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List of abbreviations

AFED	Association of Formidable Educational Development
BDS	Business development services
CSOs	Civil society organisations
DAC	Development Assistance Committee (OECD)
DEEPEN	Developing Effective Private Education Nigeria
DFID	Department for International Development (UK)
EDOREN	Education Data, Operational Research and Evaluation in Nigeria
ESSPIN	Education Sector Support Programme in Nigeria
GAPS	Graded Assessment of Private Schools
GEMS	Growth and Employment in States
GEP3	Girls' Education Project Phase 3
ICT	Information and communication technology
LAPSS	Lagos Annual Private School Survey
LGA	Local Government Area
M4P	Making markets work for the poor
M&E	Monitoring and evaluation
MFB	Micro-finance bank
MoE	Ministry of Education
MSME	Micro, small and medium-sized enterprises
NEDS	Nigeria Education Data Survey
NGN	Nigerian Naira
NGOs	Non-governmental organisations
NAPPS	National Association of Proprietors of Private Schools
OECD	Organisation for Economic Co-operation and Development
OPM	Oxford Policy Management
P	Primary grade
PTA	Parent–teacher association

SEQAS	Specialist Evaluation and Quality Assurance Service
SIS	School improvement services
SPoCAPS	Survey of Parents of Children at Private Schools
TOC	Theory of Change
VFM	Value for money

1 Introduction

1. **This technical report provides answers to each evaluation question asked about the Developing Effective Private Education in Nigeria (DEEPEN) programme on the basis of research conducted by the Education Data, Operational Research, and Evaluation in Nigeria programme (EDOREN) between 2013 and 2018.** DEEPEN is an innovative five-year £9.6 million programme taking a ‘making markets work for the poor’ (M4P) approach to improving education outcomes in private schools in Lagos, Nigeria. It is funded by the UK Department for International Development (DFID) and implemented by Cambridge Education. EDOREN is a five-year programme of research and evaluation on education in Nigeria, funded by DFID and implemented by Oxford Policy Management (OPM).
2. **The purpose of the report is to set out in detail the approach taken to developing and answering the DEEPEN evaluation questions, and providing detailed answers to each individual question at endline.** This is intended primarily for readers seeking methodological detail and completeness. Answering each evaluation question in turn necessarily means some repetition. Readers seeking a more accessible version of the evaluation should consult the companion DEEPEN Evaluation Synthesis report.
3. **Primary and secondary evaluation questions are structured around the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) evaluation criteria (relevance, effectiveness, impact, efficiency, and sustainability).** These questions were agreed with DEEPEN and DFID in 2014. At that point, a detailed methodology for answering these questions was agreed in an evaluation inception report (EDOREN 2014), which was used to inform the DEEPEN evaluation baseline (EDOREN, 2016).
4. **The evaluation questions and methodology were substantially revised in 2016/17, with changes outlined in a revised inception report (EDOREN 2017).** The revisions were made because changes in the context delayed the roll-out of a key component of DEEPEN, and DFID decided, together with DEEPEN and EDOREN, that planned midline and endline surveys no longer represented good value for money (VFM) because it was unlikely that DEEPEN would have led to measurable changes in learning outcomes within the planned research period. This endline report responds to the questions and methodology agreed in the revised inception report.
5. **The most important methodological change is that no quantitative midline or endline data have been collected by EDOREN.** The endline evaluation relies on primary qualitative data collected by EDOREN, existing secondary data, and studies conducted by DEEPEN. This means some evaluation questions cannot be answered at all, and other questions can be answered only to a limited extent. For example, we cannot say anything about whether DEEPEN has led to changes in learning outcomes at scale; we can only present our impressions from qualitative data as to whether changes in schools are likely to have led already – or to lead in future – to changes in learning outcomes. We also have no updated information on the poverty status of those affected by DEEPEN. These limitations were agreed with DFID and DEEPEN in 2017.
6. **DEEPEN has made some impressive progress in several important areas.** DEEPEN has been implemented well in the face of some significant challenges caused by a change of government and a deteriorating economy. As a result of DEEPEN’s activities, there are some promising changes in the way that businesses and government are behaving in relation to private schools: this is impressive. In particular, private schools are now accessing loans and various forms of training from the market, in large part due to DEEPEN’s facilitation. The media are also giving more space to discussions about education than previously. The government is moving toward a more conducive regulatory regime, despite some challenges.
7. **Our overall judgement is that a market systems approach is a plausible model for improving education outcomes in contexts with large low-cost private school sectors.** At this stage, however, we do not have evidence to show that these changes have improved learning outcomes and we judge that

it is too early to tell whether DEEPEN will lead to changes in learning outcomes, or whether these changes will be sustainable. At present, we do not have data to indicate whether a market systems approach is sufficient to substantially improve education outcomes for the very poorest: if this is not the case, this would mean that these types of approaches would need to be complemented by improvements in public education or to integrate public financing for private education.

8. This report is structured as follows:

- Section 2 introduces DEEPEN and provides an overview of the evaluation’s purpose, scope, objectives, methodology, limitations, and governance. It also offers a conceptual framework for the evaluation.
- Section 3 presents answers to the evaluation questions on DEEPEN’s relevance.
- Section 4 presents answers to the evaluation questions on DEEPEN’s effectiveness and impact.
- Section 5 presents answers to the evaluation questions on DEEPEN’s sustainability.
- Section 6 presents answers to the evaluation questions on DEEPEN’s efficiency and VFM.
- Section 7 presents lessons learnt and recommendations.
- Annexes contain the theory of change (TOC) for DEEPEN, the terms of reference for the re-designed evaluation, the revised evaluation matrix, detail on qualitative research methods, and the communications plan.

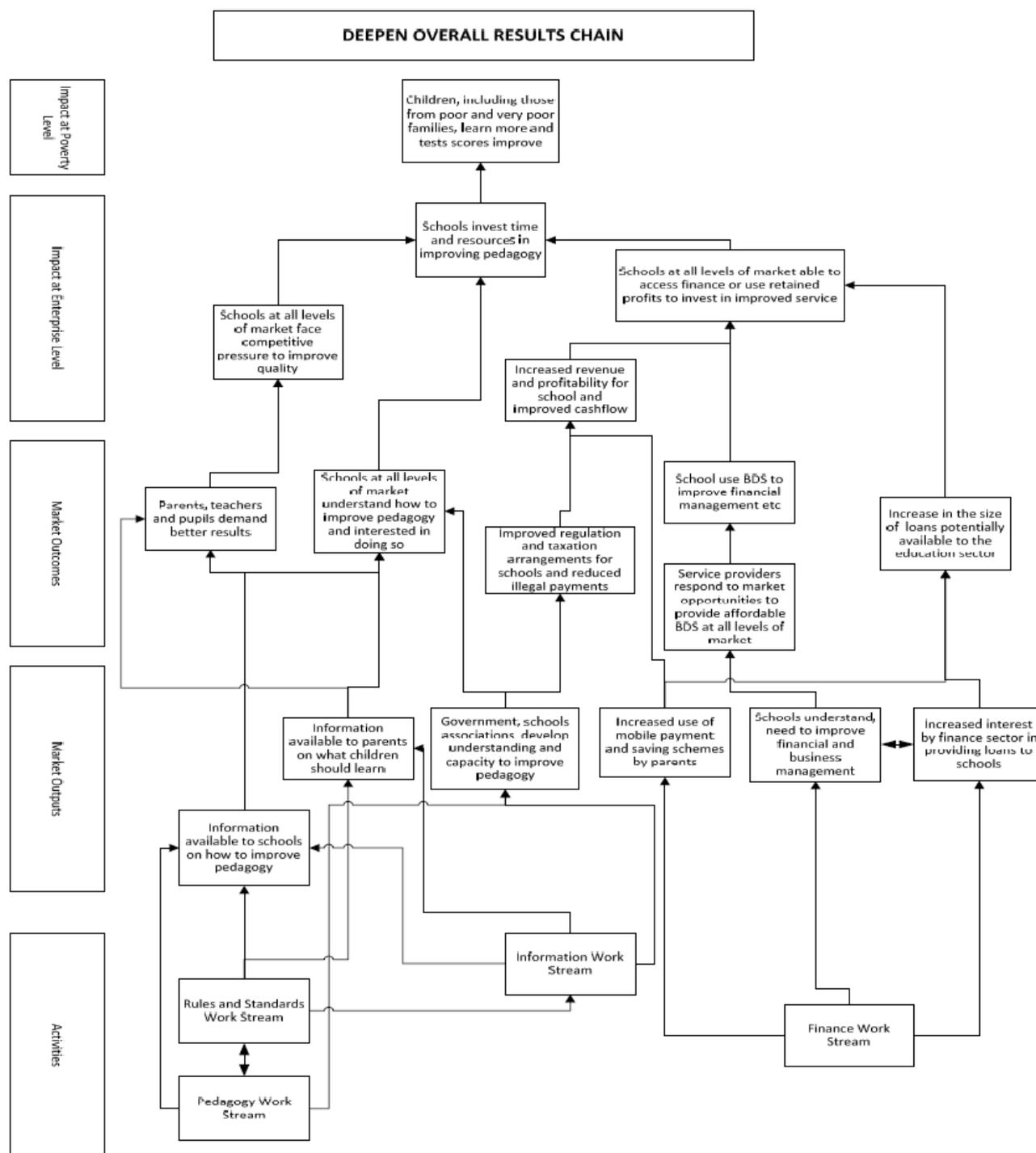
2 Project and evaluation background

2.1 DEEPEN's objectives, scope, and intervention strategy

9. **DEEPEN is an innovative, ambitious programme that aims to improve the quality of education provided by private schools in Lagos.** It responds to growing evidence that a majority of primary-aged children from poor and moderately poor households in Lagos attend private school. At the same time, there has been limited public (or development partner) involvement in private education in Lagos, with both unaware of its scale and importance. As a result, there has been limited measurement of education outcomes in the private sector, and graduates from private primary schools have been excluded from exams. EDOREN (2014) provides a detailed discussion of the background of DEEPEN and Annex A offers detail from baseline on the TOC for DEEPEN and specific interventions.
10. DEEPEN was scoped in October 2011, designed from January to July 2013, and implementation began in September 2013. There was a conscious decision not to directly support any of the schools (an estimated 17–18,000), but instead to improve their effectiveness by supporting changes in the system in which they operate. This followed work carried out in Lagos from 2008 to 2017 under the Education Sector Support Programme in Nigeria (ESSPIN). The scoping and design work noted that the market was functioning, albeit imperfectly. It also noted a risk of harming this system, and opportunities to improve it. DFID decided to adopt a market systems approach to address the core constraints in the private market system, identified during the 2011 scoping as:
- poor and uneven information for parents about school quality and in general about the scale and needs of the private school sector;
 - soft competition among schools due to a growing population that allows poor schools to survive;
 - missing support functions, including access to finance and professional services such as teacher training; and
 - a heavy-handed and non-supportive regulatory regime that forces the majority of schools to operate 'beneath the radar' of the government.
11. The **expected result**, as set out in the business case (DFID , 2013, p. 2), is to 'facilitate change and support innovation in the private education system in Lagos to improve the quality of education delivered by private schools, particularly schools which serve poor children.' Specifically, 'almost 1.5 million girls and boys will benefit from improved learning outcomes...girls will benefit as much as boys and 30% of children with improved learning outcomes will be from households below the poverty line...at an estimated cost per child of GBP12.50.' The learning improvement is expected to be 'a 6% increase in average scores on literacy and numeracy tests by 2020' (DFID , 2013, p. 6).
12. The **intended outcome** is 'better learning conditions and teaching practices in private schools, especially among schools serving poor children, as a result of more investment, better management, better pedagogy and innovation' (DFID , 2013, p. 7). This is focused on primary schools.
13. **In order to achieve this result and outcome, DEEPEN has focused on making the market system work better by addressing constraints in four principal intervention areas, alongside a results and learning component.** The intervention areas are:
- rules and standards;
 - information;
 - finance; and
 - school improvement.

14. **These areas were designed to be mutually supporting.** For example, the graded assessment of private schools that would allow the government to regulate schools in a more nuanced way (and therefore falls under ‘rules and standards’) could also provide information to parents about school quality and to financial services institutions about likelihood of default, and could help schools decide how to prioritise changes and investments.
15. The results and learning component essentially has a dual function. First, it monitors the progress of intervention areas, to enable adaptation as needed. Second, it provides data, information, and lessons learnt more broadly to government, relevant service sectors, and the education development sector.
16. **The TOC connecting the four intervention areas and the desired outcomes and impact** is that:
 - ‘DEEPEN activities increase stakeholders’ understanding of key educational issues, raising their capacity and highlighting incentives to change;
 - at a system level, market players (such as the government, the media, and financial services providers) adapt their behaviour to become more supportive of private education, while increased parental pressure for effective competition provides an additional incentive for quality improvement;
 - at a school level, principals, proprietors, and teachers invest in their capacity to change their practices and create better conditions for learning; and
 - children respond to the improved conditions and achieve better results and outcomes. ((DEEPEN 2014a: 5)’
17. The initial DEEPEN TOC, depicted in the figure below, makes these inter-relations clear.
18. DFID has also provided support to the entry of Bridge International Academies into the education market in Lagos, with 37 schools. This is not covered by this evaluation directly and is the subject of a different piece of research. DFID has also supported a challenge fund in education in Lagos, which is also not covered here.

Figure 1: DEEPEN TOC



Source: DEEPEN Set-Up Report, February 2014, page 6.

2.1.1 M4P typically requires working in interconnected markets

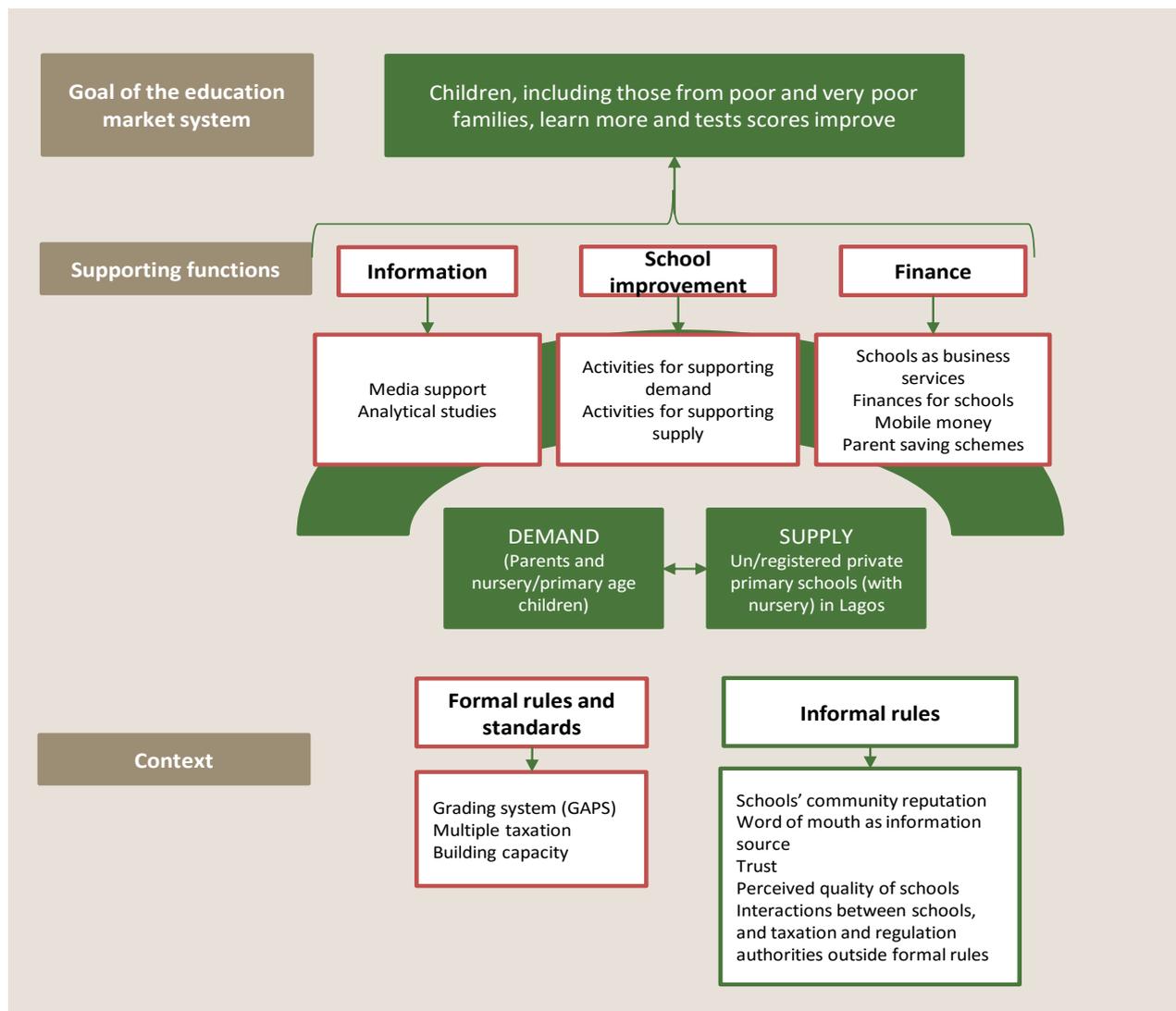
19. **DEEPEN is the first programme in the education sector that uses a market system development approach.** The M4P approach for the private education system in Lagos, as portrayed in the scoping report (Gibson, Barlow, Cunningham, & Härmä, 2011, pp. 6-7), involves the following elements:

- A ‘market system’ *analytical framework*, which is the lens that is used to understand the market. The market system is made up of the following components:

- The core of the market system, the supporting ‘functions’, a set of formal and informal rules, and a set of ‘players’. The core is the central exchange between parents and children demanding education, and schools supplying it.
 - The rules which shape behaviour include formal guidelines and regulations from the Lagos state government and informal incentives and attitudes, including the political economy of education in Lagos State, behavioural norms in schools, and parents’ expectations of education.
 - Supporting functions include information and finance for parents and schools, as well as support services related to school management, pedagogy, teacher training, and advocacy.
 - Players such as approved and unapproved private schools, associations, school owners, teachers, mass media, textbook companies, management development providers, researchers, and various parts of government.
- A set of *principles* around the intervention, which include: i) addressing causes not symptoms; ii) focusing on underlying constraints to achieving larger and longer-lasting impact; iii) treating sustainability as central; and iv) facilitating change among players. These principles emphasise the importance of examining the sustainability of DEEPEN in the evaluation.
20. **For DEEPEN, achieving the goal of improving children’s learning outcomes requires improving market functioning.** Some stylised features of this market (i.e. the market where schools sell education to parents, who buy on behalf of their children) are worth noting. The state and parents – and all concerned educationalists – will normally want the quality of education to be above some minimum level – a minimum that is normally defined and enforced by the state. Schools must find this market commercially viable: they can offer places at this price/quality point while making acceptable levels of profit – potentially quite low or even zero levels if they are philanthropically motivated. For demand to be met, parents must be able and willing to afford school places at this price and quality point. There are many reasons why demand and supply do not clear at any level of quality and particularly above a minimum level of quality, including asymmetric information, lack of access to credit, imperfect competition, and regulatory problems. DEEPEN was designed to set out, analyse, and address priority constraints in this market, including helping the government think more supportively about their role in setting and regulating quality.
21. **DEEPEN also seeks to improve the functioning of supporting functions in the education system, which are interconnected markets in their own right — particularly financial services and various forms of school improvement services (SIS).** These markets are normally business-to-business (with the exception of financial services for parents), though many of the businesses are very small operators. At the start of the programme there was limited provision of services to private schools serving children from poor households, for a variety of reasons, including limited information on both the demand and supply sides. DEEPEN worked on improving both demand and supply in factor markets. The commercial viability of these markets for suppliers – i.e. whether they can sell re-designed services appropriate to this market, at a profit – will depend on (of course) what level of profit they are prepared to tolerate, and price/quality points where these markets clear. From an educational perspective, there should also be a minimum level of quality in the market for SIS – analogous to the minimum level for school quality.
22. **These services markets are also subject to various constraints, many of which are analogous to those in the overall private education market system.** In particular, schools and businesses selling services and financial services have asymmetric access to information, which introduces inefficiencies of various kinds – including information on the number of schools, schools’ willingness to pay for services, schools’ ability to repay loans, and the quality of services that are sold to schools. A key constraint has been the difficult regulatory environment: in particular, the unattainable set of standards developed by the Ministry of Education (MoE), which has forced the vast majority of private schools to operate informally and face the typical obstacles faced by most informal businesses, including difficulties in accessing financial services.

23. Figure 2 outlines DEEPEN’s conceptual framework used at baseline. It will inform the discussion of the DEEPEN evaluation findings.

Figure 2: DEEPEN conceptual framework



Source: EDOREN (2015), DEEPEN evaluation baseline report

24. **DEEPEN’s intervention areas (information, SIS, financial services, and formal rules and standards) are in red outline.** Information, SIS, and finance are the supporting functions of DEEPEN’s market system that enable exchange to happen – addressing failures in markets for school places and related services. The rules and standards are part of the formal rules and regulations of the Lagos state government, which are intended to shape the behaviour of schools and users, and to provide some minimum attainable standards, as well as information regarding priorities for improvement. A crucial aspect was informal rules – cultural attitudes to private education in Lagos, and specifically within government and the complex political economy of the education system, and, within this, private education. It is worth noting that at the time of the initial scoping assessment, the MoE was extremely antagonistic toward private schools, and as a result had been ignoring the scale of the private education system.
25. **The conceptual framework lists specific activities within each DEEPEN workstream that were initially planned.** As one would expect, not all of these were carried out (see below), as the programme and its

intervention designs were refined. For the purposes of clarity we provide detail on these interventions here, grouped by intervention area:¹

Rules and standards

- **Graded Assessment of Private Schools (GAPS).** This was conceived during the design phase as a major DEEPEN intervention, felt by DEEPEN staff and officials in the Lagos government to underpin many of DEEPEN's other activities. With active involvement of, and funding from, the Lagos state government MoE Department of Private Education and Special Programmes, GAPS was developed, piloted in 182 schools, and refined. GAPS gives schools a grade of between one and five stars, and for each star it provides an assessment of 'emerging', 'establishing' or 'enhancing', on the basis of a series of questions around management and governance, quality of learning environment, and quality of teaching environment (see Lagos State MoE 2014). Schools initially assess themselves using the newly developed GAPS form, and the results are validated by government and civil society officials trained and paid by the government.

The results were to be sent to schools and made available to parents and the media directly by the government and on the Lagos government website. GAPS was expected to be rolled out Local Government Area (LGA) by LGA, starting with Ikeja, Ojo, and Alimosho, with the expectation of reaching 13,500 schools within three years. This was not achieved, for reasons we explore later in the report.

- **Multiple taxation.** This has focused on a key constraint raised by schools - research on multiple formal and informal taxes levied on private schools. The work prioritised raising schools' awareness of their rights and obligations in this area, as well as analytical work and support to school associations to advocate for a reduction in the taxation burden. ...
- **Capacity building,** particularly of private school associations to engage in fundraising and networking, to improve their ability to represent members, and to advocate on their behalf, in particular around improving rules and standards for private schools (such as to reduce illegal illicit taxation) and to allow participation of private school students in examinations.

Information

- **Media development for education intervention.** This focuses on technical assistance for media houses to improve their capacity and interest to report on private education, providing information to key stakeholders – parents, school proprietors, service providers, government etc. Also within this intervention area, there was a plan to build a database of information on education in Lagos.
- **Building civil society organisations' (CSOs') capacity to provide information on school quality to parents,** with a focus on supporting parent–teacher associations (PTAs) and sensitising parents on what they should be looking for in, and demanding from, their children's schools.

Finance

To address a key constraint to schools' limited funds: low and irregular fee payments:

- **Mobile money payments.** This intervention aimed to connect mobile money operators with parents to help parents pay school fees more regularly and conveniently, and for schools to reduce transaction costs and improve the predictability and reliability of their cash flow. This intervention was rolled out in a substantial way.
- **Savings schemes for parents.** This intervention aimed to connect parents to the financial sector, to improve their access to affordable services, especially savings products, and to help parents keep their

¹ This text is taken from the original DEEPEN evaluation inception report (EDOREN 2014).

children in school in a context of fluctuating incomes. This intervention was not rolled out in a substantial way.

To enable schools to invest in improvements:

- **Finance for schools.** This intervention aimed to connect schools and financial service providers, first raising awareness among the latter of the scale and potential of this market.
- **Business development services (BDS).** Following findings that (particularly lower-cost) schools have rudimentary business and accounting practices, and the observation that this limits schools' growth potential and access to finance, DEEPEN aimed to stimulate a market for business development and financial management services for schools, rather than intervening directly to provide training. This included building the capacity of financial institutions to provide support to schools, and helping them develop relevant products.

School improvement

- **SIS:** DEEPEN aimed to support improvements in a variety of private school practices hypothesised to translate into better learning environments and pedagogy by stimulating schools' demand for, and service providers' provision of, SIS. As with the business services intervention, this involved supporting providers to develop cost-effective products and building access to information on training through school associations, as well as forming peer learning groups among schools.

26. **DEEPEN's flexibility is a key feature of the programme and has important consequences for the evaluation.** The approach of working through the market (for example, by connecting schools and financial institutions), and of strengthening government supportive regulation (for example, by supporting GAPS), contrasts with 'typical' education programmes that intervene directly (for example, by offering loans to parents or funds directly to schools, as ESSPIN has done). This is designed to improve the sustainability and VFM of DEEPEN's activities, and is very much in line with M4P approaches (see Bano *et al.* 2014 for a discussion of M4P and DEEPEN). It requires flexibility: if the government or private organisations are fundamentally not willing at any point to do something, it will not be done. Market systems approaches also involve monitoring pilots and interventions carefully along results chains in order to adapt, drop, or continue interventions on the basis of evidence. This can require changes to a substantial evaluation – as was indeed the case for DEEPEN.

27. **Several planned interventions presented in the conceptual framework were not completed.** In particular, the GAPS, parental saving, and mobile money schemes, and some other school loan products, were not implemented, for reasons related to changes in context that we explore in the sections on effectiveness. Being adaptive and flexible is at the core of a market systems – and DEEPEN's – approach. A flexible approach may drop activities either because they are tested and found not to work or because the relevant stakeholders cannot be aligned around them (even though the programme may still very much want to carry these activities out). In the latter case, a more interventionist approach might have simply funded and carried out these interventions, but this would likely not have had the sustainability of a market systems approach – and would therefore not have been consistent with DEEPEN's philosophy. We are not saying here whether this is good or bad. For the present purposes of explaining the evaluation approach, the crucial observation is that when planned activities were changed or not completed even though they were desirable this has consequences for DEEPEN's TOC and for the detailed evaluation questions (and related methods) that were designed around them. Specifically:

- The limited roll-out of GAPS substantially reduced expectations that DEEPEN would affect learning outcomes, given the importance of GAPS to DEEPEN's TOC. This led to dropping the midline and endline surveys, and the attenuation of the evaluation's scope and methodology in general.
- The absence of these interventions renders specific evaluation questions about them redundant, as we detail below.

28. The conceptual framework is also designed to clarify the important role context and key players² have in intermediating DEEPEN workstreams.
- The local socioeconomic and cultural conditions of certain areas where DEEPEN operates play crucial intermediation roles. In particular, the local language is an important factor for information activities, as well as any training of teachers. The cultural context also includes the local system of networking and trust between schools and parents. In fact, trust plays a key role in the functioning of schools.
 - Trust is also important when it comes to reliable sources of information, as parents’ social networks and informal sources affect their choice of schools (see Tooley 2013). Informal discourse also impacts schools’ reputations. For example, state schools can suffer from the negative image of being places that teach very poor, illiterate, badly behaved, and untidy children.
 - For the purposes of the finance workstream, context matters – particularly in terms of the shallowness of the market for financial services of any kind (including mobile money), compared to, for instance, Nairobi.

2.2 Purpose, scope, and objectives of the DEEPEN evaluation

29. This section sets out the purpose, scope, and objectives of the evaluation. It presents these as revised versions following the changes made in 2017, noting whether or not they have changed substantially.
30. The original purpose of the DEEPEN evaluation derived from DEEPEN’s novelty and innovation and the related uncertainty around what its impact might be. It was threefold, and has not changed substantially:
- i. To play a ‘formative’ role, helping DEEPEN adjust interventions and approaches during its lifetime. This has been done to a degree – for instance, in encouraging greater focus on poor households and (re)considering (after design) public financing for education – but given the cancellation of the midline work, this was much more the responsibility of the internal results and learning function. At this point in DEEPEN’s development, however, less ‘forming’ is needed, with the exception of future research and learning activities.
 - ii. Providing accountability to DFID as regards whether DEEPEN is achieving its objectives. This is still of value, and perhaps more demanded than ever, but the absence of rigorous evidence on DEEPEN’s impact on learning outcomes will limit the evaluation’s ability to support the accountability of DEEPEN.
 - iii. Learning from DEEPEN for other contexts where non-state schools have a large role in providing education to children from poor households. This implies engagement around the findings with practitioners in these contexts, and ensuring that the evaluation gathers sufficient evidence on the context in which DEEPEN operates, in order to be able to offer lessons that can be applied elsewhere.
31. The key users of the evaluation have not changed:
- i. DFID Nigeria;

² Players are parents and primary age children; private schools (approved), which are more likely to be registered and charge high fees; private schools (unapproved), which can be both registered and unregistered and are likely to charge low fees; government schools, with great support from government on training teachers and engaging school with local communities; various school associations, including the Association of Formidable Educational Development (AFED) (unapproved lower income schools) and National Association of Proprietors of Private Schools (NAPPS) (approved higher income schools) associations; school owners (i.e. proprietors, as well as teachers and head teachers (head teachers sometimes own schools)); national and local mass media (mainly radio); textbook publishing companies; training provision companies; local and state-level governments (responsible for taxation and inspection); banks; cooperatives; religious groups; community members; landlords of school buildings; and programmes other than DEEPEN working in the private and public education markets.

- ii. organisations (primarily DFID) seeking to improve education outcomes through the private sector and M4P approaches elsewhere in the world;
 - iii. the governments of Lagos and Nigeria;
 - iv. DEEPEN;
 - v. international researchers on education; and
 - vi. Nigerian education policymakers and researchers.
32. The original resources for the evaluation came from EDOREN and DEEPEN, at a combined value of £1.93 million, of which £1.011 million was planned to come from DEEPEN’s Monitoring and Results Measurement budget, £420,000 from EDOREN’s budget, and £510,000 additional from DFID. In EDOREN’s April 2017 to March 2018 contract extension, £68,400 was made available to design the DEEPEN endline process, support to DEEPEN surveys, and for management related to DEEPEN’s evaluation. Additional resources – for qualitative fieldwork, and analysis and write-up – came from an additional DEEPEN budget, and DEEPEN contracted EDOREN for £172,360 for this qualitative fieldwork and write-up. The mixture of financing from DFID and DEEPEN introduces important questions for independence, and therefore governance, that we set out in Section 2.4.

2.3 Evaluation design and methods

33. In 2014, EDOREN, in collaboration with DEEPEN and DFID Nigeria, developed an evaluation framework for DEEPEN. The evaluation framework defined the objectives, scope, questions, design, and partner responsibilities of the evaluation. In 2016/17, this evaluation framework was re-designed in the light of changes to DEEPEN’s programming, after a baseline had been carried out. The evaluation focuses on the period 2014–2017. The rest of this section outlines the main elements of the evaluation framework. Subsequent chapters contain more information on the design of the different evaluation components led by EDOREN.

2.3.1 Evaluation questions

34. The original list of evaluation questions was developed based on DFID’s criteria for what to evaluate, the OECD-DAC evaluation criteria, a review of approaches to evaluating M4P programmes, a review of the theory behind DEEPEN and DEEPEN’s TOC, practical considerations of what research was possible, and the needs and interests of DFID, DEEPEN, and the Government of Lagos, articulated through a series of meetings and workshops. This generated a two-pronged approach: i) use DEEPEN’s TOC to assess its contribution to impact, and ii) generate rigorous evidence on the impact of specific components (GAPS) that can be attributed to DEEPEN.
35. The contextual changes described above meant that the second ‘prong’ was no longer possible at all, given the cancellation of the midline and endline surveys. The first prong was strengthened, through the revisions of questions and research activities. Evaluation questions requiring a rigorous assessment of learning outcomes were dropped, and questions on DEEPEN’s impact and sustainability on the market and on scale were added.
36. The way in which the revised evaluation questions are presented is unchanged: evaluation questions are presented by the DAC evaluation criteria, and for effectiveness and impact by DEEPEN intervention area. The revised questions are set out in Annex C.
37. The evaluation questions are not substantially changed, reflecting DFID’s wish to preserve the original questions. Following a presentation to the steering committee in January 2018, DFID indicated that they wished the evaluation to be clearer about the impact that DEEPEN has on the market, so two questions were added. The major changes that have been made relate to the following questions:

- Questions about what impact can be attributed to DEEPEN. These are dropped as they are not feasible. Only questions asking about DEEPEN’s contribution remain
 - Questions that ask about DEEPEN’s impact on learning, both overall and through different components, and in comparison with other programmes. Without the endline survey, these questions cannot be answered with any sort of rigour. In particular, the questions ‘Did DEEPEN achieve the expected 6% increase in average scores on literacy and numeracy tests by 2020, including for girls and children from poor households?’ and ‘How does this compare to achievements in DFID’s other education programmes in Nigeria (ESSPIN and Girls’ Education Project Phase 3 (GEP3))?’ cannot be answered, and are dropped.
 - Questions on improved learning, such as ‘Do observed changes [as a result of specific DEEPEN components] translate into improved learning?’ that can be answered with perceptual data and using non-comparable learning outcome assessments. These questions have been retained but with much weaker evidence available to answer them.
 - Questions on components of DEEPEN that have not yet been rolled out (e.g. ‘Does proactive sharing of GAPS information with parents using report cards affect school choice, and thus the functioning of the private educational market?’) cannot be answered and are dropped or substantially revised.
 - Questions that attempt to grapple with DEEPEN’s impact and sustainability on the market and at scale have been added, as follows:
 - ‘To what extent has DEEPEN led to improvements in the commercial viability of low-cost private schools?’
 - ‘Has DEEPEN led to improvements in the commercial viability of the market for services for low-cost private schools?’
 - ‘Has DEEPEN led to any effects that have “scaled up” to non-interventions schools (i.e. schools that DEEPEN had no direct contact with)? What are the mechanisms that led to such scaled effects? What are the enablers or disablers of these effects?’
 - ‘In what ways has DEEPEN re-shaped the private school market in Lagos? What has been its impact on market institutions, and how has this translated into changed market dynamics? How have any shifts in awareness and any behavioural and attitudinal changes of different market actors affected the behaviour of the market at large?’
38. The indicators used to answer these revised questions have not changed substantially, but the possibility of collecting indicators is much more limited than previously as there are no endline quantitative surveys and DEEPEN is not conducting outreach of learning surveys. Instead, the evaluation matrix relies more strongly on indicators from other DEEPEN surveys. These are set out in detail in the revised matrix in Annex C.

2.3.2 Evaluation design and methods

39. The evaluation plan has been substantially revised due to changes in the research activities, budget, and timing, leading to changes in the evaluation questions.
40. The remaining component of the evaluation (assessment of DEEPEN’s contribution) is still anchored in DEEPEN’s TOC – the sequence and composition of DEEPEN programme activities expected to lead to the DEEPEN desired outcomes. The DEEPEN TOC was discussed extensively in the original evaluation framework, and the theory-based approach has not changed substantially. The key elements of this approach, from the original evaluation framework, are set out in the paragraphs below (for further details see the full framework).
41. Since a counterfactual measure of impact is impossible for the entire DEEPEN programme, the original evaluation framework suggested contribution analysis would be an appropriate methodology for the evaluation (see, for example, Mayne, 2001). Contribution analysis is a theory-based approach for

exploring attribution (cause-effect) questions to assess the performance of government policies and public programmes, when attribution cannot be determined through experimentation. Unlike the quasi-experimental approach, which attempts to prove causality, contribution analysis uses a process of logical argumentation to infer ‘plausible association’ between the programme and a set of relevant outcomes by means of systematic inquiry (Mayne, 1999). It is based on multiple steps and draws on constructing an overarching theory to make sense of the causality between interventions and change, and gradually developing a causal story. It understands causality from the point of view of ‘plausible association’: i.e. a ‘reasonable person, knowing what has occurred in the program and that the intended outcomes actually occurred, agrees that the program contributed to those outcomes’ (cited in Mayne 2001; p. 8). Specifically, the contribution analysis for DEEPEN presented various ‘causal packages’ for each DEEPEN intervention area on the basis of the TOC.

42. However, while the analytical approach to the qualitative data will reflect the principles of contribution analysis set out in the original evaluation framework, the truncated timeline of endline (from July 2017 to March 2018) limited our ability to set out robust contribution stories, as well as plausible alternatives, and to go back to the stakeholders to revise these. The ‘causal packages’ we identify as part of this process are therefore more conjectural in nature than was originally anticipated, even though an iterative analytical process allowing us to refine findings with stakeholders’ input was sought whenever possible.
43. We carried out a theory-based analysis in which we assessed DEEPEN by following its TOC and gathered data on the key assumptions and context, as well as expected outputs and outcomes. In this way, following, for example, Cartwright and Hardie (2012), the evaluation is able to argue that DEEPEN has led to certain outcomes, provided there is evidence on the assumptions, context, and outputs.
44. The TOC disaggregates the results chain into each of the four DEEPEN activity streams (‘activities’), while highlighting each step on the ladder to DEEPEN impacts: ‘children, including those from poor and very poor families learn more and test-scores improve’. The final step before impact (which was not measured) is that schools invest time and resources to improve their pedagogy. From each activity stream, the results or causal chain works through market outputs, via market outcomes and the types of school-level changes and responses that are conducive to learning outcome improvements.
45. The evaluation used (primarily) qualitative data to conduct what White (2009) calls ‘rigorous factual analysis’ to examine whether the expected links in the causal chains hold.
46. This theory-based analysis asks: ‘Why did this impact occur? Did this activity lead to this output, to this outcome, to this impact? And were the assumptions valid over time (i.e. is the context as we assumed it was)?’
47. Our theory-based evaluation of DEEPEN still follows six principles (White, 2009), and the text below summarises our approach to operationalising them:
 - **Map out DEEPEN’s causal chain.** This was done in the evaluation framework, *ex ante* review, and baseline report, and the causal chains were developed in various DEEPEN revisions to the DEEPEN TOC.³ During the endline, we relied on this mapping of causal chains, based on the DEEPEN intervention-level results chains contained in Annex A, in our analysis of the outputs and outcomes of the programme, presenting evidence to assess whether the links in the chain have held.
 - **Understand context.** Again, the three initial EDOREN studies and DEEPEN’s annual reports and annual reviews offer some understanding of the evolving context, shedding light on some of the contextual evaluation questions. The original evaluation framework anticipated an iterative approach to understanding context – checking which aspects of the context were relevant to DEEPEN’s TOC and

³ Annual reviews recommended that DEEPEN strengthen their results chains, and these were used as a basis for mapping causal chains.

gathering information on them. This was considered important, particularly in order to generate lessons relevant to other contexts. This is still important. The revised evaluation approach retained this iterative process, which in practice meant assessing changes in context from recent reviews and reports and interviews, and exploring further as necessary.

- **Anticipate heterogeneity.** The EDOREN baseline and Primary Grade 4 (P4) studies show that different school types and children from different socioeconomic backgrounds perform substantially differently in terms of learning outcomes and school performance. The original framework raised concerns that children from poor households may be adversely affected by DEEPEN if schools raise fees or lose trained teachers. This remains a focus of the evaluation – principally now through qualitative research.
- **Rigorously evaluate impact using a credible counterfactual.** This did not take place following the cancellation of the midline and endline surveys.
- **Conduct vigorous factual analysis.** This was applied across DEEPEN’s causal chain for every DEEPEN component. The original framework envisaged looking in more detail at components judged to be ‘more significant’ by stakeholders in terms of contribution to impact – this was the planned survey on GAPS. Given the constraints relating to GAPS roll-out, we do not focus on any single component.
- **Use mixed methods.** In the revised design, the existing quantitative DEEPEN surveys are combined with qualitative instruments. Since the planned DEEPEN outreach and Logframe Surveys in 2017/2018 were cancelled, earlier plans to make this process iterative at the level of design had to be dropped. There remains iteration between the quantitative and qualitative strands of the evaluation, in terms of drafting qualitative questions and designing approach on the basis of existing quantitative information, and there were joint workshops to combine the results from different data sources for each question.

2.3.3 Data sources

48. The revised evaluation questions have been answered by drawing on work already conducted and planned by EDOREN, DEEPEN, and DFID. Where relevant, the evaluation draws on additional secondary sources of information. The planned work is discussed in more detail below.
49. For reasons discussed above, several research activities planned when the evaluation was designed did not take place. These were:
 - the Monitoring Learning Achievement, Survey of Parents of Children at Private Schools (SPoCAPS) and Lagos Annual Private School Survey (LAPSS) (and school census) in 2016 and 2017. Annual Logframe Surveys replaced SPoCAPS and LAPSS;
 - a DEEPEN learning outcome survey planned in 2018, and a DEEPEN outreach survey planned in autumn 2017;
 - diaries kept by school managers (managed by DEEPEN). These were relevant for detailing interactions with government and demands for payments; and
 - qualitative evaluation fieldwork in 2016 (managed by EDOREN).
50. The evaluation relied on four types of data sources (set out in more detail in Section 9):
 - EDOREN documents, including the evaluation frameworks (original and revised), baseline report, comparison of private and public schools in Lagos, and review of the M4P design;
 - DEEPEN documents, including Logframe Surveys, studies, and datasets around some of the DEEPEN interventions (the CSO intervention under the information workstream, tax sensitisation, Accion Bank loans, GAPS, SIS, and BDS), research (on schools and land tenure, peer-to-peer (P2P) and parental default on school fees), and quarterly and annual reports.
 - DFID documents, including the DEEPEN business case and annual reviews; and
 - qualitative research conducted by EDOREN in 2017/18, which we explain below.

2.3.4 EDOREN qualitative research (2017/18)

51. This section summaries the approach to qualitative research undertaken for the endline. Further details are contained in Annex D.
52. As a result of the changes to the evaluation framework, several strands of qualitative work were undertaken for the qualitative data collection and analysis in late 2017/early 2018. These strands reflected the multiple evaluation aims that had been identified in the original evaluation framework and those aims that had arisen during the course of the programme, including:
- understanding the detailed trajectory of the programme, its various interventions, the reasons behind dropping/introducing specific interventions, and responses and adaptations of the programme to external shocks;
 - mapping causal pathways to impact on school improvement among schools that have been exposed to DEEPEN;
 - understanding any mechanisms that might lead this impact to ripple through to other private schools in Lagos, and the ways such mechanisms interact with political, economic, and cultural contextual factors; and
 - identifying the limitations of DEEPEN, and attempting to disentangle any inherent limitations of the M4P model from DEEPEN-specific limitations.
53. These four aims were newly relevant because we no longer had access to quantitative information on whether learning outcomes have improved. The four strands help us identify scaled, ‘system-level’ consequences of DEEPEN, which is relevant to questions of relevance, effectiveness, impact, and sustainability. They do not allow us to address all the original evaluation questions listed in the EDOREN evaluation framework (2015), however. In particular, some of the research questions related to impact, effectiveness, and sustainability could not be answered through a qualitative approach alone and will need to be dropped, as reflected in the revised list of research questions in Annex C.
54. In order to illuminate these areas of inquiry, we conducted qualitative fieldwork with the following groups, for which specific research instruments were developed in line with the evaluation’s research questions:
- children in private schools (interviews);
 - parents of children in private schools (focus group discussions and interviews);
 - teachers in private schools (interviews);
 - proprietors of private schools (interviews);
 - DEEPEN staff (interviews);
 - government staff (interviews);
 - DFID staff (interviews);
 - key education experts in Lagos (interviews); and
 - representatives from media, school improvement service providers, and financial institutions (interviews).
55. Informed consent was provided by all participants and anonymisation has been maintained for all individuals and organisations that have contributed to the evaluation.
56. These groups formed four strands of evaluation. A detailed list of research questions, which highlights changes to the list included in the original evaluation framework (EDOREN, 2015), can be found in Annex C.

57. The data analysis techniques deployed by the evaluation team changed as a result of the evaluation redesign as well. Triangulation was no longer possible between qualitative and quantitative endline data, as originally planned. While this has inevitably meant that the process of interpreting the qualitative data was more “subjective,” measures were taken to maintain the rigour, transparency and reproducibility of the analytical process. These included:
- a. **Triangulation:** this remained the main analytical technique in spite of the limitations generated by the evaluation redesign. Instead of triangulating between endline qualitative and quantitative data, the team focused on triangulating qualitative data drawn from different strands of the qualitative endline (for example, comparing insights derived from school-level fieldwork in Strand 1 with insights from experts and government officials) as well as triangulating with secondary sources (including the baseline evaluation, DEEPEN’s internal monitoring and evaluation and published literature).
 - b. **Iterative instrument design:** to counteract possible sources of bias in the design of research instruments, semi-structured interviews were used throughout the endline evaluation strands, allowing for flexibility in the questions asked of respondents. This allowed for research instruments to evolve as different strands progressed: questions were added or taken away in response to emerging insights from individual evaluation strands as well as from feedback received from enumerators. This iterative design informed the analytical process as well, as insights obtained from continuously refining the instruments were helpful in the process interpreting the data as well.
 - c. **Reflexivity:** during the process of training enumerators in Lagos, as well as throughout the analytical process by the EDOREN team, potential sources of bias were identified and openly discussed among the team members working on the project. Daily debriefs were held during fieldwork in Lagos at which emerging biases were discussed and recorded for the purposes of later analysis.
 - d. **Rigorous coding:** the evaluation team coded the data using a comprehensive set of codes reflecting the different research questions using NVIVO. The coding was done collaboratively by several researchers who engaged in an iterative process of compiling a list of codes. In some cases transcripts were coded more than once by different researchers. All the transcripts, codes and fieldnotes were retained and can be used to verify (and reproduce) the analytical process the research team engaged in.
 - e. **Collaborative analysis:** the team members involved in analysing the data brought different experiences to the process. Some of them participated in the fieldwork, some did not. The interpretation of data was subject to extensive conversations between different team members, which ensured that none of the findings were arrived at as a result of an individual subjective judgement.
58. While these techniques cannot fully eliminate bias from the process, they allow for a great degree of transparency in the process and make it possible for the findings of the report to be verified independently if necessary.

2.3.5 Quantitative methods

59. The quantitative analysis methodology involved reviewing reports produced by DEEPEN and the data (tables) contained within these reports. In addition, some external, non-DEEPEN sources were used. These included data from the two ESSPIN-supported Lagos private school exercises in 2010 and 2012, the Lagos State 2016 private school Annual School Census, and the 2010 and 2015 Nigeria Education Data Surveys (NEDS) for 2010 and 2015.

60. The only micro (raw) data which were made available by DEEPEN were the Logframe Surveys for 2016 and 2017, as well as the tax sensitisation data. The analysis of the Logframe Surveys used the head teacher and parent questionnaire, which provided more detailed information on school and parental activities. This data were analysed to provide some additional information which was not presented in the existing DEEPEN reports. The analysis comprised mostly cross-tabulation of the variables of interest – in particular, for parents’ decision regarding school choice and sources of information.
61. In most cases, the results from like-for-like questions in 2016 and 2017 were compared, to monitor the change in response over time. Similarly, like-for-like questions were compared over time for the two NEDS surveys.
62. It should be noted that in the case of the two DEEPEN Logframe Surveys the sample sizes were very small, especially when cross-tabulations were presented, limiting the conclusions which could be drawn.
63. Where no micro data were made available, key figures were extracted from published DEEPEN reports and presented without further checking. These included Annual Reports and various case studies.

2.3.6 Limitations to the methodology

64. There were limitations to the original evaluation approach, which were summarised in the inception and baseline reports. The revised evaluation design has some very significant additional limitations.

Table 1: Limitations of the revised evaluation

Limitation	Why this is limiting
Inference beyond the selected research sites is limited.	While DEEPEN is examined at multiple levels of the education system, the findings of the research reflect the particular LGAs and schools selected. This can be mitigated to some extent by purposively selecting the research sites; however, there remains a risk that the findings are affected by the choice of LGAs and schools.
Given the non-representative nature of the qualitative selection of districts and schools, the information provided will be indicative.	The qualitative component of the evaluation offers nuanced first-person accounts of people’s perspectives and experiences of the DEEPEN activities, without claiming that these accounts are representative of similar parents’ and schools’ experiences. When considered together with the representative quantitative results, the qualitative findings provide interesting perspectives on underlying issues and factors that can determine the success of a programme such as DEEPEN.
The qualitative part of the evaluation covers all four outputs of DEEPEN and four evaluation criteria. It is thus very large in scope, which leads to a smaller sample than in a simpler design approach.	The breadth of the DEEPEN components implemented at multiple levels necessarily puts constraints on the ability of the qualitative research to analyse the impact of each component in-depth. Nevertheless, the qualitative data generated during the key information interviews and focus group discussions, taken together with the quantitative findings, offer a basis on which to draw conclusions about areas of strength and weakness in the DEEPEN programme.
The evaluation was initially conceived as a mixed-method design; now, the scope is much reduced.	The evaluation was originally conceived of as a mixed-methods design. The qualitative strands are now attempting to answer some questions that were originally to be answered with a combination of qualitative and quantitative analysis. What this means in practice is that while we still have insights in relation to these questions, we are not able to attribute causality and any causal links we suggest are speculative. And, crucially, it also means that we cannot say anything about learning outcomes.

2.3.7 Evaluation timing

65. The timing of the evaluation has been shortened slightly due to DFID’s information needs and the end date of EDOREN’s contract, which is at the end of June 2018. The original timing was from 2014 to July 2018, and this has now been shortened to June 2018. This is before the end of DEEPEN, which is slightly problematic for the assessment of sustainability, as we discuss below.

2.3.8 Inclusion and ethics

66. Our approach to ethical research is unchanged.

67. Conducting qualitative and quantitative fieldwork requires high ethical standards to ensure that expectations are not raised, confidentiality is maintained, and respondents are never forced to participate or encouraged to speak about subjects that may be traumatising (especially for children). The evaluation team drew on its experience of conducting qualitative and quantitative fieldwork, including with children, to ensure that these standards are met, to seek further review where appropriate, and to adhere to ethical protocols in line with the OECD-DAC principles of accuracy and credibility. Fieldwork conducted by the EDOREN team was subject to internal OPM and Nigerian ethical research signoff.

68. An important consideration, for both adults and children, when seeking their participation in research, is to ensure that they understand exactly what is being done with the information they have provided. The evaluation team followed a set of ethical principles in conducting all the fieldwork that has been

developed based on experience as well as adapted from the Young Lives research ethics guidelines,⁴ which draws from existing literature on the governance of social research⁵, as well as existing protocols for the protection of children from abuse.⁶ The ethical principles are as follows:

- **Informed consent:** This means that potential respondents are given enough information about the research and researchers ensure that there is no explicit or implicit coercion so that potential respondents can make an informed and free decision on their possible involvement in the fieldwork. This permission was sought from both the primary caregiver as well as children themselves.
- **Anonymity:** Given that research respondents share considerable amounts of personal information, it is EDOREN's responsibility to ensure that their confidentiality is maintained and personal information is protected for qualitative fieldwork, and DEEPEN's responsibility to ensure confidentiality for surveys that it conducted. This has been operationalised by ensuring that all data sets are anonymised, in the sense that all names of respondents and other potentially identifying and personal data, such as phone numbers or addresses, are removed before the data are shared publicly.
- **Ensuring the safety of participants:** This means that the environment in which the research is conducted is physically safe. The impact evaluation team achieved this by ensuring that the fieldworkers were local to the areas in which they were assigned. In addition, fieldwork supervisors supported the fieldwork manager in monitoring local security concerns.

2.3.9 Ethical considerations when working with children

69. The following ethical principles are particularly relevant when working with children:

- **Is the participation of children genuinely necessary?** Is participation strictly necessary to meet the needs of the research enquiry?
- **Recognising that child participants are vulnerable:** The exercise should be carried out with full respect – for example, children can easily be treated as inferior and such power dynamics need to be understood and purposefully mitigated in planning and implementation by researchers, enumerators, and facilitators.
- **Ensuring that the consent of appropriate adults (parents, head teacher) is sought for a child's participation:** This is in addition to ensuring that the child gives their own informed consent to take part (is happy to do so and is not coerced in any way). Children's participation in research must be fully informed and children must also be free not to participate.
- **Ensuring confidentiality, except in circumstances where a child discloses information about a serious child protection concern:** In this case the researchers may need to act (reporting, providing immediate protection).
- **Ensuring the safety of child participants:** If children's safety is in any doubt, at any stage, the activity should be halted.

2.3.10 External validity of the findings

70. Learning from DEEPEN for other contexts is an important objective of the evaluation. However, as a result of changes to the evaluation design, our ability to do this in a robust way is limited. The external validity of evaluation findings is largely dependent on the ability of the evaluation to develop a sufficiently 'thick' description of context in Lagos – and therefore being able to make inferences about the potential applicability to other contexts. This was anticipated to come from three rounds of qualitative and quantitative research, which would include gathering substantial data about contextual

⁴ Young Lives (2011) *Research Ethics*. Young Lives Method Guides.

⁵ Economic and Social Research Council (2010) *Framework for Research Ethics*. Economic and Social Research Council.

⁶ Save the Children (2003) *Child Protection Policy*. Save the Children Alliance.

factors and alternative explanations for detected changes in outcomes. This was not possible with the stripped down evaluation design. Furthermore, the diversity of contexts in Lagos from which data were collected was more limited than anticipated. This all reduces the ability to learn for other contexts.

71. Nevertheless, we contend – and detail further in the lessons learnt section – that many of the findings set out below are valid for other contexts, with suitable interpretation and care. For example, the points about the sensitivity of programmes to economic and political context are valid elsewhere, as are the reflections on the role of public funding in education.

2.4 Evaluation process and governance

72. The evaluation relied more than anticipated on DEEPEN-generated information and on DEEPEN funding, which meant that the governance arrangements needed to be updated to ensure the independence of the evaluation. These arrangements were overseen by DFID and are transparent.
73. The evaluation was managed by EDOREN, led by Ian MacAuslan, with other team members being Shweta Bahri, Alina Lipcan, Allan Findlay, Monet Durieux, Mo Adefeso, and Peter Sutoris.
74. A memorandum of understanding between DEEPEN and EDOREN was updated through a contract. The update made explicit that DEEPEN had no editorial control over the evaluation findings and must share meta-data and data, as well as final reports, so that EDOREN can scrutinise their robustness. EDOREN and DEEPEN held regular calls to ensure this was the case.
75. DFID’s oversight of the evaluation was unchanged from baseline. The evaluation team reported to the DFID Nigeria education team on progress toward evaluation objectives through regular EDOREN quarterly written reporting to DFID, and six-weekly verbal project management updates. Any disputes over independence or editorial control were settled by DFID’s education adviser, with advice being given by DFID’s evaluation adviser. Key evaluation products (thus far, the inception report and baseline, and, now this technical and the companion synthesis endline report) were subject to quality assurance by DFID’s Evaluation Quality Assurance and Learning Service.
76. The evaluation steering committee remained in place, and was reactivated to recommend the adoption of the revised arrangements in December 2017. This comprises DFID Nigeria education and results staff, DFID private sector staff, DEEPEN and EDOREN staff, and a representative from the Lagos state government. The next meeting would be in June 2018 to discuss draft results.
77. The updated governance arrangements are designed to underpin the evaluation’s independence. The original evaluation framework pointed out that the close relationship between EDOREN and DEEPEN, and the role of DFID as both guarantor of independence and funder, gives rise to concerns. Our approach to mitigating these concerns is to: 1) develop all evaluation outputs independently within EDOREN, building on OPM’s reputation for rigour and independence, 2) ensure all evaluation outputs are peer reviewed by independent researchers (in this case Lee Crawford and Sarah Barlow), and 3) ensure data and analytical approaches for both quantitative and qualitative data are publicly available for scrutiny, with appropriate confidentiality safeguards to protect respondents.

2.5 Stakeholder engagement and communication

78. The revised evaluation questions and plan do not imply substantial revisions to the stakeholder engagement and communications, or to the key users (DFID Nigeria; organisations (primarily DFID) seeking to improve education outcomes through the private sector and M4P approaches elsewhere in the world; the governments of Lagos and Nigeria; DEEPEN; international researchers on education; and Nigerian education policymakers and researchers.)

79. The original approach was designed to ensure ownership of the findings by key users and that the evidence generated would be used. So far, DEEPEN have been responsive to the findings (for instance, in considering how to ensure poor households are effectively covered), DFID has had strong ownership of the results, and the government has been interested in the findings (for example at the Lagos private school conference organised by DEEPEN). Potential users from other contexts have also been very interested in the results.
80. This section does not repeat the text from the original framework, which still applies. It focuses on what we have done to build on this foundation to ensure engagement and communication of our key users. We have done to the following:
- We have held regular discussions with DEEPEN’s Monitoring and Results Measurement lead. DFID education and results advisers were invited to these once a month during the evaluation redesign phase. The purpose of these meetings was to agree the revised evaluation approach, share updates on the progress of the evaluation and the programme, and to raise and address any concerns.
 - We have worked iteratively with DEEPEN and DFID to agree the revised evaluation approach, including sharing drafts of the terms of reference and sections of the evaluation framework revisions. We received comments and organised calls to discuss and agree the final approach.
 - We held a meeting of the steering committee (DFID, DEEPEN, EDOREN, and the Government of Lagos) in January 2018 in Lagos to review and agree the final revised approach.
 - We have agreed the communications plan (in Annex A) that sets out final evaluation products and engagement strategies, together with DEEPEN and DFID. This has not substantially changed from baseline, but we now do not believe that an academic article in a top ranking development economics journal is possible, given the methodological constraints. We could explore publication in high-impact education journals, but see this as outside the scope of the evaluation.
 - We have conducted, via EDOREN centrally, follow-up on the impact of the engagement strategy and communications plans.

