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Executive summary

DEEPEN

S.1. DEEPEN is an innovative, ambitious programme that aims to improve the quality of education provided by private schools in Lagos. It responded to growing evidence, provided through the Education Sector Support Programme in Nigeria (ESSPIN), that a majority of primary-aged children from poor and moderately poor households in Lagos attend private school. At the same time, there was limited public (or development partner) involvement in private education in Lagos, with both unaware of its scale and importance. As a result, there was limited measurement of education outcomes in the private sector.

S.2. DEEPEN was scoped in October 2011, designed from January to July 2013 by a Cambridge Education and Springfield team, and implementation began in September 2013, managed by Cambridge Education. There was a conscious decision not to directly support any private schools (there are an estimated 17,000–18,000 such schools), but instead to improve their effectiveness by supporting changes in the system in which they operate. 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. The UK Department for International Development (DFID) decided to adopt a market systems approach to address the core constraints in the private market system, identified in 2011 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.

S.3. DEEPEN aims to improve learning outcomes and conditions for children in private schools, particularly for children from poor households. Its expected result 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. DEEPEN focuses on making the market system work better by addressing constraints in four principal intervention areas, alongside a results and learning component. These intervention areas are:

- rules and standards;
- information;
- finance; and
- school improvement.

Evaluation purpose and methodology

S.4. DEEPEN’s evaluation has evolved substantially since 2014. The evaluation was designed in 2014 and was outlined in detail in an evaluation framework and plan reviewed by DFID, DEEPEN, and DFID’s quality assurance service (Education Operational Research and Evaluation in Nigeria (EDOREN) 2014). The evaluation plan envisaged three rounds of quantitative and qualitative data collection focused on measuring changes in learning outcomes in two Local Government Areas (LGAs) where a major DEEPEN intervention – the Graded Assessment of Private Schools (GAPS) – was expected to be rolled out. This was intended to generate robust evidence on the changes to learning outcomes that could be attributed to DEEPEN, in order to report against the business case objectives of a 6% increase in learning outcomes. During implementation, changes to the Lagos context outside DEEPEN’s control (specifically, a change in

government and a weakening economy) affected DEEPEN's roll-out – in particular, limiting the roll-out of GAPS. This meant that a change in learning outcomes was deemed unlikely to be measurable within the evaluation timeframe. As a result, and also in the light of DFID's global re-budgeting, DFID requested that the evaluation be redesigned without a midline, and without endline quantitative data collection. The revised evaluation framework and plan (EDOREN 2017) dropped the evaluation questions around learning outcomes, limited the scope of other questions, and limited data collection to qualitative data collected in 2017 and 2018. The evaluation covers the full set of DEEPEN intervention areas and activity in the period 2014 to 2017. Full details are available in the technical report.

S.5. The evaluation's purpose is now focused on generating learning from the experience of DEEPEN. In the absence of a midline, and given that DEEPEN ends in August 2018, the purpose of the DEEPEN evaluation at endline now has little formative role, and, in the absence of a measure of learning outcome change, a more limited role in providing accountability to DFID as regards DEEPEN's performance. The evaluation purpose is now more squarely focused on learning from DEEPEN for other contexts where non-state schools have a large role in providing education to children from poor households, as well as any potential future programming targeting private schools in Lagos. 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.

S.6. The revised evaluation questions focus on the following areas:

- **Effectiveness and impact:** Assessing DEEPEN's contribution to changes in learning and market system functioning – in particular, for children from poor households. Questions also explore the implementation of activities in DEEPEN's intervention areas, tracing DEEPEN's outcomes and impact (whether expected or not) along its theory of change. The questions also ask why different elements of DEEPEN worked or not, looking at DEEPEN's design, the context, and its implementation.
- **Sustainability:** Asking whether DEEPEN's outcomes and impacts will be sustained once DFID funding stops.
- **Efficiency:** Asking whether DEEPEN's outcomes and impacts represented value for money for DFID.
- **Relevance:** Asking whether DEEPEN's design was appropriate given the context in Lagos at the time of design and today. In this report, questions on DEEPEN's relevance are largely answered as part of the explanation of its effectiveness and impact.

