devoted to primary education were 44.5 percent for 2006-08 and 44.7 percent in 2009. The Directorate of Primary Education (2015: 107) admittedly reported a modest decline in average student/teacher ratio between years preceding introduction of the PECE (47.8 over years 2005-08) and after (45 over years 2009-15).
Leaked questions are widely accessible via the internet. The government has tried to take measures to prevent such leaks and claims that this is no longer a major problem. However, a set pattern of questions are used annually, which encourages memorization of answers through coaching and tutoring. The PECE has induced a large increase in private tutoring, much of it based on rote learning and memorization of answers of expected questions. A recent large-scale survey found that 77 percent of parents with children preparing to sit the PECE engage private tutors (CAMPE, 2015: 66-68). Forty percent of these tutors are teachers of the relevant students and 15 percent are teachers from other schools. According to the survey, the average family paid Taka 3970 (approximately US$50) per student over 12 months on items related to sitting the PECE.9

Since 2006, the Directorate of Primary Education (DPE) has sponsored four large-scale surveys of student reading and mathematics performance in grades three and five, surveys conducted by a reputable external research institute (the Australian Council for Education and Research) (DPE, 2014). Unfortunately, changes in test items across rounds prevent direct comparison between the 2006/2008 rounds (carried out prior to introduction of the PECE) and the 2011/2013 rounds. In 2011 and 2013, only 25 percent of grade five students were assessed as working at grade level in reading and writing Bangla; the equivalent statistics for mathematics were 32 percent in 2011 and 25 percent in 2013.

A similar dramatic increase in primary completion rates has taken place in India over the last decade – and concerns about completion rate increases based on erosion of standards are widespread in India, as in Bangladesh (Drèze & Sen, 2013; ASER, 2015). One high profile response in India has been the civil society initiative undertaken by Pratham, an initiative intended to test reading and arithmetic competencies of primary school age cohorts across rural India via annual stratified random sampling using a simple instrument administered in children’s homes.10 Jones et al. (2014) report results from a version of the Pratham instrument adapted for use in three countries of east Africa. Their results indicate similar problems of students certified as having completed a primary education cycle with an unreasonably low average level of acquired competencies in the core subjects of reading and mathematics.

Second only to reduction of hunger, realization of universal primary school completion by 2015 ranked the highest among the UN’s Millennium Development Goals. Realizing MDG2 figured prominently among international donor priorities over the previous decade. The evidence emerging from India, Sub-Saharan Africa – and Bangladesh – is that many national governments have chosen to avoid the political conflicts attendant on tackling principal-agent problems in their respective school systems, and have chosen instead to “game” MDG2. Certifying children as having completed the primary education cycle has become a function of politically imposed target graduation rates.

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9 Expenditures related to sitting the PECE include school-based coaching; private tutoring; transportation for additional tutoring; model tests; buying of guidebooks, suggestions and hand notes; registration for sitting the examination; photograph for registration and transportation to examination centre (CAMPE, 2015: 94-95).

10 See ASER (2015) for the latest annual report.
Agency collusion
The advocates of MDG2 had hoped that reasonable quality “education for all” would intergenerationally eliminate the segmented equilibria long present in low-income countries: a high human capital equilibrium among strata able to purchase private education of reasonable quality for their children and a low human capital equilibrium among strata not able to do so. Santos (2011) has formalized analysis of such multiple equilibria using an intergenerational model of human capital formation in which variable school quality is a key parameter.

In his article laying out a principal/two-level-of-agents model, Tirole (1986) observed that various agents frequently collude, which reinforces their mutual commitment to maintenance of the status quo. In the case of Bangladesh, the informed judgment is that teacher unions accede to illegal payment made by prospective teachers to MPs and officials, and do not protest this practice vigorously. In exchange, teachers unions expect lax monitoring of teachers’ classroom performance and acceptance of teachers undertaking private tutoring of their students.