3 Relevance

81. This section explores whether DEEPEN is suited to the priorities and policies of poor households and children in Lagos, the Lagos state and Nigerian federal governments, and DFID. The answers are organised around the primary evaluation questions outlined in the box below, and secondary questions are detailed in each section. We answered these questions in the DEEPEN evaluation baseline report, which discussed whether DEEPEN was relevant when it was designed. This report reiterates and updates those conclusions to also assess whether DEEPEN is still relevant today.

3.1 Methodology

82. Answers in this section rely on a combination of analysis of empirical data from endline fieldwork in Lagos in November–December 2017, baseline findings from 2015/16, DEEPEN’s internal monitoring and evaluation (M&E), and secondary literature, including research conducted on private schools in 2018 and 2016. This is in line with the agreed revised evaluation framework.

83. At baseline, DEEPEN’s relevance was explored using a mixed-methods approach. A quantitative survey covering 300 private schools, including a mix of low-, medium- and high-fee private schools, was conducted in four LGAs in Lagos. This survey included interviews with head teachers, school proprietors, teachers and parents, testing pupils at Primary Grade 2 (P2), and classroom observations. This was supplemented by school-level qualitative research, which conducted focus group discussions with parents, teachers, and children, in addition to community interviews and classroom observations. The baseline was supplemented with a research study in 2016 comparing learning outcomes for P4 students between public schools and low- and medium-fee private schools in Lagos. The baseline and Lagos public/private school study have been drawn on to respond to questions on relevance below. In addition, the endline qualitative research also explored whether DEEPEN remains relevant at this stage, toward the end of the programme.

84. It is worth stressing that the questions in this section are not about DEEPEN’s effectiveness and impact but about the relevance of its design to the changing context in Lagos. This requires some careful disentangling of which changes are caused by DEEPEN (and so are evidence of impact) and which changes are exogenous to DEEPEN (and so something to which DEEPEN needs to adapt). Throughout the analysis, we highlight where this needs particularly careful attention.

85. The questions in this section that address the relevance of M4P to education rely on a dialogic, iterative analytical process in which the expected outcomes contained in DEEPEN’s TOC were confronted with the outcomes found empirically by the evaluation team. The differences between the expected outcomes and those identified by the evaluation were then analysed by identifying the likely causal chains that led to them. This included assessing the relative contribution of contextual factors (including political and economic conditions that impacted on the implementation of the programme), the extent of the programme’s adherence to its design and underlying philosophy, and any inherent limitations in the design. Disentangling these factors conclusively is not possible, especially in the absence of quantitative data, but through a careful process of juxtaposing insights from several evaluation strands as well as outside sources, it is possible to gain meaningful insights into the relevance of M4P to education. These insights come primarily from understanding causal pathways identified in the analysis of data in which contextual factors specific to the time and space in which DEEPEN operated were not identified as decisive in facilitating or hampering impact. In other words, if after taking the contextual factors into consideration it appeared that any aspect of the underlying approach of M4P accounted for impact (or lack thereof, where it was expected), and this result could be verified through triangulation of different evaluation strands and secondary data, where available, the evaluation team interpreted this as a result that is generalisable beyond DEEPEN.

Summary answers to evaluation questions	
Are DEEPEN's assumptions about primary education correct?	DEEPEN's assumptions about primary education in Lagos appear to be, for the large part, correct. They were found to be relevant at baseline and continue to be so at the endline as well. There are some specific areas, such as demand for SIS, mobile money and factors influencing school choice, where evidence has emerged that markets are less amenable to change than was originally anticipated. Finally, while learning levels are perhaps better than was originally anticipated, they still leave room for improvement.
Do DEEPEN's approach and design still address the most pertinent educational challenges facing primary-aged children in Lagos?	DEEPEN's approach and design, focusing on improving the functioning of the market for education in Lagos, in order to improve the quality of education, addresses a pertinent educational challenge since the majority of primary-aged children in Lagos are in private schools where levels of learning could be improved. A market systems approach is a sensible way to improve the functioning of the market. DEEPEN explored potential options, such as vouchers, during the design and implementation phases, and (quite reasonably) found them to be impractical at that time. However, in our judgement, it is plausible that the education of the poorest children will, in the long run, need continued and substantial public funding, in addition to the improvements to the market that DEEPEN has started to bring about. This does not contradict the design of DEEPEN, or its market systems approach.
Is DEEPEN's approach coherent with the broader policy environment in Nigeria and Lagos?	At baseline, a conclusion was reached that DEEPEN was coherent with the policy environment. The programme's aim of providing a more supportive regulatory environment for private schools was deemed to be in line with the government's recognition of the role of private schools in the state and its desire to welcome donor support to the sector. None of the education policy shifts since the baseline call this conclusion into question and DEEPEN can still be considered consistent with the wider policy environment.

3.2 Are DEEPEN's assumptions about primary education correct?

86. This evaluation question has 13 secondary questions. We organise the sections below around these secondary questions. Each question is covered in terms of the validity of the assumptions at the time when DEEPEN was designed (derived from the baseline report) and today (derived from qualitative fieldwork and secondary reports). In the analysis that follows, we group the questions as they appear in the box below.

Secondary evaluation questions on DEEPEN's assumptions on primary education	
Learning outcomes	
1.	To what extent are learning outcomes and school quality in (low-cost) private schools low and perceived as low by parents?
2.	Are the learning outcomes of children in (low-cost) private schools better or worse than those of children in government schools in Lagos, and are they perceived as such by parents?
3.	Does school quality correlate with the cost of the school?
SIS	
4.	To what extent are the learning conditions and practices in (low-cost) private schools inadequate?
5.	Is poor learning in (low-cost) private schools driven by pedagogy and classroom conditions or by other factors (curriculum, materials, fellow students, etc.)?
6.	To what extent are investment, management, and innovation in (low-cost) private schools inadequate?
7.	Do (low-cost) private schools want to invest in professional SIS to improve the quality of the education they provide (while remaining low-cost)?

8. Is there a viable market for school improvement providers providing SIS to low-cost schools?

Information

9. Do parents lack information about school quality and/or find it difficult to interpret such information to make a decision about school choice?

10. Do parents make decisions between private schools based on quality?

Finance

11. Is there a viable market for financial service providers providing financial services to low-cost schools and low-income parents?

Rules and standards

12. Do (low-cost) private schools care about rules and standards and parents' opinions about these when making investment decisions?

13. Does the regulatory regime prevent (low-cost) private schools from investing and improving quality?

3.2.1 To what extent are learning outcomes and school quality in (low-cost) private schools low and perceived as low by parents?

87. **To answer these questions we draw on three sources of learning outcomes data (from 2018, 2016, and 2014), as well as on qualitative data collected in 2018 and at baseline in 2014.** These data are set out in Box 1 below.

88. **Learning outcomes in private and public schools Lagos appear quite good in relation to the curriculum.** This is confirmed by all three data sources. We explore the detail of this conclusion below.

Box 1: Learning outcomes data for private schools in Lagos

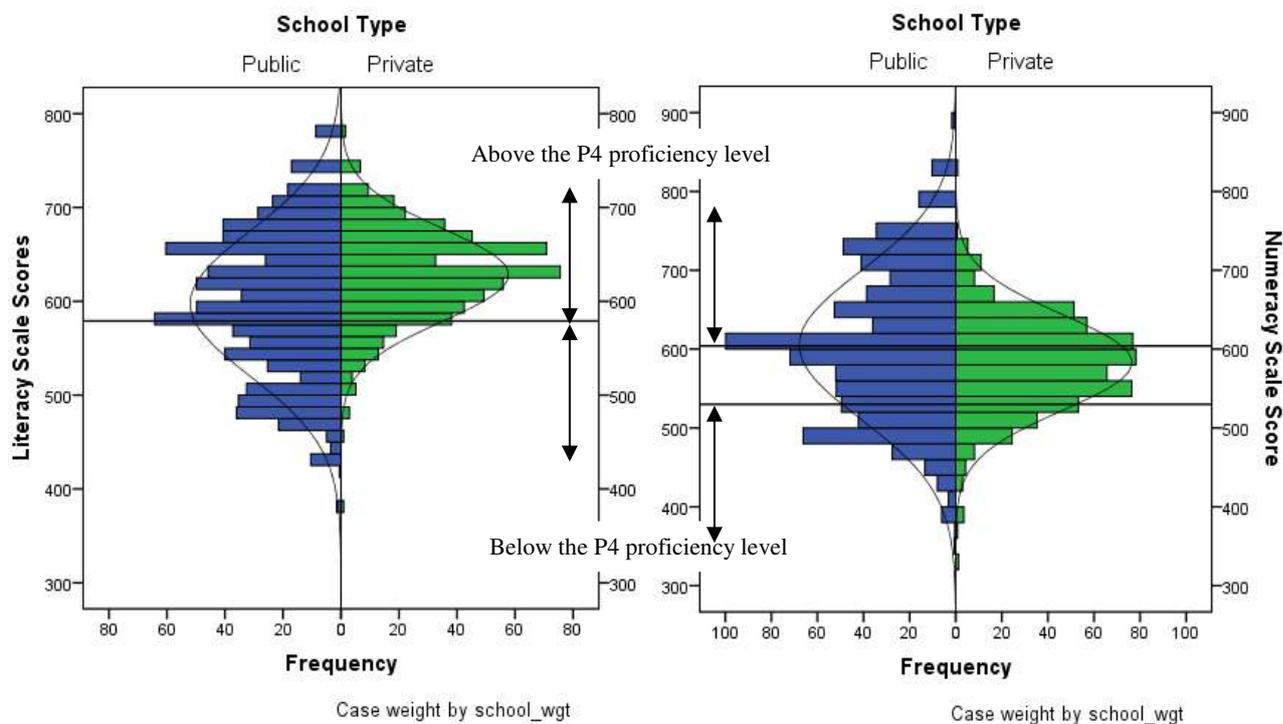
There are three recent sources of learning outcomes data for students from private schools in Lagos:

- **Bridge Research 2018.** The latest data on learning outcomes and school quality in private and public schools in Lagos were collected in January 2018 from over 1,000 students at the start of P2. This was part of research on Bridge schools, financed by DFID. The results from the sample of 38 public and 49 low- and medium-cost private schools are comparable with each other, though they are not representative of Lagos as a whole. Low- and medium-cost here is defined as per Tooley (2013), adjusted for inflation, meaning low-cost schools charge below Nigerian Naira (NGN) 26,375 in fees and associated costs. Private schools' average fees are NGN32,000-35,000 (depending on whether you take the head teacher's or parents' views). This research on Bridge schools was conducted by EDOREN and the results are available only in draft (EDOREN 2018, draft). Nevertheless, these results provide a very useful indication of the differences between public and private schools.
- **P4 comparison study 2016.** In April and May 2016, P4 students in public (1,612 students) and private (1,156) schools were tested on literacy and numeracy, and information was collected on household asset ownership. School samples were designed to be representative of public and low-cost (i.e. charging below NGN 25,000 per annum, including fees and other expenses, but not transport) and medium-cost (i.e. charging between NGN 25,000 and NGN 50,000 per annum) private schools in Lagos. This study collected a range of other pupil, household, teacher, and school factors that typically influence learning outcomes in order to strengthen as far as possible the comparison between public and private schools. The full details are set out in EDOREN (2016).
- **DEEPEN evaluation baseline 2014.** The 2014 learning outcome data comes from the DEEPEN evaluation baseline, for which children at the start of Primary Grade 3 (P3) were interviewed in a sample of private schools in four LGAs (EDOREN 2015).

89. **The 2016 P4 study indicates that there are limited differences between P4 learning outcomes in private and public schools.** Most students in both private and public schools perform within the range expected of them at P4. This is illustrated in the figure below. Bars at the top of the figures indicate that students are at or above the P4 proficiency level. For literacy (on the left-hand side), 74% of public

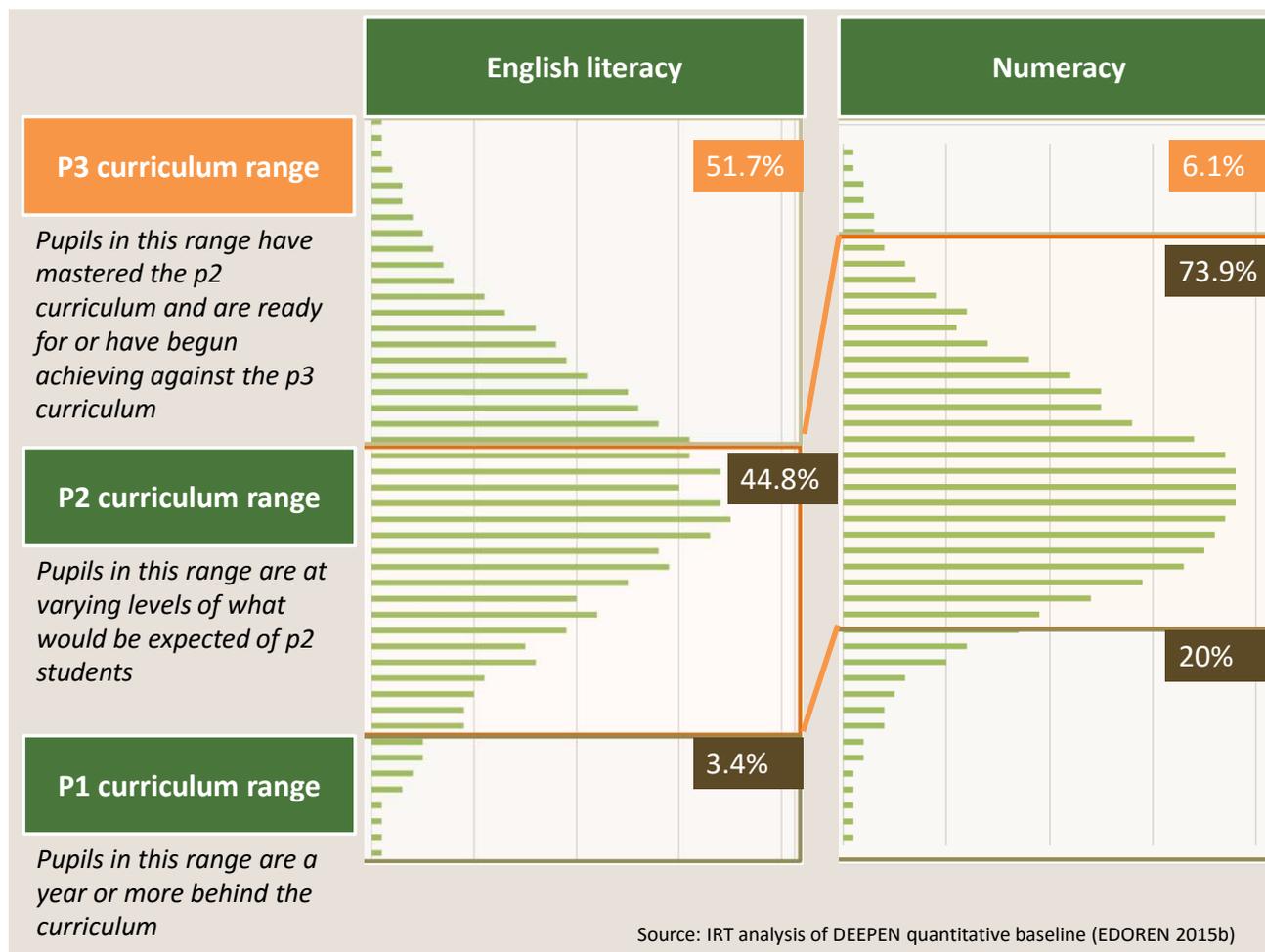
school students and 93% of private school students are achieving at or above this level. For numeracy (on the right-hand side), 74% of public school students and 79% of private school students are achieving at or above this level.

Figure 3: Literacy and numeracy learning outcomes at P4



Source: EDOREN (2016) P4 comparison study.

90. The DEEPEN baseline survey conducted in 2014 indicated similarly impressive learning outcomes. This was conducted on a sample of private schools in four LGAs in Lagos, and so is not representative of the state. The baseline report remarked: ‘amongst the children in our sample, about half of the pupils in the early stages of P3 were achieving at or above a level that falls within the proficiency range expected of pupils in P3 in literacy, whilst only approximately 6% of P3 pupils in the early stages of P3 were achieving at the level expected by the curriculum in numeracy’ (EDOREN 2015). This is illustrated in the figure below.

Figure 4: Literacy and numeracy outcomes at the start of P3 (selected LGAs, private schools only)

91. There appears to a consistent finding across the P2 and P4 studies that girls typically score better than boys on literacy tests, but there is no statistically significant difference in numeracy outcomes.
92. Overall, therefore, the evidence available to answer the first question indicates that learning outcomes are not 'low' in (low-cost) private schools in Nigeria, by any standard one might set across the rest of Nigeria – although there is room for improvement. Baseline data suggested that while they are broadly satisfied, parents find it difficult to judge whether learning outcomes in schools are good or bad. They tended instead to focus on other proxies for school quality, such as teacher qualifications or the appearance of students.
93. **At endline, parents do not appear to have substantially changed their views on learning outcomes.** They still tend not to make judgements about learning outcomes 'directly' (i.e. by looking at exam or test results). Instead, they make judgements about things that they believe to be proxies for learning outcomes or school quality, such as infrastructure, textbooks, teachers, and in some cases co-curricular subjects. Overall, at endline parents are broadly satisfied with private school quality on this basis, irrespective of whether the school their children attend is low- or medium-cost.

3.2.2 Are the learning outcomes from (low-cost) private schools better or worse than the learning outcomes from government schools in Lagos, and are they perceived as such by parents?

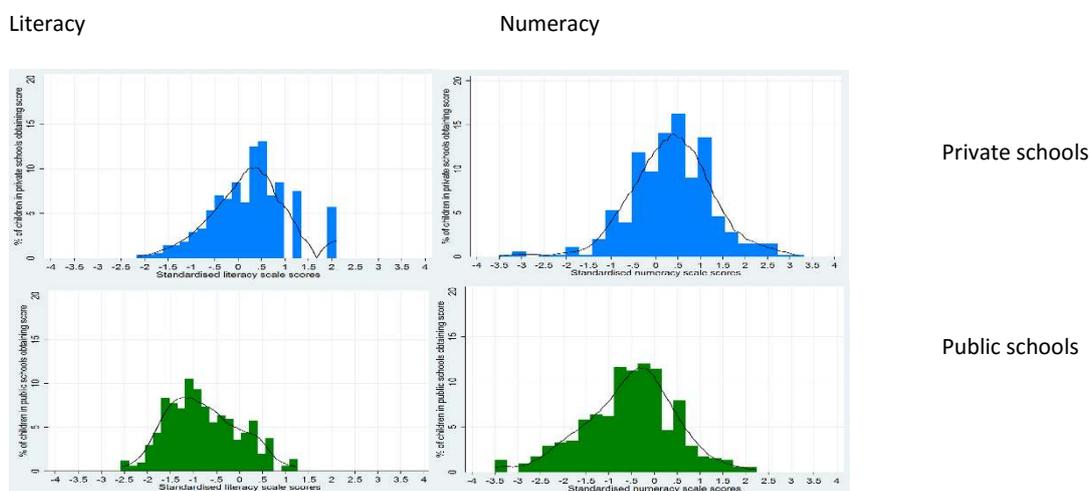
94. Both the 2018 Bridge P2 research and the 2016 P4 comparison study attempted to answer this question. The 2014 baseline also provides some indication. As the studies note, this is a complex question to answer, for various reasons:

- Different legitimate ways of making this comparison can yield different results. For instance, comparing average scores may yield a different result to comparing the percentage of students who achieve at or above the level expected by the curriculum. Literacy and numeracy outcomes may differ too. We present both comparisons, for clarity.
- Differences in learning outcomes between school types do not necessarily reflect differences in school quality. For instance, it may be that children in private schools get more support from their parents for their education, which might make a difference in their scores on tests. We try as far as possible to control for this type of effect, but cannot do this entirely.

95. **The 2018 P2 research indicates that literacy and numeracy learning outcomes in this sample of private schools are better than those in the sample of public schools.** This is shown in the figure below. We offer two specific examples of what this means typical students in these schools can do:

- 87% of students in the private school sample can correctly read the majority of 25 single-syllable words in one minute, compared with only 58% in public schools.
- 83% of students in the private school sample can correctly find the solution for three or more (out of four) simple addition problems, compared with 61% in public schools.

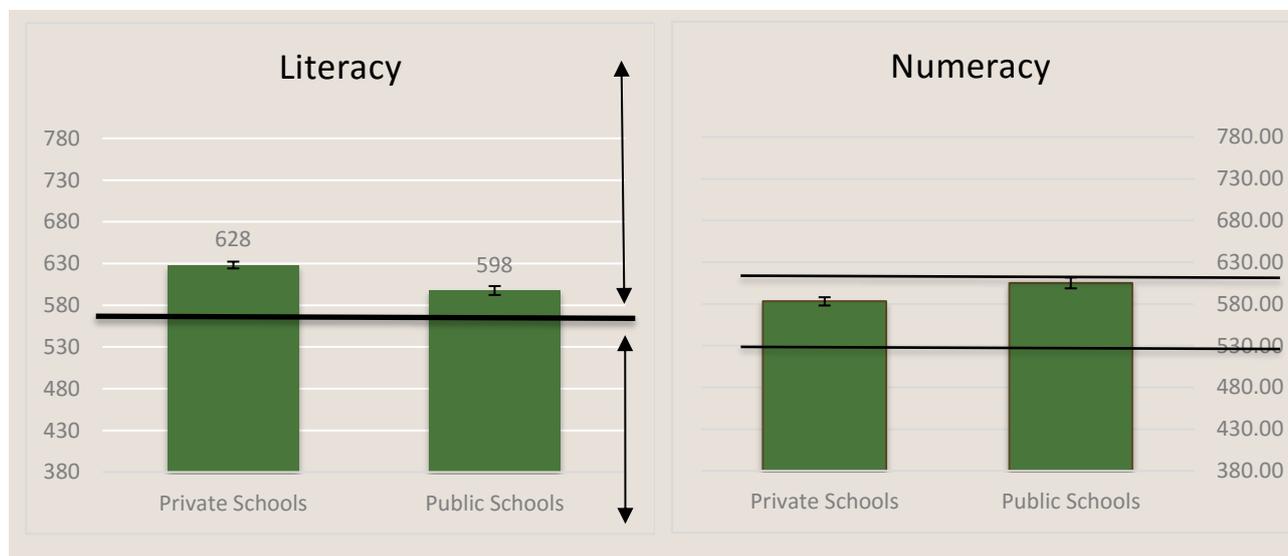
Figure 5: Literacy and numeracy at P2 in public and private schools (2018)



96. In this study, these differences are not entirely explained by the socioeconomic status of the children. We analyse this by looking at performance in private and public schools of children from different wealth quintiles, based on a simple asset index. As the figure below shows, children in private schools perform better than children in public schools irrespective of the wealth quintile they are in.

Figure 6: Literacy and numeracy outcomes at P2 by wealth quintile and school type (2018)

97. **From the 2016 P4 comparison study, the picture is mixed.** Evidence on literacy outcomes indicates that mean average scores are higher for students in private schools than for those in public schools, but that on average students from both schools are within the expected range. For numeracy, average scores are higher for students in public schools. However, a higher proportion of students from private schools are achieving at or above the expected proficiency ranges. This is because students in public schools have both higher and lower scores. The P4 comparison study indicates that these results are influenced by whether students' families speak Yoruba, household wealth, and parents' level of education. However, whether the school is private or public appears to have an influence on results, after these other 'endowments' are controlled for. Mean scores are presented in the figure below.

Figure 7: Mean literacy and numeracy scale scores at P4 in public and private schools (2016)

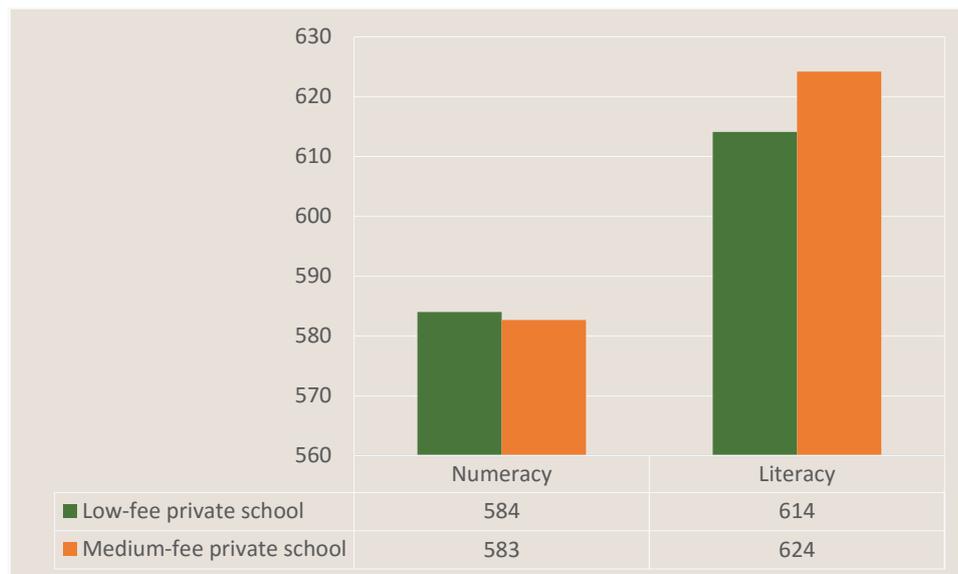
Source: EDOREN 2016.

98. **What might explain why private schools have better literacy outcomes and mixed results for numeracy?** For literacy outcomes, the home environment, and particularly language, seems likely to play a strong role. Both the 2016 P4 and 2018 P2 research (and the 2014 P2 baseline) found that children in private schools are more likely to speak English at home and this has a positive influence on English literacy outcomes. The 2018 P2 study found that this increased literacy scores by .24 standard deviations: a large amount. Aside from the obvious influence of speaking English at home, the P4 study surmised that this may be reinforced by 'peer effects' – i.e. the fact that a larger proportion of other students in private schools also speak English at home, compared with public schools.

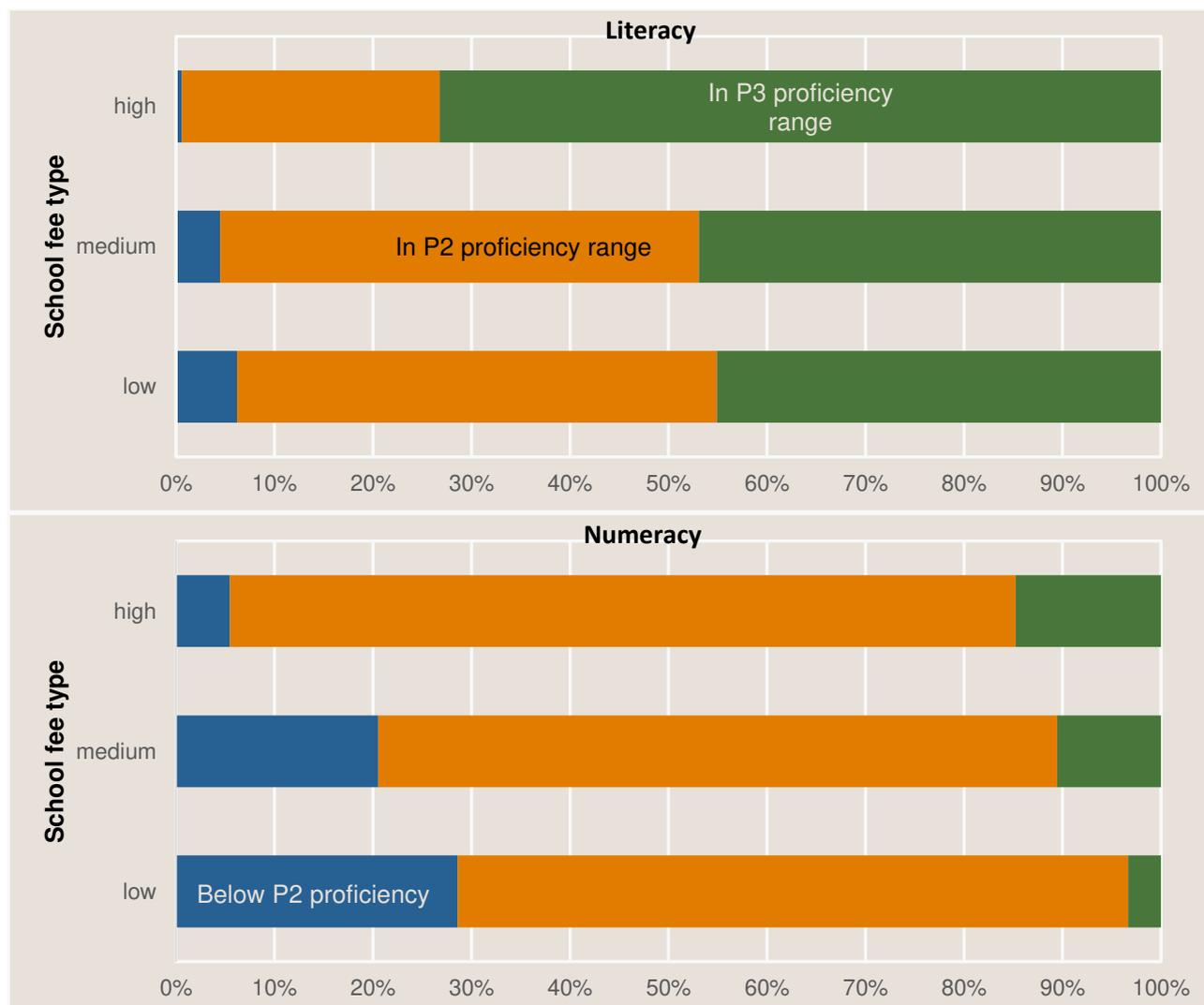
99. Numeracy outcomes are harder to explain. The P4 comparison study found a positive relationship between teacher qualifications and numeracy outcomes. Teachers in public schools are typically better qualified (though often less motivated) than teachers in low- and medium-cost private schools. The 2018 study found a statistically significant relationship between teacher qualifications and numeracy outcomes in public schools but not private schools. The P4 comparison study put forward a tentative hypothesis that the positive effect of public schools on numeracy might be explained by the fact that teachers in public schools are, on average, better qualified, and this seems to affect learning directly, irrespective of teachers' motivation.
100. **Qualitative data shed light on parents' perceptions of school quality.** Baseline data from 2014 indicated that parents from poor backgrounds choose to pay for private schools because they believe their children will perform better in private schools. They believe that the quality of public schools is declining, public schools are overcrowded, public school teachers have a reputation for poor attendance, and public school children are poorly dressed. Similar themes emerge at endline:
- parents typically value the perceived cleanliness of private school environments;
 - parents typically value the quality of teaching, which they feel is high in private schools, though some express concern over teachers having limited qualifications;
 - parents value having a conducive learning environment and co-curricular activities;
 - parents feel that private schools are less likely to be overcrowded. This is borne out in quantitative research on class size as well, including NEDS (2010 and 2015); and
 - some feel that paying a fee ensures schools are accountable for their performance. Related to this is the idea that private school teachers are more approachable than public school teachers – in part because public school teachers will receive a salary irrespective of performance or parents' views.

3.2.3 Does school quality correlate with the cost of the school?

101. **All three studies collected information on school costs that allow some comparison with learning outcomes. We also have qualitative data from parents on whether they perceive there to be a link between costs and quality. The data indicate limited difference between learning outcomes in low- and medium-cost private schools, but the reasons for this are not entirely clear.**
102. The 2018 P2 research found little relationship between school fees and learning outcomes once other factors, such as monitoring, teacher practice, and teacher qualification, were accounted for. The P4 comparison study came to a similar conclusion, and did not find a statistically significant difference between learning outcomes in low- and medium-cost schools – although there was a small difference, shown visually in the chart below.

Figure 8: Learning outcomes in low- and medium-cost schools, P4 (2016)

103. This is approximately in line with the findings from the P2 baseline in 2014, which indicated quite major differences in learning outcomes for high-cost private schools, but quite limited differences between low- and medium-cost schools. This is demonstrated by the figure below. For literacy (top pane), medium- and low-fee private schools have similar proportions of students at the start of P3 in the P2 proficiency range. There is a slight difference for numeracy (lower pane).

Figure 9: Learning outcomes in low-, medium- and high-cost schools, P2 (2014)

104. **This does not mean there is no relationship at all between fees and quality.** For example, the 2018 study suggests that there are some quite significant differences between low- and medium-cost schools in terms of teacher qualifications and management effectiveness. These differences may be correlated with learning outcomes – but not always. Specifically:

- medium-fee private schools have substantially higher average management scores than low-fee private schools, as measured by a World Management Survey questionnaire. However, this is not associated with better literacy or numeracy outcomes in private schools;
- medium-fee private schools are much more likely to carry out lesson monitoring and feedback than low-fee private schools;
- medium-fee private schools are slightly more likely to have more qualified teachers and this has a moderate association with learning outcomes;
- teachers in medium-fee private schools are, on average, better motivated, but this does not have a clear relationship with learning outcomes; and
- teaching practices, in terms of time spent teaching or planned lessons, seem similar across medium- and low-fee schools.

105. A second source of data on school quality – the DEEPEN study on GAPS, – also found that quality as measured by the score on GAPS, and fees appeared to be related. Although low-fee schools and high-fee schools are placed within all the grades, more of the low-fee schools fall between the one-star and

three-star grades, while the medium-fee schools are more in the three-star and four-star grades. The DEEPEN baseline in 2014 indicated that infrastructure and teaching practice is typically worse in low-fee schools than in others (see section below).

Parents did not indicate at baseline or endline a strong perception that school quality was strongly correlated with cost, for low- and medium-fee schools. The following quotations from parents at endline are indicative: *'[T]here are some schools that pay higher and the quality of education there is increased and be meeting up to the payment. There are some that pay higher and the quality of education there is very low. There are some that pay lower and the quality of education there is higher.'*

'The fees paid has nothing to do with the quality of education.'

'[T]here are some that pay higher yet the parents will not get what they are expecting in their children. But the amount we are paying, we are even getting more than our expectation.'

'[I]t is not about the money, because most of those children that do attend big school some are paying 150,000 a term but compared to those ones that are here what those ones learn as she was saying earlier children that come for lesson they will be struggling to cope with those ones that attend smaller schools that don't even pay up to 20,000 naira. Those ones they are learning very fast it's not about the money it is just the attention that is being put into them.'

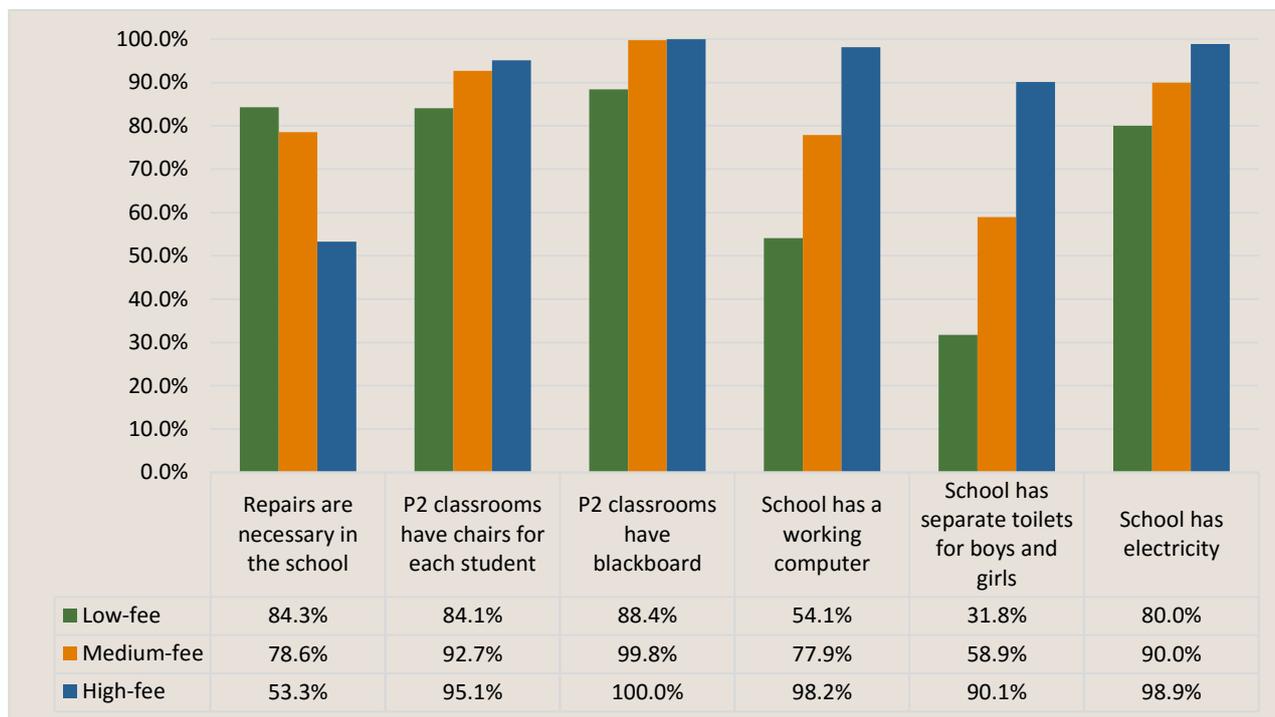
106. **The absence of a clear relationship, in schools charging below NGN 52,750 per year, between the amount that schools charge (and parents pay) and learning outcomes is still perhaps surprising.** We will not attempt to solve this apparent riddle here. However, part of the answer probably lies in the fact that measured learning outcomes are influenced by a great many factors, of which school quality is only one. One potential hypothesis for the weak relationship between school fees and outcomes for low- and medium-fee schools is that there is a threshold below which additional fees do not make a sufficient difference to quality to lead to a measurable change in learning outcomes. In other words, the difference between the quality that could be offered between two identically well-managed schools charging NGN 20,000 and NGN 50,000 is not enough to lead to a measurable difference in learning outcomes, given all the other things that affect learning outcomes.

3.2.4 To what extent are the learning conditions and practices in (low-cost) private schools inadequate?

107. This question is one for which providing an answer risks crossing the line between assessing DEEPEN's relevance and assessing DEEPEN's impact. This is because DEEPEN aims to improve learning conditions and practices in private schools. In this section we will focus on the situation at baseline and on providing a general picture at endline; details on changes that may have been caused by DEEPEN are provided in the sections on effectiveness and impact.
108. The question draws a distinction between learning conditions, which we interpret to mean appropriate infrastructure (chairs, tables, blackboards, and separate toilets for boys and girls), and practices, which we interpret to mean classroom practice. We treat these in turn.
109. **The DEEPEN baseline indicated that learning conditions were inadequate in 2014 in many low-cost schools.** The figure below illustrates this. This was confirmed by qualitative observations made at

baseline and by secondary studies (e.g. Härmä 2013) that indicated a wide range of infrastructure in schools.

Figure 10: Learning conditions, by school type, 2014



Source: DEEPEN baseline.

110. We do not have data on the status of infrastructure in schools at endline. These data were not collected as part of the exercises analysing learning outcomes in different school types or in the Logframe Survey (although this did ask about whether schools invested in infrastructure – to which we return in the section on effectiveness). The endline qualitative research provided the opportunity to make some general observations about infrastructure in low- and medium-cost private schools, but of course these are not intended to be representative of all schools.

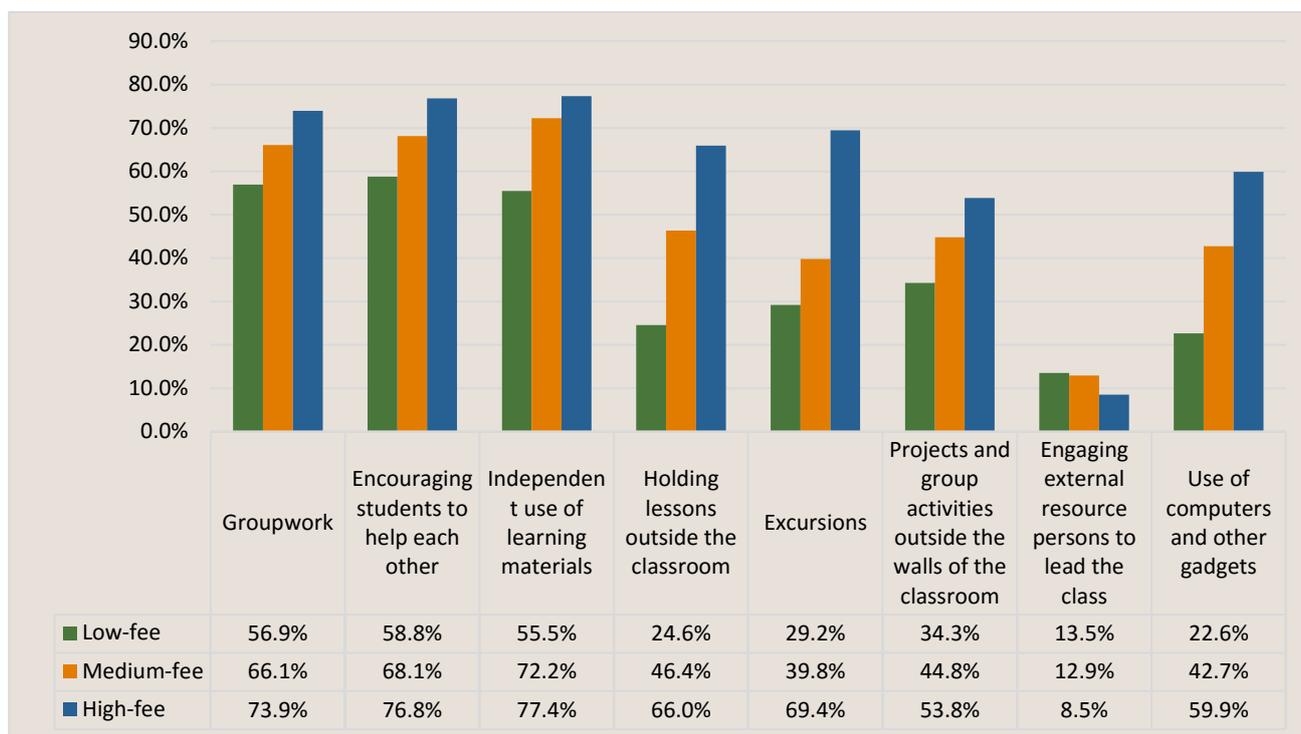
111. **The impression from researchers’ observations and parents’ and teachers’ responses during the endline qualitative fieldwork was that infrastructure remained in general inadequate, although in some cases it was improving.** For example, the research team observed that a number of low- and medium-fee schools visited as part of the endline fieldwork did not have adequate toilet facilities for their children. Teachers noted that poor conditions could lead parents to believe that teaching quality was poor, and some teachers argued that poor conditions made effective teaching more difficult. At the same time, some teachers and parents reported improvements in learning conditions as schools invested in infrastructure. We return to the issue of investment in the section on DEEPEN’s effectiveness below.

112. What constitutes adequate teaching practice in different contexts is the subject of some debate. We do not propose to enter into that debate here; instead, we follow DEEPEN’s definition. DEEPEN defines adequate teaching practices as frequent use of information and communication technology (ICT), learning outside the walls of the classroom, and child-centred learning (DEEPEN 2014).⁷

⁷ DEEPEN (2014) Set-up Report.

113. The baseline survey found that most low-fee private schools did not engage in ‘adequate’ teaching practices, while most high-fee schools did. This is illustrated in the figure below.

Figure 11: Teaching practices, by school type, 2014



Source: DEEPEN baseline 2014.

114. DEEPEN’s Logframe Surveys explored teaching practices in 2016 and 2017, and these are the principal sources of information on teaching practices after 2014. The Bridge research in 2018 found that between 60% and 79% of literacy and numeracy lessons in low and medium-cost private schools seemed planned, but it does not offer significant additional and comparable information. The Logframe Surveys used lesson observations to make a judgement about whether a lesson was demonstrating ‘child-centred pedagogy’ or innovative pedagogy, which involves teachers:

- engaging pupils in individual activity;
- engaging pupils in group activity;
- engaging pupils on the blackboard;
- illustrating on the blackboard;
- improvising teaching materials in the class;
- using ‘praise’ more than ‘reprimand’;
- placing students uniformly across the classroom; and
- assigning tasks evenly between seating groups and genders.

115. The 2017 Logframe Survey data scored between 29% and 76% of teachers as ‘not competent’ across these categories, and between 16% and 51% as competent. Very few teachers were scored as ‘proficient’ or ‘advanced’. This indicates that there is still quite significant room for improvement in teaching practices in private schools in Lagos.

116. At both baseline and endline, it was difficult to generate reliable information from parents or teachers on teaching practice. This is because parents rarely (probably never in most cases) observe classrooms directly (and may not know what to look for if they did), and teachers are unlikely always to answer these questions directly. Researchers did spend time observing lessons, but at endline this was

not at sufficient scale to be able to draw conclusions about learning practices ‘in Lagos private schools’. The observation that the endline fieldwork can support is that there remains room for improvement in learning practice in private schools. We return to these issues in the section on effectiveness.

3.2.5 Is poor learning in (low-cost) private schools driven by pedagogy and classroom conditions or by other factors (curriculum, materials, fellow students, etc.)?

117. The first observation is that, as described in the sections above, learning outcomes in private schools in Lagos are not that poor. Indeed, most children appear to be within the range of the expectations of the curriculum, although there is room for improvement.
118. The remaining part of the question pertains to the causes of learning outcomes. As is well known and has been explored to a degree above, learning outcomes are determined by several complex and inter-relating factors. The latest World Development Report illustrates the complex set of factors and actors that can influence learning outcomes (World Bank, 2018). These include, most proximately and simply, learners’ preparedness and attitudes, teachers’ effectiveness (including their pedagogy, as per the evaluation question), school management, and school inputs (reflected in classroom conditions, in our evaluation questions). As the figure below indicates, these ‘proximate determinants’ of learning are influenced by a further set of actors, from politicians to parents. This framework is, of course, a summary of even more complex process and relations. We attempt to unpick some of these in private schools in Lagos.

Figure 12: A simplified picture of what influences learning



Source: World Development Report 2018

119. **The complexity of the determinants of learning outcomes does not allow us to identify simple drivers of learning in Lagos.** The DEEPEN baseline found no persuasive evidence to show that pedagogy and classroom conditions were key drivers of learning in our sample, though this does not imply they are unimportant – and, of course, there is evidence from elsewhere that they are important. The

baseline found that child-centred learning, use of ICT, or learning beyond the walls of the classroom did not have a significant impact on learning outcomes. Again, this does not mean they are necessarily unimportant.

Table 2: Factors correlated to learning outcomes in the DEEPEN evaluation baseline

What matters for learning in private schools in Lagos?		
	Literacy Scale Score	Numeracy Scale Score
Pupil-Level Characteristics		
Gender	No effect	No effect
HWI-Poverty Status	Children below the poverty line achieve lower scores	Children below the poverty line achieve lower scores
Parents' Education	Children with an educated parent score higher on average	Children with an educated parent score higher on average
Speaking English at Home	Children speaking English at home score higher on average	Children speaking English at home score higher on average
School-Level Characteristics		
School Type	Pupils at high-fee schools achieve higher scores	Pupils at high-fee schools achieve higher scores
School Infrastructure	Top infrastructure has positive and significant correlation with higher scores	Top infrastructure has no significant correlation
Teacher Motivation	Teacher motivation is important in conjunction with teacher qualifications	No significant correlation between scores and qualification
Teacher Qualification	Teacher's qualification matters only in combination with motivation	No significant correlation between scores and qualification

Source: EDOREN DEEPEN baseline presentation, 2016

120. The learning outcomes data available at endline from the 2016 P4 study and the 2018 Bridge research do not offer any conclusive evidence on this question. These surveys do not look directly at the role of pedagogy or classroom practice in influencing learning. They clearly indicate that several different student, household, teacher and school factors influence learning outcomes, but they do not offer conclusive evidence on which is most important. This is not surprising, given the complexity of learning outcomes. As discussed above, they also provide indications that literacy and numeracy are driven by different factors outside the classroom. For instance:

- girls tend to score better than boys, particularly in literacy;
- the age of students appears to influence learning outcomes;
- a good score in English literacy appears to be quite strongly correlated with speaking English at home, and this likely operates both through the children's home environment and the effect of other students speaking English;
- having a parent complete basic education appears to have a positive influence on numeracy – but not literacy;
- household socioeconomic status affects learning outcomes; and
- school location appears to affect learning outcomes.

121. As with classroom practice, while the qualitative data provide information about researchers', parents', and teachers' perceptions of pedagogy and classroom conditions, this is not set up to substantiate any causal claims about their relation with learning. Parents and teachers believe that

adequate infrastructure, including classroom conditions, are important for learning. Schools also prioritise investment in infrastructure as a result of this, though these investments do not always focus on classroom conditions. From examples seen by the research team, capital investments are generally on infrastructure, school buses, and computers.

122. Parents also believe that teachers can be an important driver of learning, as highlighted in the discussion above. During the baseline a number of teachers highlighted the positive effects associated with more qualified teachers in government schools. However, as the discussion above shows, the relationship between teacher qualifications and learning outcomes is not straightforward.
123. Head teachers highlight the need for teaching materials, especially textbooks, to improve learning and teaching. They expressed frustration that parents were not inclined to buy them for their children. The usefulness of textbooks in low-cost private schools was also emphasised by education experts, including practitioners and academics interviewed as part of the endline evaluation, especially considering that teachers in such schools are often unqualified. The importance of school inputs, such as textbooks, to support teaching and learning was also highlighted in the 2018 World Development Report.
124. Some teachers commented:

'[I]t was difficult when we are teaching and the student does not have textbooks. But on the introduction of the idea of textbook distribution to students, at first the students found it difficult to cope because they were not used to it. But it later became easier and more interesting and makes teaching easier.'

'[O]ne, I would want the parent to change their attitude on paying school fees, then they should buy their children necessary books, because you cannot teach them without necessary books and writing material, so if the parents can help in buying these writing materials for their children, I would really appreciate it.'

125. Teachers further drew attention to the importance of parental involvement in the schooling of their child, which includes helping ensure their homework is completed and making sure children come to school on time. The baseline quantitative data support this, with parents' education and speaking English at home having a positive and significant correlation with both literacy and numeracy. This also came out in interviews with other stakeholders that spoke about how both parents, especially in the current economic climate, were busy working full-time jobs and did not often have time to support and monitor their children's academic work and moral upbringing. As one expert commented:

'You cannot put your child in a school and hands-up then go to sleep, you can't go to sleep and be determined that you'll get quality. So, parents that really wants value for money are those that are up and doing and monitor their wards.'

126. The regular payment of fees and lack of access to finance came up repeatedly as a source of frustration for schools as they believe it is a driver of learning since it reduces the school's investment capability, and at a basic level, their ability to pay teacher salaries on time – and thereby retain good staff. An interesting nuance is that it is not the level of fees which is seen as the hindrance but rather the difficulty paying on time or at all. This is similar to parental perceptions that the fee level is not a driver of learning outcomes, as mentioned earlier. One head teacher said:

'For parents to pay pupils school fees on time and for banks to make it easy to access loans if these are in place the ambitions are very realistic.'

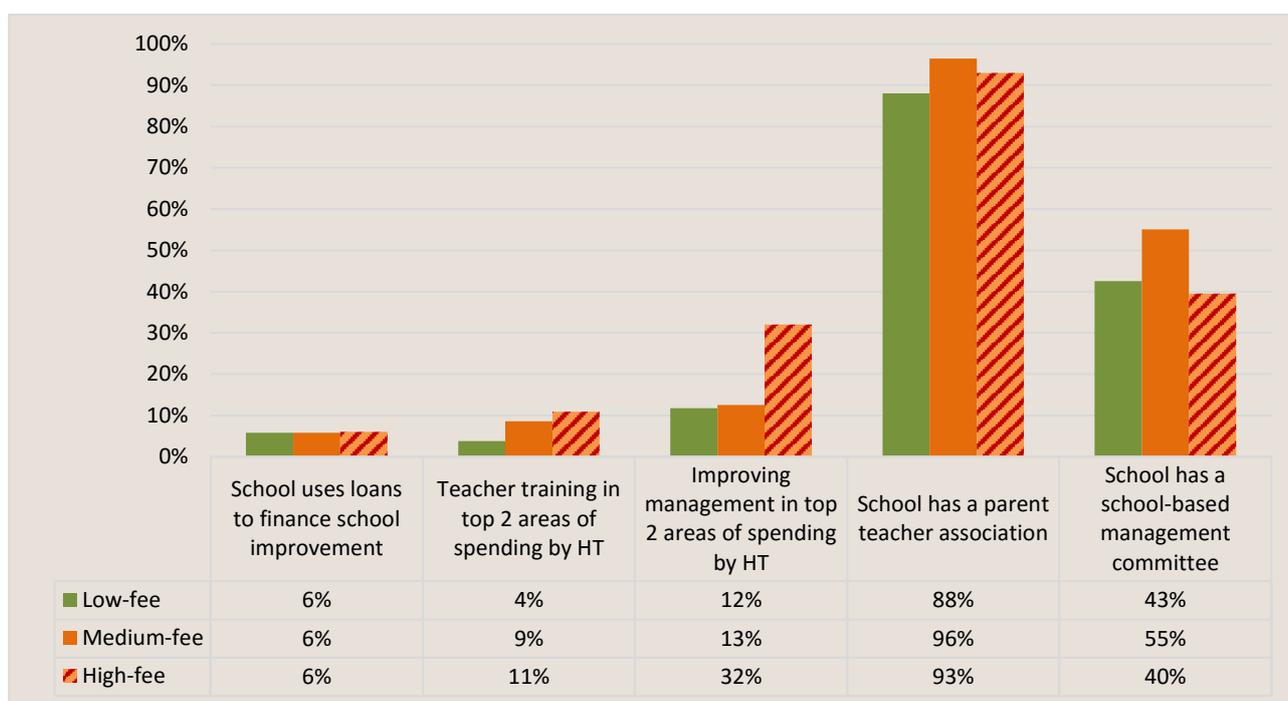
127. In the same vein as the baseline, at endline, after-school classes are understood by parents and teachers to help with learning. One teacher commented: *'Yes there are after-class lessons, it helps in their learning.'*

3.2.6 To what extent are investment, management, and innovation in (low-cost) private schools inadequate?

128. As with Section 3.2.4 on the adequacy of learning conditions, this question is one for which providing an answer risks crossing the line between assessing DEEPEN's relevance and assessing DEEPEN's impact. This is because DEEPEN aims to improve investment, management, and innovation. As with learning conditions, in this section (and the sub-sections below) we focus on the situation at baseline and on providing a general picture at endline; details on changes that may have been caused by DEEPEN are provided in the sections on effectiveness and impact.

129. **At baseline (before DEEPEN's work started), investment levels, innovation, and management quality were found to be generally poor across different types of school.** However, low-fee schools appeared to be particularly constrained in their ability to invest in teacher training and to set up sound management systems. This is illustrated in the figure below.

Figure 13: Investment in SIS, by school type (2014)



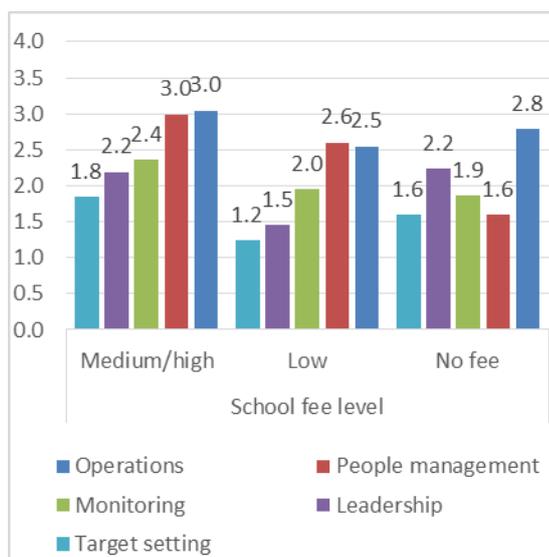
Source: DEEPEN evaluation baseline report (2014)

130. **At endline, the overall impression is that investment, innovation, and management have improved, are in some aspects better than in the public sector, but are still not adequate.** The improvement is explored further in the section on DEEPEN's effectiveness and impact. Here, we present some information that supports the contention that investment, innovation, and management are still not adequate – meaning there is room for improvement. This is not a comment on DEEPEN's effectiveness. Rather, it suggests that DEEPEN is still relevant in terms of its objectives and design.

131. The Bridge research study in 2018 collected information on aspects of school management using an adapted module of the World Management Survey. Higher scores on this survey have been found, in other contexts, to be correlated with better learning outcomes (e.g. Crawford 2017 in Uganda). This survey breaks down management into operations, people management, monitoring, leadership, and

target setting, and gives a score out of four. The results of the Bridge study are presented in the figure below. No-fee schools are public schools. We make four observations based on this chart:

Figure 14: Management scores by school fee type (from Bridge research 2018)



- There is room for improvement in all categories in all types of school, implying that management practices cannot be called ‘adequate’.
- Low-fee schools have lower scores than medium- and high-fee schools in all categories.
- Low-fee private schools have similar scores to public schools (called no-fee schools in this figure).
- There is, particularly, room for improvement in all private schools in target-setting, leadership, and monitoring.

and investment are adequate in private schools.