S.7. The evaluation approach is theory-based. We trace DEEPEN's impact along its theory of change from activity to changes in learning outcomes. The theory-based analysis assesses DEEPEN by following its theory of change and gathering 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. The revised evaluation plan relies on a mix of primary qualitative data collected by EDOREN in 2017, quantitative data collected by EDOREN at baseline, and quantitative data collected by DEEPEN's results measurement component.

Key findings

Effectiveness and impact

S.8. DEEPEN interventions were well targeted to schools serving children from poor backgrounds, but did not appear to have benefited meaningfully (i.e. in a way that is, in the evaluation team's view, likely to contribute to sizeable future improvements in learning outcomes) many of these schools and learners. Much of the programme's impact was constrained to school-level changes and did not translate into learning outcomes at the time of endline evaluation. This was mainly due to obstacles to implementing GAPS that came from the Lagos state government, the programme's slow revision of its approach in the

face of these challenges, and what appears to be a limited ability of low cost schools to benefit meaningfully from a number of DEEPEN interventions.

S.9. While DEEPEN had an overall positive effect on private school performance, the gains in low cost schools were more modest. 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 also could not usually afford to pay for school improvement and business development services, despite their increased affordability as a result of DEEPEN.

S.10. Headline results by workstreams are as follows:

- **Rules and standards:** This workstream succeeded in changing government perceptions and practices vis-à-vis private schools, as well as altering a number of policy documents underpinning these practices. This has produced a more favourable regulatory environment for private schools.
- **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.
- **Finance:** A provider of credit—Accion Bank—developed a product aimed at low cost 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. Other providers had not yet followed suit at the time of endline evaluation fieldwork¹, and 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. The poorest of low cost schools are still unable to afford to pay for school improvement services, however, and the providers are more focused on medium- and high-fee schools, since they see these markets as more lucrative.

Sustainability

S.11. By the standards of most market systems programmes, it is too 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 has not been achieved and needs further support to fully materialise, as well as areas where it is unlikely to be achieved unless changes are made.

S.12. 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 Bank'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 business development services specialising in improving school management and school improvement services aimed at pedagogical improvements are also sustainable. These services are already operating with minimal outside support and are likely to be sustained. The extent to which they are likely to scale, however, is questionable given that demand for school improvement services, in particular, appears to be limited (a finding based on endline qualitative research with a small sample of schools), especially among proprietors of low-fee private schools.

S.13. The likelihood changes in the regulatory environment being sustained also seems promising. DEEPEN has helped to raise awareness and change the assumptions about private schools of some key government officials, and these have now been translated into a number of official government documents. As DEEPEN's experience has shown, however, the regulatory environment can change drastically in response to changes in the political dispensation, and so the long-term sustainability of these changes depends on a continued favourable political environment.

¹ Although more suppliers have joined this market subsequent to fieldwork, as noted by DEEPEN.

Efficiency and value for money

S.14. DEEPEN's value for money is difficult to assess in relation to other programmes, largely due to the absence of learning outcomes data, and the different timeframes, budgets, and implementation modalities of other large Nigeria education programmes. Nevertheless, the evidence supports the intuitive idea that DEEPEN's market-based approach is cheaper than direct intervention (through, for example, organising teacher training or parent–teacher associations (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.²

Relevance

S.15. 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 school improvement services and factors influencing school choice, where evidence has emerged that markets are less amenable to change than was originally anticipated.

S.16. Given the large number of children from poor households in private schools, supporting the private education sector in Lagos is pertinent, although there are also large numbers of children from poor households in public schools. A market systems approach like DEEPEN is a pertinent – and necessary – way of doing this given the constraints to effective market functioning. Given that DEEPEN has not yet led to detectable changes in learning outcomes, we cannot conclude that a market systems approach is sufficient to improve learning outcomes, particularly for the poorest. At this stage, in the evaluation team's view, the benefits of some of DEEPEN's interventions may not be as meaningful for the poorest, in terms of their likelihood to lead to learning outcome improvements. This raises questions about equity and the extent to which different socioeconomic groups might benefit from a programme like DEEPEN.

S.17. At baseline, a conclusion was reached that the programme's aim of providing a more supportive regulatory environment for private school was in line with the government's recognition of the role of private schools in the state and its openness to 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.