The motivation of the government in introducing PECE may in part have been to increase hours spent teaching without disrupting conventions about lax monitoring of teachers and private tutoring. Despite PECE’s evident weaknesses as a test of student learning outcomes, teacher unions have acquiesced in it because it has induced parents to demand additional private coaching.

In concluding this section, it is important to emphasize that agents are a necessary feature of large institutions. School systems cannot function without professional administrators and trained teachers. Professional organizations, including teachers unions, may be valuable in establishing minimum teacher qualifications. Schools in the non-government sector may or may not offer superior quality teaching (which we discuss later), but their competition for students with government schools may provide a useful incentive to increase the quality of teaching in both the government and non-government sector.

3. What’s to be done (1)?
At a tactical level, there are many “good ideas” for school reform that the government of Bangladesh can pursue. For example, Making Schools Work: New Evidence on Accountability Reforms (Bruns et al., 2011: ix) is a comprehensive World Bank survey of “the best methods for improving school effectiveness, especially through better information, devolution of authority, and stronger incentives for teachers.” However, the principal-agent problems discussed in the previous section are, in our opinion, sufficiently severe that, unless the government is willing to address them, the prospect for major improvements in school outcomes via tactical reforms is low. If the government is willing to tackle the principal-agent problems, a strategic approach to reform should contain two elements: effective decentralization of school management, and introduction of “low-stakes” core competency assessments of learning outcomes in all schools, government and non-government. Results of such assessments should be widely publicized, disaggregated by school type, by upazila, and ideally by individual schools.
Effective decentralization of school management

The Program for International Student Assessment (PISA) is an ambitious survey of student performance in three subjects (reading, mathematics, and science) at the upper secondary level, conducted at three-year intervals by the Organization for Economic Cooperation and Development (OECD). Worldwide, the total sample of students exceeds 500,000. The 2015 round includes 70 countries: all OECD members plus many others, including several medium- and low-income countries (OECD, 2016a). In addition to surveying students, PISA surveys head masters (school principals) of the sampled schools in each country. In the present round, PISA uses the head master survey results to undertake an extensive comparative analysis of the impact of alternative school governance arrangements on student outcomes (OECD, 2016b: 210-223).

The analysis disaggregates school governance into five functions: 1) decisions on human and financial resources (hiring/firing teachers, setting salaries and school budgeting); 2) determination of curriculum; 3) exercise of student discipline (e.g., attendance); 4) student evaluation (e.g., “high stakes” testing of student outcomes; “low stakes” core competency assessments); 5) student admission. Simultaneously, PISA identifies five administrative levels for potential exercise of each function: 1) school head master; 2) teachers in their school; 3) school governing board (e.g., school management committee for a single school or for a network of local schools); 4) sub-national political authority (e.g., upazila); 5) national education ministry. For each function in each country, PISA averages the head masters’ assessments of the relative importance of each administrative level in exercising each function. Finally, PISA correlates these national averages with national science scores in the 2015 round.11

Table 2: Correlations between National Weight of Administrative Level in Function and National Science Score, PISA2015 (n=70)

<table>
<thead>
<tr>
<th>Administrative Level</th>
<th>Budget and human resources</th>
<th>Curriculum</th>
<th>Student discipline</th>
<th>Student testing and system assessment</th>
<th>Student admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head master (principal)</td>
<td>0.33</td>
<td>0.50</td>
<td>0.31</td>
<td>0.50</td>
<td>0.26</td>
</tr>
<tr>
<td>Teachers</td>
<td>0.13</td>
<td>0.48</td>
<td>0.33</td>
<td>0.24</td>
<td>-0.09</td>
</tr>
<tr>
<td>School management board</td>
<td>-0.16</td>
<td>0.10</td>
<td>-0.12</td>
<td>-0.07</td>
<td>-0.35</td>
</tr>
<tr>
<td>Regional administrative unit</td>
<td>-0.20</td>
<td>0.09</td>
<td>-0.07</td>
<td>-0.01</td>
<td>0.18</td>
</tr>
<tr>
<td>National education ministry</td>
<td>-0.40</td>
<td>-0.64</td>
<td>-0.44</td>
<td>-0.47</td>
<td>-0.23</td>
</tr>
</tbody>
</table>