132. Results on innovation and investment come from the DEEPEN Logframe Surveys. Whilst there has been improvement (covered in detail in the section on effectiveness), the data do not indicate that innovation

133. More than two-thirds of schools in the 2017 Logframe Survey sample (which covers schools participating in one or more DEEPEN intervention and serving low-income households) had not invested in key areas (teacher training, improving business and financial management, and improving school management and leadership) in the past year (DEEPEN 2017). Given that this sample was from schools engaged with DEEPEN in some way, it is unlikely that the proportion of all schools across Lagos (including those not engaged with DEEPEN) who have invested is any higher. While the proportions of schools in the Logframe Survey with bank accounts or who have taken out loans has increased, half of schools in this sample do not have bank accounts, and half have not taken loans. Combined with the evidence above on the inadequacy of these key areas in many schools, this indicates that investment is not yet adequate in low-cost private schools in Lagos.

134. This is consistent with the findings from the qualitative endline evaluation. For example, there were no major investments recorded in a majority of the (non-representative) sample of schools surveyed in the evaluation (see Table 10, which specifies any investments recorded for intervention schools in the endline sample).

135. These conclusions – that management, investment, and innovation in low-cost private schools are not adequate – are not a comment on DEEPEN’s effectiveness. Indeed, we show in the sections on effectiveness that DEEPEN has supported improvements in these areas, and we discuss schools’ investment and innovation patterns in more detail in those sections. Rather, these conclusions indicate, in our view, the continued relevance of a programme that aims to support management, innovation, and investment in low-cost private schools.

3.2.6.1 Do (low-cost) private schools want to invest in professional SIS to improve the quality of the education they provide (while remaining low-cost)?

136. This question complements the analysis above that indicates a need to improve investment in schools, by asking whether schools are willing to invest to improve the quality of the education they provide. **Overall, there appears to be a willingness to invest in SIS, but also some constraints – particularly in low-cost schools – that have not yet been overcome.**

137. The baseline found that most head teachers saw the benefit of professional development activities and were willing to invest in them. However, actual investment was low (as the section above shows) as head teachers felt that:

- development services were not directly observable by pupils’ parents, and thus did not have a significant impact on their school choice;
- investments in teachers would be lost due to teacher turnover; and
- they lacked the money to invest.

138. The 2017 Logframe Survey confirms the impression that most schools are not yet investing in SIS. 40% of all schools and 26% of low-cost schools surveyed (i.e. schools that had participated in a DEEPEN intervention) had invested in SIS. While increasing schools’ use of these sorts of services is an impressive achievement, there are still some barriers to investment in place.

139. Endline qualitative fieldwork corroborates this, although it does suggest that the barriers have been reduced where schools have direct experience of professional development services. While most of the school proprietors interviewed by the endline evaluation team were aware of SIS, many of them were not enthusiastic. They often cited high prices and the likelihood of teachers who attend trainings to leave the school. In the schools which had received one or more school improvement trainings through one of the DEEPEN-supported providers, proprietors were more likely to see the value of such trainings and be enthusiastic about participating in them in the future.

140. Overall, the teachers interviewed as part of focus groups were considerably more interested in these kinds of services than the proprietors. This is possibly due to the fact that such trainings are in effect a form of personal career development, although a number of teachers were also explicit in their views that such training benefits students directly.

141. The interviews with service providers, experts, and DEEPEN staff reflected a high degree of confidence in an increased (and further increasing) demand for these services among low-fee private schools. These respondents believed that the affordable training modules that had been developed with DEEPEN’s help whetted the schools’ appetite for SIS, and that this trend was likely to snowball with the help of school associations promoting such services. While there is some evidence for this, on-the-ground realities observed by the qualitative endline evaluation team in schools did not fully match the optimism of service providers, experts, and DEEPEN staff. The level of interest the team perceived was not dissimilar from what was observed at baseline. This came through, in particular, in key informant interviews with school proprietors, who in most cases did not show a lot of enthusiasm for having their teachers participate in training programmes. There thus appears to be a difference in perceptions, where suppliers seem to believe that much demand has been generated at the school level, while empirical observations from schools suggest otherwise. Since the sample was very small and was not designed to be representative of the larger population, and since it might be too early for the changes to manifest themselves, however, this finding is indicative rather than conclusive.

3.2.7 Is there / could there be a viable market for school improvement providers providing SIS to low-cost schools?

142. We interpret a viable market for SIS simply to mean that there is both demand and supply. In particular, schools demand SIS (discussed above) and providers supply these services at prices that schools are prepared to pay. This is slightly distinct from – though related to – the size of this market, on which we also comment.

143. **It is largely very early to comment on the viability of this market, but overall, our judgement is that there is a small viable market for SIS for low-cost schools, but there are some constraints to growth that suggest a need for continued intervention.** As the section above indicates, there is growing

demand for SIS (related to DEEPEN’s work, as we discuss in the section on effectiveness), but substantial room for further growth in this demand. Demand is curtailed by worries about paying for and retaining the benefits of these services. One indication of this is that the 2017 Logframe Survey showed that high-fee schools appeared almost twice as likely to invest in school improvement areas as low-fee schools. A second indication is that SIS were typically low on the list of low-fee schools’ investment priorities, relative to, say, infrastructure. This is not surprising: infrastructure is more visible to parents and regulators and adds value to the asset owned by the proprietor.

144. Supply to low-cost schools has also improved, as a result of DEEPEN’s efforts. We explore further in the section on DEEPEN’s effectiveness the success of efforts to help providers develop new models at low prices that are affordable for low-cost schools. DEEPEN staff point out that additional providers have been crowded into the market and most are reporting making a profit. However, DEEPEN also notes – and we share this judgement – that there are still some concerns about the long-run growth of this supply – particularly around the full costing of service delivery, operating at sufficient scale to break even, and focusing on medium- and higher-cost schools where the realised demand appears strongest. Some providers appear to be responding to some of these challenges, but it is not yet clear to what extent they can all be overcome.
145. Overall, therefore, given the current constraints to supply and demand, our judgement is that while there is and could be a viable market for SIS, it is too early to assess its long-term viability and scale. Its size at this point appears smallest for low-cost schools. This points toward the continued relevance of DEEPEN’s work.

3.2.8 Do parents lack information about school quality and/or find it difficult to interpret such information to make a decision about school choice?

146. Again, this question relates to something that DEEPEN has been trying to affect through its information workstream. We do not here comment on the effectiveness of this workstream but instead focus on the overall picture of whether parents still lack or find it difficult to interpret information about school choice. This is pertinent to the relevance of DEEPEN because one route to school improvement was deemed to be through parents demanding higher standards, including through having a better understanding of what school quality means.
147. **Overall, while parents access information related to school quality, this information does not appear always to be robust or independent.** The picture at baseline was that 75% of parents sought information before selecting a school for their child – typically by talking to teachers or visiting the school. Other sources of information include relatives, discussions with parents of current students about their performance, interaction with and observation of the students themselves, and the reputation of the school within the community (EDOREN, 2016). The media was rarely used – unsurprisingly, since the media’s coverage of education was limited at the start of the programme, although in general it is an important source of information for the poor in Lagos. Information from the government and CSOs was rarely used according to the Logframe Survey in 2016 (DEEPEN, 2016), and indeed was almost never available.
148. By endline, parents’ sources of information on school quality had not changed substantially. According to the 2017 Logframe Survey, other parents, teachers, and head teachers were the most common sources of information for parents when choosing schools (DEEPEN, 2017). In 2017, around 45% of parents reported other parents as being a frequent (most often or always used) source of information (DEEPEN, 2017). Endline qualitative data reflect this. Head teachers and parents noted that parents seek information on the quality of individual schools from other parents and school visits.

3.2.9 Do parents make decisions between private schools based on quality?

149. As with some other questions, this is an area in relation to which DEEPEN’s work might be expected to make a difference, so in this section we note some high-level trends and explore DEEPEN’s contribution to this further in the sections below.

150. **The baseline report indicated that location and quality-related factors were the most important determinants of school choice for most parents, but that many parents did not obtain information that was very directly related to quality before making a choice.** Typically, they would ask about exam results around half the time, but would be worried about the reliability of that information. They would otherwise focus on whether English was spoken, students’ appearance, infrastructure, and the relationship with management. In almost all cases, however, parents would only choose between schools that were nearby. Once their child was attending school, most parents would check their academic records and exam results. Where students switched between private schools, this was often for quality-related reasons. The general perception among parents with children in private schools was that the quality of public schools was low and declining, which is a large part of why they pay for private school. However, NEDS 2015 found that the decision to send a child to private and not public school was more often driven by the absence of accessible public schools.

151. **Endline qualitative data indicate that parents decide between schools on a similar basis.** At endline, parents still valued quality infrastructure and the appearance of students. There was perhaps slightly more emphasis than at baseline on teacher quality and teacher performance, but it is difficult to read any significance into this, given the small sample size (we explore this a little more in the section on effectiveness). As an example of this emphasis, some parents at endline reported preferring schools with smaller class sizes so that teachers have time to focus on children. Parents felt that some teachers in private schools are able to impart knowledge better and take time to explain to children. As one parent stated:

‘In private schools, they have enough time to speak to students. You know, not in government schools. Teacher will just come in and write on the board and say oya copy it without explanation but in private school, you have to explain, and the student that did not understand, you have to write.’

152. Some parents preferred registered schools because they believe governments keep registered schools up to a certain standard. In an interview, one parent replied as follows:

‘Interviewer: Does the registration of the school add any quality to the school?’

Respondent: Yes, it does. It keeps them on their toes. At any point, the government can come in and see what is happening there. It makes them cautious of what they are doing. But that is also where there is a problem with unregistered schools. You see them misbehave.’

153. In a small number of cases, parents said that they would choose a school for their children based on the religion and ethnicity of the school, and on the school teachers teaching in the school.

154. We found that most parents did not perceive higher fees as being a sign of better quality of education. As discussed above, parents expect services from private schools because they are paying a fee, but they do not associate a higher fee with a good quality school. One parent stated:

‘This is not my first choice of school. Like I said earlier on, where we stayed before (inaudible) I moved from Surulere to this place. Where my children were attending was a mission school but when I brought them to this place, I took them to even a high quality school. The children spent three years there but lo and behold I was

not getting what I was paying for – in fact, I was paying more than even the facility, the environment was superb but wasn't getting what I want. Some people will say it is money, some will tell you that structure doesn't matter what matters is what comes out of the place even if they build mansion, it doesn't matter if it is paradise but whatever will come out of the paradise should be what people will like and what will augur well with people. Is it what people will cherish in the society? So I said okay, no problem.'

155. Parents' attitudes to the safety of children at school are mixed. Parents believe that a safe environment is essential for quality of learning in schools. As a result, they prefer schools where they perceive teachers to be caring. At the same time, there are some parents who value discipline, and among them parents who value corporal punishment. NEDS data indicate that more parents are worried about safety in public schools than in private schools. Parents also worry about the safety of the child when the child travels from home to school, and are mindful of the distance that the child has to cover. In some cases this strengthens the desire to send children to nearby schools, particularly for younger children.
156. As at baseline, there are indications that although these sorts of quality considerations are important, proximity takes precedence over school quality. In 2017, among low-fee schools parents, 25% had changed schools due to quality reasons, but 47% had moved for relocation reasons (DEEPEN, 2017).
157. **Parents still lack a robust database of nearby schools to help make decisions about where to send their children.** Decisions are therefore still based on incomplete and difficult-to-verify information about a subset of nearby schools. In part, this is exacerbated by the majority of schools being forced to operate under the radar. However, at endline, there was greater recognition that this database would be valuable, and this may be related to DEEPEN's work, especially in relation to GAPS (we return to this in the section on effectiveness). For example, a government official suggested that, ideally, the Office of Education Quality Assurance should make lists of good quality schools and make it accessible to parents:

'Ideally it should be Office of Education Quality Assurance because I see it within the next four or five years that we should be able to get there where if politically we are released to do that, ideally we should be able to have that information in the school office on our website where easily we would, because at the moment we categorise schools, if you ask me the top 10 schools I know them at the moment because we got database for that. You understand me, so we do categorise schools, but at the same time we've not been given the opportunity to publish the reports but ideally in an ideal world that's where everybody should be going to because schools I mean and quite a lot of parents would call us in our office here to say please have got this child and I will want to send this child to this school and to a school in so so area would you like to tell us your top five schools there, so we do get them by information. But I think it's something, because we are in the twenty-first century, that everything needs to be online if you see what I mean.'

3.2.10 Is there a viable market for financial service providers providing financial services to low-cost schools and low-income parents?

158. The baseline explored demand for services among schools and parents, and the supply of those services. The report explored various constraints that would limit parents' demand for mobile money services to pay fees, particularly for poor parents. Schools, by contrast, had quite significant unmet demand for loans and financial management support. As with many informal businesses, low-fee schools did not put significant pressure on parents to collect fees, and some provided flexibility on

payment to parents who have difficulty paying, even though this caused significant problems for the school. The supply of financial services at baseline was limited, but providers expressed an interest in expanding their offer, although there were questions around the ability of providers to lend to unapproved schools.

159. **At endline, the viability of some markets for financial services has clearly improved, but some constraints remain.** In part, this improvement is related to DEEPEN’s activities – which we explore further below. The viability of the mobile money market for parental fee payments is largely unchanged (and still very limited). This is due to wider regulatory and network size constraints around mobile money in Nigeria. DEEPEN – wisely – did not explore this very significantly. However, it may have been sensible to explore other options for improving fee payments. The viability of the market for loans and financial management services to schools has improved, particularly through improvements on the supply side. These improvements are closely related to DEEPEN’s work. However, the long-run viability of this market for loans remains unclear due to remaining constraints around the cost of credit. It may be that further support is needed to build viable markets for services provided to different school types – particularly low-cost schools, that would need a high volume rather than high margin sales model.

Loans for schools

160. **There are various indications since baseline that confirm the significant demand for loans from schools.** For instance, the Schools as Sustainable Business Case Study (based on a sample of 55 schools across 15 LGAs in Lagos) estimated a total demand for loans by schools over the next three years of nearly \$2.5 billion (DEEPEN, 2014, p. 45). 87% of this amount was estimated to be demanded by high-fee schools, with medium- and low-fee schools demanding \$212 million and \$78 million, respectively (p. 46). These numbers are based on proprietors’ responses to the question of whether they planned to borrow money over the next three years – and are likely to be exaggerated.⁸ Endline research reveals a complaint from many school proprietors that they do not get as much money (per loan) as they would like, and that the repayment period is not as long as they would like.
161. **There are also indications that the supply of loans has improved.** At the start of the programme, most financial institutions were largely unaware of the size of the private school market. DEEPEN was successful in setting up memoranda of understanding (MoUs) signed with some of them, like Accion Bank, Sterling Bank, First City Monument Bank, Skye Bank, Lotus Capital, LAPO Micro-finance Bank, and AG Mortgage Bank. Accion has successfully made nearly 1,000 loans to schools using three products – as we explore further in the section on effectiveness.
162. Constraints still exist, however. The endline found that these banks were not actively lending to unregistered and unapproved schools, which often happen to be low-cost as well. Discussions with the DEEPEN team and quarterly reports (DEEPEN, 2015; DEEPEN, 2015) indicate that these MoUs were dependent on the expansion of GAPS by the Lagos state government as unapproved schools face the risk of closure from the government. Lenders also perceive reputation risks in lending to unapproved and/or unregistered schools. This is different from risk of default (due to closure) that can be mitigated to some extent by collateral requirements or guarantors. As a DEEPEN team member informed us:

‘We have more financial institutions that are willing to use different modules when it comes to collateral. But when it comes to approval that is when you have more of the problem because they worry about being seen as doing what is illegal.’

163. There are some indications that suppliers are finding ways to lend to unapproved schools. For instance, Sterling Bank did gain internal approval by the end of 2017 to lend to unapproved schools. This could indicate that there is a tacit understanding that unapproved schools cannot be closed *en*

⁸ The total amount the surveyed schools wanted to borrow was scaled up for 18,000 schools, taking into account the proportion of low-, medium-, and high-cost schools in the population.

masse by the Lagos government. Many stakeholders indicated that this represented a change in government attitude toward private schools during the endline fieldwork. However, there is no guarantee that this attitude will not change as the current leadership changes in the coming years which makes changes at the level of policy more relevant (such changes are arguably more difficult to undo). Some of these constraints would be reduced if GAPS was rolled out. Current efforts of the programme in continuing to engage with the government on GAPS and building the capacity of associations around lobbying and negotiating with the government are important in this light.

164. High risks and associated interested rates continue to curtail lending. The standard market interest rate is 28%. Lending to micro, small and medium enterprises (MSME) is in general considered to be high risk by banks and micro-finance institutions due to the following issues: lack of formally recorded and audited financial history (used to assess profitability); identity fraud in the absence of unique ID; and lack of formal registration documents and rent agreements (Enhancing Financial Innovation and Access (EFInA), 2012). Hence banks have engaged in restrictive lending practices (see paragraph 280), at very high rates of interest (Härmä, 2011, p. 10). Even the rate of interest at which Accion Bank lent was highly subsidised after Accion’s successful application to the Central Bank of Nigeria’ MSME Development Fund. An interview with the Accion representative reveals that they have to apply for each tranche and there is no guarantee that there will be further opportunities in the future.
165. Another factor affecting the viability of lending to low-cost schools is that proprietors are less likely to own land, which can be used as collateral for loans. Predatory landlords are identified by schools as an obstacle to growth and schools seek long-term loans to enable the purchasing of lands as a solution to the problem of providing collateral (DFID , 2015). The DEEPEN annual reviews warned that buying land may not be practical in Lagos and thus there is a need for a better diagnosis of the constraints that schools face, and for which loans are considered a solution (DFID , 2015). This challenge remains. The 2014 Annual Review noted also that ‘the affordability and genuine usefulness of loans may not be uniform across the market, especially term lending for small low-fee schools’ (DFID , 2014, p. 12), and to pointed services other than credit:

‘...[T]here may be other market solutions for the issues underpinning schools’ desire for finance, such as support services to help proprietors deal with predatory landlords (understand their rights, negotiate better tenancy agreements and so forth), rather than loans to buy land and buildings.’

Financial management services

166. **The financial management services market is generally viable, while small, but it is too early to confirm this.** At baseline, there was some expressed demand for, but limited supply of, financial management services for schools. By endline, demand appeared largely similar, or perhaps slightly greater (though it is difficult to be precise about this). The endline fieldwork indicates that trainees generally felt the service they had received was useful. Supply has expanded quite considerably as service providers have worked out new viable models that are appropriate to different school types. This growth is likely to be related to DEEPEN’s activities as we explore further below.
167. There are, however, still some limits to this market. The endline fieldwork indicates that trainees often are not willing to pay for more training, even though they value what they have received. While this may be because they have achieved their training objectives, it also indicates the limits of the demand (though with over 17,000 schools, these limits are quite large). On the supply side, while there are providers that cater to low-cost schools, some providers indicate that they do not consider low-cost schools as a viable market. This is contingent on class size per training. For example, one provider estimated that she needs at least 40 participants per session to break even, with the participants bearing all of the logistical costs of setting up the venue. The provider admits that she has not even factored in implicit costs, like her office rent, in her estimation. Many providers also factor in the opportunity costs of low-cost schools as the same time spent on training a medium- or high-fee school

would provide the trainer with greater earnings. Two service providers from the pilot agreed that they will continue training low-cost schools, with one provider indicating that this would invariably involve cross-subsidising by training medium- and high-cost schools as well. The other provider is a recipient under the DFID Innovation Fund, which will allow them to provide the training at a much larger scale. The long-term viability of this market for low-cost schools therefore appears to show potential, but needs more time to be proven.

Mobile money

168. **The viability of this market is far from clear.** DEEPEN ran two mobile money pilots, with Stanbic IBTPc and FirstMonie (the mobile money arm of FirstBank), from 2014 to 2016 (DEEPEN, 2018). Parents were encouraged to register for a mobile money wallet, which would allow them to save small amounts of money (via local agents) as and when they earn. They could then use their phones to transfer these savings to regularly pay their school fees remotely. This was expected to address the issue of erratic cash flow for both parents and schools, and to provide a financial history, which banks could use to judge credit worthiness.
169. The pilots, however, did not meet much success. DEEPEN's quarterly report mentions that the Stanbic pilot suffered from 'limited buy-in from top management for this intervention' (DEEPEN, 2016, p. 11). The issue with the First Money pilot was identified as 'low levels of interest from school proprietors and parents, partially as a result of network issues with the platform, but primarily as there are few solid benefits for parents to use the system at present in the current market conditions' (p. 11).
170. Accion Bank introduced a product for parents to help them pay school fees whereby Accion would pay fees directly to the schools and parents were able to gradually pay Accion back. According to interviews, this product did not do very well and an Accion representative interviewed at endline identified the reason for this being the mindset that parents feel that that the micro-finance bank (MFB) is just helping the school. A more likely explanation could be that it did not provide a better alternative to the existing arrangement where parents pay fees in instalments without additional costs (at least not explicitly, in the form of interest payments) or paperwork. There is evidence to attribute the failure of mobile money and similar initiative by Accion Bank to design issues. This does not, however, imply that there is no viable market for products that aim to enable low-income parents in Lagos to pay fees regularly and with reduced default rates. In designing products, the fact that schools are providing a *de facto* (competing) financial service for low-income parents must be considered. The Bridge International Academies, which opened 14 schools in Alimosho and Ojo in 2016, offer a cashless solution for school fee payments, teacher salaries, supply purchases, and vendor payments, which eliminates any need for a separate finance or accounting function at the school level (Taddese, 2014). Cashless transactions is one of the core design innovations in the Bridge International Academies model (International Finance Corporation, p. 3) and this has worked well in Kenya (where mobile money is a relative success compared to Nigeria).

3.2.11 Do (low-cost) private schools care about rules and standards, and parents' opinions about these, when making investment decisions?

171. At baseline, it was found that schools tended to consider rules and standards, and parents' opinions, important. There did not seem to be a direct impact on their investments from parents' opinions, though. The endline findings are similar in this regard.
172. Government regulation of private schools in Lagos covers registration and approval, inspection, taxation, the curriculum, and assessment. Private schools should be approved by the state government before commencing operations, and approved schools can then be registered, inspected, and taxed (although unapproved schools are also registered, inspected, and taxed). The vast majority of low- and medium-cost private schools cannot afford to invest in the required facilities or do not have access to

the required infrastructure, utilities and space to meet the criteria for approval – especially in slum areas. As a result, they often take several years to complete the approval process (or never complete it), while continuing to operate, leaving them vulnerable to various repercussions of informality.

173. The endline qualitative evaluation found that schools generally care about government rules and standards to the extent that these might be a threat to their survival, make them vulnerable to rent seeking officials, and be obstacles to accessing credit. A number of proprietors in the surveyed schools pointed out that approval by the government was a necessary step for them to be able to access loans that would aid in school improvement, but that the procedure for obtaining approval was too difficult. In particular, the government requirement of ownership of the land on which the school is built was cited several times by proprietors as example of one of the approval process' impossible obstacles to overcome.
174. According to proprietor interviews, parental perceptions about government approval does not play a large role in the school's decision making. This was confirmed by parent focus groups, where parents were rarely found to be informed about the approval status of a school (for example, a number of parents claimed the school was approved when in fact it was not). Consistent with baseline findings, the endline qualitative research found that schools prioritise infrastructure improvements, such as land, buildings, equipment, and facilities, when making investment decisions. This could be because parents prioritise more visible characteristics when choosing schools, and so higher-quality infrastructure is likely to attract more students. This does not necessarily mean that schools do not care about rules and regulations at all, but it does suggest that these are seen by many schools as unattainable and schools therefore focus in their investment decisions on the more tangible goal of appealing to parents.

3.2.12 Does the regulatory regime prevent (low-cost) private schools from investing and improving quality?

175. **Despite modest improvements, low-cost private school investment in quality improvement remains inadequate from the point of view of making substantial improvements in learning outcomes.** There seems to be a combination of regulations 'on paper' and regulations that exist 'in practice' (Tooley & Dixon, 2005), which affects private schools' entrepreneurial capacities to invest and to improve, to varying degrees. On paper, private schools are regulated by the state government in terms of registration and approval, school infrastructure requirements, teacher qualifications, syllabus and curriculum adherence, assessment etc. All private schools are in theory required to be approved by the state government, and should use the approved Nigerian curriculum. Teachers are expected to have attained the minimum teaching qualification, known as the National Certificate of Education. However, school fees, and teacher training, support, and remuneration are not actively regulated. Low-cost private schools pay multiple taxes and levies to the LGA, and often to the state government.
176. Qualitative data at endline show, in practice, that many of these regulations are not strictly enforced, and many low-cost private schools cannot afford to meet the requirements – and many of the regulations are not relevant for achieving quality. These schools begin operations unofficially, raising funds through fees, which can then be invested in school improvements, while going through the approval process, which can take years, or be impossible, to complete. The current registration, on paper, puts a lot of emphasis on school infrastructure, which, along with the schools' propensity to cater to parent choices that tend to emphasise infrastructure, helps explain the predominant investment priority of private schools. In this sense, it promotes infrastructure investment but may prevent investments in improvements in the quality of teaching, for instance. Schools which are not approved used to be excluded from entering their pupils in public exams; they often addressed this by enrolling pupils for external exams in other approved private schools – or by 'persuading' public schools to enrol their pupils. Schools also employ high-school graduates or non-teaching staff in teaching positions. The turnover of teachers is high in part because of very low salaries, which are often not paid

on time because of irregular fee payments (which are often below the minimum wage), the absence of employment contracts, and the lack of training and professional development.

177. The government is aware of the existence of many unapproved schools (in part thanks to DEEPEN’s work on raising awareness about this issue) and schools are allowed to operate for some time while they seek to confirm their registration status, during which time they are inspected and taxed by local authorities. However, schools may face off-the-book demands for payments from government officials to prevent closure, which affects their cash flow and ultimately their ability to invest. As a result of these issues with registration, government approval plays a limited role in providing parents with information about school quality to guide school choice decisions. This could potentially impact on the profitability of approved schools that will be in competition with schools which are not yet approved.
178. Given that the approval process sets out criteria that are both unrelated to quality and unattainable by many low-fee schools, many of these schools perpetually operate in a legal limbo (which causes myriad difficulties which constrain growth and development) and could be, in theory, shut down any time by the government (and some governments have tried this). As a result, lenders see them as too risky: without the stamp of government approval (or at least a substitute measure, such as a GAPS assessment), lenders (with the notable exception of Accion Bank) are unwilling to give loans to low-cost private schools, which makes investment in improving quality a distant dream for many of these schools.
179. The tax sensitisation survey of 2017 (based on a sample of 141 proprietors)⁹ provides a glimpse into the magnitude of this challenge (DEEPEN, 2017). Only 4% of the private school surveyed were registered with the MoE, although a high percentage applied for registration (60.1% among low-fee schools):

Table 3: Registration by fee category (entire sample)

	Low-fee	Medium-fee	High-fee
Registered with MoE, Lagos	4.14	25.6	38.2
Applied for registration with MoE	60.77	47.21	57.62
Unregistered / no application in process	35.1	27.19	4.19

Source: Tax sensitisation survey 2017

180. In spite of this, the overall relationship between the MoE and private schools in Lagos appears to be improving, which is a major achievement of DEEPEN. In 2017, the percentage of schools who indicated that their experience with the MoE was much better was 10.2% among low-fee schools, 14.7% among medium-fee schools, and 15.2% among high-fee schools. The percentage of schools indicating that the experience was better was 66.5% among low-fee schools, 62.1% among medium-fee schools, and 77.3% among high-fee schools. This would suggest that among all three fee category schools the experience with the MoE was improved compared to what it had been in the past. There was also an increase in the percentage of schools serving the poor in Ojo—the LGA were GAPS had been rolled out on a pilot basis—that have a more positive view of the rules and standards affecting them (from 40.4% to 44.5%).

⁹ This study was a survey of two treatment groups and a control group. Treatment Group 1 consisted of 60 proprietors who took part in large-group training; treatment Group 2 consisted of 40 proprietors that took part in small-group training; and the control group consisted of 40 proprietors who did not receive any training at all. The sample is thus representative of schools that undertook the different types of training, but not of all schools, and the application of results is limited to this group.

3.3 Pertinence of approach and design

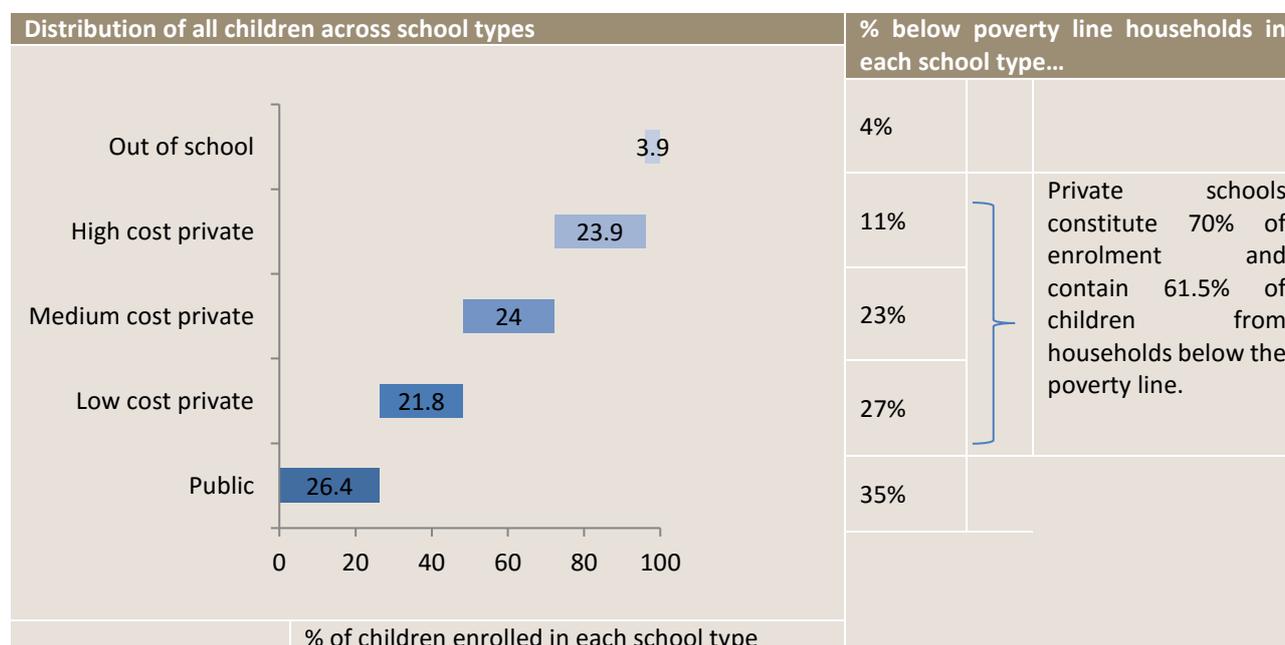
3.3.1 Given other education initiatives in Lagos, is a focus on private sector quality the most appropriate approach?

181. The baseline evaluation report covered this question in 2015. At that stage, the answer was ‘yes: private school quality in Lagos is an appropriate focus for DEEPEN.’ This was supported by three types of evidence: first, the size and nature of the private school sector in Lagos; second, the openness of the Lagos state government to working on private sector quality; and, third, the focus of other education initiatives in Lagos.

182. For clarity, we restate the baseline findings below, and then update this conclusion for 2018 to assess DEEPEN’s continued relevance.

Size and nature of private school sector: Most children in Lagos attend private schools. According to Tooley *et al.* (2013), around a quarter (27%) of children below the poverty line are in low-cost private schools, a quarter (23%) in medium-cost private schools, and around a third (35%) in public schools, meaning private schools cater to a little over 60% of students below the poverty line (see the table below). However, there is some doubt about the validity of these poverty data, as discussed extensively in Bano *et al.*, 2015. For example, it does not tally with an ESSPIN study on poverty in 2011, and estimates that 55% of households in Lagos are below the poverty line, which is considerably more than the World Bank’s estimates of 15.5% in the South West (using the official poverty line). The distribution of poverty among private schools in Lagos is not easy to ascertain, but it is likely that the figures below overstate the number of poor households in Lagos.

Figure 15: School types and poverty status

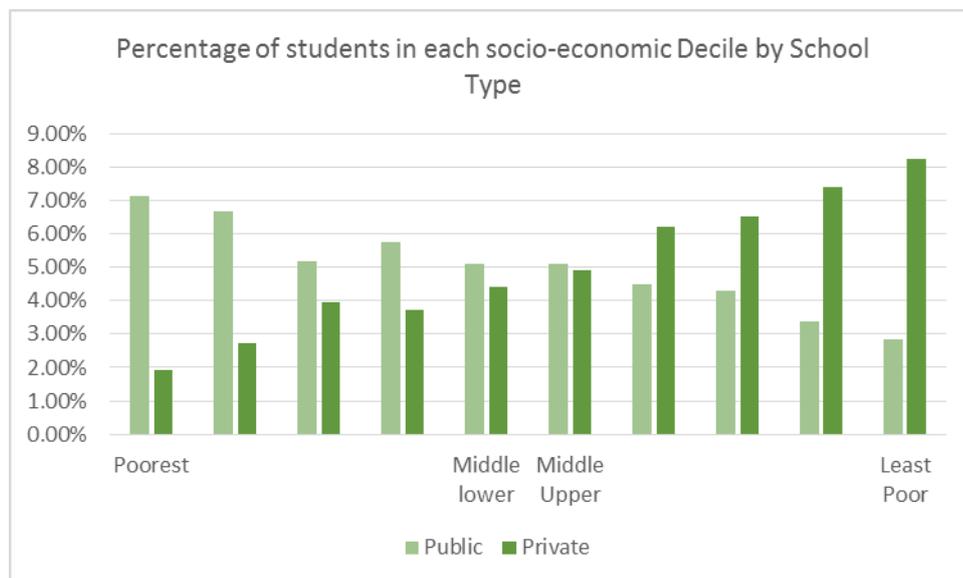


Source: Tooley (2013: 19), cited in DEEPEN Evaluation Framework (2015)

At endline, the large size and low levels of learning of students in private schools in Lagos remain compelling reasons to support a programme working on education through private schools. There is no compelling evidence to indicate that the number of students in private schools or the number of private schools has substantially decreased since baseline. The distribution of children across private school types by poverty status is still difficult to ascertain. The 2016 P4 comparison study collected data on household wealth using a simple asset index and found that the poorest households in the sample were much less likely to attend private school, but this is not directly related to poverty status. The

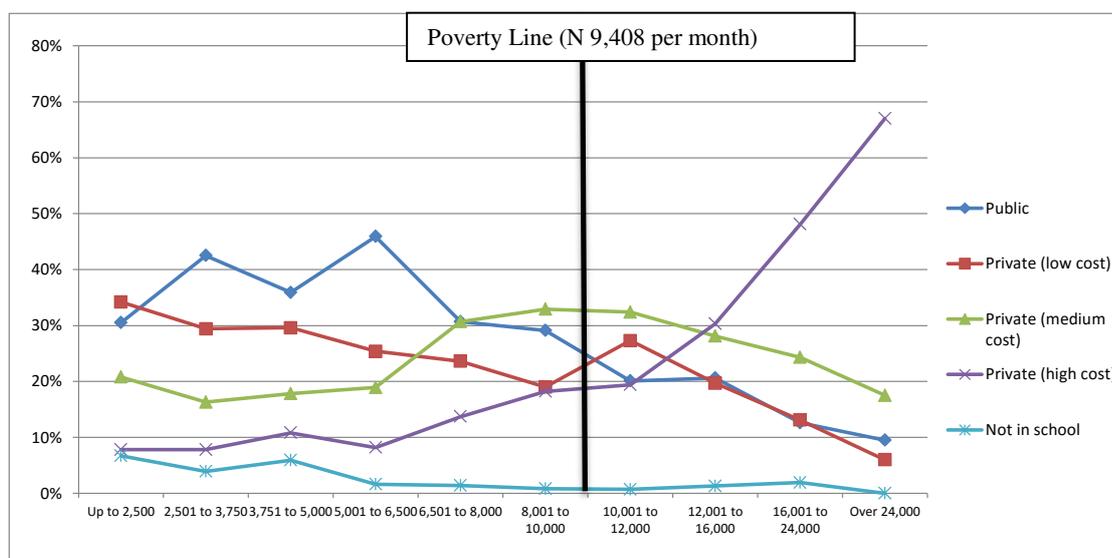
conclusion that in general the poorer students were more likely to be in public school is also apparently from a school choice survey in 2014 (see Figure 17 below).

Figure 16: Percentage of students in each socioeconomic decile by school type (2016)



Source: EDOREN (2016)

Figure 17: School choice by income decile



Source: Tooley, J., & Yngstrom, I. (2014). *School Choice in Lagos State*

Learning outcomes: The learning outcome results gathered at baseline suggested that most children attending private schools in the evaluation LGAs were not achieving the level prescribed by the curriculum in both literacy and numeracy, and that children in low-cost private schools and from poorer households performed worse than children in high-cost private schools and from richer households. The baseline results suggested that school choice does matter for learning outcomes: so focusing on school quality is important. As discussed above, the endline results are more positive about the levels of achievement with respect to the curriculum. Comparative evidence on learning outcomes for P4 students in public and private schools in Lagos from a study in June 2016 did not indicate that learning outcomes are better in private schools (EDOREN, 2016), as indicated in the section above.

- **Support of the Lagos state government for a focus on private school quality**, sufficient to allow DEEPEN to achieve its objectives. At baseline this appeared to be present, but part of the reason for this was that DEEPEN had successfully developed this supportive attitude (see DFID 2015 for evidence of this), particularly in terms of the Lagos state government’s ownership of the GAPS process. DEEPEN’s success in this area is clearly strong evidence that at the time of design, the scoping mission and business case were correct to conclude that the Lagos state government could be amenable to a project with this sort of focus.

As the baseline report noted, this positive change in attitude is reversible, so this conclusion needed to be checked again at endline. And indeed, following the election in 2015, where several key personnel changed, the supportive attitude of key government officials was reversed, as detailed in Section 4.2.3.1 and in annual reviews. Overcoming this less positive attitude has been one of the major challenges to DEEPEN’s effectiveness, despite well-structured engagement from DEEPEN with the government.

However, the balance of evidence presented in Section 4.2.3.1 and in DFID annual reviews suggests that DEEPEN was able to engage with government on this issue despite the change in attitudes. Were DEEPEN to be initiated today, our judgement on the basis of evidence reviewed at endline is that this criterion of relevance would still be met, because DEEPEN would still be able to achieve sufficient traction to achieve key outcomes.

- **Balance with other initiatives in Lagos.** At baseline, no other projects supported by development partners worked directly with the private school sector. DFID support had focused on Lagos as part of the State-Level Programmes, including in education (ESSPIN), health, governance, accountability, and growth and employment (also funded by the World Bank). The World Bank had focused on infrastructure, urban development, and governance. GEMS (Growth and Employment in States) adopted, in part, an M4P approach and works in Lagos, but did not focus on the education sector (although DEEPEN collaborated with GEMS3, which focused on improving the business environment, in relation to multiple taxation interventions). At the same time, there were several other smaller initiatives in the private education sector in Lagos (for example, through the private schools associations), with which DEEPEN appeared to be well coordinated. So, at baseline it was ‘reasonable to conclude that DEEPEN’s focus is appropriate given other initiatives’ (EDOREN, 2016).

At endline, the same conclusion holds. Somewhat surprisingly, there are no other major initiatives in the private school sector in Lagos, other than those funded by DFID under the auspices of the DEEPEN Innovation Fund (not covered by this evaluation), which has funded the entry into the market of new private school providers – specifically, Bridge. The lack of substantial other entry into the market is related to the overall weakening of the economic environment, as described in Section 4.2.3. DEEPEN still appears well coordinated with other market players, although the entry of Bridge has caused challenges.

3.3.2 Is the M4P approach the most suitable approach for generating improved learning outcomes through private sector education?

183. The absence of data on DEEPEN’s impact on learning outcomes complicates the determination of how suitable the M4P approach might be for generating improved learning outcomes. It is, however, possible to confront the assumptions of the model and the arguments for and against the M4P approach with the empirical findings of the qualitative endline evaluation in assessing whether M4P is likely or not to be more suitable for this task than other approaches. Overall, M4P shows promise in facilitating school improvement, despite some of the challenges that DEEPEN had to overcome. This may have an impact on learning outcomes, but this is not clear yet. While a market systems approach is quite likely necessary to improve learning outcomes in private schools, as we discuss further in the concluding section, there remains a question whether it is sufficient to substantially benefit children in low-fee schools.

184. The findings of the endline qualitative evaluation suggest that the M4P approach, as implemented by DEEPEN, has the potential to improve learning outcomes (even if these changes are not yet measurable and might require a longer time-span to manifest), but also indicate that the gains may be more limited for the very poorest households. This is for two principal reasons:

- Available if patchy data (discussed briefly above) suggests that while there are children from poor households in private schools, large numbers of children from poor households are in public schools, and the poorest households are more likely to be in public than private schools. This means that any programme that focuses only on private schools will miss many of the poorest households. This would also be true for any programme, such as ESSPIN, that focuses only on public schools.
- The data also suggest that the poorest households are more likely to be in low-cost than other private schools, and endline qualitative fieldwork indicates that changes in low-cost private schools are so far more limited than in other schools, and have not yet translated into learning. We do not have the data at this point to conclude confidently whether this is because i) a market systems approach such as DEEPEN is sufficient to improve learning outcomes in low-cost private schools but more time is required, or ii) a market systems approach such as DEEPEN is necessary but not sufficient to improve learning outcomes in low-cost private schools.

185. As Bano *et al.* note, much of literature on private schooling is contentious. In particular, it is not clear, globally, that children from the poorest households can afford private schools that are of higher quality than public schools, and where they can, this often takes up a very large proportion of their income. As a result, ‘conventional’ approaches to improving learning outcomes through private schooling have focused on i) improving the access of poor households to quality private schools (e.g. vouchers), or ii) improving the quality of low-cost private schools (e.g. teacher training).

186. However, the scoping study, business case, and other DEEPEN documentation argued that neither of these approaches would be feasible or sensible in Lagos, given: i) the large size of the private sector, ii) the high poverty headcount, and iii) the limited fiscal space, organisational capacity, and political appetite to spend on private education of the Lagos state government. On the other hand, a successful M4P intervention, it was argued, would not require significant organisational resources or additional financial commitments from the public purse, and therefore could avoid these problems altogether. In the short- and medium-term these arguments are likely to be valid, and DEEPEN’s M4P approach is likely to be relevant. However, Bano *et al.* (2014) pointed to two reasons to rethink these arguments over a longer time period: i) a risk (unproven) that schools cannot improve quality substantially without increasing fees, and ii) the fact that per-student costs are lower in the low-cost private sector than public sector, so there should be space for the government to pay for private education conventionally. These are not arguments for which we have collected additional evidence at endline, so we return to these points in the conclusion.

187. The 2015 DEEPEN Annual Review (DFID, 2015) concluded that DEEPEN’s TOC remained logical and relevant. However, Bano *et al.*’s conclusions on the appropriateness of the model are still pertinent (2014, p. 19):

‘The design of DEEPEN is currently entirely focused on innovating through market mechanisms without trialling any subsidy-related intervention. This might appear challenging and exciting but this approach runs the risk of not really reaching the poor; instead, the benefits of such interventions might be best captured by the medium-fee schools.’

188. This concern is indeed consistent with the findings of the qualitative endline evaluation. The data indicate that even though the M4P approach, as implemented by DEEPEN, has the potential to have an impact on school-level indicators (such as pedagogic practices, school management, and investment in facilities and the learning environment) — which, in turn, can be expected over time to contribute to

improving learning outcomes— there are limits to the gains that can be expected among schools catering to children from very poor families. Some of these schools (in our sample a subset of low-cost schools) perpetually face the prospect of needing to shut down for financial reasons and cannot afford any investment in quality whatsoever; an improved supply of services targeting low-cost private schools achieved by DEEPEN is therefore out of their reach. These schools cannot afford to pay for business or pedagogy training, cannot afford to access loans due to their lack of any formal recognition as well as collateral, and are often not actively engaged with school associations. As one of the informants in the endline qualitative survey put it, echoing the endline evaluation’s school-level findings in approximately half of the Strand 1 sample:

‘[...] I don’t see them [the poorest of the schools] being able to respond to any market forces. In some cases, some of these schools operate like charity. I have spoken to a school owner who told me she was considering closing down her school. I asked why, she is located in a local area. She said, for a start, parents are unable to pay and when they bring these kids to school in the morning, it is clear to her that they have not been fed and she doesn’t want any kid dying in her school. So she had to make a provision to feed them. No payment, still spending money to feed the kids. That’s one school, and I do not have any idea of how many such schools are out there, right?’

189. While a comprehensive survey would be needed to establish the percentage of such schools in Lagos, it is notable that almost half of the endline qualitative sample (in which schools were selected at random within pre-defined categories) would fall into this category of schools that cannot afford to pay for business or pedagogy training and are typically also unable to access loans due to lack of formal recognition and collateral. Two experts on the private school market in Lagos interviewed as part of the endline evaluation went so far as to claim that an M4P approach in its ‘pure’ form (in their view without subsidies and vouchers)¹⁰ is unlikely to be sufficient to generate much benefit for any of the children living under the poverty line in Lagos.
190. Despite these limitations, the findings point to the potential of M4P to generate school improvement (with likely downstream impact on learning outcomes) – particularly in the sector of medium-fee schools. The increased affordability of school improvement and BDS, as well as the increased availability of loans, in this segment have addressed important needs and removed impediments to school-level change. The capacity-building of associations and the creation of a coalition of associations has given medium-fee private schools, and some low-fee ones, added political agency in pursuing their goals of improvements in the regulatory environment.

3.3.3 Has DEEPEN drawn sufficiently from other M4P and education programmes to design the best intervention set possible?

191. Given the experimental nature of DEEPEN and the challenges the program has faced in its advocacy with the Lagos state government, learning from other programmes, and flexibility in approach has been a key factor in implementation. This can be conceptualised in two distinct but related ways: (i) the extent to which DEEPEN’s original design managed to draw from the successes of other interventions, and (ii) the degree to which DEEPEN has been flexible in adapting its approach during its implementation phase, and incorporating learning from other programmes in the process. The findings show that while DEEPEN’s design drew quite extensively from other M4P and education programmes, its implementation could have been more flexible, and could have done more to bring in solutions from other programmes. While modifications to the programme were made, these were often too minor,

¹⁰ Many market systems experts do not exclude the use of vouchers or subsidies in a market systems approach, provided they are sustainable. The ‘purity’ of the market systems approach may have been misunderstood by these respondents.

came too late, and ultimately did not suffice to help the programme achieve its goal of impacting on learning outcomes.

192. In addressing point (i) above, the review conducted by Bano *et al.* (2014) explored the eight core expectations of the M4P framework and 15 M4P programmes from other contexts and sectors, and set them against DEEPEN's approach. Overall, it found that DEEPEN could have drawn more on the experience of other M4P programmes in focusing on the poorest and on equity. With regard to other education programmes, DEEPEN was adversely affected by being highly innovative so there were no explicitly M4P programmes to draw on, but there were likely to be lessons from similar intervention sets in other countries (such as Pakistan) from which DEEPEN could have drawn further. The eight core expectations for M4P design are: a focus on the poor; reliance on the market mechanism; large scale of interventions; M&E focused at the system level; sustainability of impact; consideration of equity issues; adaptive and responsive programme design; and management of unintended consequences. DEEPEN's design was, according to the review, broadly consistent with six of the eight core expectations, but needed adjusting to maintain a focus on the poor and to ensure a consideration of equity issues. The review also pointed out the lessons relevant to DEEPEN from attempts to engage in markets for media and micro-finance, complex markets in themselves, and the need for gradual development, realistic expectations, adaptability, and responsiveness.
193. With regard to other education interventions, the design of the DEEPEN programme can be seen as being closely aligned with the suggestion of a recent World Bank working paper, based on over a decade of research on the growth of private schools in Pakistan, that policy should take a pragmatic approach that is focused on addressing constraints to the market, including access to information about school quality, access to finance, and access to skilled teachers (Andrabi *et al.* 2015, cited in DFID, 2015).
194. With regard to point (ii) above, the degree to which DEEPEN has been flexible in adapting its approach during its implementation phase, the *ex ante* review, the 2014 and 2015 annual reviews, and the baseline evaluation teams all noted that the DEEPEN team was showing an increasing level of sensitivity to these issues. There was particular recognition that DEEPEN has to be a responsive and adaptive programme, which was reflected in its change in approach as a result of the 2015 DEEPEN quantitative baseline findings and the 2015 DEEPEN Annual Review. The 2015 Annual Review found that the response to some of the recommendations in 2014 had been slow and this was taken on board by DEEPEN, including with regard to the need to increase its focus on monitoring, to a limited extent. In response to the quantitative baseline findings, which indicated that learning outcomes were lowest among poorest households, there were discussions about how DEEPEN's interventions could be tailored to better target the poor.
195. The findings of the qualitative endline study indicate that between 2015 and late 2017 the programme remained limited in flexibility in its responses to external challenges. The unwillingness of the Lagos state government to roll out GAPS, as well as the economic recession of 2014/15, posed significant challenges to DEEPEN's synergistic TOC, in which the changes in rules and regulations were expected to play an enabling role with the programme's other workstreams. Without GAPS in place, all workstreams significantly suffered, and this called for a re-thinking of the programme. Some significant modifications were introduced—most notably work with state governments outside Lagos, a greater focus on capacity building with school associations, and the CSO awareness-building intervention in the information workstream. However, on balance, respondents felt that these modifications were too few and too late for the programme to be able to be able to influence learning outcomes in its lifespan. Furthermore, the debates on equity and benefitting the poorest households translated into only very limited programme modifications (for example, DEEPEN worked with radio stations transmitting in local languages in 2015–2017). The view that DEEPEN lacked flexibility was expressed by a number of experts interviewed as part of the evaluation, and was echoed by many (though not all) of the internal DEEPEN team members.

196. Multiple reasons were put forward by DEEPEN staff for the apparent lack of flexibility. For some, the programme design was too rigid to allow for significant modifications during implementation, while others pointed to externally imposed constraints imposed by DFID, and still others saw internal dynamics within the DEEPEN team as part of the reason. Three different education advisers, in addition to several private sector advisers, were responsible for managing the programme on DFID’s side during DEEPEN’s lifespan, which DFID staff interviewed for the evaluation described as ‘probably disruptive to the programme’—a view echoed by some of the DEEPEN staff who also cited ‘micromanagement’ by DFID as one of the barriers to more significant change. A DFID representative interviewed for the evaluation, on the other hand, could not recall any instances when DFID disagreed with the DEEPEN team about a proposed substantial modification to the programme. Two of the experts interviewed for the evaluation noted that changes to staffing may have affected DEEPEN’s expertise to implement an M4P programme in a way that was flexible and responsive to obstacles encountered during the process of implementation, such as resistance from the government, but this was not possible to triangulate further. Several of the DEEPEN staff members also cited the team’s difficulty in recruiting and retaining an M&E expert, which has created difficulties in collecting and analysing data about the programme’s performance on an ongoing basis. While it is beyond the scope of the endline evaluation to assess all these institutional dynamics (see Section 6.2 for a further discussion of the management of DEEPEN), what the views and opinions expressed to the evaluation team by various parties make clear is that DEEPEN faced not only external political and economic challenges, but also a number of internal challenges that constrained the programme’s flexibility and ability to adapt to changing circumstances.

3.3.4 Are there complements to the M4P approach that would increase impact?

197. Answering this question requires some speculation since it refers to an untestable hypothesis. As set out in the evaluation framework, we answer this question with reference to existing literature and the views of respondents, and our judgements as evaluators.
198. The market systems approach is potentially very broad in scope, so it is somewhat challenging to isolate ‘complements’, as opposed to variants of a market systems approach. For instance, at baseline we discussed whether a form of subsidy to private education for the poorest, such as vouchers, would be an appropriate complement to DEEPEN’s approach to improve the equity of market outcomes. In principle, according to market systems experts, subsidies can be entirely within the scope of market systems approaches, provided they are politically and financially sustainable. DEEPEN investigated, during the design phase and subsequently, the possibility of vouchers for private education in Lagos and concluded – in our view entirely reasonably – that there was limited political appetite for them at present, that they were likely to be impractical given the fiduciary risks and operational demands, and that the government’s fiscal position was unlikely to allow the sort of substantial additional spending this implied. The economic contraction of the last few years in Lagos increased fiscal pressures. It is reasonable to conclude, therefore, that substantial subsidy was not a viable option that was within DEEPEN’s gift to pursue over the last five years.
199. However, in our judgement, organisations seeking to support the quality of education for the poorest students should expect market systems approaches that do not incorporate a substantial demand-side subsidy to be necessary but not sufficient to do this. This is for two overarching reasons. First, many of the poorest students remain in public education. Second, based purely on economic theory, the merit good characteristics and positive externalities of education, and myopic preferences of parents (as well as their limited purchasing power in many low-income contexts), mean that private investment in education will tend to be below what is socially optimal. This will lead to inefficient and inequitable outcomes (Bano *et al.* 2014). Long-term, therefore, the Lagos state government and its partners, such as DFID, should not assume that a market systems approach without subsidy will lead to socially optimal outcomes in education. This is not an argument that DEEPEN should have somehow provided subsidies: this was indeed impractical in this time-frame, and given DEEPEN’s budget. Rather, it is an argument that organisations with responsibility for education outcomes should expect to invest public

money in achieving them, long-term – whether the majority of providers of education are private organisations or the state. We return to this discussion in the conclusion.

3.3.5 Given evidence on DEEPEN’s assumptions, is DEEPEN’s approach valid?

200. **Some of the assumptions underlying DEEPEN’s original design turned out not to be entirely correct, but this does not, in our judgement, invalidate DEEPEN’s approach.** Specifically, the economic downturn and the variable government interest in supporting private education made it difficult to implement DEEPEN as originally designed, particularly with regard to GAPS. Levels of learning probably turned out to be better than anticipated in the design of DEEPEN, but still left significant room for improvement. At a more detailed level, some of the assumptions about individual planned interventions turned out not to be correct: mobile money, for instance, developed much more slowly in Lagos than anticipated. None of these changes suggest to us that a market systems approach to improving the functioning of the education market in Lagos is invalid.
201. However, there are some lessons from the approach to M4P that DFID and DEEPEN took that are relevant to contexts beyond Lagos. DEEPEN is significant in part because it was the first programme to apply the principles of M4P to education. The business case argued that much learning could be derived from DEEPEN in understanding the extent to which the M4P approach might be applicable to education markets; this was also one of the reasons behind an extensive and rigorous evaluation of the programme by EDOREN. The political and economic challenges had a major impact on GAPS and this affected virtually all of the programme’s remaining interventions. As such, many of DEEPEN’s limitations can be traced to external causes specific to the time and space in which it operated, or to a slight lack of flexibility in responding to them. While neither of these factors is inherently linked to the M4P approach and should therefore not be seen as a comment on the approach in general, they highlight the difficulties an M4P programme might face in the politically and economically fragile contexts that characterise many of the low-income countries around the world. This is not necessarily specific to M4P approaches – any systems strengthening programme will face the same challenges, as will direct delivery to some extent.
202. The questions raised about equity issues are, however, important to consider when applying the M4P approach in any education context. As a part public good and a merit good, education comes with specific challenges that any successful M4P programme needs to take into consideration. These do not invalidate the M4P objective of improving the functioning of markets, and DEEPEN’s approach to improving market functioning is valid, as we discuss further below. However, it does suggest that improving market functioning should not be the only objective of a programme concerned with improving the equity of outcomes – and particularly outcomes for the poorest.
203. This does not mean, moreover, that an M4P programme in education should focus exclusively on the most vulnerable of schools. Research shows that most medium-fee schools cater to pupils from households below the poverty line, as well as students who may not be from families that live under the poverty line but who are poor. Additionally, medium-fee and high-fee schools are also important as they set standards for low-fee schools to aspire to. The focus on subsidies for low-fee schools therefore should not overshadow the need for targeted interventions that help improve the performance of all the segments of a private school market.

3.4 Coherence with policy environment

204. This section examines the following three questions together:

3.4.1 Is an approach to education that strengthens the quality of private (as opposed to public) sector education consistent with education policies and strategies in Lagos and Nigeria, and those of DFID?

3.4.2 Is an M4P approach consistent with education policies and strategies in Lagos and Nigeria, as well as those of DFID?

3.4.3 Is DEEPEN’s specific approach consistent with education policies and strategies in Lagos and Nigeria, as well as those of DFID?

205. At baseline, in agreement with DEEPEN and DFID, these questions were examined in a limited way only, generating the conclusion that DEEPEN was coherent with the policy environment. This was for the following reasons:

- Lagos had one of the world’s largest private education markets, and while the state deems education to be free and compulsory it has not been able to meet the demand for quality education from Lagos’s rapidly expanding population. Under the provisions of the 2004 Universal Basic Education Act every child is entitled to free basic education (early childhood, primary, and secondary), so supporting the development of private sector education would not be completely consistent with broader Nigerian education policies. However, given that public schools have not been set up at the required rate, supporting the burgeoning private sector will support the overall goal of universal access of children to quality education, albeit not free. As a result, a private sector / M4P / DEEPEN approach is clearly *relevant*, and reflects the reality of the context, but is not necessarily entirely coherent with existing policy.
- DEEPEN’s approach aimed to address the challenges faced by private schools attended by the Lagos poor and to provide a degree of legitimacy to the private sector. It works at nudging the Lagos state government to provide a more supportive regulatory environment for private schools, with the idea that the government might support them financially in the long run. This is in line with the Lagos government’s recognition of the existing role of private schools in the state and its welcoming of donor support to the sector, which indicates a move away from its previous attitude toward private schools. Recognition of and support to private schools also chimed with emerging DFID priorities, after the 2010 UK election, to promote private sector development.