Conclusions and recommendations

S.18. The key factor that facilitated DEEPEN's implementation was the flexible approach in specific areas of some of the workstreams, which allowed the programme to adapt to the external challenges. Most notably, the focus on 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.

S.19. The biggest 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 impacted negatively on all of DEEPEN's workstreams. The fact that GAPS did not roll out at scale severely constrained the impact potential of all of DEEPEN's interventions. A further constraining factor was the economic recession of 2014/15, 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.

S.20. We strongly recommend that the Government of Lagos continue to roll out GAPS as they plan, and maintain a supportive attitude towards the regulation of education markets in Lagos.

² That both programmes tend to score As in annual reviews is not very instructive for this type of comparison.

S.21. There is a strong case for continuing technical assistance to 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). 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.

Lessons

S.22. While the inability of the programme to bring about sustainable, systems-level transformation of the kind envisioned in its theory of change 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 can be attributed to the challenges that are specific to the context in which DEEPEN operated.

S.23. Several key lessons for the applicability of M4P to education emerge from DEEPEN, however:

- political economy is critical in seeking to transform private education markets; 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;
- there is a need to be realistic about timing and cautious about setting overly optimistic targets;
- learning outcomes may need to be complemented by other indicators to capture the impact of an M4P programme in education;
- it is important to closely monitor the impact on the poorest students; and
- the equity concerns raised by the endline evaluation suggest that long-term, M4P programmes may need to incorporate or be complemented by a more direct public subsidy.

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List of abbreviations

AFED	Association for Formidable Educational Development
BDS	Business Development Services
CSO	Civil Society Organisation
DEEPEN	Developing Effective Private Education in Nigeria
DFID	Department for International Development
EDOREN	Education Operational Research and Evaluation Nigeria
ESSPIN	Education Sector Support Programme in Nigeria
GAPS	Graded Assessment of Private Schools
GEP3	Girls' Education Project Phase 3
JSS	Junior Secondary School
LGA	Local Government Area
LSETF	Lagos State Employment Trust Fund
M4P	Making markets work for the poor
NAPPS	National Association of Proprietors of Private Schools
NGN	Nigerian Naira
OPM	Oxford Policy Management
P	Primary Grade
PTA	Parent–teacher association
SIS	School Improvement Services

1 Introduction

1. This report synthesises findings, recommendations, and lessons from the final evaluation of the DEEPEN programme, which has operated in Lagos since 2013 at a cost of nearly GBP10 million. The evaluation was conducted between 2014 and 2018, and was carried out by EDOREN. Both DEEPEN and EDOREN are funded by DFID.
2. DEEPEN is an innovative programme that takes – for the first time, as far as we are aware – a market systems approach to improving education. Based on the observation that around two-thirds of children in Lagos schools attend private schools, DEEPEN seeks to catalyse sustained changes to the ‘education market’ that will improve the quality of schools, and therefore learning outcomes – particularly for children from poor households. It does this by seeking to improve the functioning of key parts of the market system: i) the rules and standards governing private schools, ii) information on private schools, iii) private schools’ and parents’ access to financial services, and iv) private schools’ access to school improvement services. DEEPEN is designed to be adaptive: a results and learning function aims to measure the success of different activities in these four areas to inform decisions to stop, adapt, or continue.
3. The evaluation of DEEPEN aims to learn whether this innovative market systems approach to improving education in private schools works, and what features of design, delivery, and context support this. This will help inform the Government of Lagos’ and partners’ decision regarding how to take this agenda forward in Lagos. In addition, DFID and partners expect that lessons from the DEEPEN evaluation can be applied to other contexts, both in Nigeria and beyond. At this endline stage, the evaluation has limited value for formative or accountability purposes, but over the last four years the evaluation has contributed to DEEPEN’s own learning and to DFID’s annual reviews.
4. This synthesis report is based on a companion technical report, which discusses the evaluation methodology at length and answers each evaluation question one by one. Readers interested in this degree of detail should consult the technical report. This report aims to present the evaluation findings in an accessible way to offer the reader a clear statement and explanation of:
 - DEEPEN’s outcomes and impacts on learning and the private sector system in Lagos, discussed in the light of DEEPEN’s theory of change and design, the way in which each DEEPEN intervention area was delivered and managed, and the changes to the context in Lagos. This is set out in section 3;
 - the likely sustainability (Section 4) and value for money (Section 88) of those outcomes and impacts;
 - the relevance of DEEPEN’s design, both when it was designed in 2011 and today, discussed in Section 6; and
 - recommendations for DEEPEN, DFID, and other policymakers and researchers, and lessons learned from the evaluation (Sections 7 and 8).
5. The next section provides a short summary of the background to DEEPEN and to the evaluation.