Source: OECD (2016b: 120)

11 In each round PISA emphasizes one of the three subjects. In 2015, the survey emphasizes science. Hence, the choice of national science performance in assessing the effect of national institutions on education outcomes. The principals’ estimates are not necessarily binary. Principals may indicate joint exercise of a function by more than one administrative level. The national average weight of any administrative level in exercise of any particular function is a continuous variable, ranging from 0 to 1.
What are the results? The strongest correlations (all negative) exist between relative weight of the national education ministry in exercise of the five functions and national science scores. For example, the correlation between head masters’ estimates of the weight of the national education ministry with respect to curriculum design and PISA-assessed science outcomes is -0.64; the analogous statistic with respect to student assessment is -0.47. (See Table 2.) In general, the relative weights of school governing boards and regional education authorities have no statistically significant impacts on national science scores. By contrast, higher weights exercised by teachers on curriculum, student discipline and assessments have a significant positive impact on science scores. Finally, the greater the national weight of head masters in exercise of any function the higher tend to be national science scores. This tendency is strongest with respect to curriculum design and student assessments.

The PISA institutional analysis is a worthy attempt to draw conclusions about best institutional practice. One qualification is obvious: the analysis bears on institutional dynamics at the upper secondary level, which may differ at the primary level. The major qualification, however, is methodological. The analysis comprises a series of bilateral relationships; it does not allow for multivariate interactions. In the case of Bangladesh, national politicians and centrally controlled officials have created serious “adverse selection” effects in the hiring of teachers, which casts doubt on the relevance to Bangladesh of empowering teachers and head masters without simultaneously reforming teacher selection.

Consistent with the PISA analysis, few independent analysts consider ideal a public school system as centralized as that of Bangladesh – a country of 170 million and over 20 million primary students. However, as UNESCO (2015: 214) acknowledges in its 2015 Global Monitoring Report, “decentralization is a highly political process.” An attempt to reform simultaneously the administration of all schools would maximize political opposition by beneficiaries of the status quo. It is probably preferable to take a long-term perspective, to start by designating several dozen upazila in different regions of the country as pilot projects. In these pilot upazila, the MoPME should benchmark present education outcomes and, after five years (the time for a cohort to pass from grade one to five), analyze the change in quality of student outcomes (hopefully large and positive) relative to change in other upazila. Thereafter, extend the exercise.

To illustrate what is entailed in effective decentralization, we sketch the hypothetical allocation of functions necessary to a school system among three levels of administration, school, upazila, and national education ministry:

- **Financing of schools:** Given the highly centralized tax regime in Bangladesh, the national government is the only level able to raise and distribute adequate school funding. However, transfers from Dhaka could be supplemented by inviting upazila to introduce modest tax provisions whose revenue would be directed to local government schools. The Bangladesh taxing effort is low, even by South Asian standards (Le et al., 2012). A local tax dedicated to school financing introduces an element of “tax-
spending coincidence,” a concept often central to policy recommendations in the context of decentralized administration. Requiring a sub-national jurisdiction that spends public funds to raise a share of its budget by taxing residents of the jurisdiction creates a valuable incentive on local residents, in their capacity as taxpayers, to address accountability. The tax should not be in the form of a fee charged to parents; it might take the form of a modest business tax on village storekeepers, and/or a property tax on land owners.

- **Curriculum design:** The implication of the PISA analysis is that school-level agents should exercise considerable discretion in curriculum design and choice of textbooks. There is sensitivity about what may be taught in schools in the context of religious fundamentalism and other extremist ideologies. Guidelines and a judicious approval mechanism of learning materials and curriculum content may be applied.