206. At endline, there have not been substantial changes to education policies or strategies in Lagos, Nigeria, or DFID that warrant a re-examination of this conclusion.

- The Government of Lagos announced a ‘360 education’ policy in 2016, which emphasised the importance of acquiring functional and life skills, but this has had little direct impact on DEEPEN.
- The DFID Nigeria operational plan 2011–2016 made several references to leveraging the private sector in Nigeria, including Lagos (DFID, Updated December 2014) . The DFID Nigeria profile 2017 is very summarised, but signals a focus on education in the north-east, rather than Lagos, so a more detailed DFID Nigeria operational plan may not be as coherent with DEEPEN as in 2014 (DFID, 2017).
- In 2018 DFID released a new global education policy document, which is supportive of work on non-state provision, specifically public–private partnerships, access to finance, regulation, and accountability, all of which are aligned with DEEPEN’s work (DFID & UKaid, February 2018).

4 Effectiveness and impact

207. This section explores the extent to which DEEPEN managed to achieve the impact envisioned in its TOC. Answers are organised around the four primary evaluation questions outlined in the box below, and secondary questions are detailed in each section.

4.1 Methodology

208. The primary sources of data in this section came from school-level fieldwork in Lagos in November–December 2017, along with interviews with representatives of various service providers. Additional insights came from experts and DEEPEN staff. These data were triangulated both within qualitative research strands (identifying patterns of convergence and divergence among individual schools and service providers), between strands, and also with the baseline report, DEEPEN’s internal evaluation reports, and other secondary sources.

209. Even though the external validity of findings from qualitative evaluations is by definition limited, the sampling of schools in Strand 1 was designed to achieve the greatest possible degree of generalisability. The sampling strategy chosen was a stratified sample: categories of different unique ‘blends’ of DEEPEN interventions were identified, and the most common ones prioritised. The different combinations of interventions were further divided into three categories: (i) low-intensity (typically one intervention), (ii) medium-intensity (usually two interventions), and (iii) high-intensity (three different interventions, or repeated similar interventions). The sample was skewed toward medium- and high-intensity schools, but ensured representation of all three categories.

210. Randomisation was applied in choosing schools within the different ‘intervention blend’ categories; this helped increase the external validity of any patterns identified within the different strata of the sample while ensuring that all the key intervention combinations are surveyed as part of the evaluation. As no data were available about the fee level of schools, the fee categories were only assigned retroactively after collecting data on the fee levels in the schools in the sample:

Table 4: Strand 1 sample fee composition of schools

Fee category	Number of schools
Low-fee	9
Low-medium	4
Medium	4
Medium-high	1
High	2

211. As Table 4 shows, low- and medium-fee schools dominate the sample, in line with DEEPEN’s focus on schools that fall into this category. The geographical distribution of the sample is split among a number of LGAs in Lagos and reflects a disproportionate focus on schools located in Ojo:

Table 5: Strand 1 geographical distribution of schools

Fee category	Number of schools
Alimosho	2
Ifako-Ijaiye	1
Ikeja	1
Kosofe	1
Ojo	12
Oshodi-Isolo	2
Shomolu	1

212. The reason why schools from Ojo are over-represented in the sample is that this was the LGA where GAPS was rolled out, and as many of the ‘intervention blend’ categories contain GAPS as one of the interventions administered to the school, Ojo emerged as the best represented LGA. In terms of the approval/registration of schools in the sample, it is clear that very few of these schools have been formally recognised by the government:

Table 6: Strand 1 school registration and approval

Number of schools		Registered	Not registered	No information
Not approved	18	17	1	2
Approved	2	2	N/A	N/A

213. This is in line with the expectation that low- and low-to-medium-fee schools (much of the sample) are generally unapproved in Lagos.

214. Most schools were visited twice. On the first visit, a representative of the evaluation team explained to the proprietor the purpose of the evaluation, verified basic information about the school (most importantly, whether the school had been part of any DEEPEN interventions and which ones specifically), and scheduled a visit for the research team. In some cases, the schools claimed they had not received any interventions or the particular ‘blend’ of interventions differed substantially from the information supplied by DEEPEN; in such cases, schools were dropped and replaced by other schools randomly selected from the respective strata. The same procedure was followed in cases when proprietors did not give permission for their school to be included in the evaluation.

215. On the day of the second visit, a variety of research activities took place at each of the schools. Typically, this included proprietor and head teacher key informant interviews, a focus group discussion with teachers, individual interviews with any teachers who might have participated in one of the training programmes linked to DEEPEN, and a focus group discussion with parents. Whenever permission was obtained, the research teams recorded the interactions. The research teams also completed log forms for each of the schools which contained basic information about the school, including fee levels, number of students and teachers, and the gender ratio of students and teachers. The teams also recorded in the log form their impressions of whether DEEPEN had any impact on the school, and, if so, what evidence supported this finding.

216. Later on, after the recordings were transcribed, these initial ‘findings’ were compared with the analysis that emerged after a detailed examination had been made of the transcripts and a coding process using NVivo has been carried out. After the completion of coding, the team proceeded with thematic analysis of findings from schools and juxtaposed these with evidence from other evaluation strands (where a similar process of data collection, transcription, and coding was followed). This led to the triangulation of data from various sources and preliminary answers to research questions. These

preliminary answers were then revised through an iterative process within the research team where different researchers involved in the evaluation commented on and compared findings across individual sets of questions and returned to the raw data as needed in refining the answers to the research questions.

High-level effectiveness and impact questions at endline	
Effectiveness	To what extent did DEEPEN attain its logframe objectives, and why?
	Did DEEPEN lead to improved private sector school performance, especially among schools serving children from low-income households?
	Did DEEPEN deliver the outputs and activities expected?
Impact	<p>What were the positive and negative changes produced by DEEPEN, both direct and indirect, intended and unintended, of the following output areas:</p> <ul style="list-style-type: none"> • rules and standards; • information; • finance; and • school improvement.

4.1.1 Reach, impact, and ‘meaningful impact’

217. For the purposes of evaluating the impact of DEEPEN’s interventions, we distinguish between reach, impact, and what we refer to as ‘meaningful impact.’ By reach, we mean the participation of schools in one or more of DEEPEN’s interventions (output level). Impact is defined as a noticeable change that can be reasonably causally attributed to the intervention. ‘Meaningful impact’ refers to only those changes that can be seen as reasonably likely to contribute to changes in learning outcomes.

218. As learning outcomes were not measured at endline, and in many cases it is too early to expect school-level changes attributable to DEEPEN to translate into learning outcomes, determining what counts as ‘meaningful impact’ involves predictive modelling of causal chains that comes with a degree of speculation. While it is not possible to predict with certainty whether certain school-level changes will or will not result in improved learning outcomes, we used several resources at our disposal in making this judgement: an analysis of the consistency of the changes we found with DEEPEN’s hypothesised impact chains rooted in its TOC, triangulation of evidence between evaluation strands as well as secondary sources, and the team’s considerable expertise in evaluating education programmes.

219. The idea of ‘meaningful impact’ in the context of a qualitative-only survey can be seen as subjective and potentially contentious. It is worth pointing out, however, that a qualitative approach is often necessary to distinguish between reach, impact, and meaningful impact. Causal chains play out differently in different contexts and for different sets of actors, and in-depth interviewing and observation can make it possible to determine whether a particular change is likely to result in meaningful impact in the specific context of an individual school.

220. It is therefore unsurprising that our analysis of ‘meaningful impact’ does not always lead to the same conclusions as DEEPEN’s internal M&E surveys performed prior to the endline evaluation. For example, a survey that assesses school participation against school fee level and uses this analysis to determine whether the poor (and the very poor) benefitted from the intervention might conflate reach with meaningful impact, without assessing the likelihood of the school’s participation in the intervention to contribute to learning outcome improvements. The qualitative methodology, on the other hand, is better positioned to make the distinction between reach and meaningful impact, but due to the small size of the sample the generalisability of its findings is limited.

221. In the discussion that follows, we present an analysis that often differs from the findings of the prior larger surveys conducted by DEEPEN. These discrepancies do not mean that the surveys reached wrong conclusions, or that our own analysis is wrong: rather, they suggest that to find more conclusive answers to the evaluation questions on impact a mixed-methods evaluation would be needed that would combine the generalisability of a large sample with the depth of qualitative research. In the absence of such a design, we state our findings and point out where these differ from the findings of earlier surveys.

4.2 Findings

Summary answers to evaluation questions	
To what extent did DEEPEN attain its logframe objectives, and why?	Robust data assessing DEEPEN’s poverty focus are not available, but achieved various logframe targets relating to changes in school’s behaviour, including schools that likely served poor households. Much of the programme’s impact was constrained to school-level changes and is unlikely – on the basis of the small-scale qualitative evidence – to translate into learning outcomes at the time of endline evaluation. This was mainly due to obstacles to implementing GAPS arising from the Lagos state government, challenges in making rapid changes to DEEPEN’s approach, and the relatively short time-frame involved for impact on learning to appear.
Did DEEPEN lead to improved private sector school performance, especially among schools serving children from low-income households?	While DEEPEN had an overall positive effect on private school performance, and interventions reached a large number of low- and medium-cost schools, the gains in low-fee schools in terms of substantial changes in quality and learning appeared more modest than in other schools. These schools particularly struggle with access to credit with which to finance improvements in quality, and the supply of financial services, especially to low-fee schools that lack government approval, was limited. Such schools were less able to afford to pay for school improvement and BDS, despite their increased affordability as a result of DEEPEN.
Did DEEPEN deliver the outputs and activities expected?	Although DEEPEN succeeded in delivering outputs in several areas, a key intervention—GAPS—was not rolled out. The lack of implementation of GAPS meant that other intervention areas also suffered. This was most pronounced in the information workstream, which struggled to deliver on its expected outputs. The finance and school improvement workstreams were also affected, as GAPS would have boosted the incentives for both suppliers and consumers of financial and school improvement products to invest in these services.
What were the positive and negative changes produced by DEEPEN, both direct and indirect, intended and unintended, of the following output areas: <ul style="list-style-type: none"> • rules and standards; • information; • finance; and • school improvement. 	<p>Rules and standards: This workstream succeeded in changing government perceptions and practices vis-à-vis private schools but made more modest progress on the formal policy and legislation underpinning these practices. This means there is now a somewhat more favourable regulatory environment for private schools, but the sustainability of these limited gains is less clear.</p> <p>Information: The information workstream had only very limited success in increasing the awareness of various stakeholders of school quality, and thus did not produce a systemic change.</p> <p>Finance: A provider of credit—Accion Bank—developed a product aimed at low-fee private schools as a result of DEEPEN, and this made it possible for a large number of schools to obtain a loan for the first time. This was supported by a favourable line of credit from the Central Bank of Nigeria. Other providers have not yet followed suit at the time of the endline evaluation but may start</p>

to do so. The workstream did not manage to make progress with savings schemes for parents.

School improvement: Several providers developed affordable school improvement programmes aimed at private schools. In our small sample, the poorest of low-fee schools are still unable to afford to pay for SIS, however, and the providers are more focused on medium- and high-fee schools, since they see these markets as more lucrative.

4.2.1 To what extent did DEEPEN attain its logframe objectives, and why?

4.2.1.1 Did DEEPEN reach its intended beneficiaries, and to what extent? This refers to the business case objectives of improving learning outcomes for 869,000 girls and boys (girls as much as boys), and that 30% of these children will be from households that are below the poverty line.

222. The endline evaluation did not collect quantitative data about the reach of DEEPEN’s interventions, and so any data on reach comes only from DEEPEN’s internal M&E. Given that improved learning outcomes are very unlikely to be observed at this stage, given the implementation delays and the time needed for school-level changes to impact on learners, ‘reach’ here refers to children in schools that have directly benefitted from one DEEPEN intervention or multiple DEEPEN interventions; whether this has or will in the future translate into improved learning outcomes would be subject to further research.

223. **DEEPEN’s poverty focus is difficult to assess for lack of robust poverty data.** According to DEEPEN’s internal monitoring and evaluation data, it appears that the workstreams were well targeted to schools who serve children from poor backgrounds. The proportion of schools participating in DEEPEN interventions who were classified in the 2017 Logframe survey as ‘serving children from poor backgrounds’ was 95% for BDS programmes, 91% for tax sensitisation, 83% for SIS and 76% for Accion credit (DEEPEN, 2017). Based on the Logframe Survey of 2017, amongst private low cost schools, 91% serve the poor; amongst private medium-fee schools, 77% serve the poor; and amongst private high-fee school, 30% serve the poor. DEEPEN programmes in which more than 50% of schools were low cost schools included tax sensitisation, BDS, and SIS (other programmes were not mentioned in the available data). Most schools were also unregistered.

Table 7: Distribution of schools by workstream and fee category

Intervention	Low-fee	Medium-fee	High-fee
Tax sensitisation	53.5%	44.2%	2.3%
Finance (Accion Bank loans)	30.3%	57.9%	11.8%
BDS	56.5%	41.0%	2.5%
SIS	50.0%	43.3%	6.7%
Total	41.8%	50.1%	8.1%

Source: Logframe Survey report, 2017

Table 8: Distribution of schools by workstream and registration status of school

Intervention	Unregistered	Registered
Tax sensitisation	90.7%	9.3%
Finance (Accion Bank loans)	69.7%	30.3%
BDS	92.2%	7.8%
SIS	96.7%	3.3%
Total	82.8%	17.2%

Source: Logframe Survey report, 2017

224. However, this is quite a weak indicator of poverty focus. What ‘serving children from poor backgrounds’ means is that over half the children surveyed in these schools are from households classified as poor or near poor. Households were classified as poor or near poor using the following methodology. Children were asked about ownership of seven economic assets and two social indicators and each household was given a score on this basis. This score was assigned using weights used in a similar exercise for the baseline survey, which asked about twelve assets. Households were ranked using this score. The poorest 55% of households were categorised as ‘poor’, households ranked from 55% to 84% as ‘near poor’ and the remaining 16% as non-poor.

Table 9: Distribution of households by classification based on Wealth Index¹¹

Year	Poor	Near-poor	Not poor
2016	62%	26%	12%
2017	54.3%	28.7%	17%

Source: Logframe Survey report (2016, 2017)

225. This categorisation roughly followed the categorisation used in a DEEPEN poverty paper (Tooley 2013) based on an ILO poverty definition that estimated that in 2013 53% of households in Lagos had incomes below the poverty line, and 82% of households had incomes up to twice the poverty line, using a poverty line of NGN112,895 per person per year. This estimate of 53% was rather higher than other poverty estimates at the same time, as Bano et al 2014 pointed out. For example, the World Bank used the national poverty line of NGN65,804 to estimate (also in 2013) that 15.5% of households in the South West (including Ogun, Oyo, Osun, Ondo, and Ekiti as well as Lagos) were poor, and a USD2/day poverty line to estimate 40% of households in the South West were poor.¹²

226. In brief, therefore, what the 2017 Logframe survey claims is that most of DEEPEN’s interventions reached schools where at least 50% of the students were from households amongst the poorest 83% in Lagos. We don’t know from the data presented how poor or wealthy the other 50% of students are. What we can say is that the Logframe survey does not provide very strong evidence that DEEPEN’s interventions reached households who were amongst the poorest in Lagos, and that stronger poverty monitoring would have been valuable in seeking to make these claims.

227. Other available data indicates that there are households below the poverty line and from the poorest deciles in private schools. Using the expansive definition of poverty noted above, Tooley (2013) estimated that 35% of households below the poverty line were in public schools, 27% in low cost private schools, and 34% in medium or high cost private schools. Wealth index data collected in 2016

¹¹ The Parent’s Questionnaire measures a proxy for wealth – MODULE C: HOUSEHOLD WEALTH INDEX. However, the sample is not large enough to provide a basis for estimating the number of children participating based on wealth.

¹² We make no judgement on this matter: defining and measuring poverty in Lagos is difficult and contentious. Estimates of the proportion of poor households reported in Bano et al ranged from 15% to 65%. The point we make is that the definition of ‘poor’ used by DEEPEN is towards the more expansive end of this range.

on students from a sample of public and low and medium cost private schools found students from the poorest decile in private schools, but also that poorer students were more likely to be in public schools. Taken together, this suggests that changes in private schools (at most fee levels) are likely to reach students from poor households, and that changes in low cost private schools have the highest likelihood to reach the poorest students. These data do not, however, allow us to be confident about how many students from poor households these interventions are reaching.

228. Irrespective of the distribution of poverty in schools that DEEPEN reached, however, it is not yet clear that schools that participated in DEEPEN interventions have changed enough to improve learning outcomes. Based on the endline qualitative fieldwork, in some cases schools would be considered to be ‘reached’ by DEEPEN (in other words, to have benefited from the programme) when the only intervention they ever benefited from was a one-day training for one of their staff members that was not followed up by any further support. In such cases, even if the school catered to children from families living under the poverty line, it cannot be argued that they truly benefited from the programme. Even for schools reached by more than one intervention, the empirical findings from school-level fieldwork suggest that most schools in the sample – and certainly the lowest fee schools - made quite minimal changes as a result of DEEPEN’s interventions. These changes are not yet sufficient to lead to changes in learning outcomes. The findings of the qualitative endline evaluation therefore indicate that the goal of 30% of the children benefitting meaningfully from DEEPEN coming from below the poverty line is unlikely to have been attained at this stage, whatever we assume about poverty.

4.2.1.2 Did DEEPEN achieve the expected 6% increase in average scores in literacy and numeracy tests by 2020, including for girls and children from poor households?

229. Given the absence of quantitative data on learning outcomes and the timing of the endline evaluation, it is not possible to attribute improvements in learning outcomes to DEEPEN, just as it is impossible to rule out that this might happen in the future. The sections above describe differences in learning outcomes for literacy and numeracy between different school types, but do not offer any conclusive evidence on this question. The qualitative endline indicates that a number of schools have benefitted from some of the interventions, and that in some cases this has led to improvements in pedagogical practices, learning environment, and other school-level changes at the output level. As Table 10 shows, various combinations of DEEPEN’s interventions have in some cases led to positive changes that are likely to be attributable to DEEPEN, based on triangulation of data from different groups of stakeholders collected as part of the qualitative endline. All the changes identified at the school level, however, are quite far removed from the learning outcomes set out in the imagined causal chains underpinning DEEPEN’s TOC:

Table 10: School improvements by intervention combination and fee level, attributable and non-attributable to DEEPEN, based on qualitative endline findings

Interventions ¹³	Number of schools	No change /negative change	Likely due to DEEPEN				Likely not due to DEEPEN			
			Minor change	Fee range	Major change	Fee range	Minor change	Fee range	Major change	Fee range
BDS+short-term loan	2		Better book-keeping	High, medium (two schools)	Renovation	High, medium (two schools)	Shift to whiteboards	Medium	Introduction of ICT, renovation, addition to school structure and facilities (like bus)	High, medium (two schools)
GAPS	3		Child-centred learning, better records, teacher supervision	Low-medium, low	New phonetics teacher, hired school bus	Medium				
GAPS+BDS	5	Stopped teaching computer (in one low-fee school)	Better book-keeping, child-centred learning, better management of teachers, communication with parents plus PTAs	Low-medium, low (all four schools)	Computers, renovation, teaching materials	Low (one school)	Introduction of new subjects	Low-medium	Access to finance, starting school fee cooperative for parents	Fee coop started by low-fee school, new A2F for low-med and low-fee school

¹³ **BDS**—business development services, **SIS**—school improvement services, **CSO**—sensitisation of parents

GAPS+BDS+short-term loan	1		Better record-keeping, loan ready	Low						
GAPS+SIS+BDS	2		child-centred learning, better records, teacher supervision, involved in P2P cluster	Medium (two schools)	Computer room	Medium (one school)			phonetics and Montessori teachers	Medium (two schools)
GAPS+SIS+CSO	1		Better record-keeping, child-centred learning	Low						
GAPS+SIS+short-term loan+CSO	1	No significant change							NGN 1 million loan to do structure from Abbey bank	Low
SIS+BDS	2		Better financial management, better communications with parents, child-centred learning	Low-medium (two schools)	Introduced to Accion by relative	Low-medium (one school)				
SIS+BDS+CSO	1		Better pedagogy, better management of teachers	Low	Parents bought fans for school, school bought teaching aids	Low				

Source: Endline qualitative evaluation of DEEPEN

230. It is likely that some gains in learning outcomes will be observable by 2020 as a result of these changes, but the lack of robust quantitative data makes it impossible to predict what magnitude this effect might have. In the absence of the roll-out of GAPS, it is unlikely that the effect would be anywhere as large as the 6% originally stipulated. It is also likely that while some changes might be observable by 2020, a longer time lag would be required in order for these effects to be manifested, and that measuring learning outcomes at least five years after the end of the programme, in 2023, would be more likely to yield meaningful data. It is reasonable to hypothesise that some of the changes due to DEEPEN—including increased lending by financial institutions to private schools and greater affordability of business development and SIS—will continue to generate impact after the end of the programme, and that this impact might be manifested in learning outcome improvements further on. This idea is explored further in Section 5 on sustainability and in Section 7 on conclusions and recommendations.
231. Learning outcomes may not be suitable as the only metric for assessing the impact of an M4P programme in education, and might need to be complemented by other indicators, as they fail to capture impacts on the market (such as investment by schools in quality, crowding in of service providers, awareness of parents about school quality) that might take a long time to cause improvements in learning outcomes, and might indeed never be manifested in improved learning outcomes.¹⁴ This issue is further discussed in Section 7.

4.2.2 Did DEEPEN lead to improved private sector school performance, especially among schools serving children from low-income households?

4.2.2.1 Did DEEPEN cause (low-cost) private schools to improve their quality?

232. *Interventions underpinning better understanding of quality for schools and parents have not taken off to the expected extent, and thus the pathways through which DEEPEN envisioned causing private schools to improve their quality have not been activated. Parental involvement after BDS or SIS come out as potentially important ways of improving parental understanding of quality. DEEPEN's impacts have scaled up via competition between neighbourhood schools and through information sharing within solidarity networks. This is encouraging, but the scale and depth of these indirect impacts need further investigation.*
233. The GAPS tool reflects what a good quality school is supposed to be, as understood by the programme (and the MoE).¹⁵ Schools can self-assess themselves under the following broad sections, where different gradations of quality are clearly identified:
- **Management and governance.** A well-managed school has a strong administrative structure and associated systems, supervision of junior staff and professional development, an independent body overseeing the activities of the school management, including parents and pupils in decision making, a good relationship with the host community, and a school development plan.

¹⁴ Indeed, a forthcoming report by Education Initiatives (Unterhalter *et al.* 2018) critiques a narrow focus on learning outcomes as a means of judging the appropriateness of different school models. We do not enter into this debate here.

¹⁵ The quarterly report of January–March 2015 reports that the ‘...responsibility for the regulation of private schools (including the GAPS) has been transferred to the Office of Education Quality Assurance, which has recently been created within the Ministry. DEEPEN has already met with the new Director-General who has expressed her support for grading schools but also emphasised the need to coordinate and align the GAPS with the existing system for assuring the quality of schools. This process could entail some adjustment to the GAPS, both the instrument and the approach, but DEEPEN remains confident that the system will continue in an acceptable form and draw on lessons learnt during the initial roll-out.’ (p. 12). Though the Private Education Department was moved out of the Office of Education Quality Assurance back to the core Ministry, with a direct report to the Permanent Secretary (DEEPEN, 2016, p. 13), it can be safely said that GAPS was developed keeping in mind the government’s quality concerns.

- **Quality of learning environment.** A good school looks after learners' welfare, health, and safety, and takes steps to promote girl children's education. Schools should look after the social and emotional wellbeing of learners, incentivise them with a system of reward and sanctions, provide continuous assessment, and incorporate co-curricular activities in school life.
- **Quality of teaching environment.** A school's infrastructure must be safe, well maintained, adequate, suitable, and appropriate to the school size and type. Schools should hire sufficient teachers who use teaching aids and whose lessons are informed by a structured curriculum planning process (Lagos State Ministry of Education, n.d.).

234. The DEEPEN overall results chain (Figure 1) gives an idea of how the programme envisioned influencing (low-cost) schools to improve quality. GAPS participation and SIS training were expected to underpin the programme's influence on schools, so that schools would better understand ways to improve pedagogy. The changes made at school level after participating in these two interventions indicate a change in understanding which could be attributed to DEEPEN. The GAPS Impact Study, based on a sample of schools which were subject to self-assessment and validation during the roll-out in 2015 in Ojo, found that more schools made changes to school management systems than to school facilities (DEEPEN, 2016). This, of course, does not mean that GAPS participation improved understanding under 'management and governance' relative to other aspects. This is because changes in understanding may not translate into actual changes made, as constraints like finance or landlord interference affects schools' ability to change the supervisory structure or make repairs. Attribution to DEEPEN is also indicative as the data are based on respondents' ability to accurately identify if GAPS participation has led them to make the change.

235. The DEEPEN results chain reflects that interventions under the information workstream (CSO and radio programmes) and sharing GAPS grades with parents were expected to increase information for parents on quality. For schools visited at endline that participated in the GAPS roll-out, there is very little evidence that GAPS-related information was shared actively with parents. Information on GAPS was expected to enable parents to make better school choice or make targeted demands for improvement. The scale of the CSO intervention was small, as the pilot involved only three CSOs, which in turn engaged with about 30 schools each for a period of nine months in the pilot. While radio programmes boast a widespread reach and at least two stations expect that their shows reach parents and school owners (due to the timing of shows, pupils and teachers cannot be expected to listen in on a regular basis), they stream content related to education only once a week for 15–90 minutes, with 30% of time being spent taking audience calls. More significantly, the Logframe Surveys found that parents do not necessarily listen to radio to access information on good schooling (DEEPEN, 2016; DEEPEN, 2017), calling into question the extent to which DEEPEN has been able to influence parental understanding of quality.

236. Better understanding of how to improve quality for both schools and parents was expected to culminate to a point whereby schools at all levels of the market would be facing competitive pressure from parents, teachers, and pupils to improve (Mott Macdonald, 2014, p. 6). Since programme interventions have not taken off as planned, DEEPEN cannot be expected to have adequately influenced (low-cost) private schools to improve quality. However, though not envisioned in the results chain, the 2017 Logframe Survey found that parents whose children are in schools that have benefitted from BDS and SIS are significantly more likely to be aware of what good schooling practices are, as compared to those that have taken part in the loan and tax sensitisation initiatives (DEEPEN, 2017, p. 29). The endline indicated that this could be due to BDS and SIS nudging schools to be more engaged and open to parental involvement. Further investigation is required to explore this synergy between parental involvement encouraged by BDS or SIS training and the GAPS tool, and improving parental understanding of quality.

237. **The endline indicates that DEEPEN-induced school quality improvement may have scaled up to non-DEEPEN schools via competition.** In line with the M4P approach, indirect impact is as important as

direct impact (Mott Macdonald, 2014). Thus, the endline sampling included schools which did not have a DEEPEN intervention but which learnt from DEEPEN schools by competing with them. These schools were usually new and consciously competing with at least one other school (this included the Strand 1 school from where the contacts of the corresponding Strand 2 school were provided) in vying for the same client population. In one or two cases, teachers left a Strand 1 school to open their own schools, taking with them learnings from DEEPEN interventions. While we cannot comment on how widespread such Strand 2 schools are in Lagos, or the depth of the changes transferred, increasing competition in the private school market can be expected to make such situations more likely.

238. **The endline also indicates that DEEPEN’s impact on quality improvement is scaled up through existing solidarity networks in the private school market, which is another pathway through which DEEPEN’s impact is scaled up.** Proprietors of schools who benefitted from BDS, GAPS, or SIS report sharing lessons or concerns within their association meetings. They mention that they do not share lessons with non-members, which is expected given that contact is limited with non-members who are not present in the neighbourhood and hence directly competing with their schools. How the Association of Formidable Educational Development (AFED) emerged in prominence in the wake of a crackdown on unapproved schools in 2008, and what AFED has come to be (as an intermediary between the government, DEEPEN, and its member schools) are significant factors here. While most Strand 2 schools were not yet members of an association, two schools were AFED members. While one school mentions that they heard of DEEPEN through AFED, the other school proprietor mentioned:

‘I didn’t see any benefit [of being an AFED member] unless that when you go to meeting, you hear from others and get encouraged, you learn from other people’s experience. Sometimes they organise seminars, apart from that, I have not seen any tangible thing.’

239. Schools belonging to other associations like National Association of Proprietors of Private Schools (NAPPS) and the Association of Model Islamic Schools also claimed to share lessons and concerns within associations. There are cases where information gained from DEEPEN interventions are shared via other networks – for example, colleagues from schools where a teacher or proprietor used to work previously. This has potential synergies with the P2P learning in clusters for schools participating in SIS that was started by DEEPEN.

4.2.2.2 Did DEEPEN cause (low-cost) private schools to invest in school improvement?

240. The four interventions in the finance workstream – mobile money, parental saving schemes, BDS, and loans to schools – aimed to address the financial constraints faced by both parents and schools (Mott Macdonald, 2014, p. 25). By attempting to introduce mobile money and parental saving schemes, the programme envisioned that parents would be able to pay their children’s fees with lower default rates and fewer delays, which would help schools achieve better cash flows and generate greater retained earnings. BDS would help schools efficiently manage finances and records to easily access loans. These would in turn increase school capacity to invest in physical infrastructure and improved services, and give rise to higher learning outcomes. The programme envisioned that the other workstreams would also influence schools to invest in improvement through greater capacity and understanding of government and school associations in relation to improving pedagogy (EDOREN, 2015).
241. The endline revealed that proprietors perceive fee collection to be one of the biggest challenges to operating schools. Many view their current clientele as limiting the extent to which their school can grow and expressed that they would like to move to an area where parents can pay higher fees or pay fees regularly. Parents not paying fees or changing schools without clearing debts is perceived by teachers as causing delays in salary disbursement by the school, which in turn, demotivates them and causes high teacher turnover (in turn a disincentive for proprietors to invest in teachers). The benefits to schools and parents identified by DEEPEN, which provided the rationale behind mobile money and

parental saving schemes, can be expected to be even more relevant today as compared to 2014. This is because the Nigerian economy slipped into recession in 2016, further constraining the ability of low-income parents (especially those who are self-employed or informal sector workers) to pay school fees on time (DFID, 2016). The 2017 Annual Review mentions that the programme has been slow and reactive, and it took over a year to respond to the challenges, with mobile money as a tool for fee payment (DFID, 2017).

242. **Attempts to introduce mobile money were not successful in the end, in part due to the slower development of the general market for mobile money in Lagos than expected.** After the two pilots with Stanbic and FirstMonie ended (without much success) in 2016, the programme conducted a small study that confirmed that mobile money or fintech would not be an effective solution for reducing school fee default. However, the programme has not continued efforts based on a better understanding of the root causes of default (for example, the programme has yet to support other parental savings schemes). It is also not clear how the programme has learnt from cashless payments in Bridge International Academies which entered the low-fee private schooling landscape in Lagos in 2016.
243. The ebbs and flows in fee revenue continue to affect the financial stability of schools, which can, in principle, be smoothed by improving credit access – although this is a costly route for addressing cashflow issues. Lenders offer (expensive) short-term credit to schools that could potentially worsen the financial status of the schools in the medium term.¹⁶ Furthermore, unregistered and unapproved schools are even more limited in accessing credit, which has not changed (*vis-à-vis* most lenders) since baseline (see Section 3.2.9).
244. **DEEPEN enabled Accion MFB to roll out loan products to all three categories of private schools, and there are indications that this may crowd in other providers too.** This is an impressive achievement. Material provided by DEEPEN indicates that 2,408 schools accessed loans from Accion, of which 392 were long-term (i.e. longer than 365 days). The average loan size was NGN 383,623 and the total amount loaned was NGN 923,763,000. This loan size compares to an average annual school turnover of around NGN 2,500,000, according to the Logframe Survey, meaning loans amounted on average to about 15% of annual turnover.
245. Analysis of loan use reveals that given access to credit, schools invest in more capital-intensive areas (in alignment with the GAPS notion of school quality improvement) like renovation and the addition of classrooms or other structures like a library room. Thus, to the extent that DEEPEN resulted in an increase in the supply of finance to unregistered, unapproved schools, the programme has potentially enabled low-cost schools to improve quality. While the My School Plus study indicates that access to credit resulted in schools making changes aligned with DEEPEN’s understanding of quality improvement (DEEPEN, 2017), the ability of GAPS or SIS to steer investments cannot be commented upon since DEEPEN studies do not provide data on whether these schools received other interventions. As schools continue to access credit, which is necessary to improve infrastructure (particularly over the longer term), it will become more relevant to broaden their understanding and to have incentive structures (like parental demand for better services) in place to better direct credit as more intuitive courses for school improvement as exhausted.
246. However, the ability of Accion to provide loans at rates accessible to most schools (i.e. below the normal market interest rate of 28%) was contingent on the Central Bank providing a subsidised line of credit, for which Accion successfully applied. While this was also an impressive achievement, it is not

¹⁶ The Accion study found that low-fee schools requested loans which were about 54% of their year’s profit, whereas medium- and high-fee schools requested loans whose value was 30% and 24%, respectively. Since the loan term was a year such loans representing high percentage of a year’s profit would lead to delays in repayment or even default (one caveat is that school proprietors may often have other sources of income). Indeed, for low- and high-fee schools which were late in repayment at least once the proportions are very high: 80% and 110% loan-to-profit, respectively (DEEPEN, 2017).

clear that this line of credit will be repeated, and this casts some doubt on whether this form of credit will be sustainable in the long run, a point to which we return in the section on sustainability below.

247. Finance is not necessarily the only factor that constrains schools' investments in improvement. Schools may not be able to make changes to the existing structure or even renovations due to landlord preferences and interference in rented premises. In terms of incentives for making renovations and additions to rented premises, if there is no security of tenure willingness is reduced. The endline fieldwork found cases where landlords increased rents substantially after improvements were made or blocked proprietors' abilities to repair the school buildings. One proprietor mentioned:

'I have tried to renovate the building, as you can see the structure is really in a bad condition, but the landlord would not allow me to do so. I even suggested to the landlord that I would use the rent money to fix some areas but he said I should pay the rent and he would make renovations himself, but nothing has been done so far.'

248. The My School Plus study found that for a sub-sample of schools which used a rented site, much less was spent on renovations than was originally planned (DEEPEN, 2017). While much more was ultimately spent on the construction of new classrooms the percentage is less compared to schools that own their own buildings. The related issue of predatory landlords (who, for example, might raise rents after a proprietor has invested in school infrastructure) was raised in the 2014 and 2015 Annual Reviews. DEEPEN responded to this challenge by offering support to private school associations and training to schools on how to negotiate longer leases on their properties, but it is not clear how successful this has been in enabling many schools to overcome this problem.

249. No school spent loan money on teacher training, according to the My School Plus study (DEEPEN, 2017, p. 18). This may be because trainings improve the market value of teachers, who report having got better positions within the school after receiving training. Alternatively, as reported by the proprietors, in many cases the teachers leave these schools. This was indicated in the DEEPEN Scoping Mission Study, which remarked that most teachers only stay for two to three years before seeking a 'better' job (Gibson, Barlow, Cunningham, & Härmä, 2011). The endline fieldwork found that teachers aspire to open their own schools and some teachers who received DEEPEN-facilitated trainings left the Strand 1 schools to open competitor schools in the neighbourhood or moved to another school.

250. While in general terms the capital built in training will remain in the education system, this creates a situation where proprietors are disincentivised to pay for their staff to receive development training. This challenge remains and may in the long run curtail demand for these services if training does not reach a sufficient scale to weaken the incentive for teachers to change schools. DEEPEN was aware of this, and worked with proprietors to facilitate models whereby they can retain teachers' new skills by transferring them to other staff, but the effectiveness of this was not clear from the endline research.

4.2.2.3 Did DEEPEN cause (low-cost) private schools to improve their pedagogy/teaching practice?

251. *Proprietors are reluctant to invest in training their staff due to the perception that it better places staff to move jobs. Other dynamics include trainings being perceived to be donor-funded and the notion that further training would add value only as a refresher. Mobility to better paying jobs after training, to the extent that it happens, raises equity concerns regarding who benefits even after schools invest in teacher training. Thus, to the extent that teachers look at (low-cost) private school jobs as temporary or have better alternatives, DEEPEN will be able to improve pedagogy via trainings with only limited success. For schools whose staff receive training, changes may be expected to be more likely along those aspects of good pedagogy already commonly understood as 'good' or valuable. The P2P learning cluster has been shown to be useful in encouraging continued engagement with what was learnt in the modules.*

252. The DEEPEN set-up report conceived of four strategies to increase demand for improved pedagogy:

- increased fee collection, cash flow, and access to finance would ease the constraint of limited funds and capacity for private schools to invest in pedagogical services and improvements;
- sensitising proprietors through BDS and school associations would increase the understanding of the need for, and value of, pedagogical improvement;
- better information around school quality would mean increased pressure from parents and market competition that would incentivise schools and teachers to invest in pedagogical improvements; and
- building the capacity of, and trust in, service providers to provide an alternative to current services, which add value to the existing practices of schools (Mott Macdonald, 2014, p. 33).

253. Improvements in access to finance occurred through DEEPEN’s facilitation of loans to schools from Accion, rather than from mobile money and parental savings schemes. DEEPEN also facilitated a BDS pilot to roll out training. Analysis of Accion loans revealed that no proprietor planned or actually spent the loan money on trainings (DEEPEN, 2017). The only spending which is related to better pedagogy was the purchase of teaching or learning materials, which was done by 1% of low-fee schools, 5% of medium-fee schools, and 12% of high-fee schools (DEEPEN, 2017, p. 17). The risk of trained teachers leaving for better and higher paid jobs was highlighted by the set-up report as significant in low-cost private schools and was the main reason why proprietors are reluctant to invest in teacher training (Mott Macdonald, 2014, p. 37). This was also found at endline, as discussed above.

254. DEEPEN planned to mitigate the low demand for teacher training as a result of these perceptions by conducting initial training for the proprietors themselves (for example, on academic leadership) since proprietors are less likely to be mobile and can assure the quality of new teachers coming into their schools (Mott Macdonald, 2014, p. 37). While this is good practice for BDS (because proprietors often themselves manage their schools) it is not suitable for SIS as proprietors, or even headteachers, do not always necessarily teach pupils. DEEPEN does not seem to have taken up this strategy for SIS training. Furthermore, this strategy is a partial solution at best because assuring the quality of new teachers and re-training them in-house is also a significant investment of time and effort in staff who are seen to be waiting for a good opportunity to come their way elsewhere.

255. Despite valuing the training received and identifying changes made at school level, proprietors (who received BDS training and sometimes SIS) were unwilling to invest in further training. This points to a second dynamic that is depressing demand. Before the SIS pilot was rolled out, DEEPEN staff mentioned that their exploratory fieldwork during intervention design revealed that the demand for SIS services was lukewarm. Reasons for this included: i) schools did not know how to access service providers, ii) the high cost of trainings, iii) there is no perceived difference in schools after attending such training, and iv) the voluminous course material is ill-adapted to low-cost private school contexts. The SIS pilot addressed these reasons by going via the school association structures, developing a new model which substantially lowered costs, adding in P2P learning and mentoring components to increase impact, and supporting service providers to develop tailor-made products. This engagement in refining the product and activating critical connections are appreciated across the board by service providers. During the endline fieldwork, while some proprietors mentioned that they did learn novel things from the trainings, others indicated that the trainings are like refresher courses that update their existing knowledge on a topic. How many rounds of training might be expected, therefore, is unclear.

256. A third dynamic that could be dampening long-term demand is reflected in the DEEPEN team interviews and the experiences of some service providers, who sometimes felt that schools expected them to charge less because they were perceived to be funded by UKaid. These repercussions were felt by providers when going about their work outside of the DEEPEN pilot. As a result, at this stage it is uncertain whether sensitisation of proprietors (whether through BDS or through associations) can lead to schools investing in paying for training at market prices in the absence of other pressures like parents exercising informed choice when selecting schools for their wards or changes in demand from

their ward's schools. On the other hand, the uptake of services following the end of the pilot indicates that this perception from respondents may not be a fundamental constraint.

257. Training (low-cost) private school teachers does not necessarily mean that benefits in terms of improved pedagogy will remain in these (low-cost) schools. The endline finds that teachers report enjoying higher status within their existing schools and cases of teachers leaving their current schools to start their own schools or to take up positions in better schools after accessing training. The EDOREN evaluation framework raises concern around how this could lead to a heterogeneous impact across fee categories, with low-fee schools benefitting less or even negatively compared to schools in higher fee categories (EDOREN, 2015, p. 50). If after training teachers left low-cost schools for better paid jobs in higher cost schools this could contribute to a worsening of education quality in low-cost schools due to the disruption caused. DEEPEN took steps to help schools reduce this eventuality. The endline fieldwork reveals that when schools pay for teachers to receive training, they mandate sessions where the trained staff impart the knowledge to the proprietor, headteacher, and other colleagues. Thus, the impact of teachers leaving is reduced, at least to some extent, by what is referred to as a 'step down'. In GAPS this is incentivised under (2. B) 'internal peer support and mentoring systems' whereby senior staff or more experienced teachers offer mentoring for the professional development of others (Lagos State Ministry of Education, n.d.).
258. The endline indicates that changes like child-centred learning, use of computers, co-curriculars, or hiring special subject teachers which interviewees attribute to participation in GAPS or SIS training are also commonly understood best practices in the sector. Many schools have information about these practices through associations (this could be attributed to DEEPEN), non-DEEPEN teacher trainers, or even textbook companies who provide free training. The CSO study finds over 80% endorsement from headteachers and parents of both control and treatment schools regarding the following: use of teaching aids and methods, teachers knowing what pupils should be achieving by the end of the year, use of a set curriculum, encouraging children to discuss work with the teacher and with their classmates, organising pupils in different ways in class, and teachers praising children more than reprimanding/scolding them (DEEPEN, 2018). In this study, the measured change in attitudes between baseline (in June 2016) and endline (in October 2017) was fairly small, and the study concludes that this 'suggests that they are already widely understood to be common practice before the DEEPEN activities.'
259. However, the existence of these sorts of attitudes does not imply that many schools were actually practising these approaches and were doing so before DEEPEN's influence reached them. The programme might have been successful in influencing schools to make changes already understood as important. DEEPEN's influence may have percolated through various diverse channels (GAPS sensitisation through school associations and roll-out in 2015, radio programmes, or even various surveys and studies whose respondents and interviewees may glean from them information about good practices in pedagogy). Since the CSO study did not control for this, it is not clear what role DEEPEN had to play in making these good practices commonly understood, although it is reasonable to assume DEEPEN played a role.
260. DEEPEN started a P2P cluster system for follow-up mentoring for SIS training participants, with schools selecting peers to work with. This was in response to findings from the early days of the pilot that training was not translating into school-level change. It was started during the pilot, with four clusters of five schools, with two clusters each in Makoko and Egan. However, more schools joined the clusters during the pilot, bringing the total number of schools to 24. To minimise transportation costs, each cluster was composed of neighbourhood schools. DEEPEN trained the clusters on meeting organisation and reporting processes (DEEPEN, 2017). The P2P study compares a small sample of cluster and non-cluster schools and finds that cluster schools out-performed the non-cluster schools on all the parameters, with at least 65% of them demonstrating competence in six out of seven areas: curriculum knowledge, relationship with pupils, lesson delivery, assessment of learning, adherence to lesson plan, and classroom management (the exception was the use of instructional materials). This

was based on lesson observations which adopted a seven-point Lesson Observation Competency Rating Scale.

261. This is certainly an encouraging finding, but needs qualification since the methodology was not sufficiently robust to address potential sources of bias or to attribute changes to the learning clusters. For instance, better results for cluster schools can be questioned on the basis that a teacher’s evaluation based on classroom observation may be biased upward from having a more able group of pupils (Whitehurst, Chingos, & Lindquist, 2014).¹⁷ This is not possible to correct for in the absence of information about students’ ability in these two groups.

262. DEEPEN supported three school associations to monitor if clusters are functioning. DEEPEN team members noted that by November–December 2017, 133 clusters had been formed by these associations, with each cluster having five to seven schools. In the endline, clusters were mentioned in only two schools in the sample. Cluster benefits may have been implicit as most school proprietors mentioned that they share lessons from training or GAPS, and discuss issues within their respective associations. However, there is evidence that schools compete over the same population, which is usually a factor of proximity. Thus, when cluster member are direct competitors, it is unclear how they would work together within clusters.

4.2.2.4 Did DEEPEN cause (low-cost) private schools to use additional financial services?

263. DEEPEN contributed to private schools accessing 2,408 loans (explored in the sections above) and 373 schools receiving training services to help improve their financial management (BDS). BDS training improved record-keeping for schools and helped them think of parents as clients. The qualitative endline indicates that participants with previous financial knowledge and experience were more likely to make other improvements to financial management.

264. **The delivery of BDS training facilitated by DEEPEN was impressive.** Six BDS providers were selected to work with DEEPEN, with DEEPEN supporting them to develop tailored products for low-cost schools. BDS training was composed of six modules. The exact content of the modules differed from provider to provider, but was broadly composed of: human resource management, leadership, marketing/customer relations, school planning, management for profit, and financial management. DEEPEN had to work with the BDS providers to develop a business model which was affordable for schools while being sustainable for BDS providers. By June 2017, 373 schools had accessed one or more BDS trainings, of which 353 schools were those serving low-income households (DEEPEN, 2017). This was above the target of 180 schools (including 77 schools serving low-income households) which was set in 2016/2017.

265. The DEEPEN set-up report notes that, particularly in low-cost schools, financial record-keeping was poor and proprietors did not differentiate between their own account and the school account, and ‘[t]his lack of formality and proper documentation consequently appeared to limit school’s growth potential and ability to manage their cash flow effectively, thereby impeding their access to finance through credit and loans’ (Mott Macdonald, 2014, p. 24). In 2015, the quantitative baseline found that low-cost schools (in comparison to high-cost schools) were less likely to have bank accounts (EDOREN, 2016, p. 57). Furthermore, it indicated that conventional banking may be ineffective for low-cost private schools as many parents would rather pay fees in cash at the school, either because this allows them to pay in uneven instalments, or because they find using banks inconvenient. Thus, BDS was introduced in 2017 to address poor financial management and encourage good record-keeping.

¹⁷ Whitehurst *et al.* stress the need for improvements in how classroom observations are measured in the US, and this is important for any context. In their study of four school districts in the US, they find that ‘teachers with students with higher incoming achievement levels receive classroom observation scores that are higher on average than those received by teachers whose incoming students are at lower achievement levels,’ (p. 3). They propose a statistical adjustment of classroom observation scores for student demographics to reduce the bias in classroom observation scores.

266. **During the endline fieldwork proprietors, who were usually the staff who attended BDS training, most often mentioned these trainings had helped them keep better records, which is a step forward toward improving cashflow and accessing loans.** DEEPEN's survey on BDS training indicates that many proprietors had started to implement the recommendations from the training. Participation in GAPS also contributed to this. The fact that some schools went on to take loans from banks other than Accion after receiving BDS training could indicate that the training helped schools complete the process relatively more easily (and thus made the schools 'loan ready'). However, financial history is only one among many constraints to accessing credit (see Section 3.2.10).
267. **The extent to which the training led behaviours to change beyond this is less clear, especially for proprietors without prior financial knowledge.** The endline suggests that while many proprietors improved their record-keeping, improvements in their ability to calculate profits and to use this for decision making (via tools like the school development plan) were less clearly felt. In one case, a proprietor trained as a chartered accountant could make these links and explained how he had gone about using these tools to manage his school. This is consistent with the quantitative baseline finding that headteacher (and/or proprietor) characteristics (such as having previously worked in an occupation other than teaching and having a bachelor's degree) play an important role in determining the percentage of school fees collected, and the extent to which the school is in a better financial position compared to the previous year (EDOREN, 2016, p. 59).
268. This raises a concern about the depth of changes that can be expected in schools because of these trainings. Trainings were kept short in general (about two hours per module), with two modules per day for three days spread across a period, and with schools often paying an up-front registration cost and then paid per module. There was also a follow-up mentoring system that was put in place for additional costs. This could indicate that while short trainings can introduce participants to the value of doing things differently, going beyond that requires follow-up training where one module is dealt with in depth or some pre-existing knowledge using which the ideas exposed to previously can be implemented at the school level.
269. **The impact of BDS training on schools' ability to address their cash flow issues was not clear.** Interviews with the DEEPEN programme staff at the endline suggest that although BDS was not a replacement for mobile money, it incorporated modules which dealt with how to incentivise parents to pay fees. The quantitative baseline found that the average fee collection (of the amount due) in high-cost schools was a little below the average in low-cost schools, with medium-cost schools doing slightly better as compared to the previous year. Even so, more than 30% of due fees had not been collected at the time of the interviews at baseline. The percentage of high performers (head teachers who have collected 80% or more of fees due over the last year) is comparable across the three school types (EDOREN, 2016, p. 59).
270. The endline fieldwork did not identify any cases where proprietors mentioned that BDS had helped them address cash flow issues. Of course, it may be that more time is needed for this sort of change in behaviours to be observed. It is also the case that proprietors are deliberately flexible with payments in order to address low-income households' needs. In the parental fee default study, which is based on sample survey data of schools in Alimosho, it was found that more expensive schools are less likely to suffer default, and this appears to be associated with not allowing debtor clients to return the next year (DEEPEN, 2017). However, most schools at endline – whether or not they had received BDS training – accept fee payments in instalments. This is based on an understanding that they are serving parents from a poor background whose ability to pay is made even more precarious by the economic recession. Few schools have further incentivised parents to enrol all their children in one school by discounting the fees of the second or third child. Most schools also allow parents to come back the following term if they default in fees. It is not clear how BDS training has incorporated these data to enable schools to better manage themselves financially.

271. **Proprietors often mentioned that trainings helped them think through their relationship with parents.** Better communication with parents, and, more basically, thinking of parents as clients to be managed, is a take-away that was also often mentioned by proprietors or school staff who received BDS training. This is also a likely result of participation in GAPS and SIS trainings.

4.2.2.5 Did DEEPEN cause (low-income) parents of children in private schools to improve their understanding of good schooling?

272. *For most of 2017 radio shows broadcast by three different radio stations have been broadcasting information relevant to improving parental understanding of good schooling. At least two stations are likely to continue the format and also to broadcast in Yoruba and Pidgin, potentially reaching many parents. However, the extent to which parents listen in on radio on education-related matters is questionable. The CSO intervention, which could have sensitised parents in their constituencies on the radio as a potential source of information, seems to have missed the possible synergies.*

273. DEEPEN has three separate interventions under the information workstream. First, the programme has been working with media houses to increase the frequency and improve the calibre of educational reporting by partnering with them to create weekly radio programmes on education issues. Secondly, a CSO intervention was designed to meet the needs of demonstrating ‘the importance, relevance and reliability of information, which may involve sensitising parents to its value with clear guidance on its use’ (Mott Macdonald, 2014, p. i). Thirdly, the Programme for Improving Education Reporting (PIER) for journalists was started following feedback from DEEPEN-hosted forums with media practitioners and executives. This is more relevant for the dissemination of evidence for policy makers than as regards informing parental understanding of quality, so it will not be discussed in this section.

274. The Logframe Surveys collected data from parent interviews whereby responses to the question ‘What do you know about good schooling practices?’ were coded against the following DEEPEN-generated list of 12 schooling practices without prompting answers by providing these options.

Table 11: Options under ‘What do you know about good schooling practices?’ in Logframe Surveys

What do you know about good school practices?
The school teaches children how to behave and good manners
The school tells you what your child should learn/know by the end of the school year
The teachers keep records of the children’s school performance and communicates this to parents regularly
The school organises PTA meetings regularly (at least once a year)
The school engages parents in the School Development Plan
The school participates in the (GAPS) grading exercise
The teachers ensure child-centred learning (children learn in groups and do things themselves)
Children at different levels (e.g. P2 and P3) are not taught in the same classroom
Teacher absenteeism is low
There are separate toilets facilities for male and female pupils in the school
There are sufficient chairs, desks, blackboards, and equipment for teachers and pupils in the school
The school is registered/ approved/ recognised by the government
Any other

Source: DEEPEN Logframe Survey reports 2016 and 2017

275. When at least three of the above options were mentioned by a parent, it was considered that the parent had access to information around (defined) good schooling practices. Using this methodology, the households' access to information on good schooling practices was found to have increased by 10 percentage points for all households in the sample, and eight percentage points for 'poor' households between 2015/16 and 2016/17 (DEEPEN, 2017). This percentage does not control for other influences and the methodology does not allow for attribution to DEEPEN to be established. This might have been possible with some tighter monitoring along results chains.
276. **By the end of 2017, DEEPEN has been successful in engaging with three radio stations which have launched segments or programmes which raise issues around education in Lagos.** These programmes run once a week for less than an hour. Interviews with radio station executives and on-air personalities who have worked with DEEPEN to introduce the broadcasting of quality education programmes reveal that they cover topics to help inform school choice: for example, security concerns, hygiene in schools, and choosing comfort over attractiveness in uniforms. All three stations cover issues affecting both government and private schools, allowing them to exploit overlaps in relevant issues. All three radio shows have call-in features where listeners dial in to talk about issues or ask invited guests questions. While the interviewees provide instances of parents calling in with issues related to the content of the show (for example, the need for a school boundary wall) who sometimes call back to inform for follow-ups. Call-ins last about 30–40% of the total length of the show and the remaining time is left for information to be disseminated.
277. School-level fieldwork does not provide much evidence that parents listen to the radio to obtain information on education and school quality, although DEEPEN's media surveys indicate that this is more common. Only in one parent focus group discussion did a parent recollect that they heard that one should look at playgrounds and toilets while selecting schools. However, another parent retorted by saying:
- 'I won't take it hundred percent. I will rather filter it and take what I want. Like my sister said they said school that has playground. Those are not what I need for my children. I need a place where my children will learn and not play. I will not take it hundred percent.'*
278. These comments reveal a potential limitation to radio programming as an effective way to inform parents to make better school choices or proprietors to run schools better. While they may spark some discussion about school quality (as was the intention), it seems that parents find the information presented on the radio easier to dismiss as not being credible (as compared to seminars and trainings), especially if it does not conform to existing beliefs and ideas. To some degree, this may reflect a confusion on the part of parents as regards the difference between radio programmes and advertisements, of which parents are sceptical, as the quote below indicates. It may be worth considering how the role of the media as a source of general information on quality improvements can be made more distinct from the advertisements that appear:
- 'No, I will not because seeing is believing. Not that they will just say and you will believe. You have to go there and make enquiries. Check the environment, check the way they are doing things, interview one of the teachers and the pupils before you can. Don't just get carried away because of the radio or television advert. They can just camouflage.'*
279. **The extent to which the risks around relying on the media to improve information were managed is unclear.** This was a risk that DEEPEN identified early on and the recommendation was to facilitate CSOs to provide information. DEEPEN picked this up by setting objectives for the CSO work to provide information locally and facilitate social mobilisation through group formation, such as PTOs. However, CSO interviewees did not discuss the sensitisation work around accessing information for parents. The

2014 Annual Review also recommended investigating alternative means of testing key assumptions underpinning this workstream. The review notes that the ‘focus on the media market is correct but DEEPEN should not ignore other sources of information for key audiences’ (DFID , 2014). It points out that civil society and religious organisations are likely to be influential sources for forming opinions. They may play a role where these intermediaries consume media and then pass information on. DEEPEN has worked to some extent with local media, social and online media, and CSOs and community leaders to attempt to overcome these challenges. However, it is not clear from our fieldwork that the coverage of this work has been sufficient to change attitudes and behaviours in a significant way. This is perhaps unsurprising given both DEEPEN’s resource constraints and the relatively short time-frame, but it may be worth considering more closely monitoring interventions and if some changes are occurring then intensifying efforts in other programmes.

280. Improvements in quality due to CSOs working to disseminate information at the community level on good schooling practices, the regulatory framework, and access to financial products and services is more difficult to ascertain from the endline fieldwork. The only example of parents mobilising to contribute money was in a school that had a CSO intervention where parents bought the school some fans. Interviews with the three CSOs also provided testimonies and examples of cases where parents or the community in general came together to provide material aid to schools after the CSO engagement in the area. From school proprietors and teacher interviews, it appears there is a felt need to educate parents around good quality education for children. For example, parents often come with unreasonable demands for their child to be promoted to higher classes if in their assessment the child is doing better than what she would usually do at that grade. Similarly, schools complain that parents demand more services but if they are asked to pay for increases in quality, they refuse to contribute.
281. The 2017 Logframe Survey finds that parents whose children are in schools that have benefitted from BDS and SIS are significantly more likely to be aware of what good schooling practices are than those who use schools that have taken part in the loan and tax sensitisation initiatives (DEEPEN, 2017). This is supported by the endline fieldwork that indicates that due to BDS and SIS leading schools to be more engaged and open to parental involvement, parents in turn have become more informed on school quality.