2 Project and evaluation background

2.1 Objectives, scope, and intervention strategy of DEEPEN

6. **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, provided through ESSPIN, 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.
7. In response to this recognition, DEEPEN was scoped in October 2011, designed from January to July 2013 by a Cambridge Education and Springfield team, and implemented from September 2013, managed by Cambridge Education. There was a conscious decision not to directly support any of the private schools (an estimated 17,000–18,000), but instead to improve their effectiveness by supporting changes in the system in which they operate. 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.
8. DEEPEN’s **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).
9. DEEPEN’s **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.
10. **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 and specific activities within them are as follows:

Rules and standards

11. **GAPS.** This was conceived during the design phase as a major DEEPEN intervention, considered 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 Ministry of Education’s 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. For each star the school receives an assessment as to whether it is ‘emerging’, ‘establishing’ or ‘enhancing’, on the basis of a series of questions around

management and governance, quality of the learning environment, and quality of the teaching environment (see Lagos State Ministry of Education 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 from the government and on the Lagos government website. GAPS was expected to be rolled out 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.

12. **Multiple taxation.** This focuses on a key constraint raised by schools - 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..
13. **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

14. **Media development for education intervention.** This intervention focuses on providing technical assistance for media houses to improve their capacity to report, and interest in reporting, on private education, providing information to key stakeholders – parents, school proprietors, service providers, government etc. Within this intervention area there was also a plan to build a database of information on education in Lagos.
15. **Building civil society organisations' capacity to provide information on school quality to parents,** with a focus on supporting 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:

16. **Mobile money payments.** This intervention aims 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.
17. **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 help parents keep their children in school in a context of fluctuating incomes. However, the intervention was not rolled out in a substantial way.

To enable schools to invest in improvements:

18. **Finance for schools.** This intervention aims to connect schools and financial service providers, by first raising awareness amongst the latter of the scale and potential of this market.
19. **Business development services.** 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 aims to stimulate a market for business development and financial management services for schools, rather than intervene directly to provide training. This

includes building the capacity of financial institutions to provide support to schools, and helping them develop relevant products.

School improvement

20. **School improvement services:** DEEPEN aims 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 school improvement services. As with the business services intervention, this involves 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.
21. **These four intervention areas were designed to be mutually supporting.** For example, the GAPS that would allow the government to regulate schools in a more nuanced way (and which fell therefore 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 invest.
22. 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.
23. We return to DEEPEN's design and the theory of change in the section on effectiveness. EDOREN (2014) provides a detailed discussion of the background of DEEPEN and the technical report contains much more detail.

2.2 Purpose, scope, and users of the DEEPEN evaluation

24. **DEEPEN's evaluation has evolved substantially since 2014.** The evaluation was designed in 2014 and was outlined in detail in an evaluation framework and plan reviewed by DFID, DEEPEN, and DFID's quality assurance service (EDOREN 2014). The evaluation plan envisaged three rounds of quantitative and qualitative data collection, focused on measuring changes in learning outcomes in two LGAs where GAPS was expected to be rolled out. This was intended to generate robust evidence on the changes to learning outcomes that could be attributed to DEEPEN, in order to report against the business case objectives of a 6% increase in learning outcomes. During implementation, changes to the Lagos context outside DEEPEN's control (specifically, a change in government and a weakening economy), affected DEEPEN's roll-out— in particular, limiting the roll-out of GAPS. This meant that a change in learning outcomes was deemed unlikely to be measurable within the evaluation timeframe. As a result, and also in the light of DFID global re-budgeting, DFID requested that the evaluation be redesigned without a midline, and without endline quantitative data collection. The revised evaluation framework and plan (EDOREN 2017) dropped the evaluation questions around learning outcomes, limited the scope of other questions, and limited data collection to qualitative data collected in 2017 and 2018. The evaluation covers the full set of DEEPEN intervention areas and activity in the period 2014 to 2017. Full details are available in the technical report.
25. **The evaluation's purpose is now focused on what can be learned from DEEPEN for future programming.** In the absence of a midline and given that DEEPEN ends in August 2018, the purpose of the DEEPEN evaluation at endline now has little formative role, and in the absence of a measure of changes in learning outcomes a more limited role in providing accountability to DFID for DEEPEN's performance. The evaluation purpose is now more squarely focused on 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.