- **Human resources:** Education research is nearly unanimous on the importance of teacher quality in explaining student outcomes (for example, see Hanushek & Woessmann, 2015). Reforming procedures for hiring/firing and promotion of teachers is necessary, but it is the most controversial dimension of decentralization to implement. It is unrealistic to envision individual school managing committees exercising this function. If *upazila* level officials are to hire on merit-based criteria, monitor teacher performance more closely, and suppress the conventions of under-the-table payment, this will require explicit support from the national government. While this is politically difficult to accomplish, the Rural Electrification Board is perhaps a relevant precedent: a public sector organization that has, over four decades shown an impressive capacity to minimize corruption in its operations.12

- **Certification of primary school completion:** The PECE is an inefficient instrument for exercising this function. Better to return the responsibility for evaluating competencies at grade five to the *upazila* level. Within *upazila*, it may well be appropriate to allow individual schools, or networks of schools, to design their own tests. While introduction of core competency assessments at a national level is a desirable innovation (see below), such assessments should be low-stake; they should not be the basis for certifying student completion of the primary cycle.

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12 The Rural Electrification Board (REB) provides an interesting precedent in Bangladesh for containing the culture of *boksheesh*. The REB operates as a hybrid organization (Vining & Richards, 2016), with a strong central planning administration. But it also comprises approximately 70 semi-autonomous *palli biddyat samitee* (PBS) responsible for distribution of power and collection of revenue within their respective territories. Relative to the state-owned Power Development Board, the PBS have an impressive record of containing “system loss” (i.e., theft of power) and collecting on bills (Nathan, 2006; Ramatullah et al., 2008).
Core competency assessments

Core competency assessments are, in general, low stake assessments of student performance on a few core subjects. The purpose is not to evaluate individual students for the purpose of promoting them or requiring repetition, but to provide an objective instrument for assessing the performance of a school system and elements within it. The 2015 UNESCO *Global Monitoring Report* (2015: chapter 6) notes the increase in national student assessment surveys from 12 in 1990 to 101 countries in 2013, and that the ability to read/write the dominant regional language and perform basic mathematics is the common denominator of these assessments. The use of low-stake testing of students in core competencies at several grades in the primary/secondary school cycle has become a widely accepted practice in many countries over the last two decades.13

To enable comparison of school types and relative performance of *upazila*, it is appropriate that the MoMPE organize core competency assessments on a national scale. The large-scale national student surveys in grades three and five, sponsored by the Directorate of Primary Education provide precedents.

4. What’s to be done (2)?

The assumption underlying the previous discussion is that the national government acknowledge the severity of principal-agent problems and be intent on addressing them. If that is not the case for the foreseeable future, domestic philanthropists and social entrepreneurs, owners of private “low fee” private schools, imams interested in promotion of madrassas, NGOs and foreign donors can attempt to “work around” the principal-agent problems by expansion of non-government school options. The first question is, are such schools likely to improve learning outcomes relative to the status quo.

One way to answer this question is to examine PECE results by major school types. PECE is admittedly a weak basis on which to measure relative performance of school types, but it does provide comparative evidence. Figure 3 illustrates the cumulative distributions, by the four major school types, of PECE results in the large-scale CAMPE survey conducted in 2014. (Average PECE scores by school type are indicated in the legend in parentheses.) Of the 19 million Bangladesh students in primary school in 2015, 18 million (94%) attend one of the four school types illustrated. (See fn4.)