4.2.2.6 To what extent has DEEPEN led to improvements in the commercial viability of low-cost private schools?

282. **The data collected for the evaluation of DEEPEN have provided indications that the market for private schools at different fee levels is competitive.** For example, parents shop around for schools based on location and quality but this is done within the broader constraint of fee level and affordability. Furthermore, recent evidence has shown that the market is stickier than originally anticipated as there are costs associated with changing schools, such as admission deposits, new uniforms etc. (DEEPEN , 2017). Some parents reported changing their children’s school if there was another school in the same area and fee bracket which they observed had a better quality of learning. The research team also found that the entry of Bridge schools disrupted the low-cost private school market, with instances of parents switching their children to Bridge schools if they were located in the same area, after being impressed with their facilities and use of technology. It has been observed that schools do behave competitively and invest money in improvements they believe influence parent choice decisions, especially infrastructure. This is in line with findings at the DEEPEN design stage that schools understood quite clearly where they fit in their local market relative to their competitors. This suggests that commercial viability is important for schools, and is not guaranteed.
283. Improvements to schools’ commercial viability are anticipated to come from financial management training, access to finance, training in school improvement, and support to dealing with rules and standards. As the sections above indicate, DEEPEN has contributed to the provision of a range of training services in over 2,000 cases, and to the provision of over 1,000 loans for amounts of over 15%

turnover on average, and (discussed below) to some extent a more conducive regulatory environment – as well as schools’ and associations’ ability to deal with that environment. As a result of training, schools have reported adopting practices that help them function better as a business, such as improved financial records, making a school development plan, and adopting better human resources practices. The loans have led to investments, particularly in infrastructure, or have been used as working capital. These should, to an extent, contribute to better commercial viability for those schools, assuming that this gives them a competitive edge over other schools that have not participated in these interventions. DEEPEN’s work on GAPS will also allow participating schools – potentially a large number if this is rolled out – to be more commercially viable in the future. If GAPS is accepted as a recognised quality assurance for private schools by the government it will enable schools to be more competitive by signalling their level of quality and helping schools access finance.

284. There are, however, limits to how far the commercial viability of schools has been improved. First, as noted above, not all schools in the small qualitative sample that participated in training have made substantial changes in behaviour yet. This is likely to limit the change to commercial viability. Second, and related, little time has elapsed. Many schools only accessed these services in mid to late 2017, so it is difficult to assess the effect of these interventions on commercial viability. Third, commercial viability depends on a large number of things that are beyond the immediate influence of DEEPEN or these interventions, whether related to demand (parents’ ability and willingness to pay), competition (the number and nature of schools in different segments of the market), factor markets (such as credit), regulations, and the schools themselves. While DEEPEN has made inroads in relation to several of these factors, it is not realistic to expect them all to be addressed, or necessarily for all the changes to be sustainable. For instance, it is not clear that the Central Bank will continue to offer subsidised credit to institutions lending to schools. It is also not clear that the government’s attitude toward private schools will remain as sympathetic as it has become under DEEPEN’s influence (although it may of course become more sympathetic). The improvements in commercial viability may therefore be somewhat fragile.

4.2.2.7 Has DEEPEN led to improvements in the commercial viability of the market for services for low-cost private schools?

285. **There are several indications that DEEPEN has led to improvements in the commercial viability of service provision in these markets.** In the pilots for SIS, and then for BDS, DEEPEN engaged with the service providers in developing a model which translated into lower fees charged per participant. This model was developed from market scoping and learnings in the SIS pilot (which preceded the BDS pilot in 2017). Discussions with SIS providers and schools revealed that:

- service providers were charging about NGN 25,000 for head teachers and NGN20,000 for teachers;
- trainings usually ran from 9:00 to 17:00 for three days, which caused an issue for low-cost private schools as they could not as easily arrange for substitutes as a high-cost school to fill in when teachers went for trainings during school days; and
- a large percentage of costs were associated with hiring a centralised venue, projectors, refreshments, and the pomp and grandeur around graduation ceremonies.

286. DEEPEN encouraged the development of a new model whereby training went on for two hours every Friday (which is when schools usually close by early afternoon) and continued on subsequent Fridays. Significant cost-cutting was encouraged by reducing the use of technology (projectors for presentations, generators for electricity back up), moving from hired venues to participating school premises, non-complimentary refreshments and no ceremonial costs (like graduation, printed certificates). Based on this the costs were reduced from about NGN 20,000–25,000 to about NGN 2,000 per module and training was to be provided to a cluster of schools together. However, service providers found that schools may not be implementing the learnings from trainings, so a mentoring system (peer-to-peer learning clusters) was added to the training whereby the service provider would

follow up a fixed number of times periodically after training was completed. This cost-saving model was adopted in 2017 for the BDS pilot as well. However, it is too early to assess if this has led to sustainable change in the way these providers work with low-cost schools.

287. DEEPEN engaged with service providers to develop new products that were tailor-made to schools, and initially, as per DEEPEN team interviews, schools did not demand much SIS because they thought it was not useful or relevant to them. Both the SIS and BDS pilot had subsidised the cost of development by providing both skilled support. The SIS pilot also provided monetary support of NGN 2,000,000 each (divided in three tranches, linked to some deliverables). This is arguably a onetime investment that is front-heavy and has thus translated into reduced costs around product development for servicing the market in the future.
288. Scoping visits by DEEPEN before the launch of the SIS pilot revealed that many low-cost schools did not know where service providers could be found and how schools would access these services. By linking service providers with school associations, starting with AFED, DEEPEN took a key step that also provided cost savings for service providers. This enabled service providers to approach the AFED leadership, who in turn connected them with AFED chapter executives. One BDS provider said that they went to AFED meetings, did a demonstration of the training, and distributed registration forms. This is a common way of operating for SIS and BDS providers.
289. **However, there are limits to this improvement.** Not all service providers appear keen to continue providing services after the pilot is over. For SIS, out of 58 providers who attended the initial information session organised by DEEPEN, only 16 submitted expressions of interest. Of these, six were invited to submit the full proposal. Following this, four were chosen for the pilot. Only two of these completed the pilot.¹⁸ This does not necessarily mean that they cannot meet their costs or even make a profit by serving low-cost schools. DEEPEN staff reported that 13 service providers had joined the SIS market following the pilot in 2016. However, for some service providers, there remains a matter of opportunity costs – that is, whether more money can be made elsewhere:

‘... You know, in as much as I want to work with low-cost schools, like I told you, I’m a professional trainer..., you understand? [removed to protect anonymity] certificate, that one alone can fetch me millions if I want to go to high schools, if I go there at least, I will know many thousands I will charge them, do you understand but these people are the people when you are training them, although they come in cluster but they don’t pay more than 2000–3000 per school.’

290. For BDS providers, one interviewee calculated that they need at least 40 schools to break even for a session if participants pay for all set-up costs of the training (venue, materials, etc). However, when considering the costs of their office space, there is some cross-subsidising involved. For another BDS provider, she felt that she would be able to continue serving the low-cost schools if there was no area restriction, indicating that the dividing up of territory between the six BDS providers by DEEPEN was perceived by this provider as a dampener on profitability. She qualified this by saying that if she thought from a business point of view, she would look for more medium-cost clients. However, she said she will not leave out low-cost schools and would attempt to serve both markets. She explained:

‘Let me put it this way: low-cost school are with range of challenges and one of them is financing, particularly their ability to attract the target budget that we adequately pay for their services is not really there. At times they are struggling to overcome challenges related to a low financial bid. Many of them are survival mode ... Medium-cost on the other hand I observed that some of them has a better

¹⁸ The interviews with the two service providers who did not complete the pilot reveal that one of them has acquired lucrative government contracts and the other has opened a training institute.

financial value. ... They are more effective because they are promoting the benefit of BDS, and they are able to feel the benefit. They are not as distractive as low-cost private schools seeking for survival. However, having said that once the low-cost schools are persuaded to put structure in place that could help them improve enrolment, manage their finances even get more money from the facilities they are and they become more appreciative of the BDS that is being provided.'

291. Interviews with DEEPEN team members reveal that there has been a crowding in from small-scale SIS trainers, who are often one-person entities with no office and no other attached operating costs.

'When DEEPEN shared the finding from the low-cost market, .. majority of them are low-cost many of them said wow, government never told us this, we didn't know this schools exist, where can we find them, which association has them?... Very many of them now began to make enquiry. In the locality where they are especially people that have retired from government service and this high cost people have been hiring them to train. Many of them began to see that so does it mean that I too can start my own? I don't need to hire an office? All I need to do is to meet a group of schools and I know what they have, if I deliver quality thing to them it doesn't matter where I deliver it. There is an international programme supporting this. That we can deliver training at low-cost... Those one that have offices, they have bills to pay. But these people use their houses, their sitting room as there office, they will sit down there to prepare their materials, only one or two phone calls will be made, that's to the [association] chapter leaders, when are you meeting?'

292. This crowding in is not so much due to seeing other service providers succeed in the market, but rather is due to DEEPEN's efforts in sharing information on the low-cost schools as a market. Interviews with two such service providers revealed that given that they are one-person entities, and work via localised networks and have repeat clients, the number of trainings conducted do not compare to the providers in the DEEPEN pilot. They are optimistic about providing services to low-cost schools because they have lower costs, and perhaps because bigger players do not have a large presence in the market. However, they admit that if given a chance, they too would choose to work with medium- and high-fee schools, because they can afford to pay more.

4.2.3 Did DEEPEN deliver the outputs and activities expected?

4.2.3.1 Did DEEPEN lead to improved rules and standards affecting schools?

293. As mentioned earlier, the lack of a large-scale roll-out of GAPS constrained DEEPEN's ability to affect the rules and standards for private schools in Lagos State. In spite of this major limitation, the endline qualitative fieldwork revealed some improvements in the regulatory environment for private schools in Lagos. DEEPEN appears to have successfully increased the awareness of some of the key individuals in the Lagos State MoE about the role private schools in the state play in providing education to children for whom there is no space in government schools. The government thinking appears to have shifted away from focusing on closing down private schools: according to interviews with government officials and experts, the most recent school closures in late 2017 were due to these schools failing basic health and safety standards, rather than for any 'ideological' reasons, as had been the case earlier. This view was also confirmed by representatives of school associations – and to a degree school proprietors as well. According to the 2017 Logframe Survey, high-fee schools were more likely to indicate that the process of registration for private schools improved over the last three years compared to low-fee schools (46.1% and 54.5%), while both types of school indicated that registration added value (DEEPEN, 2017).

294. In spite of the initial reluctance of the post-2015 government to support a large-scale roll-out of GAPS, DEEPEN has made inroads with the government and GAPS might still roll out as a result. This change appears to be due to several factors:
- a. **Persistent engagement:** DEEPEN has consistently prioritised engagement with the government and in spite of the changing political climate persevered in its efforts. This perseverance is starting to pay off.
 - b. **Involving players close to the power holders:** one of DEEPEN’s strategies in influencing the key figures in government who held the decision-making power to alter the regulatory environment for private schools was engaging with other government players who were not directly in a position to make these decisions but could influence the decision-makers. This strategy appears to have helped.
 - c. **Lobbying through school associations:** aside from direct engagement with the government, DEEPEN built capacity with school associations to lobby the government. The programme hired a lobbying strategist to advise the coalition of school associations, and this paid off: for example, the coalition was able to secure access to loans from government pool of funds via LSETF by convincing the government to accept name search certificates in lieu of approval documents, effectively enabling access to these funds to unapproved schools.
295. As a result of these strategies, some individuals within the government are now considering steps toward a more enabling regulatory environment, including the possibility of a large-scale roll-out of GAPS in the near future. The Office of Education Quality Assurance of the Lagos state government has made the GAPS assessment tool available on their website and has been encouraging schools—private as well as public—to use it for self-assessment as a school improvement tool. In an interview with the evaluation team, a representative of the Office expressed faith in GAPS as an ‘excellent’ resource that might be rolled out in the future as a government-sanctioned policy to all schools in Lagos State, private and public alike, as a replacement for the current registration procedure. A desire to implement GAPS is also reflected in certain official documents, including the 2017 Ministerial Press Briefing for the Lagos State MoE (which mentions grading and DEEPEN) and the guidelines for setting up private schools. Both of these were the result of collaboration with DEEPEN.
296. As the endline school-level fieldwork revealed, many schools are still unapproved (18 out of the 20 schools surveyed as part of the endline qualitative evaluation lacked government approval) and many see the process as prohibitively difficult. Replacing it by GAPS would therefore be a major step forward for the regulatory environment for private schools in Lagos State. According to government sources interviewed by the evaluation team, however, a large-scale roll-out of GAPS would likely have to be financed by fees paid by schools themselves, rather than by the government. No specific figures have been proposed yet, and depending on the price point, the service may or may not be affordable for vulnerable low-fee private schools. The government is likely to seek to ensure wide compliance, as well as maximise its revenue from such a scheme, however, which suggests that an attempt would be made to set the price point at an affordable amount for all schools. This is, however, unlikely to be achieved considering the high number of schools that are severely financially constrained, as discussed in Section 3.2.1.
297. DEEPEN has also made inroads with the government in Kano State, where GAPS might also be taken up in the future, although there were no concrete signs of this at the time of endline qualitative evaluation in December 2017.
298. With regards to taxation policy, while the endline qualitative evaluation did not reveal any consistent patterns in regard to positive changes, DEEPEN’s internal surveys point to improvements. According to the tax sensitisation survey (2017, based on 139 observations), among low-fee schools, 12.9% indicated

that they had been threatened by the tax authorities with closure of the school (DEEPEN , 2017). The Head Teacher Surveys 2016 and 2017 measured schools attitudes to the tax regime and their adherence to it. From the analysis we can see a major improvement in the tax environment and how schools perceive taxation. The table below reports on the percentage of schools in the survey agreeing with the statements asked about rules:

Table 12: Percentage of schools agreeing with statements about rules

Rule	2016	2017	Change
All taxes schools pay are affordable	47%	57%	10%
Most LGAs charge the same tax rates to similar types of school in their LGA	53%	64%	11%
All of the taxes charged to schools are legal	32%	64%	33%
The whole tax payment process is easy	46%	82%	37%
The quality of information provided to schools on taxes is excellent	40%	68%	28%

Source: Logframe Surveys, head teacher questionnaires, 2016 and 2017

299. While more data are needed to evaluate the gains with regards to the taxation regime, these figures suggest that DEEPEN has made a significant impact in this regard. However there is a major question regarding the sustainability of these achievements.¹⁹

300. Overall, the changes attributable to DEEPEN in the area of government regulation are at the level of attitudes, some documentation (noted above), and the practice of individual government officials – this relates to the extensive training and awareness undertaken by GEMS, which helped schools to better understand their rights and obligations. This is impressive in itself. There is a risk, however, that unless this is embedded in organisational practice, and perhaps also unless there is stronger policy framing, as well as ongoing awareness for schools, these changes may not be sustained (see Section 5.2 for a detailed discussion of the sustainability of these impacts).

4.2.3.2 Did DEEPEN lead to improved information around schools and parents?

301. The DEEPEN set-up report notes that ‘for quality to increase, parents must become better informed and more discerning to demand more from their children’s schools, which in turn need guidance on best practices to use the most effective pedagogy’ (Mott Macdonald, 2014, p. 17). Based on evidence that quality represents a key concern for parents, DEEPEN will work with mass media organisations to increase the frequency and calibre of educational reporting. Beyond dissemination, DEEPEN will also need to work to demonstrate the importance, relevance, and reliability of information, which may involve sensitising parents to its value, with clear guidance on its use (Mott Macdonald, 2014, p. i).

302. DEEPEN has worked with media houses to improve the quality of reporting on private education issues by partnering with them to create weekly radio programmes on education issues. It has been successful in engaging with three radio stations which have launched segments or programmes which raise issues around education in Lagos. Wazobia FM broadcasts a 15-minute-long show every week in Pidgin which they estimate reaches about 2.5 million people. They also have over 25,000 people who tune in via the internet from all over the world. Bond FM 92.9 runs a 30-minute show in Yoruba that is called ‘*Ti fun ti edo eko*’, which means the ‘nitty-gritty of education’. The numbers for their drive time programmes for the past three years have been between 12 and 17 million people. This is because they broadcast in Yoruba and thus cover not only Lagos, but also the adjoining states of Ogun, Oyo, and Ondo. Top Radio 90.9 broadcasts in English and had an existing programme that touched upon social

¹⁹ One expert indicated they felt this likely came from work undertaken by GEMS 3, but we are not in a position to verify this.

issues; for about six months DEEPEN managed to have a say regarding the programme’s content selection and production. The show runs for 90 minutes per week.

303. Because of DEEPEN’s engagement, it is evident that the idea of education programming in radio has broadened beyond topical mentions in current affairs, quizzes, and spelling bee competitions to include programmes which aim at generating awareness around issues of concern for parents who cannot afford high-end private schools in Lagos. In the set-up report, parents using new information sources to make more informed decisions about school quality was identified as an assumption, but the associated risks were to be mitigated by a ‘focus on the supply of more credible and relevant information, building trust among parents in its reliability, and enabling them to use such information to make more informed decisions’ (Mott Macdonald, 2014, p. 5). The DEEPEN Logframe Surveys in 2016 found that in terms of sources of information about good schooling practices, school teachers and head teachers were found to be the most common source, followed by religious organisations (DEEPEN, 2016). The Logframe Survey for 2017 found that the most common sources were head teachers, other parents (peers), and classroom teachers, followed by TV and then radio (DEEPEN, 2017). The expectation was that parents would use the ideas and information gleaned through the media to improve the quality of their engagement with schools and local leaders around education. Largely because of parents’ reliance on other sources of information about education, the media seems to have had a relatively minor impact on parents so far.
304. Under the information workstream, DEEPEN has worked with CSOs to improve parents’ awareness of good quality education. This is ‘combined with social mobilisation to more effectively demand these services from the school and adopt more proactive behaviour in interacting with schools will lead proprietors to respond to this demand from parents’ (DEEPEN, 2018). As described in the interviews, their main work was to set up functioning parent forums in schools or to revive existing ones which were defunct, and setting up community forums to explore how the community can engage with schools. The Report on Community Information and Engagement Endline Survey finds that there has been an increase in parental attendance at PTA meetings, with more parents attending more PTA meetings per year and a wider range of subjects discussed (DEEPEN, 2018). This could indicate that schools which did receive the CSO intervention, parents have more information on the schools where their children study by virtue of being more engaged. However, the scale of the intervention was small as three CSOs were selected to work in Ojo and Alimosho LGAs only, and each CSO worked with about 30 schools for a period of nine months.
305. The 2017 Logframe Survey finds that parents whose children are in schools that have benefitted from BDS and SIS are significantly more likely to be aware of what good schooling practices are than those who use schools that have taken part in the loan and tax sensitisation initiatives (DEEPEN, 2017). This could be due to BDS and SIS leading schools to be more engaged and open to parental involvement, which could be linked to better informed parents.

4.2.3.3 Did DEEPEN lead to improved financial services for schools?

306. The logframe indicators for the finance workstream measure progress by counting the number of schools (especially those serving low-income households) with access to credit (both short-term loans of less than a year and long-term loans of more than a year) and BDS trainings (DEEPEN, 2017). The current section will only cover DEEPEN’s work vis-à-vis the loan aspect of Output 3.
307. DEEPEN has played the important role of acting as an information broker, which is in line with its envisioned role a ‘facilitator’ ‘working with key players in market systems to get them to work more effectively, not to become an aid-funded deliverer’ (Mott Macdonald, 2014). Based on initial scoping and the Schools as Businesses Survey DEEPEN found that there is a large demand and supply gap in the market for credit to the private school market in Lagos. This information was shared in the DEEPEN Finance Forum in 2014, which was attended by banks and MFBs. Based on subsequent engagement,

MoUs were signed with Sterling Bank, FCMB, Lotus Capital limited, CapPlus, AG Mortgage Bank, and Accion MFB.

308. The MoUs with Sterling and FCMB were dependent on GAPS being rolled out, and due to delays these banks have not lent to unapproved and/or unregistered schools – at least they had not done so up till November–December 2017. The MoUs with Lotus Capital and AG Mortgage Bank were such that their lending was not dependent on GAPS rolling out, as indicated by interviews with the DEEPEN team. Lotus Capital is a ‘full-service, Halal investment management company specialising in Shari’ah compliant asset management, private wealth management and financial advisory services’ (Lotus Capital Halal Investments: Our team , 2014). This fills the gap of interest-free school loans which are Shari’ah compliant. A DEEPEN team member noted that there has been a back and forth with the League of Muslim School Proprietors to understand issues around access to finance that is Shari’ah-compliant. The endline sample had two schools run by Muslim proprietors, with one school expressing that they could not access finance that is not Shari’ah compliant. This school is also a member of the League. The other school accessed loans from Accion.
309. AG Mortgage Bank approached DEEPEN through AFED. They have set up a platform for something similar to mobile money for school owners to pay their association fee through MTN Group’s platform. They were lending to schools already but DEEPEN interviews reveal that they have not been able to scale up the lending. The programme is helping them finalise product development, which is expected to be rolled out in 2018.
310. DEEPEN has worked with CapPlus, which is a non-profit international financial organisation that develops the capacity of financial institutions to support small and medium-sized enterprises. After engagement with DEEPEN, it has started supporting financial institutions to develop products for low-cost private schools (DEEPEN , 2018). The first capacity-building workshop was held in Lagos in May 2017, with 17 representatives of financial institutions. This work is ongoing and a recent case study published by DEEPEN mentions that it is actively building the capacity of financial institutions in Nigeria (DEEPEN , 2018).
311. Accion MFB is the only bank that has rolled out products for schools in a big way. In 2014, it did not have a specific product for schools but was supporting schools (not through loans) as a part of its corporate social responsibility programme. An interview with an Accion representative revealed that DEEPEN research was sufficient to allow them to design their products and they did not have to invest in additional research. Concretely, DEEPEN’s work was used to understand how to categorise schools based on risk, how documentation requirements should vary between different categories of schools, where are the highest concentration of low-cost private schools, and information on which school needs the Accion loans could potentially target. DEEPEN also introduced Accion to AFED, after which Accion used the association as a platform to make presentations on its product. These strands came together when Accion successfully accessed the Central Bank of Nigeria’s MSME Development Fund first tranche. Using this, they rolled out My School Plus, at a 9% rate of interest. The My School Plus report notes that this allowed Accion to explore the market in a pilot of sorts, after which it developed My School Extra (with a slightly higher rate of interest) and the My SME Educational Loan scheme (at market rate) (DEEPEN, 2017). Accion’s interest in low-cost private schools preceded DEEPEN’s engagement and is indicated by their corporate social responsibility work with their schools, which involved buying items like bags and furniture for schools.
312. In 2018, while 1,415 schools received short-term loans (loans of less than one year), only 244 have received long-term loans (DEEPEN , 2018). The 2017 Logframe Survey found that in 2016/17, 7.2% of all schools and 6.5% of schools serving low-income households accessed long terms loans (DEEPEN, 2017). This is 3.4 percentage points below the target for all schools and 2.5 percentage points above the target for schools serving low-income households. This indicates a shrinking gap between schools in terms of access to finance but also indicates only a marginal improvement in the confidence of financial institutions in regard to extending loans of longer durations to private schools. In fact, the My School

Plus study indicates that delays in paying the interest of at least one month could have been less frequent if the repayment term was of a longer duration (DEEPEN, 2017). This would have also allowed schools to borrow more and would be better suited for other capital investments. Bunmi Lawson, then managing director of Accion, mentions that: ‘it’s not only short-term loans they [small and medium-sized enterprises/schools] need, but also long-term capital, equity, pensions—the whole gamut of financial products,’ though the risk of schools not being able to service loans needs to be managed (DEEPEN, 2018).

313. As a DEEPEN team member noted, the market rate of interest was prohibitively high for many schools, at about 28% per annum, because of imperfect, and asymmetric, information:

‘[T]he market rate is the market rate so that’s the right to which they can lend profitably but I think sometimes what gets added with school/SME lending is an additional amount because of the presumed risk of the sector and that makes it traditionally higher than the market rate. So I think it’s about sensitising the financial institutions that these schools are less risky like other types of businesses.’

314. Accion’s experience has demonstrated that, given issues with erratic fee income and cash flow, about 24% of proprietors were late in making at least one payment (DEEPEN, 2017), which is a high rate of late payment. Of the initial group of 120 loans, all loans were eventually repaid. However, at the time of the survey some repayments on the second group of loans were still pending, but with no indications as yet that the loans would not be fully repaid. This reflects the belief in the micro-finance sector that most people genuinely want to pay back a loan if one is taken, and being tied to collateral is not necessary as an incentive. This is despite the fact that, in the Accion case, proprietors borrowed relatively high proportions of their schools’ projected annual profit and yet managed to pay back the loans in around nine months. The highest number was for low-fee schools which borrowed about 40% of annual profits.
315. The extent to which other banks will perceive similar benefits depends upon their assessment of market saturation, which will determine the players entering the market in the future. Despite delays in the government adopting GAPS, DEEPEN has continued to engage with those lenders whose lending depends on the current approval system being replaced with a system that recognises the right of operation of unapproved and unregistered schools. In November 2017, Sterling Bank finally got internal approval to lend to unregistered and unapproved schools by launching its Back-To-School Campaign, which includes products for pupils, schools (working capital to capital investment and for events), parents (to bridge cash crunches), and teachers (for training). The description of the product mentions that schools can access the loans for bridging working capital gaps, expansion, and asset acquisition, and the loans have a maximum tenure of 60 months ‘...at interest rates lower than the industry benchmark’ (Sterling Bank, 2018).

4.2.3.4 Did DEEPEN lead to improved availability of teaching development initiatives and services?

316. DEEPEN has led to improved availability of teaching development initiatives and services by enabling access to SIS. By June 2017 1,666 school staff were trained under the SIS intervention, of which 1,332 served low-income households (DEEPEN, 2017).
317. The endline research team found that before DEEPEN a number of SIS providers did not believe that low-cost private schools were a potential target market. DEEPEN worked closely with SIS providers to enable them to develop low-cost training models that could be used for schools whose ability to pay was limited. These included measures such as providing training at school premises and using flipcharts instead of projectors, to mention two examples. By working with DEEPEN SIS providers also realised they could reach a large number of low-fee schools by working with school associations such as the League of Muslim School Proprietors and AFED, instead of having to conduct door-to-door visits, which

would be more costly. Thus, capacity building support was given to SIS providers by the DEEPEN team, as the team explain below:

‘So, as part of our support for them we provided capacity building on how to deliver participatory training which we realised that they still need to increase their capacity and then the models of their businesses, one of the things that happened was that some of them had to rethink their business model using clustering method, rather than expecting schools to come out to a central place like Ikeja that is farther from them, so they can group themselves together.’

318. SIS providers did highlight challenges in providing services, as sometimes schools that signed up to training did not show up, indicating that even though services were made available there was sometimes a problem of uptake. This was mostly linked to ability to pay and initial scepticism regarding the usefulness of such training. The awareness among low-fee schools of service providers offering low-cost training declined between 2016 and 2017, from 91% to 74.8% (DEEPEN, 2017). Supported by DEEPEN the SIS providers also did some free training with the associations to highlight its usefulness to its members, to improve uptake.
319. Despite these challenges, schools did attend SIS trainings and deliverable payments made by DEEPEN to service providers were also linked to the number of schools and teachers trained. Amongst those schools that were aware of private service providers, the percentage of low-fee school using low-cost training services increased from 74% in 2016 to 77.2% in 2017. In addition, the average spending on teacher training increased from NGN 6,714 to NGN 11,222 (DEEPEN, 2017).
320. Visits to a small sample of schools during the endline fieldwork indicate that head teachers and teachers at low-fee schools had been part of teaching development initiatives and had benefitted from them. The initiatives have provided insights to schools on methods of teaching and use of instructional material – especially the latter, as can be seen from a few comments from teachers and head teachers included below.

‘It is the use of instructional materials. It was not like that before. You know we discussed earlier about seminars, it was when our HM went for seminar that she came back and told us that we need to change the way we teach. There are times we read instructional materials and times we take the pupils out to show them things around. He said we should not only limit our teaching in the classroom. So, the use of instructional materials has really helped us.’

‘... the changes am talking about is in the materials we use in teaching. The school provides teaching materials for the pupils at the beginning of the term. They don’t have to buy textbooks and exercise books because we provide it for them.’

‘One notable thing is that after the training, the proprietor got some computers for the pupils to train with. That actually was discussed in one of the training. Now our pupils can operate computers.’

‘R1: It is all about quality teaching.’

Interviewer: Ok.

R1: The way we handle the children and they taught us many things.

Interviewer: so how, lessons learnt how were you able to impact?

R1: Wow, it helped a lot honestly because they taught us not to be harsh on them and minimum flogging.'

321. It is acknowledged by both SIS service providers and the DEEPEN team that there are challenges to the sustainability of the market for SIS services, which is elaborated later in the report. As one of the experts interviewed by us stated:

'[R]eally low-fee private schools are not incentivised to go for professional, for example teacher training because teachers will just use that as a bargaining chip to move on to a new school and try and find a higher salary. So I would say that low-fee private school market is absolutely incentives against investing in teacher training.'

4.2.3.5 What were the factors that facilitated or inhibited implementation, if any?

Box 2: Factors facilitating and inhibiting implementation	
Factors facilitating implementation	Focus on capacity building with school associations
	Geographical diversification outside Lagos State
	Willingness of service providers to make 'unorthodox' business decisions
Factors inhibiting implementation	Resistance of Lagos state government in rolling out GAPS
	Economic recession
	Lack of flexibility

322. The key factor that facilitated implementation was the flexible approach in specific areas of some of the workstreams that allowed the programme to adapt to the external challenges. Most notably, the focus on the capacity building of school associations and the branching out to other states in Nigeria in the rules and regulation workstream seems promising in generating a more sustainable, impact and might even lead to the implementation of GAPS in Lagos and elsewhere.
323. Another factor that facilitated implementation was the willingness of SIS, BDS, and to a more limited extent finance, service providers to engage with DEEPEN and to take risks in developing products that are affordable for low-cost private schools. In doing so, these service providers were often stepping outside of their comfort zones, and it is to DEEPEN's credit that these providers felt supported enough to make business decisions that might have seemed unorthodox to them.
324. As discussed in Section 3.2.2, and in relation to the first question in the current section, a major factor inhibiting DEEPEN's implementation was the resistance of the Lagos state government to the large-scale introduction of GAPS in the aftermath of the change of government in 2015. This has curtailed the impact of all of DEEPEN's workstreams. GAPS was designed not only as an intervention that would set standards and measure the quality of schools but also as one that would facilitate the signalling of information about quality in the market for private education, as well as the associated markets for service provision to private schools. GAPS would ensure that parents have access to a reliable, standardised measure of the quality of schools their children attend, while schools would be able to assess themselves against the same criteria and identify areas for improvement. Service providers would help schools improve by supplying services such as teacher training; these services would be subject to the forces of demand shaped by GAPS assessments. Financial institutions would use GAPS as a tool to assess and minimise risk in lending, which would make access to credit and investment more affordable for schools. The media would also play an important role in disseminating the information generated by GAPS, and thus would further improve the performance of these markets. This ecosystem of interventions was, in DEEPEN's TOC, largely dependent on GAPS. Even though a number of DEEPEN's staff have argued in interviews with the evaluation team that GAPS was 'merely one intervention in one workstream' of the programme, and that DEEPEN should not be

reduced to GAPS, the importance of GAPS as a cornerstone of the programme underpinning many of its envisioned causal pathways to impact cannot be denied.

325. The fact that GAPS was not rolled out at scale (even though this might still happen in the future, as discussed under the first research question in this section) was problematic across DEEPEN. In the absence of the standards and signalling GAPS would have provided, DEEPEN explored alternative methods of helping to generate the supply of credit, SIS, BDS, and media programming about school quality. As discussed under the preceding questions in this section, these efforts led to limited impact, which was lower than what had been envisioned by DEEPEN’s TOC, which was reliant on the large-scale roll-out of GAPS.
326. A further constraining factor was the economic recession, which impacted on the purchasing power of parents, which in turn impacted on the financial performance of schools. This made it harder for schools to invest in quality and for parents to focus on quality in their school choice. Anecdotal evidence collected in the course of the endline qualitative evaluation suggests that, in many cases, parents were forced to take their children out of schools they were satisfied with and instead opt for schools with lower fees purely due to affordability concerns. The media in Lagos were also hit by the recession, which has led them to cut down on covering ‘non-essential’ topics, such as education. As a result, DEEPEN’s efforts to train journalists from leading newspapers translated into only limited coverage of private schools in local newspapers, and attempts to engage radio stations also gained only limited traction.
327. In addition, as discussed in detail in Section 3.2.2, the programme faced internal challenges in its relationship with the changing advisers at DFID, the lack of continuity in its internal M&E, caused by staff shortages, and a perceived lack of flexibility as regards intervention leads pursuing a more experimental approach to their work. These factors also constrained DEEPEN’s ability to deliver on its outputs.

4.2.3.6 How does this compare to achievements in DFID’s other education programmes in Nigeria (ESSPIN and GEP3)?

328. DEEPEN’s effectiveness is difficult to compare directly with ESSPIN and GEP3, in the absence of an endline measure of learning outcomes or school quality, and given the very different programme designs and theories of change, and DEEPEN’s shorter implementation period and much lower budget. This section will not attempt to undertake this direct comparison.
329. All three programmes faced similar challenges with trying to improve learning outcomes in deeply challenging – though different – contexts. Like DEEPEN, ESSPIN focused on strengthening the education system – but primarily the state school system, rather than the non-state, and principally through working with government in a pilot/scale and capacity-building model, rather than through a systems change approach. ESSPIN had some successes in building capacity at different levels of the education system and in strengthening some aspects of school quality, and had a positive impact on learning outcomes relative to outcomes in schools that were not supported by ESSPIN (EDOREN, 2016). However, the overall learning outcomes trend in ESSPIN-supported states was of stagnation or decline. Early results from GEP3 suggest that a similar picture is likely.²⁰ The results and discussions above indicate that DEEPEN’s results may follow a similar pattern: i.e. strengthening some aspects of the system without transforming overall school quality or learning outcomes.
330. The similarities in these pictures are, in our judgement, largely due to the substantial difficulties in improving state or non-state school quality and learning outcomes in Nigeria. Well-run, long-term education programmes can improve parts of the system that are necessary for better learning outcomes. However, they are rarely able to improve all parts of the system sufficiently to improve

²⁰ GEP3 endline results are not yet complete, but the baseline report indicates this is plausible (EDOREN, 2016).

learning outcomes. This is because there are always major elements of systems that are either beyond the control of programmes (such as the economy and related public and private finances available for education) or that take a long time to change (such as attitudes to non-state actors or teacher effectiveness). Perhaps understandably from a domestic political perspective, development partners financing education programmes expect measurable change in learning outcomes within a five- to 10-year time-frame. However, whilst this is achievable in small-scale, highly resourced pilots that are then rarely possible to scale, replicate or sustain, it is rarely possible – and perhaps impossible – in contexts like Nigeria’s where there are multiple constraints to improved learning.

331. The difficulty of achieving medium-term change in outcomes through ‘systems’ projects is not, again in our judgement, a good argument not to attempt this. We will return to this in our discussion of lessons learnt, but our judgement as evaluators is that these projects play a vital role in a process of long-term change, even if they may fall short of (unreasonably high) expectations regarding achieving a change in learning outcomes within unrealistically short timeframes.

4.2.4 What were the positive and negative changes produced by DEEPEN, both direct and indirect, intended and unintended?

4.2.4.1 Rules and standards

332. *GAPS participation leads to behavioural change with respect to teaching and teacher management practices. Infrastructure investments are constrained by finance. School-level impacts take time to unfold and this is a continuous process. In an ideal case, if GAPS roll-out went as planned, effects on learning outcomes would still take time to manifest themselves.*

333. The endline committed to answering the following sub-questions under this section:

1. Does GAPS participation lead to behavioural change at the school level – specifically with respect to (a) teaching and teacher management and practices; (b) infrastructure investments; (c) other learning-related practices; and (d) fees charged?
2. What is a realistic and appropriate time horizon for capturing such school-level impacts?
3. Does the behavioural change response to GAPS vary across school types?
4. Are smaller low-cost schools more or less likely to voluntarily self-assess?
5. Are smaller low-cost schools more or less likely to introduce practice changes in response to GAPS?
6. Does the assessment of the usefulness and experience of GAPS participation vary across school types?
7. What is a realistic time horizon for capturing learning outcome effects?

334. Since GAPS roll-out (assessment and validation) only took place for 455 schools which were validated and graded between October 2014 and April 2015 in Ojo (DEEPEN, 2016, p. 3), information available to answer the various sub-questions in this section is limited. The following discussion thus centres around providing a speculative answer in any detail to questions 2 and 7, while briefly touching upon Question 1. (a) and (b).

335. The endline indicates that schools which were a part of the roll-out in 2015 use GAPS for self-improvement. To clarify, this does not mean that school improvement after participating in GAPS will work without government uptake or independently from parental pressure on schools to improve their

scores (or different aspects that compose a GAPS score). These schools do not necessarily carry out structured GAPS assessments akin to how it would have been if the intervention continued to roll out as planned. At the same time, it has new aspects of school improvement and charts an indicative path to self-improve. Basic learnings at this level cannot be taken away, as an expert associated with this endline and the annual reviews of DEEPEN explains:

'Schools that have participated in GAPS ... now have some sort of understanding of what it needs to be a good school, ...and I don't think that you can take these away; I don't think that you can take these values away from the recipients.'

336. From the endline, there is an indication that GAPS participation has led to behavioural change at the school level around teaching and teacher management and practices, and learning-related practice. The GAPS Impact Study finds that of the 34 measures covered in the survey, low-fee schools on an average made five changes, while medium-fee schools made 10 changes (DEEPEN, 2016). Analysis of the usual changes made reveal that they have to do with management systems over changes to infrastructure. This is not to say that GAPS can be expected to lead to changes that are less capital-intensive, *ceteris paribus*. In the GAPS Impact Study, most schools in the sample cited the lack of finance as an obstacle to school improvement which could have been the reason behind changes to management systems dominating the sample.
337. Given that the GAPS roll-out was in 2014 and the Impact Study was conducted in late 2015, it could be that sufficient time had not passed to allow for changes which can be expected to take longer to commence. A school proprietor's response to the question of whether participation in GAPS led to any changes indicates that it is a gradual process:

Proprietor: It's helpful to know what and what to do and how to do them.

Interviewer: So did it change your teaching method or teachers' management?

P: Yes.

I: How so?

P: A room is not built in a day, it's built gradually, and it doesn't end there, it's continuous, we will keep on. ...we will keep opening the books to them again and again and again.

I: So, the changes that you are making, is it ongoing?

P: That is what I'm saying

I: So you self-assess yourself?

P: You know, it is not static, you open the book and you assess it again, again and again. There's always room for improvements.

338. It is conceivable that schools may begin by making changes which are easier to make, especially when they are financially constrained or operating out of rented premises, and then move on to more changes that are more difficult to make. In the GAPS Impact Study, most schools blamed their inability to make more changes on limited access to finance (and a related irregular cash flow), which is an issue (DEEPEN, 2016).
339. It is beyond the scope of the endline to estimate the time horizon for changes at the level of learning outcomes to manifest themselves. While a delay in GAPS roll-out will expectedly mean that it will take longer than anticipated for changes in learning outcomes to take place, because DEEPEN is an M4P

programme, ‘this high-level impact will take time to achieve as the market system reforms bed down and deliver real change’ (DFID , 2016). Thus, in an ideal situation where GAPS roll-out went on as planned, and finance was more easily available, changes at the level of learning outcomes may still require substantial time to manifest themselves. DEEPEN team members echo this and there is an agreement that it is too early to see how the programme has manifested at the impact level. They point out that the outcome-level influence of the programme is only beginning to show itself, and that so far the results chain holds, which makes them optimistic:

‘We are saying that there are changes being achieved at the output level; outcome level changes are coming up. And that’s one of the challenges we have; trying to measure impact. You know we wanted to do midline I said, wait a minute guys, what are you going to see? Because activities started late and you needed some level of consolidation before you can see some of those changes. So, I am so optimistic but trails of evidence of what has been happening from output to outcome level shows to us that we should be getting close to that learning outcome and I think I should think that at some point, DFID should do this. If it means in the year 2020, contracting an independent organisation even after DEEPEN has gone.’

340. Furthermore, the programme influence on learning outcomes is due to interaction between different interventions, as charted in the results chain. As another DEEPEN team member argued, synergies in an M4P programme require time to brew:

‘If you look at our theory of change, it is not independent of the other workstreams because, if you look at our work chain, you would see that my own workstream also connect at some point to other workstream. So, at some level, if you look at where we are, in terms of how far we have gone, you would see that some intervention are still kind of getting out of the output stage. They haven’t gotten to the outcome, not to even talk about the impact stage. With that kind of level, you take time for everything to start working at optimal level, where you expect to see that your partners are no longer adapting, they are now responding and expanding, because it is the expansion or scaling up of interventions, or crowding in that you start to see those changes that would trickle down to other areas.’

4.2.4.2 Information

341. *Schools which were a part of GAPS roll-out did not appear to share grades actively with parents. If GAPS were to have rolled out as planned based on information sources and needs of parents, sharing grades in a centralised government database cannot be expected to have an impact.*

342. The endline committed to answering the following sub-questions under this section:

1. Does proactive sharing of GAPS information with parents using report cards affect school choice, and thus the functioning of the private educational market?
2. Does any such effect operate with a time lag?
3. Is any such effect more pronounced if learning outcomes are included in the report card?
4. Does proactive sharing of GAPS results affect parental behaviour vis-à-vis the relevant school? (The parental mobilisation hypothesis: we need to capture whether, how, and under what conditions parents respond to GAPS) by (a) intensifying the pressure on schools (voice) through individual or collective action, or (b) resulting in school exits.)

343. Given that GAPS was not rolled out as planned, this section will provide speculative answers to sub-questions 1–2.
344. There is very little evidence from the endline that GAPS-related information was shared actively with parents. A few proprietors mentioned that they did share such information with parents but given attrition in the parental cohort of 2015 (for example, due to their wards graduating from schools by the end of 2017), this could not be verified in any parent focus group discussions. While schools did not seem to have shared their grades, there is an indication that other GAPS-related information (relevant for shaping ideas around good quality schools) were shared. For example, a school plan for improving in the next year or two based on GAPS learnings could have been discussed in parent–teacher forums.
345. The endline fieldwork revealed that parents gain information on which school to choose primarily by using localised information gleaned from their social networks, in combination with satisfying some non-negotiable criteria around proximity, security, cost etc. The Logframe Survey finds that only 16% of parents have been accessing information through formal sources (TV, newspapers, internet, government, CSOs, and religious organisations) – and these are the least common information sources among poor parents (DEEPEN, 2017). In contrast, over 40% parents reported the head teacher to be a frequent (most often or always used) source of information. Government sources and CSOs are reported to be rarely used (never or hardly used) sources of information. The preference for informal sources is partly because all formal sources (except perhaps GAPS grades) provide information at a higher level of generality that is not immediately usable when choosing between two schools in a neighbourhood. A recent study of the CSO pilot attests to this: while 50–66% of parents go to radio and TV for information on the state of education in Lagos State, only 10% of parents reported consulting radio and TV for information on schools in the community (DEEPEN , 2018).

4.2.4.3 Finance

4.2.4.3.1 Does access to parental savings schemes affect school choice?

346. This question can be answered only in a very limited manner as parental saving schemes were not rolled out in any substantial way. No formal parent saving scheme was introduced successfully by DEEPEN and there was zero evidence of uptake of formal parental saving schemes from the qualitative fieldwork sample.
347. Accion Bank did introduce a scheme for parents through which Accion would pay the schools directly for the fee and parents could pay the bank back in instalments. However, the scheme did not take off and was suspended. According to Accion staff this was primarily because parents felt that the scheme was designed to help schools and not them. In addition, while not stated by Accion staff another factor influencing uptake of the scheme could have been the ability of parents to afford the interest rates offered, especially in a scenario where schools accept late fee payments. Interest rates in such a situation would just be an additional financial burden on parents which could be avoided. After the economic shock faced by Nigeria in the last two years many households are even more constrained on funding than before, which further limits their ability to pay interest. In a 2017 study conducted by DEEPEN it was found that 43.7% of parents in the late paying sample of parents indicated that the increased cost of basic necessities was the main reason for their worsening financial position.
348. Despite the fact that no formal saving schemes were introduced, even without DEEPEN, schools acknowledge the reality of fee arrears and have introduced innovative ways to help parents save and manage their fee payments. Almost all schools visited by the endline research team allowed parents to pay fees in instalments and some offered discounts on fees if the second or third child was also enrolled in the same school. Parents in these schools appreciated the fact that the schools were flexible in this regard and commented on how it helped them.

349. Consistent with the baseline findings recent research by DEEPEN indicates that location and quality are the most important factors influencing school choice. The third most influential reason (21%) is finding a cheaper school. There is evidence to show that fee arrears and defaults on schools fees do cause parents to change schools, despite the high costs associated with it. As can be seen from the table below defaulting parents change schools the most, at 93.5%, while 6.5% of children of defaulting parents who did not change were likely pulled out and not enrolled anywhere else (Härmä & Siddhu, 2017).

Table 13: Percentage of survey children who have changed schools

	Yes	No
General sample	40.8	59.2
Late paying sample	36.4	63.6
Defaulted sample	93.5	6.5
Pooled	42.0	58.0

Source: DEEPEN assignment report on ‘Why do parents default? Parental school choice and affordability in a time of recession’ 2017.

350. It is not possible to fully comment on whether parental saving schemes affect school choice by potentially allowing parents to afford a school of better quality or easing their financial burden since no formal saving scheme was rolled out successfully. If formal saving schemes could influence fee arrears and defaults, this would, according to the evidence above, affect school choice. Based on the endline fieldwork, informal saving and payment mechanisms introduced by schools do help parents with fee arrears and hence influence school choice through that route.

4.2.4.3.2 Does such access reduce fee payment arrears? Does such access reduce default rates?

351. The data available cannot fully answer this question because, as mentioned above, no formal saving schemes for parents were introduced and the initiative introduced by Accion Bank failed to take off. As discussed above, schools are aware that parents struggle with fee payments and have implemented flexible fee payment mechanisms to help them, such as paying in instalments. Some schools are especially innovative in helping parents meet their fee payments, and in one particular example a school proprietor talked of a school fee cooperative created to help parents with fee payments.

‘I bought a new idea this term, I got this ...I call it school fees cooperative...ajo. I had PTA meetings with them, we have a card that we mark once they give us money and we lock it in a container, we call it kolo. We throw the money and some of them co-operated, some of the collected the card, and it is helping them, some of them say no we are capable enough to pay the fees once. But I am the only one doing this, no other school.’

352. Such informal saving and fee payment mechanisms introduced by schools to help prevent parents from defaulting and payment of fees in arrears seems to be an accepted norm. Parents acknowledged during the qualitative fieldwork that such flexibility on the part of schools was helpful for them as regards keeping their children in the school.

353. In addition, DEEPEN’s study in 2017 indicated that while the biggest challenge faced by parents was irregular income leading to irregular fee payments, the three top reasons why parents default are: due to income shocks; choosing schools in the first instance that they could not afford; and choosing to default wilfully, which was most common in high-fee schools. While the causal links between saving schemes and reduction of fee arrears and default rates cannot be made, an understanding of why parents pay in arrears and/or default can shed some light on whether saving schemes can be hypothesised as reducing such behaviour.

354. In the current Nigerian climate, with severe economic recession over the last few years, there is a question as to whether parents would even have money to save. Reducing household expenditure appears to be the most commonly used coping strategy (Härmä & Siddhu, 2017). Furthermore, there does seem to be a sense from proprietors and parents, especially in medium- and high-fee schools, that fee payment arrears and defaults are the norm. So, even if money was saved it could be prioritised elsewhere if the need should arise. It is a similar scenario for parents that simply cannot afford the school they have chosen. It is clear from DEEPEN's 2017 study that there are a number of poor (as well as non-poor) parents that are accessing and defaulting in high-fee schools they could never afford.

4.2.4.3.3 Does access to savings schemes translate into investments and then school improvements in the dimensions highlighted above, and eventually to better learning outcomes (as per the results chain)? What is the 'size' of any such effects and what is the time lag with which they occur?

355. It is not possible to comment on impact on learning outcomes and the size of any such effect as the data on learning outcomes are not available. Furthermore, since formal saving schemes were not rolled out and the one introduced by Accion Bank failed to take off it is not possible to answer whether saving schemes actually translated into investments and school improvements.

356. There is evidence from the endline fieldwork which indicates that if access to saving schemes would reduce fee arrears and defaults then that could translate into investments for school improvement according to proprietors. In fact, school proprietors consider limited access to finance due to inaccessibility of credit and parent fee arrears as the biggest challenge to meeting their goals. Timely payment of fees by parents is seen by proprietors as one of the key routes to investing more in schools and being able to pay teachers more. As one proprietor said:

'A parent that wants good things for his child needs to invest money because the school needs money. So, if the parents can cooperate together to do all this, it will make the school to go a great way and the teachers will be well paid.'

357. Interestingly, among low-fee schools, school fees (the largest source) or the proprietor's personal income were the main sources of funds for the repayment of loans (Härmä & Siddhu, 2017). The fact that fees are used to repay loans makes clear the route through which reduced fees arrears can help in bringing about school investment as both DEEPEN's My School Plus study and the qualitative fieldwork establish that the majority of schools that take loans do so for capital investments in the school.

4.2.4.3.4 Does parental access to a mobile fee payment option reduce fee arrears? Does such access reduce parental default rates?

358. *Mobile money as an intervention was dropped by DEEPEN; therefore, this question cannot be answered. From the short time it was implemented the evidence of uptake is extremely limited.*

359. This question cannot be answered properly as DEEPEN's original mobile money intervention was dropped. A mobile money pilot conducted in 2014 showed a low uptake of mobile money among parents in Lagos and a lack of a dense network of mobile money agents. The lack of awareness and uptake of mobile money was also highlighted in the DEEPEN baseline (EDOREN, 2016).

360. The uptake of mobile money by parents and schools during the short time the intervention was implemented was so limited that it is not possible to comment on whether it reduces fee arrears and default rates overall. The DEEPEN Logframe Survey 2017 noted very few observations of people using mobile phone schemes to pay school fees. Only 0.4% of low-fee schools have used or do currently use a mobile phone scheme. A question was included in the 2017 Logframe Survey on using mobile phones and whether it made a difference to the way in which fees are paid. However, only four respondents indicated they used mobile phone schemes to pay school fees (DEEPEN, 2017).

361. In the qualitative fieldwork, proprietors acknowledged that most parents pay school fees using cash. This is also in part because the majority of low-cost private schools are unregistered and do not have bank accounts. In addition, among low-fee schools, the familiarity with fee collection services appears to be low, though it has increased from 6% in 2016 to 20.8% in 2017. However, no link to parental fee default can be established (DEEPEN, 2017).

4.2.4.3.5 Does access translate into school improvements in the dimensions highlighted above, and eventually to better learning outcomes? What is the ‘size’ of any such effects and what is the time lag with which they occur?

362. DEEPEN’s mobile money intervention was dropped, as stated above; therefore, it is impossible to discuss whether it led to school improvements or improved learning outcomes. It is also not possible to comment on the impact on learning outcomes and the size of any such effect as data on learning outcomes are not available.

4.2.4.3.6 Does access to credit for schools stimulate school investments and improvements? If so, in what specific dimensions? Do these improvements translate into better learning outcomes? What is the time lag in regard to learning outcome improvements?

363. *Access to credit for schools does stimulate school investments and improvements. Qualitative fieldwork and research by DEEPEN shows that these investments are primarily concentrated on infrastructure-related improvements (building renovation and classroom repairs) across all school types. An interesting finding is that no school (low-, medium- or high-fee) accessing credit is using it to invest in teacher training and management. One of the reasons for this is fear of high teacher turnover – especially in low-fee schools. However, a small number of schools do invest in buying teaching materials, with the largest proportion of these being high-fee schools. Investments are prioritised by schools in areas perceived by parents to be indicators of improved quality, which is primarily infrastructure, since, if their children are in a particular school, they usually claim to be satisfied with the teaching.*

364. It is not possible to comment on impact on learning outcomes and the size and time lag of any such effects as data on learning outcomes are not available. However, by looking at whether schools are investing, and, if so, in what areas, inferences can be made regarding whether this would lead to improvement in learning outcomes

365. Access to credit for schools does stimulate school investments and improvements. The endline fieldwork, similar to the baseline, clearly demonstrated that one of the major constraints, if not the biggest constraint, faced by school proprietors of low-cost schools is access to finance. Proprietors testified that lack of finance is their biggest challenge to investing in school improvement, even though they aspire to do so. As one proprietor said: ‘Yes, if I had little money that is with me I know where to put it that will give me the best result, yes.’

366. At present the main provider of short-term loans to schools is Accion Bank. These loans were designed keeping the characteristics of low- and medium-cost schools in mind and could be accessed at a relatively affordable interest rate compared to the market as Accion managed to get cheaper funds from the Central Bank of Nigeria, although this is no longer available and current rates are close to market interest rates. The majority of loans (56%) were accessed by medium-fee schools, whereas only 14% went to low-fee schools (DEEPEN, 2017). The loans provided are mostly short-term and earmarked as asset or working capital loans. DEEPEN and Accion’s study showed that among low-fee schools, 63.6% of schools indicated they were borrowing for building renovations and 27.3% for the construction of new rooms and facilities, and the remaining 9.1% for facilities for children (e.g. furniture). What is interesting is that actual expenditure is different from the originally indicated reason for taking loans, as can be seen from the table below, which provides a breakdown of the different

ways loans are actually used by low-, medium- and high-fee schools. 56.7% of low-fee schools actually invested in making new rooms, whereas the majority of medium- and high-fee schools concentrated on repairs.

Table 14: Percentage distribution of total loan expenditure by item – all schools

	Low-fee	Medium-fee	High-fee	All
Building renovation (repairs, painting)	28.2	33	34.2	33.3
Constructing new rooms (classrooms, library etc)	56.7	29.9	19	26
Constructing toilets	0.7	0	0	0.1
Facilities for children (furniture, recreational etc)	9.6	5.4	12.4	9.5
Purchasing teaching learning materials	0.5	4.6	10.6	7.6
Payment of salaries to staff	3.4	2.9	6.9	5.1
For school operation cost	0.9	7.3	10.4	8.5
Training of school management/teachers	0	0	0	0
Payment of rent	0	6.1	3	4
Purchase of land for school	0	8.1	0	3.1
Purchase of school bus	0	2.6	3.4	2.8

Source: ‘My Schools Plus’: Results of two rounds of lending to private schools under Accion’s subsidised loan schemes, DEEPEN 2017.

367. In a similar vein, the qualitative research team found that all schools in the sample that have accessed loans are using them to invest in making repairs or improving their building structure and making new classrooms, regardless of fee category. In addition, the medium- and high-fee schools have also invested in teaching and learning materials – a similar trend to what was reported by the DEEPEN Accion study cited above, where no low-fee schools invested in this category.

368. As discussed earlier, no schools, regardless of fee level, have used loans to invest in the training of school managers or teachers. The majority of credit is being used for infrastructure investments. This is unsurprising given that parents feel that paying a higher fee is justified if the school provides a better environment, which is understood to relate to infrastructure, as discussed earlier in the report. Even though parents claim that teacher qualifications are important to them this does not seem to translate into investment decisions – possibly because that is not what they are willing to pay a higher fee for if they are already satisfied that their children are learning. This is further exacerbated by head teacher fears of teacher turnover. Below is an excellent quote from a parent in fee arrears illustrating how much stature investment in infrastructure is given:

‘See, she is really spending on the school. She renovated the school recently and everyone in the community were even saying she is trying. She is trying because if they deduct the money. My child pays 18,000 and I don’t pay once. Parents that pay once are very rare. Although, if I have the money, she knows that I will pay immediately because I don’t like owing her. She is working for us and she is not our slave. She does her things in bits as soon as parents pay. She is not the type of person that attends party or buys clothes and gold. She does all necessary things in the school.’

369. The other area of nearly zero investment by schools in any fee category is construction of toilets. Only low-fee schools (0.7%) used their credit for this purpose. This could be because medium- and high-fee schools already have toilets. However from fieldwork and conversations with experts it is clear that a number of schools, whether high, medium or low-fee, lack adequate toilet facilities.

Case study: Accion loan use and school quality improvement

One high-fee school in the qualitative sample received loans, both short- and long-term, from Accion and did not receive any other DEEPEN-related intervention. The school has invested the money in school improvement. The school headteacher mentioned that the loans were used to develop the infrastructure and the school proprietor, who is a trained teacher who had taught at a school in Leki and is reported to have gone to London for training, mentioned that the long-term loan was used to buy an additional school bus. Other than that, they invested in building a library and in obtaining teaching aids, such as toys, and CDs. The proprietor also said that they have a parent–teacher forum where they convey that they are child-centred and aim at making a ‘total child’. The proprietor also noted that the parent–teacher forum is held because ‘...these parents are also investors. Because they want the best for their children, they kind of suggest certain things that they feel will work well for their children, and we also like she said [the headteacher] put them to prioritisation and then know what to do.’

370. Considering the areas in which schools are investing it can be inferred that there will be limited impact on learning outcomes. The lack of investment in teacher training, low levels of investment in the purchase of teaching materials and payment of salaries, will not produce improved teacher effectiveness, which a very general level of evidence suggests is normally the most significant school-related driver of learning outcomes. The unwillingness of proprietors to invest in teachers in case they leave means that there are fundamental limitations to the ability of access to credit to lead to improved learning outcomes.

4.2.4.3.7 Does providing business training to school proprietors (a) improve profits; (b) change investment patterns; and (c) strengthen the learning environment and learning outcomes?

371. *BDS training imparted to school proprietors has resulted in schools adopting better financial management and book-keeping practices, as well as encouraging their teachers to have better communication with parents. Some schools that attended training were also considering adding alternative sources of revenue to help the school. It is, however, too soon to comment on whether such practices have improved profits, changed investment patterns, or strengthened the learning environment and learning outcomes, as schools have been receiving training only in 2017 – some of which did so only toward the end of the year. Data from DEEPEN on their BDS study are also currently not available.*

372. BDS training was composed of six modules. The content of the modules differed from provider to provider but was broadly composed of: human resource management, leadership, marketing/customer relation, school planning, management for profit, and the importance of record-keeping (understanding financial management, financial record-keeping). At present we can comment on whether the knowledge and tools imparted in the training have been adopted by schools but there is no evidence to show whether this has translated into improved profitability, change in investment patterns, and strengthening of the learning environment and learning outcomes. This is partly because there has not been sufficient time since the business training was imparted to see impact at this level. Most schools received training in the middle of 2017, with some receiving training at the end of the year as well. In addition, the results of DEEPEN’s BDS endline study are also currently unavailable – this will look at such effects in all the schools that received the training.