26. The key users of the evaluation have not changed, they are:

- i. DFID Nigeria;
- 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.

2.3 Evaluation design and methods

27. The original list of evaluation questions was developed based on DFID's criteria for what to evaluate, the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee evaluation criteria, a review of approaches to evaluating M4P programmes, a review of the theory behind DEEPEN and DEEPEN's theory of change, 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. As a result of the changes to DEEPEN and the evaluation, questions requiring a rigorous assessment of learning outcomes were dropped, and questions on DEEPEN's impact on, and sustainability in, the market, and on scale, were added.

28. The revised evaluation questions focus on the following areas:

- **Effectiveness and impact:** assessing DEEPEN's contribution to changes in learning and market system functioning – in particular, for children from poor households. Questions also explore the implementation of activities in DEEPEN's intervention areas, tracing DEEPEN's outcomes and impact (whether expected or not) along its theory of change. The questions also ask why different elements of DEEPEN worked or not, looking at DEEPEN's design, the context, and its implementation.
- **Sustainability:** asking whether DEEPEN's outcomes and impacts will be sustained once DFID funding stops.
- **Efficiency:** asking whether DEEPEN's outcomes and impacts represented value for money for DFID.
- **Relevance:** asking whether DEEPEN's design was appropriate given the context in Lagos, at the time of design and today. In this report, questions on DEEPEN's relevance are largely answered as part of the explanation of its effectiveness and impact.

29. A full list of questions, approaches to answering them, and the answers are presented in the technical report. This also contains details on inclusion and ethics, governance, and the evaluation communications plan.

2.3.1 Evaluation design and methods

30. **The evaluation approach is theory-based.** We trace DEEPEN's impact along its theory of change, from activity to changes in learning outcomes. The theory-based analysis assesses DEEPEN by following its theory of change and gathering 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. The revised evaluation plan envisaged using a mix of primary qualitative data collected by EDOREN in 2017, quantitative data collected by EDOREN at baseline, and quantitative data collected by DEEPEN's results measurement component.

31. Several strands of qualitative work were undertaken in late 2017 and early 2018. These strands reflected the multiple evaluation aims that had been identified in the original evaluation framework and ones that have 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, 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.
32. These four aims helped us identify scaled, ‘system-level’ consequences of DEEPEN, which is relevant to questions of relevance, effectiveness, impact, and sustainability. 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 groups 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 (i.e. academics, researchers, and private sector stakeholders with a long-term engagement with the private education market in Lagos) (interviews); and
 - representatives from media, school improvement institutions, and financial institutions (interviews).
33. Informed consent was given by all participants and anonymisation was maintained for all individuals and organisations that contributed to the evaluation.
34. The quantitative analysis methodology was based on 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.
35. The only micro (raw) data which were made available by DEEPEN were the Logframe Survey for 2016 and 2017, and the tax sensitisation data. The analysis from the Logframe Survey used the head teacher and parent questionnaire, which provided more detailed information on school and parental activities. These 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.
36. In most cases the results from like-for-like questions in 2016 and 2017 were compared to monitor the change in responses over time. Similarly, like-for-like questions were compared over time for the two NEDS surveys. 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. 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.

37. The data analysis techniques deployed by the evaluation team changed as a result of the evaluation redesign. 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 triangulation between different qualitative strands (as well as secondary sources and DEEPEN’s internal monitoring and evaluation), iterative instrument design (evolving the instruments in response to data collected), reflexivity (conscious efforts to eliminate biases), rigorous coding and collaborative analysis to minimise individual biases and subjective judgments. 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.

2.3.2 Limitations to the methodology

38. 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 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 like 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 was initially conceived as mixed methods; now, its scope is much reduced.	The evaluation was originally conceived of as a mixed-methods design. The qualitative strands now attempt 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 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.