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13 Volante & Earl (2012) usefully summarize the multiple dimensions in design of core competency assessments of school systems.
Based on results of the 2014 CAMPE survey, the average PECE grade in government schools is 62%. Not surprisingly, the average grade in the kindergarten sector is the highest (78%) and its cumulative PECE grade distribution overwhelmingly dominates that of the other school types, especially at thresholds above 70%. The nonformal sector comprises mostly secular schools sponsored by NGOs. Over half the students in this sector attend a BRAC “no-fee” school targeting low-income villages and urban neighbourhoods. The average 2014 PECE grade of schools in this sector is 65%, about three percentage points higher than in government schools. In terms of the cumulative distribution of grades, the nonformal sector dominates the government school distribution at all thresholds except the highest. The weakest school type, in terms of average PECE grade (56%) and cumulative distribution is the madrassas.
In assessing the potential of non-government schools to “work around” weakness in the government sector, much depends on the distribution of additional non-government schools. Based on past history, equi-proportionate expansion of the various nonformal schools will probably introduce a modest improvement; expansion of madrassas will not. In recent years BRAC has launched a network of Shishu Niketan “low fee” schools, targeting families whose incomes, while low, are above the target range for no-fee BRAC nonformal schools (Nahid & Nath, 2014). The expectation is that these schools be largely self-financing. The growth of “low fee” non-government schools is a widespread response in South Asia to perceived inadequacies of government schools.

Future expansion of the nonformal sector – defining it broadly to include “low fee” schools such as those introduced by BRAC – invites a second question: does the generally superior performance of this sector relative to government schools reflect school quality or is it a function of various unspecified factors, such as higher family incomes among families of children in nonformal schools. Ashley and colleagues (Ashley et al., 2014; Ashley & Wales, 2015) have undertaken an ambitious meta-analysis of refereed studies of “low fee” private schools. Relative to government schools, they conclude such schools do on average provide better teaching and improve student outcomes, but they are unlikely to reach the “truly disadvantaged”. Wales et al. (2015: 5) have undertaken a parallel meta-analysis of philanthropic schools, including madrassas. They conclude they do reach the poor and “that students in these schools achieve learning outcomes that are better than, or at least as good, as those of state school students.” However, they emphasize relevant studies are few, and their rigour often questionable.

Based on institutional analyses of Indian schools, the principal-agent problems in India’s government school sector are similar to those we have identified in Bangladesh (Kingdon & Muzzamil, 2009; Drèze & Sen, 2013; ASER, 2015). Hence, assessment of non-government vs. government school outcomes in India is probably relevant to the case of Bangladesh. One of the most rigorous assessments, in the context of rural India, is that of French and Kingdon (2010), using the very large samples generated by Pratham for the ASER annual surveys of rural Indian schools. Overall, the range of non-government schools they analyze corresponds approximately to that in the nonformal sector in the Bangladesh context. Their sample excludes madrassas, a category of less relative importance in India than in Bangladesh. The schools they assess no doubt include relatively more “low fee” private schools than in Bangladesh, and no Indian NGO is as relatively important in primary education as is BRAC in Bangladesh. Controlling for many potentially relevant factors, French and Kingdon estimate a non-government school premium over government school outcomes on the ASER reading and mathematics assessments of about 0.2 standard deviations. The most important control factors incorporated in their analysis are fixed effects for individual households.

A complementary tactic to accompany expansion of the non-government school sector is for an independent agency to undertake regular home-based surveys of student school outcomes.
analogous to those undertaken by Pratham. Indeed, if the Bangladesh non-government school sector agreed to use the Pratham assessment instrument, it would become possible to make a realistic comparison between primary sector outcomes in the two countries.

5. Conclusion
The fundamental argument of this article is that the principal-agent problems present in the Bangladesh education system are sufficiently severe that the country belongs among the set of countries stuck in a low-equilibrium “trap”. Consequently, it is necessary to advance alternate sets of policies: 1) policies based on the assumption that the government is intent on addressing principal-agent problems; and 2) policies to encourage “working around” the status quo and enable sufficient expansion of non-government schools of acceptable quality to generate reasonable options to parents and more competition among providers of schooling. In the first case we propose two key elements to a reform strategy: effective decentralization of school management and conduct of high-profile “low stakes” assessments of core competencies in all school types. Tactically, we propose an incremental approach to reform: choice of a small set of upazila as pilots, and only if they generate respectable results to proceed to wholesale decentralization. In the second case, we propose that social entrepreneurs expand the nonformal sector and “low fee” non-government schools. A useful complement is to organize village-based surveys of core competencies among children in the relevant age cohort.

References


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