373. Through the endline fieldwork the research team found that proprietors cited examples of uptake but did not yet know whether this had increased profitability. School proprietors cited examples of BDS trainings attended and steps they took as a result. Keeping better financial records and managing their finances more efficiently was cited by the majority of schools in our sample that received BDS training, including all low-fee schools. Some examples include comments from proprietors such as the following

‘OY: can you tell us something that makes you to appreciate the fact that you partook of the training?’

Proprietor: Before, whenever the school resumes, any money I received, I will just spend it anyway I liked without calculating and then we had issue with debt; we were owing some teachers. But with the training, when we started separating personal money from the school's money, we were not having any debt, the training is good, it gives rest of mind.

Manage our accounts, they taught us that if we are going to have opportunities to collect loans either from international bodies they will like to see cash flow. They will see how you are dealing with funds. So they taught us how to keep records – expenditure, income.

374. Proprietors also talked about how, after the training, they discussed with their teachers and other school management staff the importance of good communication with parents and children. In addition, proprietors mentioned the possibility of adding another business to their school as an additional source of revenue. Some examples quoted were adding a cyber café or a fish pond, though to what extent these particular examples would be profitable is questionable.
375. According to DEEPEN staff providing business training to school proprietors has resulted in schools keeping proper financial records, implementing structured policies, and making school development plans, which could hopefully improve school profitability in the future. BDS providers also believe their trainings have had a positive impact on schools and some of them have been monitoring schools after training to provide mentoring, though the majority are not doing this due to cost reasons. BDS providers claim that the trained schools are now making school development plans, keeping financial records, and implementing better human resources policies.
376. It is clear from all sources that schools are making changes as a result of the business training. It is possible that in the long run adopting such practices will help schools to be more profitable, improve their learning environment and outcomes, and change investment patterns, though these effects are not observable presently. This will also depend in part on how sustainable the changes made by schools are: is the uptake short-term enthusiasm or will their behaviour continue in the long term? The evaluation team did not assess the actual content that was imparted to schools during the training and the training provided.

4.2.4.4 School improvement

4.2.4.4.1 Do school improvement activities lead to higher-quality teaching in private schools, including low-fee private schools? Does this translate into improved learning outcomes or are other contextual factors more important? Why?

377. The utilisation of SIS by low-fee private schools has been increasing, which suggests that the quality of teaching may also be increasing. Between 2016 and 2017, the percentage of low-fee schools indicating that they used low-cost training services increased from 74% to 77.2%, although this is still below the 100% among high-fee schools that had been aware of private companies offering training in both years (DEEPEN, 2016; DEEPEN, 2017). The endline qualitative evaluation indeed found that in schools that had participated in school improvement trainings, teachers reported implementing changes in pedagogy, which is triangulated with data from parent focus groups. In individual cases, the evaluation team recorded testimonies from parents who believe their child's learning has improved over time in response to the novel approaches introduced by the school. Since no evaluation of learning outcomes was attempted, however, it is not possible to draw causal links between any such changes and improvements in learning outcomes for DEEPEN intervention schools as a whole.
378. The evaluation team perceived a self-selection effect among teachers: it is the high achieving and ambitious ones who are most likely to participate in school improvement training. It is therefore

possible that in some cases the positive impacts perceived by parents might be due to the teachers' dedication, rather than the additional training they received. School associations such as AFED also play a major role in disseminating information about teaching practices to schools at a lower cost than SIS, so some of the changes observable at school level may be due to the work of associations rather than school service providers.

4.2.4.4.2 Do school improvement activities lead to greater teacher retention or mobility? Why?

379. Since no quantitative data were collected on the retention of teachers, it is not possible to answer this question conclusively. During the endline qualitative evaluation, the research team asked proprietors as well as teachers about any staff departures after receiving school improvement training, as well as whether any teachers might be considering departing in the future. We found that in a number of schools that we visited as part of the endline fieldwork teachers had left and that in some cases this has made the proprietors wary of participating in further training. In one case, we found that the teacher who departed started a new school in the neighbourhood. The reasons for leaving are individual, but based on proprietor interviews, it is likely that even though in some cases teachers who have received training are given more responsibilities in school-level management and decision making, they are rarely given additional financial compensation. This is a likely factor in teacher mobility. The team did not come across any cases of teachers or proprietors who associated training with increased retention.

4.2.4.4.3 Do service providers respond to market facilitation to provide services to schools?

380. Through its engagement with service providers, DEEPEN was able to support several providers in developing affordable school improvement programmes aimed at the needs of medium-fee and low-fee private schools. These programmes are substantially cheaper than the trainings previously offered by the same providers, and their content and structure are adjusted to the unique needs of medium and low-fee schools (including using spaces for training that are not expensive to rent, follow-up mentoring, and the formation of school clusters to aid in peer-to-peer learning post-training). While the service providers responded well to such facilitation, they remained interested primarily in targeting medium- and high-fee schools.

381. The involvement of DEEPEN staff in the process was intensive and led to impressive results. The intensiveness may raise questions about the feasibility of market facilitation at larger scales. As discussed above, some service providers seem to be more interested in catering to medium-fee schools than low-fee schools, which creates a challenge to equity. At the same time, DEEPEN staff note that many of these providers are now profitable and reinvesting profits in further product development and in new areas.

382. Since different providers of SIS offer different products, there seems to be considerable variety in the trainings on offer. Some of the providers interviewed by the endline evaluation team spoke of incorporating training into their products that was aligned with BDS (such as book-keeping). Different educational philosophies seem to influence different providers, with some placing an emphasis on learner-centred approaches and others focusing on the role of visual aids in the pedagogic process. While this diversity of approaches can be generative of good solutions, and it is possible that market forces over time lead to the large-scale implementation of the approaches most suited to the needs of low-cost private schools in Lagos, this set-up also raises questions about governance in education. In a situation where many teachers lack formal qualifications and have not been trained, and where the government therefore has minimal influence on the pedagogies utilised in many of the private schools, an unregulated market for SIS in which providers draw from diametrically different philosophies of education can become problematic. In such a system, low-cost private schools, which do not necessarily possess the resources needed to research different pedagogic approaches, can be manipulated by marketing and could even become laboratories for testing pedagogies whose efficiency

has not been established. While the evaluation team did not find any evidence suggesting such outcomes, these caveats will be important to bear in mind in the future. After DEEPEN's departure, it is unclear if any institution will step into the role of a market facilitator (and regulator). While it is too early to tell with certainty, the associated market for SIS will likely require a degree of regulation in the future to minimise the likelihood of these and other negative outcomes on vulnerable low-cost private schools.

4.2.4.4.4 Are schools able to implement service delivery improvements without changing prices or paying higher rents?

383. In the sample of schools surveyed as part of the endline qualitative evaluation, no schools appear to have significantly increased their fees as a result of the SIS they accessed. However, this cannot be seen as confirmation that schools in general would be able to do so. The schools in the sample generally only had one or two teachers participating in one or two modules of training, which did not put a significant strain on the schools' budgets. The gains in quality in these schools appear to be correspondingly humble. A more intensive and longer-term training (which would have the potential to translate into greater quality improvements) would be considerably more expensive and could well cause a school to change its fee levels.

5 Sustainability

384. This section explores the extent to which the impact of DEEPEN is sustainable in the medium to long run after DFID's support is withdrawn. Answers are organised around seven primary evaluation questions, which are derived from the high-level sustainability question outlined in the box below. Most of the analysis in this section is based on endline qualitative data, since the answers to sustainability questions have evolved substantially since the baseline evaluation.

5.1 Methodology

385. The data analysed in this section came from a wide range of sources. All five empirical evaluation strands of the endline evaluation contribute to these findings, as do the baseline report, DEEPEN's internal M&E reports, and the baseline evaluation.

386. The analysis of this data revolves around triangulating sources both within the evaluation dataset (i.e. looking for thematic divergence and convergence between different evaluation strands) and between this dataset and other sources (identifying overlaps and differences between the findings of the evaluation, the baseline report, internal reports, and other secondary sources). In many cases, initial insights into sustainability came from strands 4 (experts) and 5 (DEEPEN staff), and these provided hypotheses that were tested by triangulating with other data. The empirical findings from schools in strands 1 and 2, in particular, were helpful in testing these hypotheses, but due to the small sizes of these samples and their limited representativeness, simply triangulating between these strands would not have provided sufficient rigour. Secondary sources, as well as a critical analysis of DEEPEN's TOC in light of the data generated through the endline evaluation, were therefore critical in answering these questions.

387. As part of our investigation into sustainability, we sought to understand not only whether the gains attributable to DEEPEN are likely to be sustainable after the end of the programme, but also whether potential exists for ripple effects and organic scaling up of DEEPEN's impact through market mechanisms. Such outcomes would be a confirmation of the programme's underlying TOC and evidence of system-wide impact. For this reason, a dedicated strand was designed that was aimed at understanding the 'neighbourhood effect' of DEEPEN-generated change. By soliciting from schools in Strand 1 the names and contact information for schools close by that were either in competition with them or learnt from their practice, the research team generated a list of schools for Strand 2, where DEEPEN's impacts might have manifested even though these schools had not been directly part of any of the programme's interventions. Aside from names and contact details, the research teams also interviewed proprietors of Strand 1 schools to ask them about specific examples of practices the neighbourhood schools might have shared or ways in which the schools competed. In cases where evidence from these interviews suggested that changes might have occurred in the neighbourhood schools between 2014 and 2017 that could be reasonably traced to DEEPEN, the schools were visited and instruments similar to the ones used in Strand 1 administered with the aim of determining the extent to which DEEPEN might have indirectly impacted these schools. The data from Strand 2 schools was then coded and analysed for patterns that might point to findings that hold external validity for other contexts.

388. Assumptions about future developments in Nigeria that might affect sustainability were made in line with reasonable expectations about political and economic shifts that might occur. As a low-income, politically fragile environment, Lagos State is susceptible to exogenous shocks arising from economic and political instability, and this was taken into consideration when assessing the sustainability of DEEPEN-induced changes in private schools, government institutions, and service providers in the state.

389. The analysis of sustainability in this section relies on data about both the supply and demand sides of the private education market and associated markets for service provision to private schools. While on

balance more data is available to understand the supply side (and this data generally points to more favourable sustainability outcomes), this does not mean that the demand side is not equally if not more important for the long-term sustainability of school-level improvements. While the data is thinner when it comes to the demand side, the evaluation therefore uses this data for its analysis of sustainability while recognising that the generalisability of these findings beyond the endline school sample is limited.

High-level sustainability question at the endline

To what extent will DEEPEN's impact continue when DFID's funding is withdrawn?

As DEEPEN had overall a modest success in generating structural transformation of the market, the endline evidence suggests that a number of its impacts may not be sustainable in the absence of continued support. The supply of new finance, school improvement, and business development products is likely to be sustained. Some of the other changes also look promising from a sustainability perspective, particularly ones at the level of government practices and policy vis-à-vis private schools, provided that the political situation continues to be favourable. Other impacts, such as the gains generated through DEEPEN's information workstream, are unlikely to be sustained even under favourable outside conditions.

5.2 Findings

390. This section answers seven evaluation questions. Each question is covered in terms of the current state of DEEPEN's sustainability and reasonable predictions into the future based on available evidence. The questions are in the box below.

Evaluation questions on DEEPEN's sustainability

1. Are DEEPEN's impacts sustainable without further DFID support? Why?
2. Has DEEPEN built adequate capacity (institutional, organisational, individual) in the requisite institutions?
3. Are these changes robust to reasonably likely exogenous changes (such as a change in government or slowing of the economic growth rate)?
4. Are any improvements in school quality sustainable without increases in real prices (particularly fees), particularly in the schools catering primarily to students from low-income households?
5. Are the changes to market structure that are facilitated by DEEPEN sustainable in the absence of further DEEPEN support?
6. Has DEEPEN led to any effects that have 'scaled up' to non-intervention schools? What are the mechanisms that led to such scaled effects? What are the enablers or disablers of these mechanisms?
7. In what ways has DEEPEN re-shaped the private school market in Lagos? What has been its impact on market institutions, and how has this translated to changed market dynamics? How have any shifts in awareness and any behavioural and attitudinal changes of different market actors affected the behaviour of the market at large?

5.2.1 Are DEEPEN's impacts sustainable without further DFID support? Why?

391. In the context of a market systems programme like DEEPEN, sustainability refers to the capability of the market to continue to adapt and provide the means by which the poor access educational services beyond the period of the programme's interventions.

392. By the standards of most market systems programmes, it is somewhat early to assess DEEPEN's sustainability. It is, however, feasible to assess if the programme is on the right track. As DEEPEN

approaches the end of its implementation period, there are instances where sustainability is not achieved and needs further support to fully materialise as well as areas where it is unlikely to be achieved unless changes are made.

393. DEEPEN's impacts can be categorised into three groups based on the likelihood of their sustainability in the absence of continued donor support: impacts that are likely to be sustained, ones that may or may not be sustained depending on exogenous factors outside of DEEPEN's control, and ones unlikely to be sustained.
394. Where DEEPEN has succeeded in creating structural transformations to the market, its impacts are likely to be sustainable without further donor support. New products were created with DEEPEN's help, most notably Accion's loan product targeting schools. While this was initially possible thanks to subsidised financing from Nigeria's central government bank to Accion, the product has continued even when this financing ended. To a lesser degree new products in BDS specialising in improving school management and SIS aimed at pedagogical improvements are also sustainable. These services are already operating with minimal outside support and are likely to be sustained.
395. The endline's qualitative survey of 20 schools indicated that proprietors of over two-thirds of the sample schools did not think of SIS as a good investment, either because they saw other needs as more pressing or because they were concerned about teacher attrition. The endline thus pointed to a discrepancy between the demand and supply of these services, both of which are required for the long-term sustainability of this market. While DEEPEN's own surveys are more optimistic about the demand generated for these services through the programme, our in-depth methodology allowed us to interview proprietors at length and come to understand the complexities of their decision making. Resultantly, while we cannot vouch for the generalisability of these findings to all private schools in Lagos, we believe that these results suggest demand for SIS appears to be limited, especially among proprietors of low-fee private schools.
396. The sustainability of other impacts is promising, but also partially dependent on maintaining institutional continuity and a favourable political climate in key organisations. DEEPEN has helped to raise awareness and change the assumptions about private schools on the part of some key government officials, and these have now been translated into several government documents. This is very promising, although, as DEEPEN's own trajectory has shown, changing political economy affects the long-term sustainability of improvements in the regulatory environment. DEEPEN appears to have done a lot in this regard, as both the current political dispensation and the opposition appear to be having a more positive engagement with the issue of private schools compared to the hostile environment of the past. This is despite a change in administration during the process. There is therefore cause for optimism, even if sustainability is difficult to predict with a high degree of confidence in the politically turbulent context of Lagos.
397. The impacts generated through DEEPEN's information workstream are unlikely to be sustained in the long run without further donor support. The radio stations that DEEPEN has partnered with in delivering programming focused on raising awareness about quality in low-cost private schools do not show any concrete signs of finding ways to finance these programmes in the long run.²¹ If sponsors do not come on board and DEEPEN's support in generating content for these programmes comes to an end, it is unlikely that the radio stations would see these programmes as a viable business proposition in the future. Newspapers have already shown decline in their publishing of articles about low-fee private schools in the aftermath of DEEPEN's training of journalists, in part due to the economic crisis of 2015 that has forced many newspapers to cut down on their coverage of education issues. This suggests that the media organisations saw coverage of education issues as a good thing to do rather than as a way to increase their readership, indicating that DEEPEN did not succeed in facilitating sustainable change in this sector in line with the market systems approach. The CSO intervention, as a

²¹ However, DEEPEN noted that some of these shows have received sponsorship, which may open a route to further sustainability.

non-market driven programme that requires continued funding to continue generating awareness among parents, is by design not sustainable after donor funds are withdrawn.

398. This analysis is based on the assumption that GAPS does not get rolled out by the government at scale. If this does happen, DEEPEN's impacts might not only become more sustainable but could conceivably increase in magnitude. For example, a large-scale rolling out of GAPS could lead to more stimulation of the markets for financial and SIS as well as of the media's reporting about education quality in Lagos. While there are signs that this might happen, it is not possible to predict the likelihood of government's large-scale adoption of GAPS with confidence, especially in the current economic climate in Nigeria.

5.2.2 Has DEEPEN built adequate capacity (institutional, organisational, individual) in the requisite institutions?

399. *The following sub-sections look at the extent to which DEEPEN has built capacity in the Lagos State MoE and other private sector actors including financial institutions, media, BDS, and SIS providers and private school associations. Overall, DEEPEN has built capacity with all the institutions it has worked with to some extent but the sustainability of these remain in question.*

400. Capacity is multi-dimensional (OPM, 2010):

- **Individual:** focusing on the personal capabilities of the people working in the sector, including their knowledge, skills, and attitudes, as well as their actual behaviour in the work place.
- **Organisational:** concerned with how people are organised to enable them to play their individual roles, and the ways in which the structure, staffing, and processes and systems impact on the performance of the organisations that make up the sector.
- **Institutional:** including both the laws and regulations that establish a body's mandate and define its responsibilities, duties, obligations, and powers, and also the procedural requirements determining the way critical functions such as participation in the budget process, recruitment, or procurement are carried out.

401. In order to answer whether capacity has been adequately built, first the question of whether capacity has been built will be addressed and, second, if so, whether the capacity that has been built is sustainable.

a. Lagos State MoE to sustain the regulatory activities (especially the conduct and communication of GAPS, and the elimination of illegal and unofficial taxation)

402. DEEPEN in its engagement with the Lagos State MoE has succeeded in building individual and to some extent institutional capacity, although not as far as it intended with the latter. DEEPEN, as a result of extensive advocacy, shifted the government's previously draconian attitude toward private schools to an acceptance of the reality of the sector and the large number of Lagos children it serves. There have been changes in contentious regulation around private schools as a result of this. Individuals in the government have also recognised that the current registration system for schools needs to be modified and GAPS is being considered as a tool to help in this regard. The Ministry has already adapted GAPS and rolled it out as a quality assurance tool for public schools, and there are hopes among individuals in government that it will soon be rolled out to private schools as originally envisioned by DEEPEN as well. The government has also had meetings with private schools to discuss the issue of illegal and unofficial taxation and has recognised this as something that needs to be addressed.

403. Whether the Lagos MoE will be able to sustain regulatory activities is uncertain since changes in attitude and political agendas with a shift in government cannot be predicted. While GAPS was

reportedly on the verge of rolling out in 2015, a change in government after elections meant this was stalled and DEEPEN had to begin its advocacy efforts for GAPS again.

b. Private sector institutions to continue support to GAPS, to the media, and to schools

404. The main private sector institutions DEEPEN has worked with are BDS providers and school associations (SIS providers, financial institutions, and media are covered below).
405. DEEPEN has built organisational and individual capacity among BDS providers, who are now aware that low-cost private schools form a potential market and have adapted their training model to cater to the market price point. Their sustainability depends on continued demand for BDS from low-cost private schools as well as their ability to pay. The research team found that schools were happy with the BDS services accessed; proprietors were willing to learn more about how to operate their school more effectively as a business and invest in BDS training, suggesting the market should continue to burgeon as long as the price remains affordable.
406. Organisational and individual capacity has been built for various private school associations to enable them to carry out their advocacy function more effectively. This has been done by providing them with a tailored advocacy curriculum, fundraising training, and help to develop workplans. Capacity development has focused on enabling associations to realise their strengths and break their fear of interacting with the establishment (e.g. the Lagos Revenue Service). Private school associations have also realised they can be a gateway for low-cost private schools to access services like BDS and SIS, which they did not before. A coalition of associations of private schools has been developed to enable associations to coordinate between themselves and capitalise on their large numbers.
407. There is a recognised risk that the capacity that has been built may be lost once association leadership changes, although DEEPEN has sensitised the current leadership on the need to mitigate this. The endline research highlighted the positive benefits private school associations felt from their interaction with DEEPEN. There is therefore the possibility that the capacity built should be sustained as long as association leaders cascade their knowledge to any potential new leaders.

c. The media to continue reporting on the importance of quality in private schooling and of standards

408. DEEPEN has built organisational and individual capacity in the three radio stations it worked with to report on quality of private schools and standards. The sustainability of this capacity is questionable once DEEPEN exits, however. The media industry as attested by DEEPEN staff is profit driven and the three radio shows were being supported by DEEPEN for marketing and production. If the shows on education are not profitable they will be dropped or else modified in a way that makes them financially viable.

d. Financial institutions to provide finance to the lowest-cost schools and poorest parents

409. DEEPEN has built individual, organisational, and institutional capacity in financial institutions to provide finance to low-cost private schools, although initiatives to lend to the poorest parents did not take off. DEEPEN has built capacity by making financial institutions aware of the large scale of the low-cost private school market and supporting them to develop ways to overcome the risk associated with this sector. DEEPEN's most significant impact on individual and organisational capacity has been on Accion Bank, whose school portfolio is now one of their most successful and they are looking to scale up. Accion is lending to unregistered schools and by working with DEEPEN has found ways to innovate to mitigate the risk associated with this approach at an organisational level and find cheaper sources of finance. At an individual level, Accion staff members dealing with the school portfolio are aware of the challenges of working with low-cost private schools and have adapted their operations and products accordingly. Most recently, through close work with DEEPEN Sterling Bank received internal approval to lend to schools that are not MoE approved, signifying change in institutional capacity.

410. There is the question of the sustainability of capacity built to finance low-cost private schools. With Accion, one of the main reasons for its success has been its ability to lend at interest rates much lower than the market interest rates, which has been key to school proprietors' demand to borrow from them (My School Plus, 2017). Accion has since been able to continue lending at unsubsidised commercially viable interest rates, and this has not led to an increased default rate, which indicates that lending to private schools can be sustainable in the absence of subsidies. This is significant, but it also needs to be caveated by the endline finding that proprietors of low-fee schools interviewed by the endline team who had accessed an Accion loan from the subsidised scheme indicated they would not be able to afford to borrow at the new market interest rate—which raises questions of equity and the extent to which unsubsidised lending will remain an option for schools with a low purchasing power. Overall, with banks such as Accion, Sterling, and LAPO and funds like Lagos State Employment Trust Fund, the sustainability of the capacity built will depend on their continued ability to lend to the low-cost private school sector, especially as their main challenge is developing mechanisms to lend at affordable rates of interest to unregistered schools. This will in part be influenced by exogenous factors such as government regulation and attitude toward low and medium-cost private schools, which is outside their control.

e. Pedagogical institutions to support school improvement

411. DEEPEN has built organisational and individual capacity in the pedagogical institutes it has worked with. Pedagogical institutes are now aware that low-cost private schools form a potential market and DEEPEN has worked closely with them to adapt their business model to be able to provide services at a rate that is affordable for low-cost private schools and yet remain financially viable as a business. For example, pedagogical institutes now reach out to low-cost private schools through associations to reduce marketing costs and have also developed mechanisms to run trainings at lower cost. SIS service providers have, as a result of their engagement with DEEPEN, discussed forming their own association to be able to tap into the market better and to facilitate regulation of this currently unregulated market.
412. Whether the capacity of pedagogical institutes to support school improvements can be sustained depends on continued demand from low-cost private schools as well as their ability to pay. As mentioned earlier in the report, schools – especially low-cost private schools – are reluctant to invest in teacher training and SIS providers reported challenges in getting schools to attend the trainings organised even after they had agreed to do so. Every SIS provider interviewed mentioned the challenge that schools were not keen to pay for such training.

5.2.3 Are these changes robust to reasonably likely exogenous changes (such as a change in government or slowing of the economic growth rate)?

413. The significant negative impact of the change in political dispensation in 2015 and the economic recession on DEEPEN's ability to deliver on its anticipated outcomes shows that the programme's approach has been vulnerable to exogenous shocks. While DEEPEN has made significant gains in improving the regulatory environment and changing government perceptions around private schools, the vulnerability to changes in the political economy in the future cannot be fully eliminated, as discussed in Section 5.2.1.
414. DEEPEN was highly successful in building capacity with school associations. In particular, the programme's work with AFED and the strengthening of the Lagos coalition of school associations contribute to the sustainability of a number of DEEPEN's impacts (see sections 4.2.1.1, 4.2.2.7, and 4.2.3.4 for a detailed discussion of these changes). AFED's ability to attract considerably more members than in the past, to generate considerably greater revenue through the collection of member fees, to act as an advocate with the Lagos government, and to serve as a platform for school improvement and business development training sessions has bolstered its role as both a market broker for school services and a powerful champion of low-fee private school interests. While AFED has received

significant support from DEEPEN, an examination of the association’s management practices suggests that important steps have been taken to preserve and further increase these gains in the future. Most notably, the efforts of the current leadership to step down the knowledge and skills they gained as a result of DEEPEN’s capacity-building efforts, and an established apprenticeship-like system of passing this onto future leaders, are promising. AFED’s ability to act as an advocate for low-fee private schools is further strengthened by the building up of a coalition of associations, which has already proven capable of speaking with a unified voice when lobbying with the government for improvements to the regulatory environment for private schools in Lagos. These gains—while not a substitute for a large-scale roll-out of GAPS—are likely to mitigate the future impact of exogenous shocks on DEEPEN-generated gains for low-fee private schools akin to the 2015 political and economic changes.

5.2.3.1 Are any improvements in school quality sustainable without increases in real prices (particularly fees), particularly in the schools catering primarily to students from low-income households?

415. Several of the school proprietors we interviewed hinted that improvements in quality would have to come with increases in fees. Since tangible improvements in the schools visited as part of the endline fieldwork were modest, the team only came across small isolated examples of fee increases that could be linked to investments by the school into quality, and these data points are not sufficient to draw out a clear pattern.
416. The proprietors who discussed the question of increasing fees with the team mostly spoke in hypothetical terms. In their imagination, quality improvement is generally linked with fee hikes, because increasing the fees is the only way to improve quality. This is true for both proprietors who operate on business logic and the more philanthropically minded ones: there appears to be a common belief that more quality always costs more money. This suggests that while there may be scope for improving quality without increasing costs (e.g. by introducing schemes to incentivise parents to pay fees, increasing the teacher-to-student ratio in schools where classes are very small, etc.), proprietors are not always aware of such opportunities. There therefore seems to be scope for BDS aimed at helping schools improve their effectiveness—a focus that DEEPEN has been targeting through its BDS programme. It is, however, questionable whether proprietors who do not see immediate cost-saving opportunities are likely to be willing to pay for BDS training, since the benefits may not become visible until after the training is implemented. It is also questionable whether module-based training that relies on a set curriculum would be best positioned to address this issue, as the opportunities for cost-cutting are unique for individual schools. In our endline sample, proprietors whose schools participated in BDS talked about the training they received as fairly generic (which is not to say that they did not see it as relevant or helpful) rather than tailored to their specific situation. A BDS product that would help each school identify and improve in areas specific to the school and the context in which it operates would arguably mean shifting away from training in groups to individual-level consulting services, and this would be a lot more expensive to implement. It is therefore likely that in order to help shift the imagined correlation of increase in quality to increase in fees, an approach would be necessary that subsidises the costs of targeted diagnostic and advisory services for private schools while also incentivising schools to join such a programme.
417. Even if such an approach were to be implemented (at considerable cost), however, it would reach a ceiling in its ability to keep fees from rising as quality rises. In the private school market in Lagos, schools often look with aspiration to other schools that charge higher fees; if a low-fee school is able to improve its quality enough to attract wealthier parents, it is likely to want to do so and become a medium-fee school.
418. Analogously, if a school remains a low-fee school despite improvements in quality, the improvements are likely to be minor in magnitude if the school is to remain economically viable. A number of experts interviewed as part of the endline qualitative evaluation are of the view that given the purchasing power of people living under the poverty line in Lagos, it is unlikely that in the absence of subsidies the

fees that would be affordable for this socioeconomic group would suffice to pay for an education that would meet even the most rudimentary notion of ‘quality’. One of the experts went as far as to claim that the bottom 50% of people in Lagos in terms of their income could not afford to pay fees that would sustain a ‘quality’ school. The pessimism of these experts about the quality of schools is not entirely consistent with the findings from learning outcomes surveys presented above that indicate outcomes rather better than assumed – though still with room for improvement. In terms of this improvement, however, the opinions of the experts are consistent with the realities of the schools we observed in the endline qualitative sample. In other words, getting low-fee private schools to improve quality without increasing fees is not only itself a potentially costly effort requiring complex, tailored interventions going beyond the existing BDS programmes, but it may not solve the issue of quality education for a large group of the poor in the absence of subsidies that would enable very poor schools to benefit from it. This finding further strengthens the case for a subsidy-based component to any M4P programme in education that is committed to equity, as outlined in detail in Section 3.2.2.

5.2.4 Are the changes to market structure that are facilitated by DEEPEN sustainable in the absence of further DEEPEN support?

419. As discussed previously, the degree of structural transformation in the private school market caused by DEEPEN has been limited to start with. Furthermore, as mentioned under question 1 in this section, the absence of clear, hard to reverse and supportive government regulation is the main constraint to the sustainability of those market changes caused by DEEPEN after the end of the programme. Any structural changes in the market that are attributable to DEEPEN therefore may or may not be sustainable depending on whether GAPS is rolled out in the future. The changes that are linked to improved school association capacity are more likely to be sustained, especially in the case of AFED, since this association has taken extensive steps to ensure the continuity of the changes introduced as a result of DEEPEN’s support.

5.2.5 Has DEEPEN led to any effects that have ‘scaled up’ to non-intervention schools? What are the mechanisms that led to such scaled effects? What are the enablers or disablers of these mechanisms?

420. One of the goals of the evaluation was to understand the mechanisms through which the impact of DEEPEN would spread beyond the original group of schools enrolled in one of its interventions. In this somewhat experimental part of the endline evaluation, we thus sought to generate leads from schools that had directly benefitted from DEEPEN to local neighbourhood schools that might have emulated some of these changes. Our goal was to understand whether such effects took place and what the conditions might be that are needed for such ‘ripples’ to emerge.

421. Since the magnitude of change in the intervention schools themselves was very limited for most of the sample, any leads that were generated from these schools could best be described as ‘weak signals’. The research team pursued all such signals and visited all the schools that were identified as possible ‘ripple-effect’ schools and were willing to be included in the study. Of the seven schools surveyed, three emerged as having possible ‘ripple effects’, of which two can be reasonably linked to DEEPEN-induced change.

422. The expectation behind this mechanism was that competition would serve as the causal pathway to impact. A DEEPEN intervention school would become more competitive, and as a result other schools would follow suit. The findings from the endline qualitative study suggest otherwise, however. Schools seem to be often willing to share their best practices with other schools in the area. This can happen through the facilitation of school associations, through a teacher leaving to establish a new school modelled on the best practices of the school they came from, or simply through word of mouth in the community. While competition plays a role, and some of the proprietors who were interviewed by the endline evaluation team indeed felt protective of their know-how, there appears to be a high degree of

collaboration. This is consistent with the finding that private schools do not always operate on market logic, and that many see themselves more as social enterprises or charitable organisations that are filling an important need. Seen through this lens, the finding that schools would collaborate as much as they compete makes perfect sense. From the point of view of a proprietor whose primary concern is the availability of education to children in her or his community (rather than the economic performance of her or his specific school), there is less need to compete and more need to collaborate in pursuit of the shared goal of quality education.

423. The ‘ripple effects’ identified through the weak signals from intervention schools can therefore be seen at least in equal measure as a reflection of voluntary sharing and market-based competition. While a much larger sample would be needed to corroborate this finding, its implications for the design of future M4P programmes in education are potentially far-reaching. Just as competition can be harnessed as a mechanism for spreading impact, so can be the willingness of schools to share best practices irrespective of competition. DEEPEN has recognised this potential in its work with SIS clusters, where schools were encouraged to share the learning they derived from the training their staff received. This approach is consistent with the school-level empirical findings and should be encouraged in future M4P education projects.

5.2.6 In what ways has DEEPEN re-shaped the private school market in Lagos? What has been its impact on market institutions, and how has this translated to changed market dynamics? How have any shifts in awareness and any behavioural and attitudinal changes of different market actors affected the behaviour of the market at large?

424. Although the private school market as a whole has changed, there is little evidence that changes can be attributed to DEEPEN beyond improvements in the government’s practices in regulating the market. In the course of the endline qualitative evaluation, we spoke to a number of experts with a keen interest in education in Lagos with the aim of ascertaining whether the private school market as a whole was exhibiting changed behaviours from the experts’ vantage point. Most agreed that this is a dynamic market that has changed significantly over the period when DEEPEN was active (although the experts did not necessarily believe all of these changes are attributable to DEEPEN). The perception of the market is that it has been getting more and more competitive, and that in some cases this has put pressure on schools to increase their quality. The interviews with experts did not point to any of DEEPEN’s imagined causal pathways leading to major structural transformations in the market and the market institutions; most experts agreed that it was too early to observe such changes, and that the lack of roll-out of GAPS with its associated impact on other workstreams makes such changes unlikely to be observable at this stage.

425. There does seem to have been an improvement in the associated market for service provision to schools. The experts interviewed by the evaluation team have picked up on increased availability of more affordable services; the awareness was particularly strong in regard to SIS, with comparatively less awareness for credit and BDS. Apart from availability and affordability, the experts also noticed a degree of crowding in of new providers into these markets, fuelling competition and likely leading to improvements in the quality of the products on offer in the future.

426. The sustainability of these gains could be put at risk in the event of substantial exogenous political-economic changes. A future roll-out of GAPS might, however, not only lead to a transformative change in the private school market but also increase the sustainability of the positive impacts on the associated markets for school service provision that DEEPEN has already achieved.

6 Efficiency and VFM

427. This section explores whether DEEPEN offered good VFM and was implemented efficiently. Answers are organised around three primary evaluation questions. Most of the analysis in this section is based on annual reviews and secondary data.

6.1 Methodology

428. The methodology for answering questions on efficiency is light-touch and relies on existing data, primarily annual reviews. The initial and revised DEEPEN evaluation frameworks identified DEEPEN annual reviews as the key data sources for answering questions about DEEPEN’s efficiency. For questions on DEEPEN’s cost-effectiveness, the initial evaluation framework specified the use of surveys on learning outcomes, but these detailed questions and surveys were dropped in the revised framework. Comparisons with the costs and cost-effectiveness (dropped in the revised framework) of other programmes were expected to be made using annual reviews of other programmes, particularly GEP3 and ESSPIN, as well as other M4P programmes in Nigeria. None of these data sources permits a particularly detailed analysis. Answers to the questions on DEEPEN’s organisational set-up and management, and on strategies for VFM, could draw on analysis of primary qualitative data collected to answer questions on effectiveness. The sections below do not replicate this but refer the reader to the relevant sections.

High-level efficiency question at endline

To what extent did DEEPEN offer VFM in terms of the relationship between inputs and outputs and outcomes?

6.2 Findings

429. The evaluation framework sets out that the endline report would answer questions on efficiency every year, drawing on annual reviews of DEEPEN for DFID and some secondary analysis of the costs of other programmes.

430. The table below presents a summary of the findings on efficiency. In general, the ability of the evaluation to answer these questions is limited by the data provided in the annual reviews and the limits around assessments of DEEPEN’s value – especially given the lack of data on changes in learning outcomes.

Table 15: Evaluation questions on VFM and key findings

Evaluation questions on VFM	Key findings
Does DEEPEN offer VFM, as anticipated in the business case? This should include a comparison with section D of the business case (costs and benefits of options), and with the objective of costs of £12.5 per child supported.	£32.1 per child is over 2.5 times more expensive than the business case. The business case targets for JSS students were not relevant as DEEPEN and DFID agreed not to keep this focus. Key intervention (GAPS) used by business case to estimate benefits not rolled out. Learning outcome change not measured, making overall VFM hard to assess, but appears likely to be less than that in business case for reasons above.
What has been the cost of each major activity and intervention area?	The vast majority of spending (62% in 2017) has been on staff (who are to some extent spread across the four DEEPEN intervention areas). Management and administration constitute 20% of expenditure. Programme activities account for the remaining 18%. This is in line with the business case, which identified the cost of technical assistance as the key driver of programme costs. A

	breakdown by each activity and intervention area is not provided in annual reviews other than in 2013/14.
What are the costs in terms of schools supported and learners supported?	There is limited direct support to schools and learners, and so initial annual reviews did not assess this number. From 2015/16, annual reviews assessed the cost per school supported by the finance and SIS workstreams. These costs dropped substantially as the number of schools grew. The 2017 Annual Review provides an estimate of a per student cost, £32.1, down 20% from 2016.
Have these costs per school and per learner changed over time?	Costs per school supported dropped substantially as the number of schools supported grow. For students; as above: falling where measured.
Were DEEPEN's results achieved on time? If not, why?	The 2017 Annual Review gave DEEPEN an 'A' overall, following a B in 2016 and As in 2014 and 2015. Due to the disruptions to GAPS, results were not achieved on time but DEEPEN has responded flexibly and made progress in other areas.
Has DEEPEN successfully developed and implemented strategies, including internal learning, to achieve greater VFM in terms of efficiency, economy, and effectiveness?	DEEPEN has developed a robust VFM strategy, and this is used as the basis for the annual reviews' VFM sections. In regard to economy, efficiency, and the quality of financial management, DEEPEN is reported to have performed well. The VFM of GAPS is not measured. Effectiveness has not been measured, and the annual reviews note concerns about the scale of impact.
Did DEEPEN's organisational set-up and management enhance delivery of results?	This was not looked into during the annual reviews. The endline research time found the DEEPEN team had faced management challenges, particularly around high staff turnover. Frequent changes in the DFID team were also highlighted as a challenge for the DEEPEN team.

6.2.1 VFM

6.2.1.1 Does DEEPEN offer VFM as anticipated in the business case?

431. The first question requires a comparison with the business case sections on the cost and benefits of options. For the 'Facilitating change' intervention that evolved into DEEPEN, the business case estimated costs of £9.6 million (DFID, 2013). The calculation of expected benefits in the DEEPEN business case was not straightforward and are not all made clear.
432. Benefits were expressed in terms of the increased individual incomes resulting from improved learning for JSS3 graduates. The section on benefits for facilitating change uses the GAPS as a basis for estimates on increased learning and returns, although it is not entirely clear in the business case that this figure is used to calculate returns. The business case assumes that average learning outcomes for JSS3 graduates improve 6% as a result of DEEPEN's activities. Using international estimates of rates of return to education (Brewer and McEwan 2010 and Hanushek and Ludger 2007), the business case estimates an increase in annual income of between 5.7% and 7.3% per year (or £21 per year on average) for their working lifetime as a result of improved learning. The basis for this calculation (the percentage increase or the GBP value) is not clear. A working lifetime is assumed to be 30 years. DEEPEN expects to support 1.5 million children, but the business case models benefits for 533,074 children – for reasons that are again not entirely clear.
433. Applying a discount rate of 10%, these assumptions yield a monetary value of the benefit of £313.6 million, stated by the business case to be conservative.

434. There are four major difficulties with assessing DEEPEN’s VFM in comparison with this section. First, with the cancellation of endline surveys and DEEPEN’s outreach surveys, there are no data on improved learning outcomes or number of JSS3 graduates affected by DEEPEN. Second, the component of the programme – the GAPS – that the business case estimates were based around was not fully rolled out. Third, there are no data available for earnings of JSS3 graduates in Lagos, so this cannot be examined directly. Fourth, and most significantly, DEEPEN and DFID agreed that DEEPEN would not focus on JSS, which makes the assessment of JSS student numbers unhelpful.

435. Up to and including the July 2017 review, DEEPEN annual reviews – the agreed data sources for answering these evaluation questions – limited their discussions of VFM to the economy and efficiency with which the £9.6 million has been spent. The relationship between cost and effectiveness is barely discussed. The 2017 Annual Review’s section on cost-effectiveness is indicative. It is reproduced here in full:

‘Cost effectiveness is measured using the cost per pupil benefitting from school improvement through DEEPEN work. For this assessment, the programme used the average number of pupils per school from the 2010-2011 census. The cost per pupil for the Programme Year 2016-17 is £32.1 – a 20.08% decrease from the previous year.’

436. Although not made explicit, the basis for this calculation of benefits seems to be the logframe survey (DEEPEN, 2017), which notes that 3,401 schools have benefitted from one of more of DEEPEN’s four interventions.²² However, as the same survey report notes, progress on the GAPS has stalled. This means that the students in these 3,401 schools have not benefitted from the combined set of interventions that was used to calculate the benefits in the business case. Moreover, there is no measurement of the impact indicator on learning.

437. The lower than expected number of children benefitting from DEEPEN interventions has two main explanations. First, as the 2017 Annual Review notes, the expected total number of students benefitting is 869,000, a reduction from the 1.5 million anticipated in the business case. This is due to a much more challenging than expected political and economic context. Second, DEEPEN came to focus on primary grade students and schools rather than JSSs.

438. On the cost side, the £32.1 per child compares unfavourably with the business case estimate of £12.5 per child. However, this is still less than the £65 per child the DEEPEN business refers to in the ESSPIN school improvement projects.

439. Without a measurement of the benefits this £32.1 provides, it is not possible to assess whether this represents good VFM, although given the higher than expected costs per student and the lower than expected numbers of students it is likely that the VFM in terms of cost–benefit is lower than that in the business case.²³ It is not clear, however, whether this VFM calculation, if known at design phase, would have led to a different conclusion on whether to implement DEEPEN in its current form..

6.2.2 DEEPEN costs

440. The following six evaluation questions are treated together in the subsection below.

²² These interventions are Accion loans, Tax sensitisation, Business Development Services and SIS.

²³ The business case estimated a net present value to DEEPEN is £47 million.

- 6.2.2.1 What has been the cost of each of DEEPEN’s major activity and intervention areas?**
- 6.2.2.2 What are the costs in terms of schools supported and learners supported?**
- 6.2.2.3 Have these costs per school and per learner changed over time?**
- 6.2.2.4 How do these costs compare with costs of other similar interventions to support learning (whether private or public sector)?²⁴**
- 6.2.2.5 What is the cost-effectiveness of DEEPEN and different intervention areas?**
- 6.2.2.6 How does this compare to other successful interventions?**

441. Data on the costs of DEEPEN activities and interventions are not presented in detail in the annual reviews. Available data on VFM from annual reviews is compiled in the table below. These data cover some of the questions asked in the evaluation framework, but not all of them.
442. In particular, the costs per activity are not provided in the annual reviews, so this question cannot be answered. The reviews do provide costs per school using different DEEPEN interventions and (in a separate section on the interventions themselves) the number of schools participating. The key point is that at some point in 2015/16 the number of schools participating in the finance and SIS workstreams increased dramatically, generating a per school cost of around £100 that looks far more favourable than in 2014/15. This scaled number seems an appropriate number to use as a comparison with other similar programmes.
443. This does leave a challenging question of how to assess the cost of DEEPEN’s interventions in the long run, assuming the scaling of these interventions persists and the number of schools grows. DEEPEN’s status as a market enabler means that the number of schools benefitting from DEEPEN through being connected to financial institutions or SIS may grow even after DEEPEN ends. It would be prudent, for the purposes of assessing DEEPEN’s continued VFM and sustainability, to review the number of schools benefitting from DEEPEN interventions at the end of the project and – ideally – some time afterwards as well.
444. A similar point applies to the costs per student, which have reduced to around £32 according to annual reviews, but will be very dependent on the number of students that DEEPEN claims is benefitting. It appears very odd that DEEPEN’s costs are £32 per student benefitting from school improvement and around £100 per school participating in the school improvement workstream, since there are certainly more than three students per school. This needs further investigation.
445. DEEPEN’s per school costs are far lower than programmes that intervene directly. ESSPIN, for example, which operates in six states around Nigeria (including Lagos) and provides more direct intervention improving the quality of government schools, spent around £5,000 per school in 2015 (so about 50 times what DEEPEN spends).²⁵ ESSPIN’s per student costs, however, were slightly lower than DEEPEN’s, at £13.75 in 2015 (compared to DEEPEN’s £32). This presumably reflects in part higher enrolment in schools where ESSPIN operates, but also the uncertainty around DEEPEN’s per student estimates noted in the paragraph above.
446. The precise extent to which DEEPEN is able to ‘leverage’ additional resources from other actors is unclear as figures are unavailable. The VFM sections of annual reviews of both ESSPIN and GEP3 point to their abilities to leverage resources from government – meaning to cause the government to spend

²⁴ This comparative analysis will be reliant on secondary data available for other programmes, such as ESSPIN.

²⁵ Data come from ESSPIN’s Project Completion Report. Similar data are not available for GEP3.

money on issues related to the projects’ objectives that it would otherwise not have spent. In ESSPIN’s case, the Project Completion Report suggests ESSPIN leveraged £21 million from state budgets (ESSPIN’s total value as £124 million over nine years). The 2017 Annual Review of GEP3 suggests leveraging a lower proportion of overall spend, but still a significant amount: £1 from state budgets for every £16 spent by DFID.²⁶ DEEPEN presumably ‘leverages’ some resources both from government toward regulating private schools and from private organisations. DEEPEN has encouraged financial institutions, school improvement businesses, media organisations, and schools to undertake activities relating to education that they would not have otherwise done, and while these are supposed to generate financial returns to make them sustainable they likely involve a commitment of resources that could be considered leverage. However, DEEPEN annual reviews have not tracked this to date, and we are unable to make this comparison.

447. On balance, this evidence supports the intuitive idea that DEEPEN’s market-based approach is cheaper than direct intervention (e.g. through organising teacher training or PTAs), despite the small and fragmented nature of the school market in Lagos (with an average school size less than that of state schools). In the absence of data on learning outcomes, however, we cannot conclude which approach is more cost-effective.²⁷
448. DEEPEN’s unit costs appear similar to comparable programmes. Average technical assistance costs were higher for DEEPEN than for ESSPIN for both short-term technical assistance (£796 vs £634 per day) and long-term technical assistance (£438 versus £261), but long-term costs were much lower than the TDP (£549). These data are of course difficult to compare directly given the different compositions of the technical assistance teams and tasks, and the various geographical locations across which the projects work. The range of average costs (£438, £261, £549) for long-term technical assistance from these three Nigerian education programmes operated by the same company (Mott Macdonald/Cambridge Education) is evidence for this. We do not therefore make any particular judgement on these costs other than to note, with the 2017 Annual Review, that DEEPEN is not obviously significantly outside the range of ‘normal’ economy.
449. At a simpler level, administration and management costs stabilised around 20–25%, which is in line with DFID benchmarks. The balance between staff costs and programme activities is difficult to interpret.

Table 16: DEEPEN costs

	2013/14	2014/15	2015/16	2016/17
Staff costs (LTTA and STTA)	46%	78%	61%	62%
Administration and management	53%	23%	26%	20%
Programme activities	0.5%		15%	18%
Cost per school using SIS		£2,911	£130	£104
Schools using SIS		101	1024	1666
Cost per school using financial services		£2,218	£165	£102
Schools using financial services		147	505	1,657
Cost per student			£38.5	£32.1

Note: these data come exclusively from annual reviews of DEEPEN. Data for costs in 2015/16 and 2016/17 come from the 2017 Annual Review. Data on costs from 2014/15 come from the 2016 annual review (which differ from the figures from the 2015 Annual Review) for the same period, but are assumed to be more accurate given DEEPEN’s investments in VFM monitoring before the 2016 annual review. Data for 2013/14 come from the 2014 annual review and differ slightly from those given for ‘Year 1’ in the 2016 annual review (which states ‘overheads’ at 40%). There may be additional data from DEEPEN’s VFM strategy and monitoring

²⁶ At constant official exchange rates. Using real exchange rates this is more like 24:1.

²⁷ That both programmes tend to score As in annual reviews is not very instructive for this type of comparison.

documents but these were not specified in the evaluation framework or made available to the team. Costs per student are for those 'benefitting from school improvement through DEEPEN's work' (Annual Review 2017).

6.2.3 DEEPEN timeliness, management, and delivery

6.2.3.1 Were DEEPEN results achieved on time and in full? If not, why?

6.2.3.2 Has DEEPEN successfully developed and implemented strategies, including internal learning, to achieve greater VFM in terms of efficiency, economy, and effectiveness?

6.2.3.3 Did DEEPEN's organisational set-up and management enhance the delivery of results?

450. The annual reviews provide only limited information on these issues:

DEEPEN received three As and a B in annual reviews, suggesting delivery was in general strong.

There were substantial delays to the GAPS component for external reasons discussed elsewhere in this report.

There were minor delays to other workstreams – such as finance – caused by difficulties appointing staff for particular periods, and this partly accounted for DEEPEN's B in 2016.

DEEPEN has effective strategies for VFM that are referenced in the annual reviews, but this does not form part of the evidence used for this evaluation.

There are generally very limited but positive references to DEEPEN's set-up and organisation in annual reviews, with the exception of some challenges around recruiting.

The endline research team also explored factors in DEEPEN's organisational set-up and management that led to improved delivery as well as hindered effective implementation of the programme. These are discussed in Section 4.2.3.

7 Lessons learnt and recommendations

451. This section discusses key lessons and recommendations that emerged from the evaluation. These are divided into sections: recommendations that call for action in the short run, DEEPEN-specific conclusions that do not necessarily call for action, findings that carry implications for future market systems and private sector programmes.

Key recommendations and lessons learnt at endline	
Recommendations for further action	The Government of Lagos should continue to roll out GAPS and be supportive of the education market and related support services markets
	Continue technical assistance to GAPS and other intervention areas beyond the end of DEEPEN
	A further round of data collection in 2022 if GAPS rolls out by 2020
DEEPEN-specific conclusions	Political economy's big role in DEEPEN's difficulties generating impact
	Incentives of proprietors and parents is a challenge to DEEPEN's implementation
	Lack of flexibility in management and difficult relationship with DFID contributed to inconsistent levels of adaptability – initially low but improving
	School association work was an key area where the programme successfully built some capacity
Implications for future M4P and private sector programmes	M4P can work to change school behaviour, but may not be sufficient to address equity in private education
	As with any systems change programmes, questions of governance are important in design and implementation where government capacity is eroded
	Learning outcomes are not a sufficient impact indicator for M4P in education in the short-term
	Implementation can take a significant time to generate impact on learning outcomes
	Market failures might crop up in markets for school services generated by M4P
	Need to pay attention to dissemination of data

7.1 Recommendations for further action

7.1.1 Continued technical assistance to GAPS

452. **We strongly recommend that the Lagos state government roll out GAPS for private schools and perhaps public schools.** This is crucial to maintaining the good momentum developed by DEEPEN. GAPS for public schools could have a positive effect on the public education sector as well, improving accountability and transparency in public schools. Rolling out GAPS to both types of schools would also help facilitate more effective competition between private and public schools. A common framework for both types of schools would help decrease information asymmetries and allow parents to more easily compare the performance of different types of schools, which would likely help generate further pressure on the government sector to improve the quality of its own schools. It also means that continued technical assistance to GAPS could be part of a future Nigeria education programme aimed at private or public schools, while benefitting both types of schools.

453. **There is a strong case for continuing technical assistance to the roll out of GAPS after DEEPEN comes to an end.** It is unlikely that a large-scale roll-out of GAPS will take place before the end of the programme, but there are strong indications that this might be possible within a timeframe of one to two years, even in the absence of continued technical assistance (although there are compelling reasons for continued assistance even if the government proceeds on its own, as discussed below). These indications include: (i) political will at the Lagos State Ministry of Education, (ii) pressure on the

government from the coalition of private school associations, and (iii) the traction GAPS has been able to achieve in other states, which puts further pressure on Lagos State to implement the programme.

454. While it is possible that the Lagos state government will proceed with rolling out GAPS even in the absence of continued technical support, this would be potentially concerning for several reasons:
- a. The government has not decided how it might fund the programme though they have indicated now it is their responsibility and a budget line will be created domiciled with PESP for rollout and sustainability. However at the time of endline evaluation in late 2017 it was also indicated that schools might be required to pay for participating in GAPS so a definite conclusion is yet to be reached. Designing the programme so that it is affordable to all schools, including the poorest private schools operating at the verge of financial sustainability, is crucial to the ability of GAPS to generate system-level market-wide impact. It is also important from an equity point of view, since depending on the price point, a pay-for-participation scheme might exclude low cost schools. The government is yet to determine the cost implications for all schools regardless of their approval status.
 - b. The significant knowledge about the private education market accumulated during DEEPEN's implementation period is an important asset in implementing GAPS, and the government does not necessarily have access to all this knowledge. While attitudes of government officials have become more favourable towards private schools in recent years, a successful large-scale roll-out of GAPS also requires an intimate knowledge of the inner workings of the market, and the government does not have a long track record of working closely with private schools. Many of the key government officials also do not remain in their post sufficiently long (due to changing political administrations) for institutional knowledge about private school markets to build up.
 - c. Another reason why continued assistance is desirable even if the Lagos state government proceeds to roll out GAPS independently is that the sustainability of the gains made through DEEPEN's various workstreams crucially depends not just on whether GAPS is rolled out, but also on *how* it is rolled out. GAPS has the potential to both preserve the gains and further stimulate markets in financial services, school improvement services, and BDS aimed at low cost private schools. If modifications to the GAPS instrument are made without keeping in mind the goal of impacting these markets, these targets could be missed. It is therefore imperative that a party that is familiar with and committed to DEEPEN's underlying theory of change be involved in the implementation of GAPS.
 - d. Finally, the involvement of a technical assistance partner in the process would verify GAPS results and therefore provide a check on the implementation of its policy. When implemented at scale, GAPS has the potential to lead to rent-seeking behaviour on the part of those in a position of power over schools. Involving a technical assistance party in the process of implementation would help create an additional layer of accountability that might help alleviate this issue.
455. Another reason why continued assistance is desirable even if the Lagos state government proceeds to roll out GAPS independently is that the sustainability of the gains made through DEEPEN's various workstreams crucially depends not just on whether GAPS is rolled out but also on *how* it is rolled out. GAPS has the potential to both preserve the gains and further stimulate markets in financial services, SIS, and BDS aimed at low-cost private schools. If modifications to the GAPS instrument are made without keeping in mind the goal of impacting these markets, these targets could be missed. It is therefore imperative that a party familiar with and committed to DEEPEN's underlying TOC be involved in the implementation of GAPS.
456. Finally, the involvement of a technical assistance partner in the process would verify GAPS results – providing robust data on whether it has worked in a timely fashion that could allow adaptation if needed. It would also provide a check on the implementation of its policy. When implemented at scale,

GAPS carries the potential to lead to rent-seeking behaviour on the part of those in a position of power over schools. Involving a technical assistance party in the process of implementation would help create an additional layer of accountability that might help alleviate this issue.

7.1.2 A further round of data collection

457. **We also recommend that the impacts of this roll-out be carefully monitored, with attention to poverty status.** Given the timing of the endline evaluation and DEEPEN's operational challenges, this evaluation was not able to address research questions related to learning outcomes. If GAPS is rolled out by 2020, a further round of data collection (quantitative and qualitative) in 2022 is recommended (in line with DEEPEN's business case) to understand both the impact of GAPS on learning outcomes as well as the extent to which the market-level and school-level changes observed in 2017 might translate into learning outcomes. It would be particularly pertinent to ensure that poverty is closely monitored in this case.

7.2 DEEPEN-specific findings

7.2.1 Political economy and GAPS

458. The lack of a roll-out of GAPS, which was caused by changes in the political administration of Lagos state and exacerbated by the economic crisis, had a major impact on the ability of DEEPEN to generate its expected impact. A micro-level political economy study was carried out which supported the process of developing a much improved relationship with the new administration toward the end of the programme's implementation period. However, a number of the people interviewed by the endline evaluation team (including some of DEEPEN's staff and outside experts) questioned whether DEEPEN and DFID paid enough attention to the political economy of implementing GAPS from the outset. Given the reliance of virtually all of DEEPEN's interventions on the expected effects of GAPS on the market for private education and associated markets for service provision to private schools, the political economy of private school regulation in Lagos was crucial to the success not only of GAPS but also many other DEEPEN interventions.

7.2.2 School incentives and parental school choice

459. Proprietors of private schools in Lagos appear to have preferences for certain services over others, which poses a challenge for the implementation of an M4P programme like DEEPEN. While finance and BDS are in high demand, SIS aimed at teacher training are less popular. Proprietors can see the latter as a potential threat: since they are not receiving the training themselves, but is rather given to their staff, they are spending resources on training teachers who might leave soon. During the course of the endline evaluation, we came across cases in which teachers who received training even left to establish a competing school in the neighbourhood. Teacher retention, and returns on investment in teacher training, are high on the priority list of private school proprietors. Parents, on the other hand, see teacher quality as an important factor in school choice, but lack the ability to evaluate the level of training received by teachers at individual schools.

7.2.3 Management, adaptability, and relationship with DFID

460. DEEPEN demonstrated the need for an M4P programme to be flexible in its approach and capable of reinventing itself in the face of challenges. The programme could perhaps have made more or faster modifications in the wake of the delays in the large-scale roll out of GAPS. Several of the intervention leads interviewed by the DEEPEN team also felt that they were not given the freedom to experiment within their respective areas, which points to a lack of flexibility in internal decision-making processes.

461. DEEPEN appears to have suffered from frequent changes in programme advisers on DFID’s side, as well as geographical restrictions on its mandate that constrained it to Lagos state and were lifted only toward the programme’s end. It appears DFID could have also done more through high-level political engagement to boost DEEPEN’s chances of achieving large-scale implementation of GAPS. These factors further contributed to the programme’s slow adaptability.

7.2.4 The impact of school associations

462. One of DEEPEN’s most successful interventions in the face of the challenges it faced has been its work with school associations. This proved successful and has the potential to be sustainable, as the evaluation findings have shown that mechanisms have been set in place to ensure knowledge transfer within associations (particularly AFED). Individual schools often lack the ability to influence market institutions when it comes to regulation. DEEPEN has shown that the power imbalance between regulation authorities and low-cost private schools can be partially overcome by building capacity in school associations. The associations, unlike individual schools that often operate on the verge of survival, are also more likely to preserve institutional memory, pass down skills and knowledge to future leaders, and therefore ensure the sustainability of advocacy efforts on behalf of schools. The success of this work suggests that future M4P programmes could rely on associations more and build them more robustly into their TOCs. This would benefit from monitoring over the next two years – building long term capacity in associations is a difficult challenge and it is important to test and confirm that these changes are long term.

7.3 Lessons learnt about M4P and implications for future programmes

7.3.1 The applicability of M4P to the education market

463. DEEPEN has been the first attempt at applying a market systems approach to education. While the inability of the programme to bring about sustainable, systems-level transformation of the kind envisioned in its TOC might appear to suggest that the M4P approach is of limited benefit to education markets, it would be highly premature to reach this conclusion. Many of the limitations of the programme impact on learning can be attributed to the short time period of the programme and the challenges specific to the context in which DEEPEN operated. Furthermore, given the programme’s slow adaptability and the relatively short time period (see Section 7.3.4), it is too early to draw strong conclusions about the sufficiency of a market systems approach in to improve education outcomes.

464. Five key lessons for the applicability of M4P to education do emerge from DEEPEN, however. **First, DEEPEN’s experience with the Lagos state government highlights the importance of political economy in seeking to transform private education markets**, whether using a market systems or any other approach. The issue of private schooling in the context of low-income countries is highly contested, and associated policy discourses are often subject to deep-rooted ideological positions held by government officials and other stakeholders. As DEEPEN’s experience has shown, positions can substantially differ from administration to administration, which might lead to significant exogenous shocks to any programme attempting to transform the market. While political economy is likely to play an important role in any M4P programme, the politically sensitive nature of education and the scale of education markets and number of people affected mean that significant resources should be invested in researching and developing strategies for dealing with various political economy scenarios at the outset of any M4P education programme. It also means that high-level political involvement might be needed to help generate government support, which suggests that a more-than-usual degree of involvement might be required from DFID in engaging political actors.

465. **The second key lesson is linked to equity.** The findings of DEEPEN’s evaluation suggest that an M4P programme in education, while beneficial to the poor, is unlikely to be a substitute for public

expenditure in education. This is partly because, as the 2016 comparative review data indicates, the very poorest are more likely to be in public schools. However, this is also because both economic theory and the evidence from the endline suggest there are limits to how far school quality can improve with very low levels of payment per student. Low-cost private schools often operate on budgets significantly smaller than those of public schools; these budgets are determined by the purchasing power of parents. In low-income contexts where poverty prevents parents from being able to afford fees that would suffice to pay for even the most rudimentary ‘quality education’, the impact potential of a programme is severely restricted unless demand-side subsidies are part of the programme’s blend of interventions. While this would significantly increase the cost of M4P and the complexity of its implementation, the findings of DEEPEN’s evaluation lend support to this conclusion. It would therefore be worthwhile to conduct further research to understand which specific models of subsidy-based interventions might fit best with the M4P approach and address the equity challenges that DEEPEN has suffered from.

466. It should be noted that this does not amount to a criticism of DEEPEN for not having engineered or implemented a voucher programme across Lagos. DEEPEN did investigate the feasibility of vouchers from a political, fiscal, and operational standpoint and found them to be unfeasible at the time. This conclusion seems reasonable to us. Nor should this be interpreted as a suggestion that DFID was wrong in the business case to reject the option of vouchers in favour of a market systems approach. Nor is it a suggestion that a market systems approach is not necessary to improve the quality of education in private schools: it is necessary. Rather, we are arguing that a market systems approach that does not include some form of subsidy to the poorest students should not, on its own, be expected to be sufficient to serve the needs of the poorest students. A subsidy that reaches the poorest students, whether through the public or private education systems or both, is in our view a necessary component of a programme that tries to reduce inequity in education, and is also necessary to lead to socially optimal outcomes.
467. **The third lesson is related to the scale and geography of programme implementation.** Many of those interviewed by the endline evaluation team saw the programme being constrained to Lagos State as a mistake in design, and the evaluation findings support this view. Having the flexibility to operate across several states would have made it possible for DEEPEN to engage several state governments and focus its implementation effort on states with the greatest political support for the programme. As demonstrated by the programme’s efforts in Kano State in 2017, some of the other governments were open to the idea of improving aspects of market systems in education – perhaps more so than Lagos State at some points in time. This suggests that even though M4P programmes require a high degree of localisation and sensitivity to local context, they also should not be too narrowly constrained in their geographical reach.
468. **Fourth is the need to be realistic about timing and cautious about setting overly optimistic targets.** Market systems approaches tend to take longer to achieve results than direct delivery, although the vision is that they overtake them in the medium to long term as crowding in takes place. For a new innovative programme operating in a complex market with strong involvement of the state government, it could be argued that five years was an unrealistic timeframe for expecting to see impact at the learning outcomes level. This can be seen as a fundamental design flaw, considering that other M4P programmes (as well as direct delivery education programmes) often operate with a longer timeline. Other education programmes (such as ESSPIN or GEP3) have also been given longer timeframes to try to achieve impact.
469. Finally, the programme initially interpreted its market systems approach very narrowly – and as a series of things it shouldn’t do, rather than as a set of principles and supporting frameworks that enabled it to facilitate change. This was unhelpful, and slowed down initial progress.

7.3.2 M4P and education governance

470. While a substantial proportion of DEEPEN’s work related to government directly, they were also able to work in other parts of the market system, by directly engaging with service providers, media houses, school associations and other organisations. The fact that DEEPEN was able to do this without explicit support from the government can be seen as an advantage, and hugely important in effecting change in the private education market system as a whole. However, this does not suggest that Government was not relevant to the operation of many of these other functions. For example, school associations were much engaged with advocating government for changes in policy (multiple taxation, the approval process etc); financial institutions were hindered in their plans to offer services to schools by Government’s approval process which resulted in high levels of informality amongst schools; and media houses were encouraged to cover the implications of government policies.
471. Rather than strengthening state capacity, some of DEEPEN’s interventions contributed to strengthening parallel structures. School associations, for example, are now in some areas taking charge of tasks that might be expected of the government—including providing a ‘stamp of approval’ on SIS by compiling lists of recommended providers in a market that is currently unregulated. Although this might be inevitable when trying to improve the quality of education in contexts such as Nigeria, where government capacity to manage and regulate the sector is low, it also raises questions about governance and accountability. If the government has a very limited ability to regulate a private education market and ensure adherence to ‘minimum quality’, might this definition end up being shaped by non-elected actors lacking democratic accountability? Might the strengthening of the private sector in education end up, over time, contributing to the erosion of state authority in areas such as enforcing standards of acceptable pedagogy and curricula?
472. These questions—deliberately provocative and not intended as a comment on DEEPEN’s performance—further highlight the case for a careful consideration of political economy not only vis-à-vis the pragmatic goal of delivering on outputs of an M4P programme in education, but also in relation to the ethics of such a programme. When implemented in low-income, politically fragile contexts, an M4P education programme might end up performing roles that would be in other contexts reserved for democratically elected governments. Ethics and sensitivity to issues of power imbalances, transparency, and accountability are therefore of paramount importance and should be given due consideration in programme design and implementation.

7.3.3 The suitability of learning outcomes as an impact indicator for M4P in education

473. It is worth noting that learning outcomes may not be the best measurement for the impact of an M4P programme in education. Many of the impacts of such a programme—such as the performance of the market, school investment in quality, crowding in of service providers, and parental perceptions of quality—might take a long time to manifest in learning outcomes. Indeed, the timeframes for interventions and their causal pathways are different, which makes it challenging to choose a suitable timeframe within which to measure learning outcomes. Furthermore, some of these changes may not translate into improved learning outcomes due to contravening factors that might obfuscate these impacts. A more complex, multi-pronged set of output and outcome metrics might therefore be required to fully understand the performance of an M4P programme in education.

7.3.4 Timing and nature of evaluation of an M4P programme in education

474. DEEPEN’s endline evaluation raised broader questions about the timing of evaluations of M4P programmes in education. While DEEPEN might have encountered a lot of challenges, which has meant that learning outcomes cannot yet be measured, it is reasonable to speculate that even in the absence of these challenges learning outcomes would have taken a long time to manifest. M4P interventions are several steps removed from learning outcomes in the causal pathway to impact: these

interventions generally take place at the level of market institutions or service providers to schools, which in turn is expected to lead to school-level change and finally to an improvement in learning outcomes. Even if an M4P programme in education experienced no delays in its implementation, it is likely that learning outcomes would need to be measured with a time lag of several years (likely at least 3–5 years) after the completion of the programme, and this should be taken into consideration when designing evaluations for future programmes.

475. In addition, the attempt in the original evaluation framework to design an evaluation to generate robust data that could attribute changes in learning outcomes to DEEPEN’s activities (specifically GAPS) was probably mistaken. This type of evaluation, although it would have generated extremely interesting insights if it had been implemented, was insufficiently flexible to address the changes to DEEPEN’s implementation model. We would recommend that subsequent attempts to evaluate M4P programmes in education do not attempt an experimental design over a long time period. This will leave the difficult question of how to assess whether these programmes improve learning outcomes, but it is not clear, from our experience, that this can be achieved using robust quantitative methods aiming at attribution.

7.3.5 Regulation of associated markets

476. In developing markets for service provision to private schools, DEEPEN’s experience has also highlighted the need to pay attention to how these markets might be regulated. Just as there are market failures in the market for private schooling that an M4P programme like DEEPEN seeks to address, potential exists for analogous failures to develop in the associated markets for service provision. In trying to improve the performance of the education market through developing these associated markets, unintended consequences might arise that are not dissimilar from the market failures targeted in the first place. For example, the market for SIS is currently unregulated, which might over time make it very difficult for schools to identify ‘quality’ services. While it is too early to be able to identify clearly the specific mechanisms through which such failures might emerge, it is important to try to anticipate these in programme design. Potential market failures in associated markets might include asymmetric information (where schools and businesses do not know that there is demand/supply and quality is hard to observe accurately), credit challenges, and monopolies.

7.3.6 The power of data

477. DEEPEN has generated a lot of research and collected data that would be highly useful for many of the market players. The dissemination of this data was, however, at times lacking, partly due to the limited capacity of the programme to reach all the relevant parties. A portion of the research done as part of DEEPEN had not been published at the time of endline evaluation and was not publicly available.

478. Where data was shared in an accessible manner (for example at DEEPEN’s international conference in 2016), many of the stakeholders were deeply appreciative and in many cases discovered market opportunities previously not known to them. Since many of the market failures in private education markets are related to information asymmetries, it is of paramount importance for M4P programmes to invest in effective dissemination strategies for the data they generate.

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9 Annotated bibliography

9.1 EDOREN documents

EDOREN (2015) *DEEPEN Evaluation Framework and Plan* (Final Version post SEQAS review). Provides an overview of the DEEPEN design and TOC with a review of relevant literature. Sets out the evaluation framework and plan, including questions, methodology, and stakeholder engagement plan.

EDOREN (2015) *Can education markets work for the poor? Potential Learning from DEEPEN* (Final version). Reviews DEEPEN *ex ante* against the core M4P approach expectations, and finds that DEEPEN is consistent with this approach but that, since education differs from other ‘markets’ in that individuals will under-invest relative to socially optimal levels, DEEPEN may need to pay more attention to ways in which education can be publicly subsidised.

EDOREN (2016) *DEEPEN Evaluation Baseline report* (Final Version post SEQAS review). Presents baseline results for the DEEPEN evaluation, covering pupil learning achievement, teaching practices, parental information levels, access to financial services, SIS and the market for private schooling at the start of DEEPEN activities, and particularly in the very early stages of the quasi-experimental roll-out of GAPS. Tests some of the assumptions that underlie DEEPEN’s TOC for each workstream, and informs potential adjustments to DEEPEN’s design and implementation. Answers questions about DEEPEN’s relevance, including the programme’s assumptions regarding how the regulatory and financial environment, parental awareness and attitudes, school characteristics, and teaching practices affect children’s learning in private schools in Lagos.

EDOREN (2017) *Comparing Learning Outcomes in Public and Low- and Medium-Fee Private schools in Lagos* (Draft). Compares learning outcomes for P4 students in low- and medium-fee schools in Lagos with public schools and explores relationship with student background. Finds that private school pupils are more proficient than their public school counterparts in English literacy and less proficient in numeracy.

9.2 DEEPEN documents

DEEPEN (2016) *Annual Logframe Survey report 2016* (Final). Presents findings on outcome and output indicators from a random survey of schools that took part in any of three DEEPEN interventions. Sets these next to baseline values, which are not directly comparable because they were from a sample of schools in four LGAs. Raises some concerns about reliability of indicators for measurement given slower than expected roll-out and worsening economic conditions.

DEEPEN (2016) *Baseline Report for Community Intervention, 2016*. Baseline study for new DEEPEN intervention under information workstream. DEEPEN collaborated with CSOs to disseminate information at the community level on good schooling practices, the regulatory framework, and access to financial products and services. The baseline provides results on parental demand for good quality education and capacities of CSOs to deliver these services in the long term. Parents tend to rely on word of mouth for information on local schools, sometimes (more so in the case of wealthier households) going to the school to talk to teachers.

DEEPEN (2017) *My School Plus – the results of two rounds of lending to private schools under Accion’s subsidised loan schemes* (Final Draft). Aims to shed light on how private schools, and especially low- and medium-fee private schools, manage to cope with borrowing money and repaying loans with interest made by Accion, a licensed micro-finance bank operating in Nigeria. The majority of schools repaid loans without raising fees; however, loans were heavily subsidised, and around a quarter of schools struggled with repayments, partly because loans may have been too large. Loans were largely invested in infrastructure.

DEEPEN (2017) *The challenges of land and security of tenure for private schools in Lagos* (Draft v2). Looks at the ways in which owning and renting land affects schools to provide recommendations to DEEPEN and partners on Rules & Standards. It finds that land, while extremely costly and difficult to acquire, brings the security needed to allow proprietors to invest. Leasing land often means little to no security of tenure, and therefore no incentive to invest. Most proprietors do not own their land, and the proportion of private schools on leased land is increasing. Younger, smaller, cheaper schools and those who have had to move have least security and least possibility to invest.

DEEPEN (2017) *Why do parents default? Parental school choice and affordability in a time of recession* (draft v2). This report draws on household survey data to explore the affordability of private education in Lagos during a period of recession. It specifically seeks to provide understanding of the issue of default and late payment of fees. The cost of living has risen sharply, making the payment of fees more difficult than ever before, and this is coupled with families' tendencies toward trying to access the most expensive (and what they perceive is the best) possible school for their child, often without truly being able to afford it.

DEEPEN (2017) *Parental Fee Default: Extent, Determinants and Implications* (draft v2). This report looks at the issue of late parental fee payments and default (or 'bad debts') and how this impacts on schools' economic viability. It finds that late and unpredictable payments are an ongoing issue for private schools, the more so at the lower end of the fee spectrum.

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BDS Baseline and follow-up survey (2017). DEEPEN will carry out an evaluation of the BDS component in 2017.

Community intervention follow-up survey (2017). DEEPEN will carry out a follow-up to the 2016 community intervention baseline, to evaluate the success of this intervention.

School improvement programme evaluation (2017). DEEPEN will carry out an evaluation of the school improvement component in 2017.

DEEPEN (2017) *Logframe survey*. DEEPEN put this survey into the field in May 2017, replicating the sampling approach and questions (output areas) in the 2016 logframe survey. There is some bias in sample selection, because the survey samples 150 schools of the 3,000 that participated in DEEPEN interventions. Sampling is problematic in this as other surveys because refusal rates are 30–40%. On the basis of having taken a loan, 755 of the 3,000 schools are identified as poor. In each school, there is a head teacher interview, classroom observations on a randomly selected class, and four parents are selected at random using an asset survey. This is an attempt to gather feedback on interventions, not to identify effectiveness independently.

Tax sensitisation report. DEEPEN will carry out a survey on the effectiveness of the reduction of taxation.

P2P evaluation report.

DEEPEN qualitative study of all DEEPEN service providers. This will focus on understanding challenges relating to sustainability and crowding in. This report will be available for review around the middle of June 2018.

9.3 DFID documents

DFID (2013) *DEEPEN business case*. Sets out rationale for and design of DEEPEN as an M4P programme.

DFID (2014) *DEEPEN Annual Review 2014*. Awards an 'A' for generally good progress, particularly around Finance, Teacher Development Services, and Research. Notes that this is in early stages.

DFID (2015) *DEEPEN Annual Review 2015*. Awards an 'A' for generally positive progress in particular on the attitude of the Lagos state government to private schools, probably to do with the use of DEEPEN's evidence and constructive relationships with officials. It notes that there has been more progress in the workstreams on Rules & Standards and SIS than on information and finance.

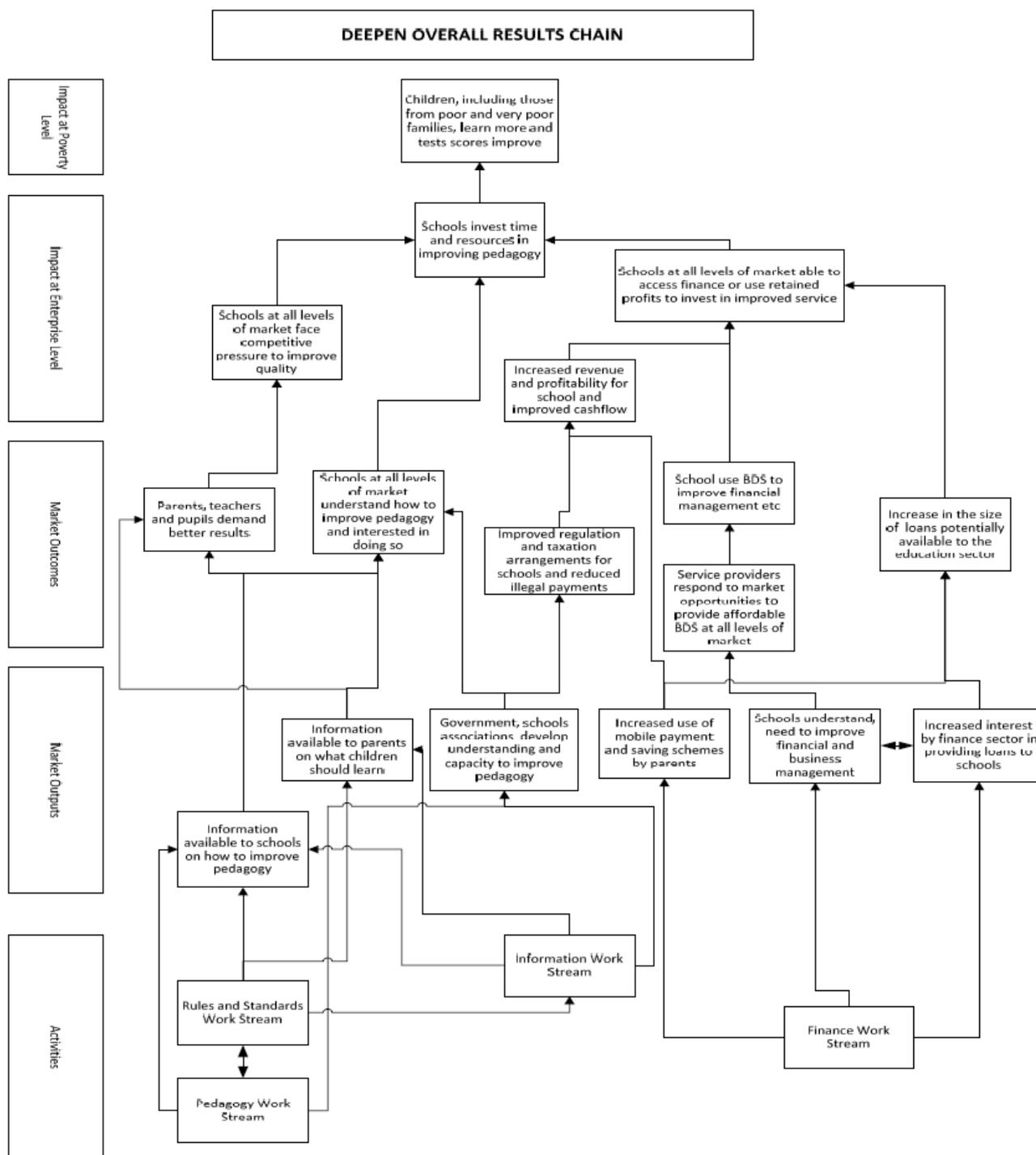
DFID (2016) *DEEPEN Annual Review 2016*. Awards a 'B' given slow progress in outputs 1 (Rules & Standards), 3 (Finance) and 6 (Research and Evidence), and not being on track to meet 2017 logframe milestones. Suggests that this is due to: i) two contextual factors: a new Lagos state government less supportive of private schools and a general economic slowdown; and ii) DEEPEN being slow to operationalise the M4P approach in terms of adapting to the contextual changes.

DFID (2017) *DEEPEN Annual Review 2017*. Awards an 'A' for progress toward output targets, especially access to information, BDS, support to innovative school model, and monitoring of logframe targets. The same challenges as were noted in previous annual reviews regarding the political and economic context remain.

Annex A Theory of change for DEEPEN and specific interventions

These factsheets were developed based on the latest DEEPEN documents and in consultation with the DEEPEN team. They represent the agreed design of the programme at inception. This has changed to some degree as discussed above.

A.1 DEEPEN theory of change and assumptions



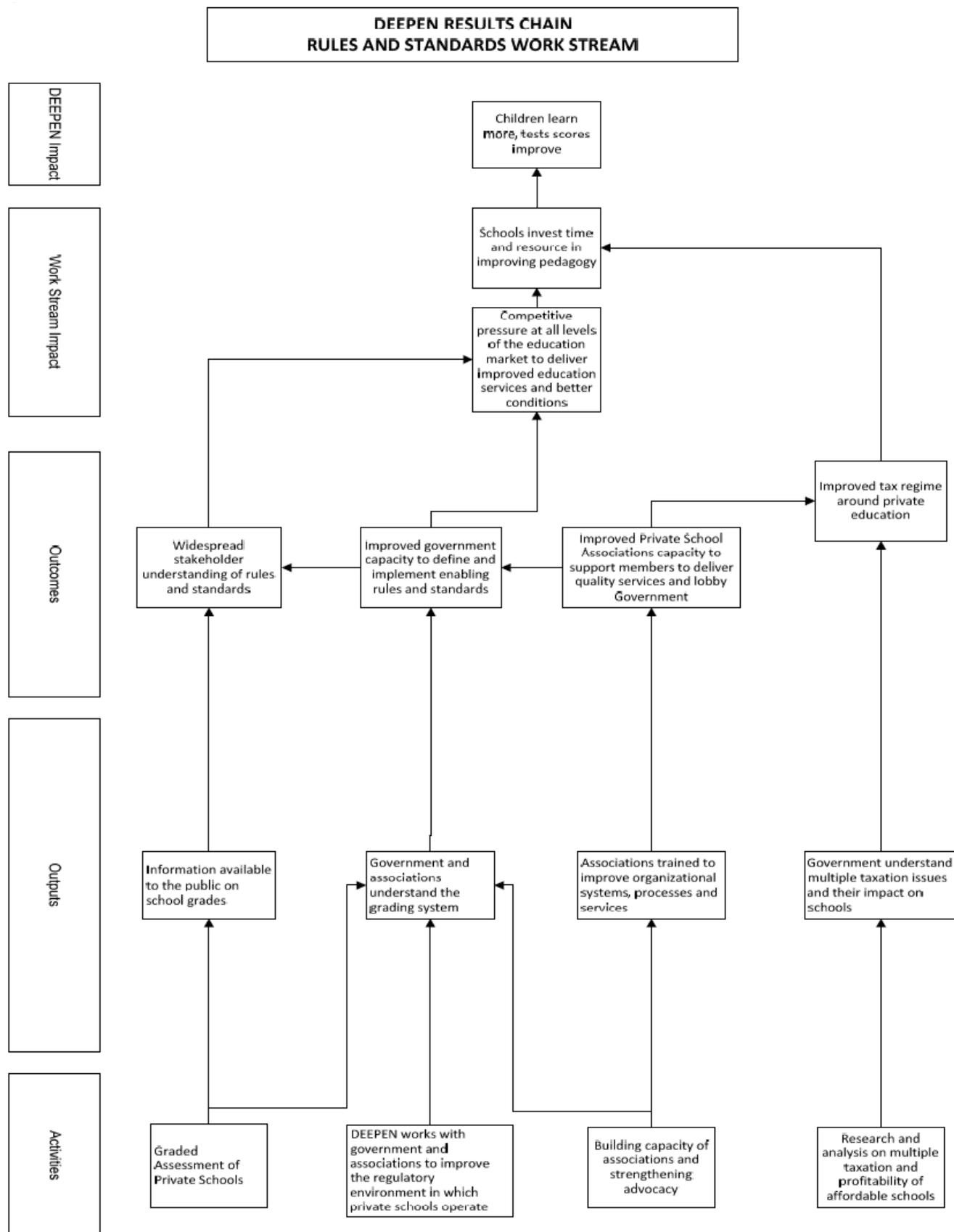
Source: DEEPEN Set Up Report, February 2014, page 6.

Assumption	Testing measure(s) and mitigation
Schools want to improve their services and, with better access to information and services, will invest in changes to increase their pupils' learning outcomes.	DEEPEN will measure pupils' learning outcomes before and after different interventions to improve school operations and functions. Surveys within the school will also examine any changes in behaviour and explore the motivations behind such changes.
Parents will use new information sources to make more informed decisions about school quality.	Recent research (Tooley and Dixon 2013) indicates that quality is a priority consideration for parents in school selection, but that there is a lack of reliable information to support them in making more educated choices. The information work stream will therefore focus on supplying more credible and relevant information, building trust among parents in its reliability, and enabling them to use such information to make more informed decisions.
Parents are able to pressure schools to deliver better quality.	There is some evidence to indicate that one reason parents prefer private education is that they can pressure the schools to deliver better quality (Yngstrom 2013). Consequently, parents' involvement in their children's schools (including their ability to push for change) will be measured at strategic points throughout the programme through the MRM system (specifically SPoCAPS).
The government is sincerely committed to the development of better private education.	DEEPEN will continue to work with the Ministry of Education (particularly the Department for Private Education and Special Programmes) to advocate the importance of private education to Lagos' growth and human capital, and to build local ownership and capacity for long-term sustainability.

Source: DEEPEN Set Up Report, February 2014, page 5.

A.2 Rules and standards workstream

A.2.1 Theory of change and assumptions



Source: DEEPEN Set Up Report, February 2014, page 13.

Assumption	Testing measure(s) and mitigation
The government approves and will fund the GAPS system.	DEEPEN will be working closely throughout the programme to ensure the government's continuing support and long-term financing of the GAPS system (to be evidenced by adequate provision in the Ministry of Education's annual budget).
Data from the multiple taxation research will enable schools and their representative associations to advocate for a better tax regime.	In parallel with the multiple taxation research, DEEPEN will be working with private school associations to build their capacity around issues such as advocacy.
Private schools and their associations continue to support the programme.	DEEPEN will incentivise the schools and associations to continue to assist the programme, both by highlighting its potential benefits and by offering capacity support to the associations.

Source: DEEPEN Set Up Report, February 2014, page 12.

A.2.2 GAPS

Intervention	GAPS	Source
1. Current alignment with overall programme design		
Output Logframe	Output 1: Improved rules and standards affecting schools	
Budget Allocated	NGN19,155,400 for first year	
2. Intervention logic		
Work stream Impact	1.	
Objectives	2. Widespread stakeholder understanding of rules and standards 3. Improved government capacity to define and implement enabling rules and standards	DEEPEN Set Up Report
Intended Outcomes	<ul style="list-style-type: none"> Information available to the public on school grades Government and associations understand the grading system 	DEEPEN Set Up Report
Outputs	<ul style="list-style-type: none"> Develop GAPS with Ministry of Education to provide inclusive framework that categorises all schools Pilot GAPS in 192 schools and improve Achieve final government approval of GAPS Assess 4,500 primary schools per year to a total of 13,500 schools in three years (<i>NB some disagreement between Set Up Report main and Set Up Report Annex. Annex figures quoted here</i>) Adapt GAPS for secondary schools Adapt GAPS to include learning outcomes and not just inputs Work with government such that GAPS replaces formal approval and accreditation process 	DEEPEN Set Up Report
3. Indicators		
Impact	1. ? 2. Number of schools exhibiting changes in competitiveness	
Outcome	1. Proportion (%) of private schools (and of schools classified as low-fee) that have a more positive view of the rules and standards affecting them (cumulative) 2. ?	
Output	<ul style="list-style-type: none"> ? ? 	
4. Scope of intervention		•
Target Population	All private schools in Lagos State, initially primary, then also secondary	
Geographical Scope	All in Lagos State Starting with Ikeaja and Ojo LGAs in year 1	
Implementation Timeline	<ul style="list-style-type: none"> 1,500 schools in Ikeaja and Ojo LGAs in year 1 (by July 2014) 2,826 schools in Alimosho LGA in year 1 (by December 2014) 	

	<ul style="list-style-type: none"> Remaining 9,000 (approx.) by December 2016 – implementation rollout not decided 	
5. Intervention process²⁸		
Selection criteria	All primary private schools in Lagos State	
Activities		
6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education Private Education and Special Programmes Department Private schools' associations	
Evidence partners	Lagos State Ministry of Education	
Funding partners	N/A	
Other partners	DFID	
7. Intervention-specific monitoring and evaluation plans		
Internal		
External		
8. Identified intervention risks		
		DEEPEN Set Up Report
9. Directly influencing interventions		
10. Reference documents		
Intervention documents	<ul style="list-style-type: none"> DEEPEN (2014) <i>Set Up Report</i>, pp. 9–10 DEEPEN (2014) <i>Set Up Report</i>, Annex 1 and Annex 2b 	
Evidence documents (studies, evaluations...)	<ul style="list-style-type: none"> DEEPEN (2014) <i>MRM Manual</i> DEEPEN (forthcoming) <i>Annual GAPS report</i> 	

A.2.3 Multiple taxation and capacity building

Intervention	Multiple Taxation Research	Source
1. Current alignment with overall programme design		
Output Logframe	Output 1: Improved rules and standards affecting schools	
Budget Allocated		
2. Intervention logic		
Objectives	To conduct research and analysis on multiple taxation and profitability of private schools	DEEPEN Set Up Report
Work stream Impact	<ol style="list-style-type: none"> Schools invest time and resource in improving pedagogy Competitive pressure at all levels of the education market to deliver improved education services and better conditions 	DEEPEN Set Up Report
Intended Outcomes	Improved tax regime around private education	DEEPEN Set Up Report
Outputs	<ul style="list-style-type: none"> For associations – improved and reliable data on the scale and nature of multiple taxation, to support their members and assist with government advocacy For government – robust evidence to inform their policy making and tax regime reform 	DEEPEN Set Up Report
3. Indicators		
Impact	<ul style="list-style-type: none"> 	

²⁸ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

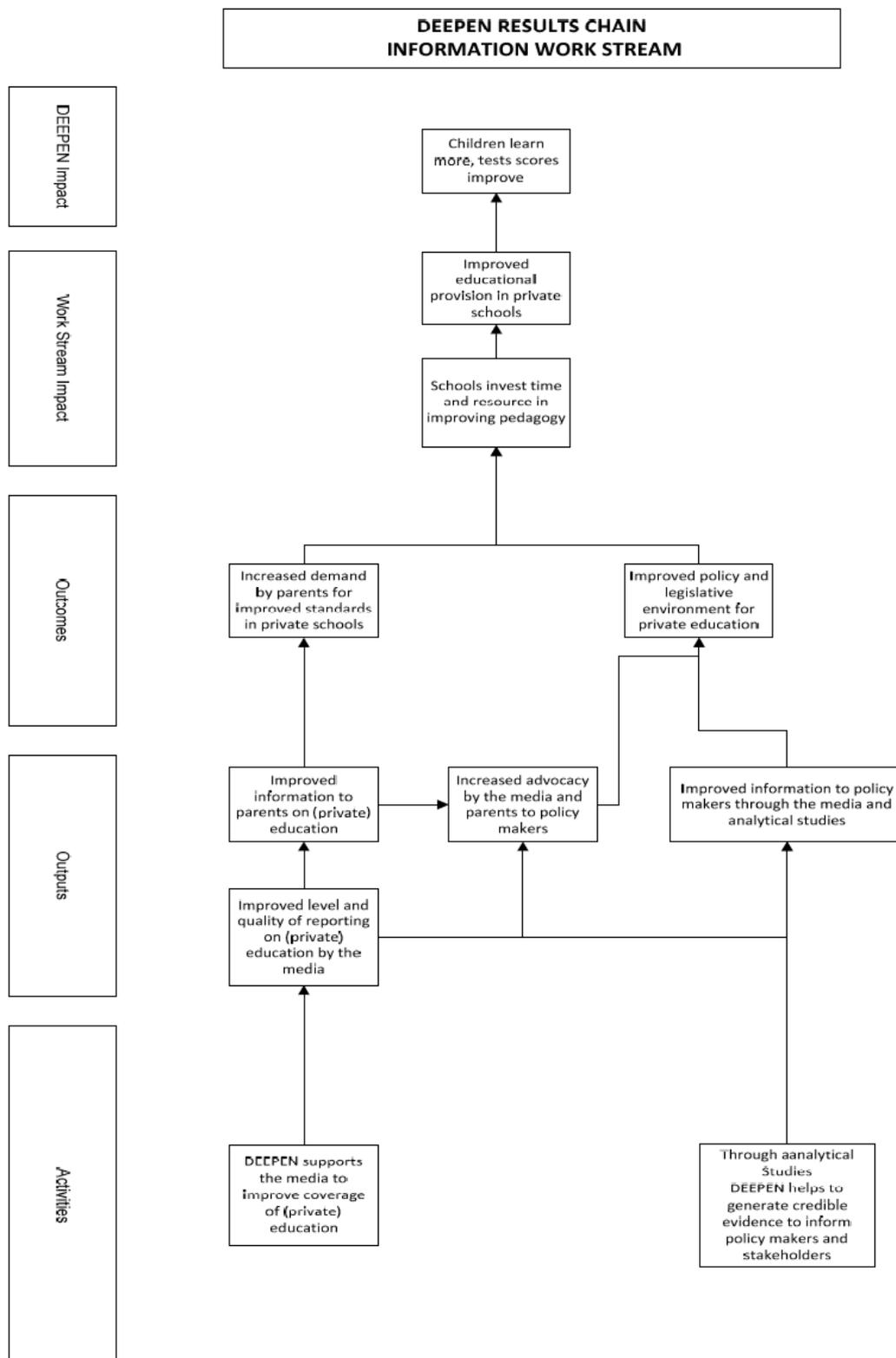
Outcome	<ul style="list-style-type: none"> Number of tax laws revised to resolve the multiple taxation problems identified Number of new tax laws passed to resolve for the multiple taxation problems identified Proportion of relevant policy makers that have information on the multiple taxation research outcomes 	
Outputs	<ul style="list-style-type: none"> Number of schools maintaining diaries Number of schools interviewed on taxes paid Number of dissemination meetings held with relevant policy makers to explain results of the research 	
4. Scope of intervention		
Target Population	Private schools in Lagos (scale up from the original 52)	
Geographical Scope	Lagos State	
Implementation Timeline		
5. Intervention process²⁹		
Targeting/Selection Criteria	All private schools in Lagos. Nothing else specified	
Data Collection	<ul style="list-style-type: none"> Refine survey and diary techniques used in the pilot phase to include learning and expert tax guidance Conduct interviews to provide information on taxes paid Ask schools to record real-time demands for levies and charges 	
Analysis and Evidence building	Analysis of the data to understand the sources and extent of multiple taxation	
Capacity Building	DEEPEN will work with private school associations to build their capacity around issues such as advocacy. <i>(This is complementary to the 3rd intervention of capacity assessment and building under Output 1.)</i>	
6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific M&E plans		
Internal		
External		
8. Identified intervention risks		
	<ul style="list-style-type: none"> Schools inflate reports of multiple and illegal taxation in the hope of individual support 	DEEPEN Set Up Report
9. Directly influencing interventions		
		Revised GEP3 logframe, 2013
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	

²⁹ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	
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A.3 Information

A.3.1 Theory of change



Source: DEEPEN Set Up Report, February 2014, page 21.

Assumption	Testing measure(s) and mitigation
Parents have a partial understanding of education quality and how it affects their children's learning.	Through the media development component of the information work stream and the communication of the results of the MLA test, parents will have a better understanding of education quality and the value for money offered by their children's school.
Media houses and organisations will see the opportunities for increased profitability through the greater and more reliable coverage of educational content.	DEEPEN will work with media houses' business models and potential corporate sponsors of educational media programmes to demonstrate the prospects for increased profitability.
Current underreporting is due to poor funding and lack of capacity among journalists.	The programme will work to increase sponsorship of educational programmes and build capacity among journalists.
Improved business models will overcome the tradition of 'brown envelope' payments for media reporting.	DEEPEN will aim to align credible educational content with more profitable media practices.
Businesses will be (commercially) interested in sponsoring educational programmes and content.	The programme will conduct an initial assessment among potential sponsors (especially those that may be keen to target low-income communities) to gauge their level of interest.

Source: DEEPEN Set Up Report, February 2014, page 20.

A.3.2 DEEPEN supports the media to improve coverage of private information

Intervention	Media Development	
1. Current alignment with overall programme design		Source
Output Logframe	Output 2: Improved information around schools and parents	
Budget Allocated		
2. Intervention logic		
Objectives	<ol style="list-style-type: none"> 1. Work with mass media houses to increase the frequency and calibre of educational reporting 2. Provide additional information to parents to assist with school choices or at least help parents hold schools to account 	DEEPEN Set Up Report
Intended Outcomes	<ol style="list-style-type: none"> 1. Increased demand by parents for better standards in private schools 2. Improved policy and legislative environment for private education 3. Greater profitability for the media arising from quality journalism on education that appeals to a wide audience and therefore increased sponsorship 4. For commercial sponsors – increased revenues from sponsoring educational programmes that attract interest across their key customers and users 5. For schools – enhanced understanding of how to improve and greater involvement and support from parents 	DEEPEN Set Up Report
Outputs	<ul style="list-style-type: none"> • For parents – <i>improved information on private education</i> • For media – <i>improved level and quality of reporting on (private) education</i> • Increased advocacy by the parents and media to policy makers 	DEEPEN Set Up Report
3. Indicators		
Impact	•	
Outcome	• Proportion of parents who made a decision on what school to send their child to based on private education information from the media	

	<ul style="list-style-type: none"> • Proportion of parents interacting with school authorities based on number of media house partnerships with information provided by the media • % increase in reports / coverage on private education by identified media houses 	
Output	<ul style="list-style-type: none"> • Number of journalists formally trained • Number of journalists informally mentored • Number of media houses influenced to be part of the intervention • Number of business models designed in consultation with identified media houses • Proportion of business models designed for broadcasting education content actually implemented • Number of visitors to the online database on key sources of information and material on education • Proportion of parents with increased information about quality of education in private schools 	
4. Scope of intervention		
Target Population	Media houses in Lagos (TV and radio producers to start with and eventually online sources and print publications)	
Geographical Scope	Lagos State	
Implementation Timeline		
5. Intervention process³⁰		
Targeting/Selection Criteria	Media houses in Lagos. Nothing else specified	
Activities	<ul style="list-style-type: none"> • Baseline survey on current media practices • Business assessment of potential players to gauge interest • Facilitate a live database of educational information; engage with Lagos university to assess interest in partnership to develop the internet portal • Develop viable business model design with one or two media houses depending on the outcome of the business assessment • Journalist mentoring • Support of educational media programmes 	
6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific monitoring and evaluation plans		
Internal		
External	<ul style="list-style-type: none"> • 	
8. Identified intervention risks		
	<ul style="list-style-type: none"> • The programme is unable to generate any initial interest in sponsorship of educational programmes, not least because of lack of data on potential audiences • Programme is unable to establish a sustainable business model for quality and accurate reporting on educational issues 	DEEPEN Set Up Report

³⁰ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

	<ul style="list-style-type: none"> Sensationalised reporting on the poor quality of education prompts the mass move of students to different schools Media development activities improve the quality of reporting on education but not private education specifically Training to journalists increases the calibre of their reporting but not on education issues 	
9. Directly influencing interventions		
		Revised GEP3 logframe, 2013
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	
Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	

A.3.3 DEEPEN helps generate credible evidence to inform policymakers and stakeholders

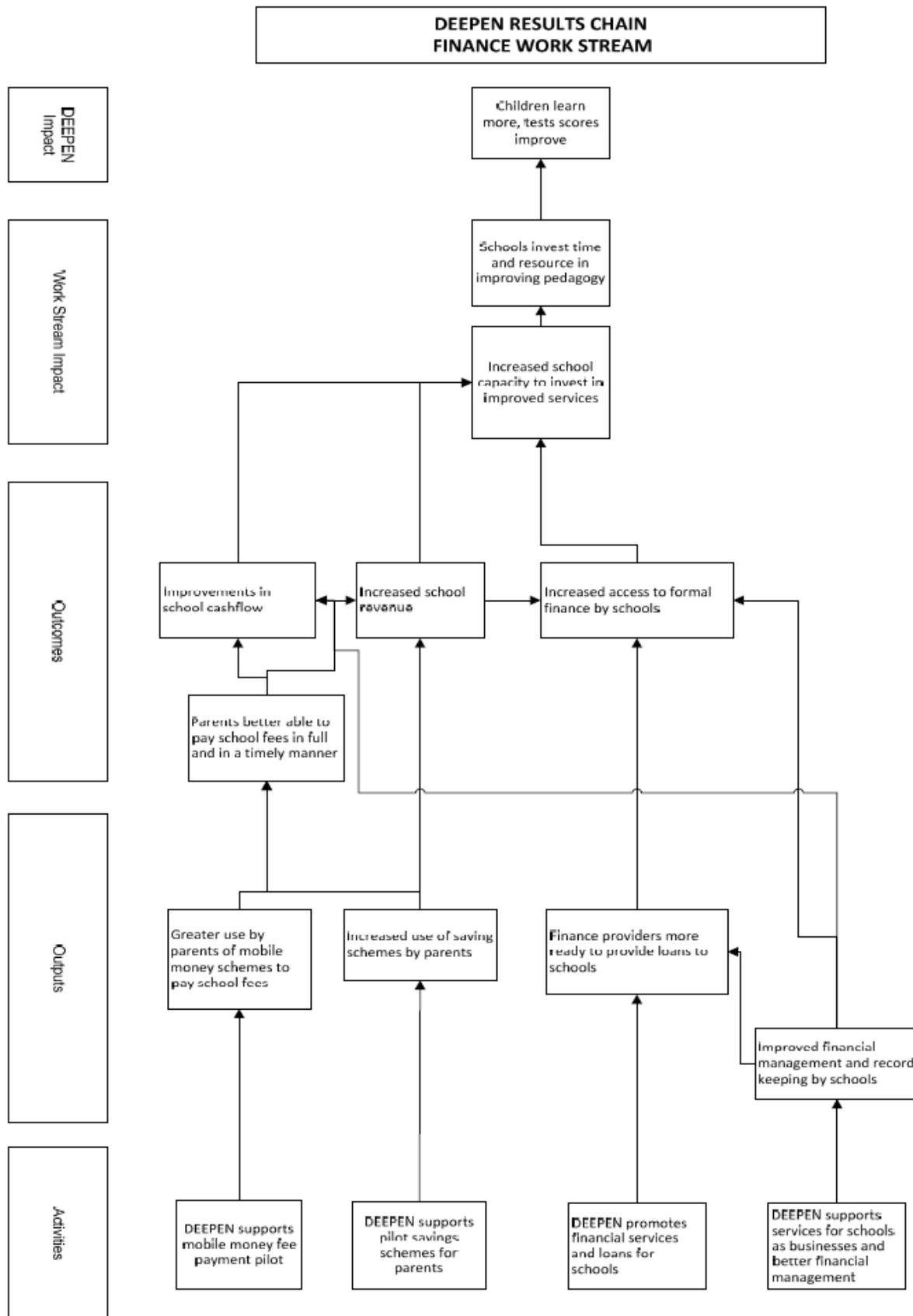
Intervention	Analytical Studies	Source
1. Current alignment with overall programme design		
Output Logframe	Output 2: Improved information around schools and parents	
Budget Allocated		
2. Intervention logic		
Objectives	To provide additional information to policymakers	DEEPEN Set Up Report
Intended Outcomes	<ul style="list-style-type: none"> Improved policy and legislative environment for private education based on evidence Improved capacity of research houses to conduct rigorous and robust research, building scope for increased business opportunities 	DEEPEN Set Up Report
Outputs	Improved information to policymakers through media and analytical studies	DEEPEN Set Up Report
3. Indicators		
Impact	• ?	
Outcome	• Proportion of relevant policy makers that have information on research being conducted on private education issues	
Outputs	<ul style="list-style-type: none"> Number of research studies commissioned Proportion of commissioned research studies completed Proportion of completed research studies whose results were disseminated using a planned strategy 	
4. Scope of intervention		
Target Population	Potential research houses	
Geographical Scope	Lagos State	
Implementation Timeline		
5. Intervention process³¹		
Targeting/Selection Criteria	Research houses	
Activities	<ul style="list-style-type: none"> Identification of private education issues to form the subject of research and commission the same 	DEEPEN Set Up Report

³¹ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific M&E plans		
Internal		
External	•	
8. Identified intervention risks		
	•	DEEPEN Set Up Report
9. Directly influencing interventions		
		Revised GEP3 logframe, 2013
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	
Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	

A.4 Finance

A.4.1 Theory of change



Source: DEEPEN Set Up Report, February 2014, page 26.

Assumption	Testing measure(s) and mitigation
Schools' commercial incentives (to make money) can be aligned with the objective of improving learning quality.	Through LAPSS, part of the MRM, DEEPEN will examine both schools' learning achievement and commercial models. This could reveal any relationship (correlation or otherwise) between schools' profitability and educational quality.
Education as a sector will be attractive enough in terms of risk-adjusted returns for financial service providers to increase their lending.	Many schools operate with a simple and largely profitable business model. The programme will aim to convince financial service providers that such models are bankable, and will aim to reduce associated risks (for example, through improved financial management and the GAPS).
Profits will rise as costs fall (due to reduced taxes and better cash flow) and revenues increase (through mobile money payments), enabling schools to invest more in their own improvement.	DEEPEN will address key factors that constrain schools as businesses and monitor any subsequent changes in investment.

Source: DEEPEN Set Up Report, February 2014, page 27.

A.4.2 Mobile money fee payment pilot

Intervention	Mobile Money	
1. Current alignment with overall programme design		Source
Output Logframe	Output 3: Improved performance of financial services related to schools	
Budget Allocated		
2. Intervention logic		
Objectives	Engage with the financial sector to develop a system that enable parents to pay school fees using their mobile phones	DEEPEN Set Up Report
Intended Outcomes	<ul style="list-style-type: none"> For schools – <i>Improved cash flow</i> For mobile money operators (MMOs) – <i>market expansion to capture additional streams of revenue as well as access to new customers</i> For parents – <i>increased ability to pay school fees in a full and timely manner</i> 	DEEPEN Set Up Report
Outputs	Increased use by parents of mobile money schemes to pay fees	DEEPEN Set Up Report
3. Indicators		
Impact	•	
Outcome	<ul style="list-style-type: none"> Proportion of parents who paid fees on time Proportion of parents who paid full fees on time Proportion of schools with increased school revenue Proportion of schools with more regular cash flow Average decrease in transactional and management costs faced by schools 	
Output	<ul style="list-style-type: none"> Proportion of parents using mobile money Proportion of parents using mobile money to pay school fees Proportion of parents reporting decreased effort to pay the fees Number of partner MMOs 	
4. Scope of intervention		
Target Population	Parents of students in 50 identified schools across 2 LGAs in Lagos and MMOs	
Geographical Scope	Lagos State	

Implementation Timeline		
5. Intervention process³²		
Targeting/Selection Criteria	Parents with children in 50 identified private schools (separate from those in the savings scheme) in the 1 st year and MMOs	
Activities	<ul style="list-style-type: none"> • Parental Survey (January to April 2014) to understand parental interest in and demand for saving products and mobile money • Advocacy and stakeholder management – engage with key financial stakeholders that may be interested in providing savings products • Business model development – analyse level of demand and develop detailed proposals • Identification of pilot partners and participants • Pilot launch 	
6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific M&E plans		
Internal		
External	•	
8. Identified intervention risks		
	<ul style="list-style-type: none"> • The parental survey reveals little appetite for mobile money payments or savings schemes • After the launch parents or schools prove reluctant to adopt the new payment or savings schemes • Advocacy and stakeholder engagement activities reveal little interest amongst potential suppliers and service providers • Finance interventions are successful but the benefits are eliminated by increased rent-seeking or multiple taxation 	DEEPEN Set Up Report
9. Directly influencing interventions		
		R
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	
Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	

³² The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

A.4.3 Savings schemes for parents pilot

Intervention	Saving schemes for parents	
1. Current alignment with overall programme design		Source
Output Logframe	Output 3: Improved performance of financial services related to schools	
Budget Allocated		
2. Intervention logic		
Objectives	Engage with the financial sector to encourage provision of affordable and accessible saving products for parents to pay for their children's education	DEEPEN Set Up Report
Intended Outcomes	<ul style="list-style-type: none"> For schools – <i>increased school revenue through increased ability of parents to pay fees</i> For lenders – <i>market expansion to capture additional streams of revenue as well as access to new customers for educational and other products</i> For parents – <i>increased ability to pay school fees in a full and timely manner</i> 	DEEPEN Set Up Report
Outputs	Increased use of savings schemes by parents	DEEPEN Set Up Report
3. Intervention logic		
Impact	•	
Outcome	<ul style="list-style-type: none"> Proportion of parents who paid fees on time Proportion of parents who paid full fees on time Proportion of schools with increased school revenue Proportion of increase in savings revenue for partner financial institutions 	
Output	<ul style="list-style-type: none"> Proportion of parents aware of any savings schemes Proportion of parents participating in saving schemes Proportion of identified financial institutions offering new savings schemes based on business models developed through the intervention Number of new savings schemes offered by identified financial institutions 	
4. Scope of intervention		
Target Population	Parents in Lagos (10 identified private schools in the 1 st year) and banks + MFBs (two MFBs and one bank in the 1 st year) in two LGAs. Further rollout if successful	
Geographical Scope	Lagos State	
Implementation Timeline		
5. Intervention process³³		
Targeting/Selection Criteria	Parents with children in 10 identified private schools and two MFBs and one bank in the 1 st year in two LGAs	
Activities	<ul style="list-style-type: none"> Parental survey (January to April 2014) to understand parental interest in and demand for saving products and mobile money Advocacy and stakeholder management – engage with key financial stakeholders that may be interested in providing savings products Business model development – analyse level of demand and develop detailed proposals Identification of pilot partners and participants Pilot launch 	
6. Intervention stakeholders		

³³ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organize this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific M&E plans		
Internal		
External	•	
8. Identified intervention risks		
	<ul style="list-style-type: none"> • The parental survey reveals little appetite for mobile money payments or savings schemes • After the launch parents or schools prove reluctant to adopt the new payment or savings schemes • Advocacy and stakeholder engagement activities reveal little interest amongst potential suppliers and service providers • Finance interventions are successful but the benefits are eliminated by increased rent-seeking or multiple taxation 	DEEPEN Set Up Report
9. Directly influencing interventions		
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	
Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	

A.4.4 Financial services and loans for schools

Intervention	Finance for Schools	
1. Current alignment with overall programme design		Source
Output Logframe	Output 3: Improved performance of financial services related to schools	
Budget Allocated		
2. Intervention logic		
Objectives	Promotion of increased availability of affordable loans and financial products to schools	DEEPEN Set Up Report
Intended Outcomes	<ul style="list-style-type: none"> • For schools – <i>Improved access to formal finance</i> • For lenders – <i>Increase in customer base and a large market share</i> 	DEEPEN Set Up Report
Outputs	Increased willingness of finance providers to provide loans to schools	DEEPEN Set Up Report
3. Indicators		
Impact	•	
Outcome	•	
Output	•	
4. Scope of intervention		
Target Population	Providers of financial products (including banks, MFBs and micro-finance institutions)	
Geographical Scope	Lagos state	
Implementation Timeline		
5. Intervention process³⁴		

³⁴ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

Targeting/Selection Criteria	Potential service providers of financial management training (initially two MFBs in the pilot and then slowly others)	
Activities	<ul style="list-style-type: none"> Schools as businesses assessment survey across 50–60 schools to understand how they operate / wish to operate as businesses including demand for financial services Advocacy and stakeholder management – engage with key financial stakeholders that may be interested in providing products Business model development – analyse level of demand and develop detailed proposals Identification of pilot partners and participants Pilot launch 	
6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific M&E plans		
Internal		
External	•	
8. Identified intervention risks		
	<ul style="list-style-type: none"> Advocacy and stakeholder engagement activities reveal little interest amongst potential suppliers and service providers Finance interventions are successful but the benefits are eliminated by increased rent-seeking or multiple taxation 	DEEPEN Set Up Report
9. Directly influencing interventions		
		R
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	
Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	

A.4.5 Services for schools and business and better financial management

Intervention	Schools as Businesses	
1. Current alignment with overall programme design		Source
Output Logframe	Output 3: Improved performance of financial services related to schools	
Budget Allocated		
2. Intervention logic		
Objectives		DEEPEN Set Up Report
Intended Outcomes	<ul style="list-style-type: none"> For schools – <i>Increased access to formal finance by schools</i> For lenders – <i>Increased customer base and a larger market share</i> 	DEEPEN Set Up Report
Outputs	<ul style="list-style-type: none"> Improved financial management and record keeping by schools Finance providers more happy to provide loans to schools 	DEEPEN Set Up Report
3. Indicators		

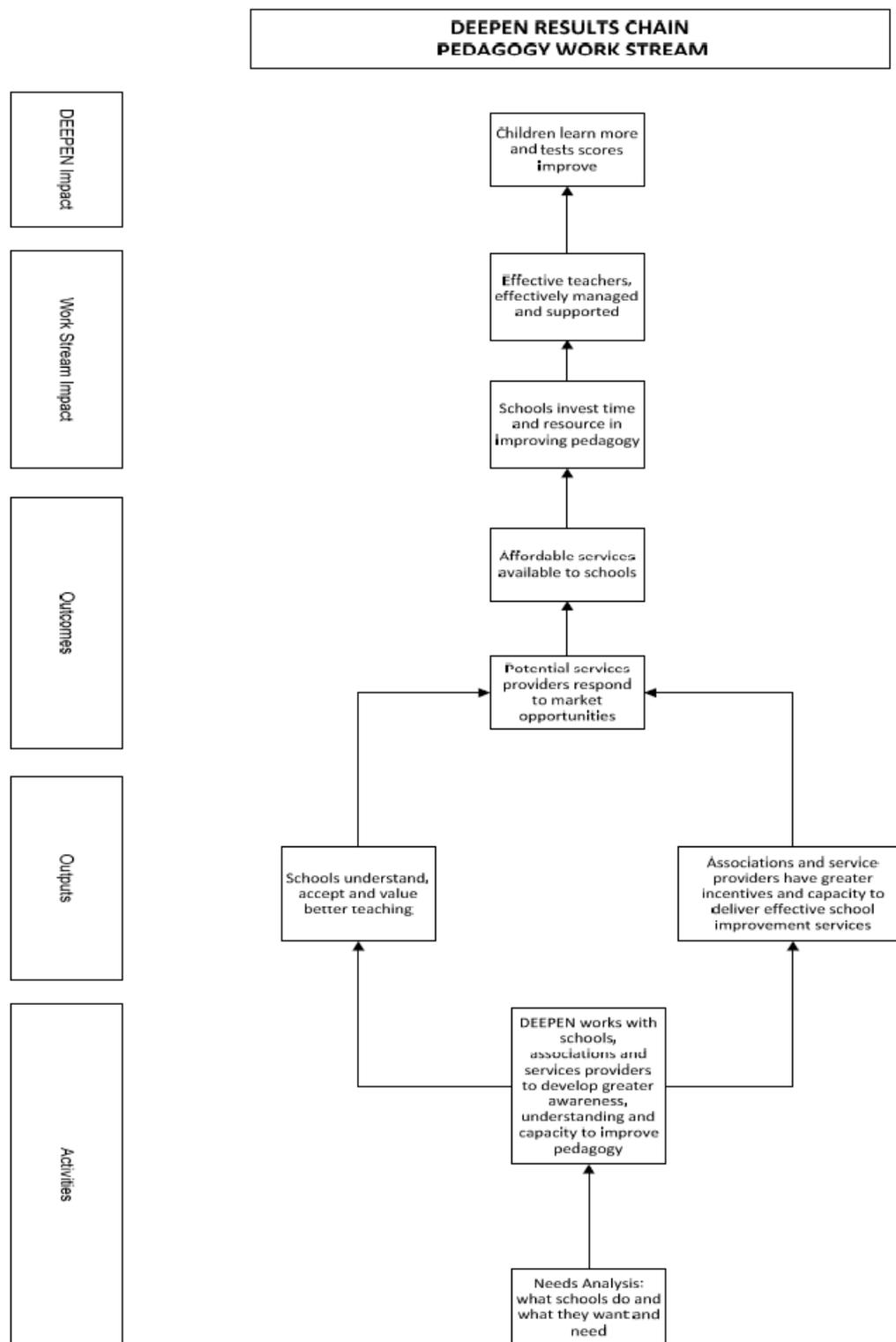
Impact	•	
Outcome	• Proportion of schools able to access loans	
Output	<ul style="list-style-type: none"> • No. of schools sensitised on the need for proper financial and recording packages • No. of financial providers motivated to offer training packages • No. of training products developed • No. of schools that have accessed training products • No. of schools with reformed financial and recording practices 	
4. Scope of intervention		
Target Population	Service providers of financial management training (could include banks, MFBs and micro-finance institutions) and low-cost private schools in Lagos	
Geographical Scope	Lagos State	
Implementation Timeline		
5. Intervention process³⁵		
Targeting/Selection Criteria	Potential service providers of financial management training and low-cost private schools in Lagos	
Activities	<ul style="list-style-type: none"> • Schools as businesses assessment survey across 50–60 schools to understand how they operate / wish to operate as businesses including record keeping processes followed and demand for services • Advocacy and stakeholder management – engage with key financial stakeholders that may be interested in providing products • Business model development – analyse level of demand and develop detailed proposals • Identification of pilot partners and participants • Pilot launch 	
6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific M&E plans		
Internal		
External	•	
8. Identified intervention risks		
	<ul style="list-style-type: none"> • Advocacy and stakeholder engagement activities reveal little interest amongst potential suppliers and service providers • Finance interventions are successful but the benefits are eliminated by increased rent-seeking or multiple taxation 	DEEPEN Set Up Report
9. Directly influencing interventions		
		R
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	

³⁵ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	
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A.5 School improvement

A.5.1 Theory of change



Source: DEEPEN Set Up Report, February 2014, page 34.

Assumption	Testing measure(s) and mitigation
Parents are able to access and understand information about improved pedagogy and school practices.	This will be the focus of the information work stream, to ensure the effective dissemination of information that is comprehensible by all parents.
School proprietors will understand the need to improve pedagogy and can be convinced to invest in their teachers' development.	DEEPEN will engage with proprietors (through private school associations and supported by data) to persuade them that, ultimately, business growth depends on better teaching and educational leadership. Specifically, the information work stream will aim to bolster parental pressure on proprietors for quality staff while the school improvement activities will demonstrate that better teaching can be achieved at minimal extra cost.
Service providers enter the market at all price points and are able to support the low-cost schools.	A key aspect of the school improvement work stream will be to demonstrate the viability of services to support low-cost schools. However, if this proves impossible, there will be value in developing services for more medium-cost schools, many of whom enrol children from low-income families. Success at this level might also filter down to low-cost schools in time as the service providers become more established.

A.5.2 Needs analysis

Intervention	School side demand	Source
1. Current alignment with overall programme design		
Output Logframe	Output 4: Improved availability of teaching development initiatives and services	
Budget Allocated		
2. Intervention logic		
Objectives	To address demand from schools for school improvement services. School Improvement services can be classified as: <ol style="list-style-type: none"> 1. Financial Management Services 2. Business Development Services 3. School Management Services 4. Education Development Services 	DEEPEN Set Up Report
Work Stream Impact	<ul style="list-style-type: none"> • Schools invest resources in improving pedagogy • Effective teachers; effectively managed and supported 	
Intended Outcomes	<ul style="list-style-type: none"> • Potential service providers respond to market opportunities • Affordable services available to schools • Increased demand among schools for improved pedagogical services 	DEEPEN Set Up Report
Outputs	<ul style="list-style-type: none"> • Low-cost private schools have more access to affordable finance and improved cash flow • Increased demand from parents for private school improvements due to information provided 	DEEPEN Set Up Report
3. Indicators		
Impact	<ul style="list-style-type: none"> • Proportion of schools with increased investment in pedagogy 	
Outcome	<ul style="list-style-type: none"> • Proportion of schools reporting need for improved pedagogy 	
Output	<ul style="list-style-type: none"> • Proportion of schools reporting easier access to finance • Proportion of schools reporting access to more affordable loans • Proportion of schools reporting demands from parents for school improvements 	
4. Scope of intervention		
Target Population	Increased demand among schools for improvements in existing services	
Geographical Scope	Lagos State	

Implementation Timeline		
5. Intervention process³⁶		
Targeting/Selection Criteria	Low-cost private schools in Lagos (no more specified)	
Activities	<ul style="list-style-type: none"> Schools as businesses work stream under the finance intervention is used to address the demand for 'financial management' and 'business management' services Information work stream is used to address the demand for 'school management' and 'education development' service Alongside the information work stream, MLA test scores will be used to capture information on learning outcomes across schools and will be publicly available. It is expected to stimulate competition amongst private schools to improve their practice and increase their offering 	
6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific M&E plans		
Internal		
External	•	
8. Identified intervention risks		
	<ul style="list-style-type: none"> Service providers participating only use their improved capacity to develop training programmes for high-cost schools A culture of rent-seeking around training programmes emerges As teachers in low-cost private schools receive training they leave to move to medium- – high-cost schools to receive better salaries 	DEEPEN Set Up Report
9. Directly influencing interventions		
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	
Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	

A.5.3 Work with schools, associations and services providers to develop greater awareness, understanding and capacity to improve pedagogy

Intervention	Supporting Supply Side	Source
1. Current alignment with overall programme design		
Output Log frame	Output 4: Improved availability of teaching development initiatives and services	
Budget Allocated		
2. Intervention logic		
Objectives	Support supply of school improvement services: identify and work with potential service providers to develop pilot programmes to address any gaps and increase educational quality	DEEPEN Set Up Report

³⁶ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

Work Stream Impact	<ul style="list-style-type: none"> Schools invest resources in improving pedagogy Effective teachers; effectively managed and supported 	
Intended Outcomes	<ul style="list-style-type: none"> Potential service providers respond to market opportunities Affordable services available to schools 	DEEPEN Set Up Report
Outputs	<ul style="list-style-type: none"> Associations and service providers have greater incentives and capacity to deliver school improvement services Schools understand, accept and value better teaching 	DEEPEN Set Up Report
3. Indicators		
Impact	<ul style="list-style-type: none"> Proportion of schools that undertook training demonstrating improved MLA results 	
Outcome	<ul style="list-style-type: none"> Proportion of identified service providers providing customised pedagogy improvement services for low-cost private schools Proportion of schools undertaking pedagogical trainings from the pilot service providers 	
Output	<ul style="list-style-type: none"> Number of stakeholder meetings carried out Number of potential providers identified for the pilots Number of schools motivated on the importance of pedagogical trainings 	
4. Scope of intervention		
Target Population	Low-cost private schools in Lagos and identified service providers (no specifics mentioned)	
Geographical Scope	Lagos State	
Implementation Timeline		
5. Intervention process³⁷		
Targeting/Selection Criteria	Low-cost private schools in Lagos and identified service providers (no specifics mentioned)	
Activities	<ul style="list-style-type: none"> Stakeholder engagement – engage with potential service providers to advocate the benefits of delivering such services including Ministry of Education, Lagos School Online, civil society organisations, state school improvement teams, etc. Service providers survey (Feb–May 2014) – detailed mapping of current providers and their model, e.g. how do they train, do they promote best pedagogical practice, etc. This is following the schools for businesses assessment. Development of school improvement pilots – identify partners and develop schemes to promote improved school practices and pedagogy. Pilot launch (September 2014) 	
6. Intervention stakeholders		
Implementing partners	Lagos State Ministry of Education	
Evidence partners	Not applicable	
Funding partners	DFID	
Other partners		
7. Intervention-specific M&E plans		
Internal		
External	<ul style="list-style-type: none"> 	

³⁷ The intervention process presents key aspects of what the intervention is supposed to do (activities), how it will organise this and how it will reach the target population. The aspects discussed may vary from intervention to intervention.

8. Identified intervention risks		
	<ul style="list-style-type: none"> • Service providers participating only use their improved capacity to develop training programmes for high-cost schools • A culture of rent-seeking around training programmes emerges • As teachers in low-cost private schools receive training they leave to move to medium- – high-cost schools to receive better salaries 	DEEPEN Set Up Report
9. Directly influencing interventions		
10. Reference documents		
Intervention documents	DEEPEN Set Up Report 2014 LoCoPE Programme Implementation Plan	
Evidence documents (studies, evaluations...)	DEEPEN MRM Manual	

Annex B Terms of reference for redesign

These terms of reference we agreed with DEEPEN and DFID before commencing the redesign. The context changed when DFID and DEEPEN agreed not to conduct 2017 outreach and 2018 learning surveys, but this document has not been updated to reflect this.

DEEPEN EVALUATION

TOR for Revised DEEPEN evaluation design

DRAFT

16-May-2017

Background

The DEEPEN evaluation framework designed by EDOREN envisaged quantitative baseline and endline surveys generating impact estimates of one of DEEPEN's key components (the Graded Assessment of Private Schools, GAPS) and collecting a range of other data relevant to other outputs on learning, school performance and management, teacher performance, and student and household characteristics in private schools in selected Lagos local government areas. Due to changes in the GAPS roll-out schedule, and following consultations with EDOREN and DEEPEN, DFID decided that this survey is no longer good value for money because it is unlikely to generate robust impact estimates of GAPS. The evaluation must therefore rely on information already generated by DEEPEN's research activities or that will be generated by DEEPEN in future, on other existing data and research, and on any new research undertaken by EDOREN (likely to be qualitative work given available budgets). Furthermore, DFID need answers to evaluation questions by March 2018 to inform future programme design.

As a result of changes in available data and timeframe, the DEEPEN evaluation needs to be substantially redesigned. This is a terms of reference for this redesign.

Task description

This redesign requires:

- Gathering a full set and reviewing the available set of information relevant to the evaluation (see section 2.3.3 for an annotated bibliography of key DEEPEN, DFID and EDOREN documents, and the references contained therein).
- Amending the original evaluation questions so that they can be all answered with adequate levels of robustness (see table in Annex C for comments on the original evaluation questions) using this information and still enable DFID to form a view on the performance of the DEEPEN programme. The questions may need to be revised to ensure that, in the absence of robust data on programme impact, DFID are able to assess the performance of DEEPEN across the results chain.
- Designing, planning and budgeting any additional research activities required. This is likely to involve qualitative research conducted by EDOREN, funded by DEEPEN.
- Revising the evaluation framework and plan to reflect the new data sources, questions and research activities.

- Taking steps to ensure that the information generated by DEEPEN is as relevant and as robust as possible for the evaluation, in order to achieve acceptable levels of independence. This is likely to mean agreeing with DEEPEN, DFID and EDOREN a plan and budget to support the DEEPEN 2017 outreach survey and DEEPEN 2018 logframe survey.

Scope

This does not require a new evaluation inception report, but an updating of key sections on questions, methods, research activities, timeline, communication plan and team. The revised sections will not be QAed by EQUALS, but the final evaluation report will be. The revised sections will need to be agreed by DFID education and results advisers, and DEEPEN, and the EDOREN team.

The budget for the research activities does not need at this stage to be detailed, but it needs to be accurate and defensible, using existing EDOREN rates.

At present, the evaluation covers only DEEPEN and not the Innovation Fund, but this needs confirming with DFID.

Methodology

The task is primarily desk-based, reviewing the documents and data sources, and revising the evaluation framework and plan.

The task will require engaging extensively with the DEEPEN team, particularly Gaurav Siddhu, DEEPEN Results and Learning lead, with DFID and with the EDOREN team evaluating DEEPEN. A one week visit to Lagos and possibly Abuja will likely be required to explore fully all data sources and to discuss evaluation priorities with DEEPEN and DFID. If this is not possible, extensive phone conversations will be required.

Deliverables

The outputs will be:

- vii. A revised evaluation framework and plan that includes: questions, methods, research activities and data sources, any changes to the evaluation team, a revised timeline and communication plan and a revised budget for all activities up to completion. All of the contents should be agreed with DFID and DEEPEN.
- viii. A detailed and agreed plan for how EDOREN will support DEEPEN's data collection activities.

Timeframe

Draft revisions to the evaluation framework and a proposal for how EDOREN can support DEEPEN's data collection activities should be complete by 5th June, for review by DEEPEN and DFID, and further discussions should take place in the week of the 12th June.

Both outputs should be finalised and agreed by June 30th.

Political economy, Communications and capacity development

These issues are not relevant to this TOR.

Resource requirements

Ian MacAuslan – Team Leader: 15 days

Shweta Bahri – consultant: 15 days?

Allan Findlay – data expert: 5 days

Monet Durieux – data expert: 10 days

Michele Binci – evaluation methods expert: 3 days.

Cora Mezger/Matthew Powell – senior data expert: 2 days.

Flights: London-Lagos-Abuja-London

DSA, local travel: 6 nights, Lagos and Abuja

Coordination, logistics management

All international and Abuja logistics to be covered by EDOREN team; all Lagos by DEEPEN.

Dependencies

Dependent on DEEPEN and DFID staff availability, particularly Gaurav Siddhu and Esohe Eigbike.

EDOREN staff required for wider review and logistical support.

Reporting

Team reports to Ian MacAuslan, who reports direct to DFID and DEEPEN.

Quality assurance

Draft outputs will be peer reviewed internally by an evaluation expert, such as Michele Binci or Tom Pellens.

Annex C Revised evaluation matrix

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
1	Evaluation question: Are DEEPEN's assumptions about primary education correct					
1.1	To what extent are learning outcomes and school quality in low cost private schooling low and perceived as such by parents	Logframe survey (DS1): Parent questionnaire EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	Reasons for changing school (B.29) for better quality. Module D: actions undertaken by parents for improving performance of child at schools e.g. approached school to express concerns or suggest improvements	2016, 2017	2018 (same methodology as baseline survey)
		Proposed Qualitative survey 2017 (FDS1) with parents	Key informant interview	Perceptions of learning outcomes and school quality in private schools. Perceptions of improvements in private school quality.	2017	2017
1.2	Are learning outcomes from (low-cost) private schools better or worse than government schools in Lagos, and perceived as such by parents?	Proposed Qualitative survey 2017 (FDS1) with parents EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Key Informant interview	Perceived quality of education in private schools. Parents: Perceptions of learning outcomes and school quality in private schools	2017	2017
1.3	Does school quality correlate with the cost of the school?	Logframe survey (DS1): classroom observations, head teacher questionnaire	Regression analysis	Teacher performed individual, pair and group tasks, work with or on blackboard, improvised materials, visual aids and praise more than reprimands	2016 and 2017	2018 (same methodology as baseline survey)
		Logframe survey (DS1): Head Teacher questionnaire for SIS schools EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)		Includes questions on teaching practices such as whether the head teacher or experienced teacher observes lessons		2018 (same methodology as baseline survey)

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
1.4	To what extent are the learning conditions and practices in (low-cost) private schools inadequate?	Logframe survey (DS1): classroom observations	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	Teacher performed individual, pair and group tasks, work with or on blackboard, improvised materials, visual aids and praise more than reprimands	2016 and 2017	2018 (same methodology as baseline survey)
		Logframe survey (DS1): Head Teacher questionnaire for SIS schools EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)		Includes questions on teaching practices such as whether the head teacher or experienced teacher observes lessons	2016 and 2017	2018 (same methodology as baseline survey)
1.5	Is poor learning in (low-cost) private schools driven by pedagogy and classroom conditions or by other factors (curriculum, materials, fellow students, etc.)?	Logframe survey (DS1): classroom observations EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	Teacher performed individual, pair and group tasks, work with or on blackboard, improvised materials, visual aids and praise more than reprimands	2016 and 2017	2018 (same methodology as baseline survey)
		Other factors: Land and Security Tenure report (DS3)				
1.6	To what extent is investment, management and innovation in (low-cost) private schools inadequate?	Annual Logframe survey (DS1): Head teacher questionnaire EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	Which two areas of improvement did you spend the most money on? 5: Improving infrastructure 4: Improving school management and leadership	2016 and 2017	2018 (same methodology as baseline survey)
		BDS Baseline survey (DS13/DS28)		Does school have a written School Development Plan (SDP) and contents of the plan if it exists? Incentives offered to teachers, use of BDS in planning and strategy development		Follow-up survey 2017
1.7	Do parents lack information about school quality and/or find it difficult to interpret such information to	Logframe survey (DS1): Parent questionnaire EDOREN Can Education Markets work for the poor Findings (DS18)	Sample of school selected from DEEPEN intervention schools (sampling frame of	C1: What do you know about good school practices? C3-13: Sources of general information of education in Lagos.	2016 and 2017	2018 (same methodology as baseline survey)

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
	make a decision about school choice?	EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	3401 schools of which 188 selected)	C2: Sources of information about good school practices used and how often used. C4: Uses of information received		
		Proposed Qualitative survey 2017 (FDS1) with parents	Key Informant interview	Perceptions of adequacy of information on private school quality and changes of information available. Difficulties in interpreting information on the quality of private schools	2017	2017
1.8	Do parents make decisions between private schools based on quality?	Logframe survey (DS1): Parent questionnaire EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	B29: Reason for changing schools: For better quality.	2016 and 2017	2018 (same methodology as baseline survey)
		Proposed Qualitative survey 2017 (FDS1) with parents	Key Informant interviews	Reasons for deciding where to send children to school.	2017	2017
1.9	Do (low-cost) private schools care about rules and standards and parents' opinions about these when making investment decisions?	Logframe survey (DS1): Head questionnaire EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	B1: View on school recognition system (application process of govt. registration of schools, cost of registration, requirements for registration, and benefits resulted from registration B2: View of the tax system	2016 and 2017	2018 (same methodology as baseline survey)
		Tax sensitization survey (DS14)(DS30)				No detail on collection date
1.10	Does the regulatory regime prevent (low-cost) private schools from investing and improving quality?	Annual Log frame Survey 2017(DS7): Rules and Standards. SIS schools(DS29) No data from GAPS, only state of play EDOREN Can Education Markets work for the poor Findings (DS18)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	A7: Changes in government attitude and its impact: A7.8: Has the process of registering private schools improved compared to 2 years	2017	2018 (same methodology as baseline survey)

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
		EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)		back? Module D: School improvements		
1.1	Do (low-cost) private schools want to invest in professional school improvement services to improve the quality of the education they provide (while remaining low-cost)?	Logframe survey (DS1): Head teacher questionnaire	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	Module 2: School improvement. E8: Which two areas of improvement did you spend the most money on?	2016 and 2017	2018 (same methodology as baseline survey)
1.1	Is there a viable market for financial service providers providing financial services to low-cost schools and low-income parents?	Logframe survey (DS1): EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	C3: Financial position of the school, loans from financial institutions, use of fee collection services, amount, repayment schedule	2016 and 2017	2018 (same methodology as baseline survey)
		ACCION report (DS27)(DS6)	ACCION Loan distribution list	Ability of schools to pay back loan.	2016 and 2017	?
		Qualitative survey (FDS1)	KII	Perceptions of profitability of services provided for different school types and parents	2017	2017
1.1	Is there a viable market for school improvement providers providing school improvement services to low-cost schools	P2P (MR1) EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	?	Module B: School improvements	2017	
		School improvement programme evaluation (DS22?)	?			2017
2	Do DEEPEN's approach and design still address the most pertinent educational challenges facing primary-aged children in Lagos?					
2.1	Given other education initiatives in Lagos, is a focus on private sector quality the most appropriate approach?	Proposed Qualitative survey 2017 (FDS1) with stakeholders EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods	Key Informant interview	Government: Consistency of DEEPEN's approach with government strategies and priorities	2017	2017

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
		Baseline Report (DS19) Lagos Public Private school comparison study (DS20)				
2.2	Is the M4P approach the most suitable approach for generating improved learning outcomes through private sector education?	Qualitative survey (FDS1) EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Key Informant interview	DFID, DEEPEN, Government, schools and service providers: Ask question on M4P	2017	2017
2.3	Has DEEPEN drawn sufficiently from other M4P and education programmes to design the best intervention set possible?	Based on initial Design phase of programme (DS17) & proposed Qualitative Survey of 2017 (FDS1) EDOREN Can Education Markets work for the poor Findings (DS18)	Key Informant interview	DFID, DEEPEN, Government, schools and service providers: Ask question about lessons from other interventions	2017	2017
2.4	Are there complements to the M4P approach that would increase impact?	Proposed Qualitative survey 2017 (FDS1) with stakeholders EDOREN Can Education Markets work for the poor Findings (DS18)	Key Informant interview	DFID, DEEPEN, Government, schools and service providers: Ask question about complementary approaches	2017	2017
2.5	Given evidence on DEEPEN's assumptions and context asked above, is DEEPEN's approach valid?	EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19) Lagos Public Private school comparison study (DS20)	Using the key informant interviews review the theory of change	DFID, DEEPEN, Government, schools and service providers: Ask question success of delivery	2017	2017
3	Is DEEPEN's approach coherent with the broader policy environment in Nigeria and Lagos?					
3.1	Is an approach to education that strengthens the quality of private (as opposed to public) sector education consistent with education policies and strategies in Lagos and Nigeria, as well as DFID?	Proposed Qualitative survey 2017 (FDS1) with stakeholders EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19)	Key Informant interview	Government: Consistency of DEEPEN'S approach with government strategies and priorities.	2017	2017
3.2	Is an M4P approach consistent with education policies and strategies in Lagos and Nigeria, as well as DFID?	Proposed Qualitative survey 2017 (FDS1) with stakeholders EDOREN Can Education Markets work for the poor Findings (DS18)	Key Informant interview	Government, schools, parents, service providers, DFID view on M4P approach.	2017	2017

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
		EDOREN DEEPEN MIXED Methods Baseline Report (DS19)				
3.3	Is DEEPEN's specific approach consistent with education policies and strategies in Lagos and Nigeria, as well as DFID?	Proposed Qualitative survey 2017 (FDS1) with stakeholders EDOREN Can Education Markets work for the poor Findings (DS18) EDOREN DEEPEN MIXED Methods Baseline Report (DS19)	Key Informant interview	Government: Consistency of DEEPEN'S approach with government strategies and priorities.	2017	2017
4	Efficiency: the extent to which DEEPEN offers value for money in terms of the relationship between inputs and outputs and outcomes					
4.1	Does DEEPEN offer value for money as anticipated in the business case? <i>This should include a comparison with section D of the business case (costs and benefits of options), and with the objective of costs of £12.5 per child supported.</i>	Annual reports (DS8) and Annual reviews (DS10,11,12)				
4.2	What has been the cost of each major activity and intervention area?	Annual reports (DS8) and annual reviews (DS10,11,12)				
4.3	What are the costs in terms of schools supported and learners supported?	Annual reports (DS8) and annual reviews (DS10,11,12)				
4.4	Have these costs per school and per learner changed over time?	Annual reports (DS8) and annual reviews (DS10,11,12)				
4.5	How do these costs compare with costs of other similar interventions to support learning (whether private or public sector)?	Annual reports (DS8) and annual reviews (DS10,11,12)				
4.6	What is the cost effectiveness of DEEPEN and different intervention areas? <i>This should provide a measure of cost in terms of some desired impact, ideally improvement in learning outcomes overall.</i>	Annual reports (DS8) and annual reviews (DS10,11,12)				

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
4.7	How does this compare to other successful interventions?	Annual reports (DS8) and annual reviews (DS10,11,12)				
4.8	Were DEEPEN results achieved on time? If not, why?	Annual reports (DS8) and annual reviews (DS10,11,12)				
4.9	Has DEEPEN successfully developed and implemented strategies, including internal learning, to achieve greater value for money in terms of efficiency, economy, and effectiveness?	Annual reports (DS8) and annual reviews (DS10,11,12)				
4.10	Did DEEPEN's organisational setup and management enhance delivery of results?	Annual reports (DS8) and annual reviews (DS10,11,12)				
5	Effectiveness: the measure to which DEEPEN attains its objectives as set out in the logical framework, and why					
5.1	Did DEEPEN reach its intended beneficiaries and to what extent? <i>This refers to the business case objectives of improving learning outcomes for 1.5 million girls and boys (girls as much as boys), and that 30% of these children will be from households below the poverty line.</i>	Logframe survey (DS1):	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	% increase in average tests scores for private school pupils from low-income household and girls in numeracy and literacy.		
GAPS (MR2)		School grading system				
Logframe survey (DS1): Parent survey		Wealth index				
5.2	Did DEEPEN achieve the expected 6% increase in average scores on literacy and numeracy tests by 2020, including for girls and children from poor households?	Logframe survey (DS1)	?	?	2017	2018
6	Did DEEPEN lead to improve private sector school performance, especially among schools serving children from low-income households? <i>This refers to the draft logframe outcomes .</i>					
6.1	Did DEEPEN cause (low-cost) private schools to improve their quality? (Quality just in terms of quality of teaching?, how measure attribution from DEEPEN due to lack of counterfactual)	Logframe survey (DS1): Classroom observations on good teaching practice	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	How often did the teacher perform the following tasks: Individual, group or pair tasks, work with or on blackboard, improve materials, visual aids and praise more than reprimand	2016, 2017	2018 (same methodology as baseline survey)

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
6.2	Did DEEPEN cause (low-cost) private schools to invest in school improvement?	Logframe survey (DS1): Head teacher questionnaire	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	Which two areas of improvement did you spend the most money on: Teacher training, improving business and financial management, and improving school management and leadership	2016, 2017	2018 (same methodology as baseline survey)
6.3	Did DEEPEN cause (low-cost) private schools to improve their pedagogy/teaching practice?	Logframe survey (DS1): Classroom observations on good teaching practice	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	How often did the teacher perform the following tasks: Individual, group or pair tasks, work with or on blackboard, improve materials, visual aids and praise more than reprimand	2016, 2017	2018 (same methodology as baseline survey)
6.4	Did DEEPEN cause (low-cost) private schools to use additional financial services?	Logframe survey (DS1): Head teacher questionnaire	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	Does your school have a loan from a financial institution, when taken and what is payback period? Only consider loans taken during last one year or paid off in that period.	Collected 2016, 2017.	2018 (same methodology as baseline survey)
		ACCION Loan distribution list (Bank records)(DS27)	Schools who were recipients of Accion loans (76 schools from the list was randomly selected)	Duration of loan: Loan \geq 365 days marked as a long-term loan	Collected 2016, 2017.	
6.5	Did DEEPEN cause (low-income) parents of children in private schools to improve their understanding of good schooling?	Logframe survey (DS1): Parent questionnaire	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	Have you or any member of your household approached the school to express concerns or suggest improvements over the last 12 months, assist your child with homework, evaluate how well your child is progressing what he/she is supposed to learn, check academic performance, act on teacher's feedback to improve child's performance.	Collected 2016, 2017.	2018 (same methodology as baseline survey)

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
6.6	To what extent has DEEPEN led to improvements in the commercial viability of low cost private schools?					
6.7	Has DEEPEN led to improvements in the commercial viability of the market for services for low cost private schools?					
7	Did DEEPEN deliver the outputs and activities expected?					
7.1	Did DEEPEN lead to improved rules and standards affecting schools?	Logframe survey (DS1)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)		2016 and 2017	2018 (same methodology as baseline survey)
		1. GAPS: Regulation and standards. (MR2)		1. No data on the number of schools graded by GAP instrument		
		2. Taxation and illegal taxes. (Head teacher questionnaire)		2. B3.16: Details on all taxes/charged/levies demanded and paid in 2015/2016 and 2016/2017		
		3. Relationship between government and private schools (Head teacher questionnaire).	3. A7: Government attitude, engagement with, ease of operating private school in Lagos.			
7.2	Did DEEPEN lead to improved information around schools and parents?	Log frame survey (DS1): Parent questionnaire	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	C2: Sources of information around good schooling practices.	2016 and 2017	2018 (same methodology as baseline survey)
		Community Information survey (CSO)(DS2)	Partnering with CSO to disseminate information at community level of good schooling practices. Evaluation question answered using a treatment and control group	C3-C13: General information around education in Lagos. Forums for engagement with parents, use of information source to learn new things, engagement mechanisms with community, detail on the type of information sources and when and how often access	2016	Follow-up survey 2017
7.3		ACCION Loan distribution list (DS27) (Logframe survey (DS1))	Schools who were recipients of Accion	Loan duration: Short and long term loans	2016 and 2017	

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
	Did DEEPEN lead to improved performance financial services related to schools?	BDS Service provider's monitoring template (DS28)	loans (76 schools from the list was randomly selected)	Number of schools trained: All schools that received one or more training from any DEEPEN listed service providers was included	2016	Follow-up survey 2017
7.4	Did DEEPEN lead to improved availability of teaching development initiatives and services?	Service provider (Administrative data): List of participating schools and name of participant. (DS27, 28, 29 & 30)	By June 2017: 1 666 staff were trained under SIS of which 1 332 served low-income hh Cumulative indicator	How many schools have teachers/head teachers/proprietors been trained	2016 and 2017	School improvement programme evaluation, 2017
7.5	Did DEEPEN lead to the introduction to the market of innovative business models for schools, and supporting services? (tentative question referring to the Innovation Fund)	Determining the Impact of DEEPEN (DS22)				
7.6	What were the factors contributing to lack of implementation, if any?	Annual reviews (DS8) Qualitative survey 2017 (FDS1)	Key Informant interviews Focus on challenges relating to sustainability and crowding-in	DFID: Factors contributing to the implementation success and failure	2017	
		DEEPEN qualitative survey of service providers (MR3)			Jun-17	
7.7	How does this compare to achievements in DFID's other education programmes in Nigeria (ESSPIN and GEP3)?	Annual reviews (DS8) Qualitative survey 2017 (FDS1)	Key Informant interviews			
8	Impact: the positive and negative changes produced by DEEPEN, both direct and indirect, intended and unintended, with specific attention to learning outcomes for poor children					
	Rules and standards					
8.1	Does GAPS participation lead to behavioural change at the school level, specifically with respect to (a) teaching and teacher management and practices; (b) infrastructure	Only baseline data on GAPS (MR2/MR4)	Key informant interviews: Schools, parents, children, DFID, government officials	Expectations of sustained improvements to regulatory and learning environment.		2018

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
	investments; (c) other learning-related practices; and (d) fees charged?	Logframe survey (DS1)		Use and usefulness of GAPS for school improvement.		
		Qualitative survey (FDS1)				
8.2	What is a realistic and appropriate time horizon for capturing such school-level impacts?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)	Key informant interviews: Schools			
8.3	Does the behavioural change response to GAPS vary across school types?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)	Key informant interviews: Schools			
8.4	Are smaller low-cost schools more or less likely to voluntarily self-assess ?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)	Key informant interviews: Schools	?		
8.5	Are smaller low-cost schools more or less likely to introduce practice changes in response to GAPS?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)	Key informant interviews: Schools	Use and usefulness of GAPS for school improvement by private school type		
8.6	Does the assessment of the usefulness and experience of GAPS participation vary across school types?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)	Key informant interviews: Schools	Use and usefulness of GAPS for school improvement by private school type		
8.7	Do observed changes translate into improved learning?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)	Key informant interviews: Schools	No direct measurement but through KII interviews		
8.8	Are impacts on learning uniform across school types and do positive learning outcomes extend to schools with a higher percentage of children from low-income households?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1) EDOREN: Comparing learning outcomes in public and low and medium fee schools (MR5)	Key informant interviews: Schools			
8.9	What is a realistic time horizon for capturing learning outcome effects?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)		?		
9	Links to other interventions: information and parental school choice and mobilisation					
9.1	Does proactive sharing of GAPS information with parents using report cards affect school choice	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)	Key informant interviews: Schools	Measure if report cards were used, use interviews with parents: Expectations of sustained demand		

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
	and thus the functioning of the private educational market?			for school choice information without GAPS		
9.2	Does any such effect operate with a time lag?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)		?		
9.3	Is any such effect more pronounced if learning outcomes are included in the report card?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)		Related to use of report card		
9.4	Does proactive sharing of GAPS results affect parental behaviour vis-à-vis the relevant school (the parental mobilisation hypothesis: we need to capture whether, how and under what conditions parents respond to GAPS) by (a) intensifying the pressure on schools (voice) through individual or collective action or (b) resulting in school exits?	Only baseline data on GAPS (MR2/MR4) Qualitative survey (FDS1)				
10	Finance					
10	Does access to parental savings schemes affect school choice?	DEEPEN Household Survey: Finance and Affordability (MR6).	Form 179 schools who were interviewed identified a sample of parents. Head teacher provide names and contact details of 8 parents (4 primary school, 2 hh in arrears and 2 hh where the child was withdrawn while still owing school.	Section H: Credit and Savings: Bank accounts, Co-operative society, micro-lending, saving associations	2016 and 2017	2018 (same methodology as baseline survey)
		Logframe survey (DS1): Parental questionnaire	Divided into late paying and defaulting sample	B.29: Reason changed schools e.g. lower fees and costs, had to leave (fees unpaid), had to leave before got into arrears on fees/default on fees		

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
10	Does such access to parental savings schemes reduce fee payment arrears? Does such access reduce default rates?	DEEPEN Household Survey: Finance and Affordability (MR6)	Form 179 schools who were interviewed identified a sample of parents. Head teacher provide names and contact details of 8 parents (4 primary school, 2 hh in arrears and 2 hh where the child was withdrawn while still owing school. Divided into late paying and defaulting sample	Analysis amongst the defaulting sample		
10	Does access to savings schemes translate into investments and then school improvements in the dimensions highlighted above and eventually to better learning outcomes (as per the results chain)? What is the 'size' of any such effects and what is the time lag with which they occur?	Logframe survey (DS1): Head teacher questionnaire	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	E.8: Two areas of improvements where you spend the most money on. Sources of funding: 1. Existing school fund/fees 2. Investment by proprietor(s) 3. Loans from financial organisation 4. Charity (from friends & family, or from any other sources)	2016 and 2017	2018 (same methodology as baseline survey)
10	Does parental access to a mobile fee payment option reduce fee arrears? Does such access reduce parental default rates?	Logframe survey (DS1): Parental questionnaire	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	D17-20: Awareness of mobile phone schemes to pay school fees, usage and whether use make more likely to pay fees	2016 and 2017	2018 (same methodology as baseline survey)
		DEEPEN Household Survey: Finance and Affordability (MR6).	Form 179 schools who were interviewed identified a sample of parents. Head teacher provide names and contact details of 8 parents (4	No detail collected on access to mobile fee payment options, only covers reasons for taking child out of school (fee arrears and default)		

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
			primary school, 2 hh in arrears and 2 hh where the child was withdrawn while still owing school			
11	Does access translate into school improvements in the dimensions highlighted above and eventually to better learning outcomes? What is the 'size' of any such effects and what is the time lag with which they occur?	Logframe survey (DS1): Parental questionnaire	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	D17-20: Awareness of mobile phone schemes to pay school fees, usage and whether use make more likely to pay fees	2016 and 2017	2018 (same methodology as baseline survey)
11	Does access to credit for schools stimulate school investments and improvements? If so, in what specific dimensions? Do these improvements translate into better learning outcomes? What is the time lag in learning outcome improvements?	Logframe survey (DS1): Head teacher questionnaire				
		ACCION loan survey (DS6) (Questionnaire for proprietor and head teacher)	First round 120 loans, second round 627 loans	C22: Reason for taking ACCION loan C23: What was loan actually used on?	2016	
		Qualitative surveys with head teacher (FDS1?)				
11	Does providing business training to school proprietors (a) improve profits; (b) change investment patterns; or (c) strengthen the learning environment and learning outcomes?	BDS Baseline survey (DS13/DS28)		B.4.1: Firms which have engaged external services to improve business development planning C.3.4 Profit C.3.1 Expenditure on items such as annual teacher training, equipment/learning material, salaries	2016	Follow-up survey 2017
11	School improvement					
11	Do school improvement activities lead to higher-quality teaching in private schools, including low-fee private schools? Does this translate into improved learning outcomes or are other contextual factors more important? Why?	Logframe survey (DS1): Head teacher questionnaire (school improvement) Logframe survey (DS1): Classroom observation (quality teaching)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	E.8 Two areas spend most on: teacher training, improving business and financial management, school management and leadership. Module H: Lesson observation: Individuals, group or pair tasks, work on or with blackboard, improvised materials,	2016 and 2017	2018 (same methodology as baseline survey)

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
				visual aids, using praise more than reprimand.		
11	Do school improvement activities lead to greater teacher retention or mobility? Why?	Logframe survey (DS1): Head teacher questionnaire Qualitative survey 2017 (FDS1)	Sample of school selected from DEEPEN intervention schools (sampling frame of 3401 schools of which 188 selected)	F6: How often do these activities happen in school, e.g. complement teachers H2: Teacher motivation	2016 and 2017	2018 (same methodology as baseline survey)
11	Do service providers respond to market facilitation to provide services to schools?	Annual reviews (DS8) BDS (DS13/DS28) Qualitative study of DEEPEN service providers (MR3)				2017/2108
11	Are schools able to implement service delivery improvements without changing prices or paying higher rents?	Qualitative survey 2017 (FDS1)	Key informant interviews	Determinants of school fee structures Implications of investments e.g. building rents for school costs	2017	2017
12	Sustainability: the extent to which DEEPEN's impact will continue when DFID's funding is withdrawn. The following questions should be answered at the level of DEEPEN overall, and at the level of each intervention area and major activity within them:					
12	Are DEEPEN's impacts sustainable without further DFID support? Why?	Qualitative survey 2017 (FDS1)	KII with all stakeholders specifically government	Alignment of DEEPEN's approach to government priorities and strategies Perceptions regarding capacity to maintain regulatory activities and sustainability of DEEPEN's impact	2017	2017
12	Have DEEPEN built adequate capacity (institutional, organisational, individual) in the requisite institutions:	Qualitative survey 2017 (FDS1)	KII with school staff, school improvement services, financial institutions, government		2017	2017
12	Lagos State Ministry of Education to sustain the regulatory activities (especially the conduct and communication of GAPS, and the elimination of illegal and unofficial taxation)?	Qualitative survey 2017 (FDS1)	KII	Perceptions regarding capacity to maintain regulatory activities and sustainability of DEEPEN's impact	2017	2017

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
12	Private sector institutions to continue support to GAPS, to the media, and to schools?	Qualitative survey 2017 (FDS1)	KII with financial, media and school improvement services institutions,	Media: Expectations of continued publication of school related information	2017	2017
13	The media to continue reporting on the importance of quality in private schooling and of standards?	Qualitative survey 2017 (FDS1)	KII with media	Expectations on continued publication of school-related information Perceptions on value for media in publishing information on schools	2017	2017
13	Financial institutions to provide finance to the lowest-cost schools and poorest parents?	Qualitative survey 2017 (FDS1)	KII with Financial intuitions	Perceptions of continued support for low cost private schools	2017	2017
13	Pedagogical institutions to support school improvement?	Qualitative survey 2017 (FDS1)	KII with School improvement institutions	Expectations of continued support to low-cost private schools	2017	2017
13	Are these changes robust to reasonably likely exogenous changes (such as a change in government or slowing of the economic growth rate)?					
13	Are any improvements in school quality sustainable without increases in real prices (fees?), particularly in the schools catering primarily to students from low-income households?	Qualitative survey 2017 (FDS1)	KII with governments, schools	Determining factors of school fee structure	2017	2017
12.10	Are the changes to market structure that are facilitated by DEEPEN sustainable in the absence of further DEEPEN support?	Qualitative survey 2017 (FDS1)	KII with DFID, Government, Schools, service provides	Perceptions of the likelihood of sustainability of impact without DEEPEN support, sustainability of DEEPEN impact	2017	2017
12.11	Has DEEPEN led to any effects that have "scaled up" to non-intervention schools? What are the mechanisms that led to such scaled effects? What are the enablers and disablers of these mechanisms?					

Ref	Indicator	Data source	Methodology / Approach	Variable/Question	Year collected	Planned collection
12	In what ways has DEEPEN re-shaped the private school market in Lagos? What has been its impact on market institutions, and how has this translated to changed market dynamics? How have any shifts in awareness and any behavioural and attitudinal changes of different market actors affected the behaviour of the market at large?					

Annex D Qualitative research methods

479. The centrepiece of the revised evaluation design was qualitative research conducted by EDOREN in 2017 and 2018.

Strand 1: The impact of DEEPEN on private schools with a direct link to the program

480. In this strand, we will investigate evidence for school improvement in schools where at least one stakeholder group has been directly exposed to at least one DEEPEN intervention. For example, a school in which a group of parents have attained a new awareness of understanding (and demanding) quality education for their children as a result of DEEPEN's work would fall into this category. Due to the multiple workstreams of DEEPEN and the likely differential exposure of different stakeholder groups in individual schools to specific interventions, we will likely face a broad continuum of the "amount" of intervention exposure a particular school has received.

481. We will aim to capture data from stakeholders across this range in order to identify the different mechanisms through which synergistic effects of various combinations and "amounts" of interventions at a particular school might combine to generate impact. This approach will be exploratory rather than confirmatory: when any behavioural or attitudinal changes consistent with DEEPEN's theory of change are observed at the school level, we will seek to trace the causal pathways through which the changes might have occurred and identify the combinations of factors (both ones related to DEEPEN interventions and any other exogenous factors) that might have led to this change. Our goal is not to investigate the impact of every combination of interventions, but rather identify combinations that made a difference by starting from the finding of an observable change and working our way back the causal chain.

482. We will aim to construct a narrative of change in these schools through stakeholder interviews and focus groups, and to try to attribute any observed change to individual interventions whenever possible.

Strand 2: The impact of DEEPEN on other private schools

483. Since DEEPEN is hypothesised to affect positively schools beyond its "treatment" group through market forces, it is reasonable to anticipate that these forces would manifest themselves in at least several cases. We will therefore attempt to identify schools that might have indirectly benefited from DEEPEN as a result of market "ripple effects." The sampling strategy for identifying such schools is likely to be challenging, and the conceptual framework for this sampling is outlined in the methodology section.

Strand 3: Service providers

484. This strand will follow a similar logic to Strand 1, but the focus will be service providers with whom DEEPEN has worked on capacity building as part of its interventions. While observing changes at the service provider level does not necessarily directly translate into changes at the school level—and indeed learning outcomes—DEEPEN's theory of change anticipates that in the long run, improvements in the service provider market would ultimately lead to improvements in private schools. Like with schools in Strand 1, we will seek to identify any observable changes and trace these back to any DEEPEN interventions or other factors that might account for them.

Strand 4: Perceptions of change in private schools in Lagos

485. If DEEPEN's theory of change is working, we would expect to see changes in the perceptions of the market from the vantage point of informed third parties who are not necessarily part of either the supply or demand side of the private school market in Lagos. Such third parties could include:

- Academic researchers based in universities, think tanks and other policy organisations (domestic and international) with an active interest in private schools in Nigeria
- Industry experts working in the private sector (including development agency and consulting firm staff, private school associations, any organisations that independently assess and or rank schools in Lagos, any educational consultancies, etc.)
- Government staff, both at the local and central level
- Journalists with an interest in education (including ones both with and without a prior connection with DEEPEN)

486. The aim of this stream is to identify such informed figures who possess relevant expertise to provide a meta-perspective on any recent changes and overarching trends in the private school market in Lagos.

487. In addition, this stream will seek to interview experts on the political climate and economic situation in Nigeria with a view to understand the overarching trends in the politics and economy at national level that can be used to forecast how favourable the conditions are likely to be for DEEPEN's lasting impact in the coming years.

Strand 5: DEEPEN and DFID staff

488. The fourth strand is designed to understand the DEEPEN team's and DFID staff's views on the implementation process of the project, including the challenges encountered along the way and any adaptations to the program's design and implementation from the perspective of program staff. In particular, this strand will seek to understand how the implementers of the project interpreted the M4P model in their decision-making processes and the extent to which they considered and implemented suggestions that came out of the baseline evaluation. Temporal mapping of the various interventions that were tried and dropped as part of the program is a part of this stream, with an aim to create a comprehensive register of institutional knowledge that emerged from the implementation process.

D.1 Instruments

D.2 Qualitative predictive modelling, sustainability and contextual factors

489. Since the program seeks to apply the M4P model to education, the theory of change underpinning its various components fundamentally relies on market forces to perpetuate and reproduce its impact. These generally fall into either the category of supply-driven forces or the demand-driven forces category.

490. Supply-driven pathways to impact utilise market competition among private schools: if the quality of education provided by a group of schools increases, this puts pressure on the rest of the schools competing in the market to follow suit in order to be able to stay in business. Since such effects are hard to measure qualitatively and are unlikely to be observed extensively given the relatively recent roll-out of DEEPEN's interventions, the evaluation does not aim to assess the size of such effects, their prevalence in Lagos or their geographical distribution. Instead, it aims to identify the conditions under

which such effects can emerge and study the contributing factors to these market-induced scaling impacts.

491. On the demand side, the extent to which parents and other family members participating in school-related decision-making are aware of the relative differences among schools and able to make informed decisions plays a crucial role in effect scaling through market forces. While a limited group of parents and family members has been exposed to messaging about school quality as part of DEEPEN interventions, their increased awareness is likely to spread through word of mouth and other mechanisms and enable families without any prior link to the program to become more informed consumers of educational services. Studying the factors contributing to the organic spread of awareness about school quality is therefore key to modelling the impact of the program.
492. *Sustainability and contextual factors:* Given that both the political climate and the economic situation in Nigeria have had major impacts on DEEPEN's implementation, studying the role of these contextual factors is key to understanding the sustainability of the program, its limitations and vulnerabilities to future shocks.

D.3 Sampling

493. Different sampling methods will be used for different evaluation strands, as appropriate to the goals of each strand:

Strand	Sampling strategy	Goal
Strand 1 (DEEPEN-exposed schools)	Stratified typical case sampling	Sufficient representation of different categories of "intervention schools"
Strand 2 (non-DEEPEN-exposed schools)	Emergent critical case sampling	Identification of deviant positive cases of schools indirectly benefiting from the program
Strand 3 (service providers)	Typical case sampling	Representation of a variety of perspectives from different kinds of service providers DEEPEN has engaged with
Strand 4 (experts)	Purposive sampling, snowball sampling	Variety of expertise represented in order to try to minimise biases of individual experts
Strand 5 (internal staff)	Purposive sampling	Reaching full saturation

494. *Strand 1:* The sampling strategy will be designed to identify typical cases in different strata of schools. Stratification will take place along two dimensions: the length and intensity of exposure to DEEPEN interventions. 'Intensity' refers to a composite measure of two factors: the number of interventions a school has received, and where available, the "amount" of individual interventions (e.g. the number of modules of school improvement a school participated in). Sample size will be 20 schools, distributed as follows:

Intensity/length of exposure	Short exposure	Medium exposure	Long exposure
Low intensity	1	2	3
Medium intensity	1	2	3
High intensity	2	2	4

495. The distribution is skewed towards long exposure/high intensity schools, because of the evaluation's focus on the long term effects of DEEPEN. The delays in rolling out some of the interventions have meant that even a 'maximum exposure' school would likely not have been classified as having a high exposure to DEEPEN under the program's original conception. Schools for which previous data from EDOREN and or internal reviews is available will be prioritised in sampling in order to maximise the probability that triangulation can be used in ascertaining longitudinal trends at school level. In our sampling of parents, we will aim to identify those who have children in multiple private schools in order to ensure their representation in interviews and focus groups. Research instruments will contain questions for such parents that will enable us to understand their decision-making with regards to sending children to different schools, as well as their views on how these schools compare to one another.
496. *Strand 2:* Since these would be schools with which DEEPEN has had no prior contact, they will be hard to identify. These schools would be, however, likely part of some of the same networks as schools in Strand 1, including formal networks such as school associations as well as more informal "neighbourhood" networks. Rather than selecting these schools ahead of the start of fieldwork, their selection will be opportunistic. For example, if in an interview a parent of a child attending a DEEPEN-exposed school with demonstrable quality improvement makes a comparison between this school and another, competing school, this might be a sign that a competitive relationship exists between the two schools which could have led to the other school following suit. Similarly, if during the course of an interview we encounter the mention of a key staff member from a demonstrably improved DEEPEN-exposed school transferring to another school, we can investigate whether any of the expertise that could reasonably be attributed to DEEPEN might have travelled with this staff member to another school. We will try to anticipate these different mechanisms of spreading of DEEPEN's impact, incorporate prompts into interview and focus group research instruments, and train field researchers working with these instruments to be able to probe respondents in ways that would solicit names of schools that can be researched as part of this thread.
497. The leads for schools in this strand will be solicited from different stakeholders depending on specific interventions. For interventions that might impact on school quality as perceived by parents (school improvement services), we will solicit suggestions from parents as well as school staff. For interventions whose visibility to parents is not likely to be very high (school access to microfinance), we will focus on obtaining leads from schools and service providers.
498. No fixed amount of time is allocated for this strand in our schedule; if and when promising leads emerge, we will pursue them using the 'flexible' quota of fieldwork days (see the section 5 on the allocation of days to strands).
499. *Strand 3:* In this strand, we will conduct interviews and focus groups with the staff of providers supplying various services to private school in Lagos. We will use DEEPEN's database of providers to ensure representation of different kinds of providers in our sample.
500. *Strand 4:* Experts for this strand will be identified through two main mechanisms. First, published work about private schooling, as well as the economic and political situation in Nigeria will be used to identify scholars and journalists who might be in a position to make informed comments about any recent changes in the private school market in Lagos. Second, interviews with headteachers in Strands

1 and 2, as well as interviews with DEEPEN and DFID staff in Strand 4, will include questions that would allow us to identify further individuals perceived to possess relevant expertise.

501. *Strand 5*: This strand will seek to capture the perspectives of all key decision-makers within the DEEPEN and DFID teams, who will be interviewed in-depth. Additionally, focus group discussions with remaining staff will ensure full inclusion of all staff.

D.4 Data analysis

502. The data analysis will follow a sequential, iterative process designed to identify patterns of convergence and divergence within and across data sets. In particular, the analysis will focus on identifying all unique insights into causal pathways to impact of individual interventions, the interactions of these pathways with contextual factors, any contravening forces that limit the potential for impact, and any synergistic effects of multiple interventions. Once a register of all such unique insights has been constructed, the analysis will proceed by identifying insights that find support in multiple data sources (multiple stakeholder groups and or multiple geographies) with the aim of triangulation and identifying the most strongly supported and consistent. The analysis will categorise insights both temporally and spatially in an effort to understand the role of any particular past trigger points (such as political and economic changes) and the role of geography in shaping mechanisms for impact.
503. As only one round of fieldwork is planned for this evaluation, our ability to bring preliminary analysis back to stakeholders and involve them in the next iteration will be constrained. It will be possible to do this to a larger extent with some of the stakeholder groups, particularly DEEPEN and DFID staff (stream 4-5), with whom we will continue to have ongoing contact during the data analysis phase. It is also expected that many of the experts and third party commentators will be reachable remotely and that we would be able to obtain their views on our preliminary analysis if necessary. Service providers, school staff, parents and students in Lagos (evaluation streams 1-3) would be considerably more difficult to reach. Therefore, we will involve local research staff in debriefings and discussions at the time of fieldwork which will be designed to solicit their ideas on any patterns they see emerging from their interactions with stakeholders in streams 1-3. We will incorporate any preliminary findings that might emerge through these discussions into research instruments for the respective groups moving forward, and conduct follow up interviews/focus groups with the same respondents if the situation merits this. Building this flexibility into our fieldwork plan, as well as having an iterative approach to instrument design and re-design will allow us to involve local stakeholders in analysis in a limited way in spite of the fieldwork time constraints.

D.5 Qualitative limitations

504. The main limitations of the qualitative part of evaluation are presented in Table 11. Column one states the possible limitations, whilst column two explains why this is limiting and outlines how the impact evaluation will seek to mitigate this.

Possible limitations of qualitative component	
Possible limitation	Why this is limiting
Inference beyond the selected research sites is limited.	While DEEPEN will be examined at multiple levels of the education system, the findings of the research will reflect the particular LGAs and schools selected. This can be mitigated to some extent by purposively selecting the research sites; however, there remains a risk that the findings will be affected by the choice of LGAs and schools.
Given the non-representative nature of the qualitative selection of districts and schools, the information provided will be indicative.	The qualitative component of the evaluation will offer nuanced first-person accounts of people's perspectives and experiences of the DEEPEN activities without claiming that these accounts are representative of similar parents' and schools' experiences. When considered together with the representative quantitative results, the qualitative findings will provide interesting perspectives on underlying issues and factors that can determine the success of a programme such as DEEPEN.
The qualitative part of the evaluation covers all four outputs of DEEPEN and four evaluation criteria. It is thus very large in scope, which leads to a smaller sample than in a simpler design approach.	The breadth of the DEEPEN components to be implemented at multiple levels will necessarily put constraints on the ability of the qualitative research to analyse the impact of each component in depth. Nevertheless, the qualitative data generated during the key information interviews and focus group discussions, taken together with the quantitative findings, will offer a basis from which to draw conclusions about areas of strength and weakness in the DEEPEN programme.
Evaluation initially conceived as mixed methods; now scope much reduced	The evaluation was originally conceived of as a mixed-methods design. The qualitative strands are now going to attempt answering some questions that were originally to be answered with a combination of qualitative and quantitative analysis. What this means in practice is that while we will still have insights on these questions, we will not be able to attribute causality and any causal links we suggest will be speculative. And crucially, it also means that we cannot say anything about learning outcomes.

Annex E Communications plan

Key users, strategies and formats for communication for DEEPEN evaluation endline			
	National	State	International
Key evidence users	DFID Nigeria education team	DEEPEN	DFID education team
	FME	Lagos State Ministry of Education	DFID private sector team
	UBEC		
Secondary evidence users		Private schools in Lagos	Other organisations working in private education
	World Bank Nigeria education	School support businesses in Lagos	
	USAID Nigeria education	Media in Lagos	
	Nigerian education researchers		
Strategies for engaging users	Accessible written work: <ul style="list-style-type: none"> • National and local newspapers • Twitter • Blog posts • EDOREN newsletter • Email • Education-nigeria.org website. • Designed, printed and delivered policy briefs • Accessible education magazines • Journal articles • Report (on website and emailed) • Books 		Accessible written work: <ul style="list-style-type: none"> • UK newspapers • Twitter • Blog posts • EDOREN newsletter • Email • HEART website, OPM website • Journal articles • Report (on website and emailed) • Books
	Verbal presentations: <ul style="list-style-type: none"> • One to one meetings to present ppt • Education group ppt presentations (e.g. to DFID portfolio meeting or DEEPEN steering committee, or to local businesses and media) • National and local conference ppt presentations (e.g. Nigeria education Conference) • National and local radio and TV interviews 		Verbal presentations: <ul style="list-style-type: none"> • One to one meetings to present (e.g. to DFID London) • Conference ppt presentations (e.g. UKFIET, CSAE, DSA)

Key formats for presenting evidence	<ol style="list-style-type: none"> 1. Full mixed methods endline report - designed 2. PPT slides in PDF - designed 3. 140 character Tweet 4. 800 word blog post online 5. 3000 word policy brief - designed 			
Communication activities for DEEPEN evaluation endline				
Output	Audience	Purpose	Engagement	Branding
Full mixed methods endline report	Key and secondary users	To provide a detailed and accessible set of answers to the evaluation framework questions as a basis for programmatic decision-making in Lagos and elsewhere	Email to key and secondary users; put online on EDOREN, DEEPEN, OPM, Cambridge education sister programmes, HEART and DFID websites	UKAID, DEEPEN, EDOREN logos, clear titling, copyright EDOREN, DFID and DEEPEN
Presentation in PPT and PDF	Key and secondary users; global research community	To communicate key results from the endline effectively to key and secondary users and the global research community	Presentations in Lagos direct to Steering Committee, at Nigeria Annual Education Conference, at international conferences (UKFIET, RISE, CIES), and in small groups to key users as required	UKAID, DEEPEN, EDOREN logos, clear titling and acknowledgement
140 character tweets	Global and local education research and policy communities	To attract people to read the more detailed reports, policy briefs and newsletter articles	Individual researcher, EDOREN and DEEPEN twitter accounts	"@EDOREN, @DFID, @DEEPEN research..."
800 word blog post	Global and local education research and policy communities	To summarise the key findings, and attract people to read the more detailed reports, policy briefs and newsletter articles	EDOREN blog and newsletter, DEEPEN website, HEART blog, OPM website, email to key and secondary users	"@EDOREN, @DFID, @DEEPEN research..."

3000 word policy brief	Global and local education research and policy communities	To summarise key findings and influence research and policymaking	EDOREN blog and newsletter, DEEPEN website, HEART blog, OPM website, email to key and secondary users	UKAID, DEEPEN, EDOREN logos, clear titling, copyright EDOREN, DFID and DEEPEN
Communication Workplan for DEEPEN evaluation endline				
Activity	Person responsible	Date	Complete?	Notes
Draft endline report for DFID and DEEPEN review	Ian MacAuslan (IM)	13-04-2018		
DFID and DEEPEN review report	Esohe Eigbike (EE), Gaurav Siddhu (GS)	20-04-2018		Comments on draft report
Finalise endline report for EQUALS review	IM	03-05-2018		This should be a copy edited, formatted version with a separate sheet on how DFID and DEEPEN comments were addressed
Prepare PPT slides	IM	07-05-2018		
Draft 800-word blog post	IM	10-05-2018		
Draft 3000-word policy brief	IM	12-05-2018		
EQUALS comments	EE	13-05-2018		Two weeks
Finalise endline to incorporate SEQAS comments	SB	23-05-2018		This should be a final copy edited, branded, formatted version ready for dissemination, with a separate sheet on how comments were addressed. If EQUALS is red, need to build in an additional two weeks for EQUALS reviewing again
DFID signoff release of report, slides, policy brief, and blog post	EE	01-06-2018		Not a further review but signoff.

Email report, blog post and policy brief to key and secondary users; put online on EDOREN, DEEPEN, OPM, HEART websites		04-06-2018		
	EE			
Tweet about release of report, blog post	All	04-06-2018		