2.3.3 External validity of the findings

39. Learning from DEEPEN for other contexts (as well as for the design of potential future programming in Lagos itself) 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 the evaluation findings is largely dependent on the ability of the evaluation to develop a sufficiently ‘thick’ description of the context in Lagos and therefore being able to make inferences about the potential applicability to other contexts. This thick description was anticipated to come from three rounds of qualitative and quantitative research, which was to include gathering substantial data about contextual factors and alternative explanations for detected changes in outcomes. This was not possible under the stripped down evaluation design. This all reduces the ability to learn for other contexts.

40. 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.

3 Effectiveness and impact

41. This section answers evaluation questions related to DEEPEN's ability to generate the envisioned outcomes. It is organised around three key questions, as detailed in the box below.

3.1 DEEPEN's theory of change and delivery

42. As outlined in Section 2.1 above, DEEPEN's approach to improving private schools in Lagos revolves around four intervention areas: rules and standards, information, finance and school improvement. The underlying theory of change linking interventions in these four areas to desired impact rested on the assumption that DEEPEN's activities would increase the understanding of stakeholders of key educational issues, increasing their capacity and highlighting incentives for change. At the system level, market players (such as the government, media, and various service providers) would become more supportive of private education, and increased parental pressure for effective competition would provide a further incentive for quality improvement. At the level of schools, principals, proprietors and teachers would invest in improved capacity and better learning conditions, and children would in turn respond to these improvements by achieving better learning outcomes. (DEEPEN 2014a: 5)

43. DEEPEN was not able to implement all of the originally planned interventions. Crucially, GAPS was not rolled out due to political resistance by the Lagos state government. This intervention served a particularly important role in DEEPEN's theory of change: it was seen not only as a way to substantially improve the regulatory environment and aid in the process of 'legalising' private schools, but it was also designed as a mechanism for providing stakeholders with better information about school quality and therefore generating incentives for quality improvement and investment. All four workstreams envisioned pathways to impact that would be enhanced by a successful large-scale roll-out of GAPS, and all were heavily impacted by its absence.

44. Another notable intervention that was not implemented was the mobile money programme that aimed to help parents to pay school fees on time: a substitute demand-side solution to this problem was not implemented as part of the finance workstream, as a result of which this workstream focused almost exclusively on supply-side solutions, mainly access to credit for schools. While the information and school improvement workstreams were able to deliver on implementing the planned interventions, the scope and impact of these was reduced, largely due to the absence of GAPS, as well as due to other economic and political factors.

3.2 Findings

45. The findings related to DEEPEN's effectiveness and impact are organised around three key evaluation questions, with the last question containing subsections divided by DEEPEN workstream, as outlined in the box below.

Summary answers to evaluation questions	
Did DEEPEN lead to better learning outcomes?	DEEPEN's interventions were well targeted to schools serving children from poor backgrounds, but do not appear to have meaningfully benefited many of these schools and learners at this point. Much of the programme's impact was limited to school-level changes and did not translate into learning outcomes at the time of endline evaluation. This was mainly due to obstacles to implementing GAPS that came from the Lagos state government, the programme's slowness in revising its approach, and the long timeframe required for changes in learning outcomes to appear – arguably longer than the time that has elapsed so far.
Did DEEPEN lead to better private sector school and system performance?	While DEEPEN had an overall positive effect on private school performance, the endline evaluation team detected only very modest changes in behaviour in the low cost schools that were surveyed. 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 also often could not afford to pay for school improvement and business development services, despite their increased affordability as a result of DEEPEN. Improvements to the rules governing the market (such as students from private schools being able to take exams or more flexible approval systems) are yet to translate into very substantial changes in school behaviour.
What were the impacts and outcomes of DEEPEN's intervention areas (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, as well as some of the policies underpinning these practices. This means a more favourable regulatory environment for private schools, although the long-term sustainability of these gains will depend on a continued favourable political environment.</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—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. Other providers have not yet followed suit at the time of endline evaluation fieldwork, but did shortly thereafter. The workstream did not manage to make progress with savings schemes for parents.</p> <p>School improvement: Several providers developed affordable school improvement programmes aimed at private schools. The endline evidence indicates that the poorest of low cost schools might be still unable to afford to pay for school improvement services, however, and the providers are more focused on medium- and high-fee schools, since they see these markets as more lucrative.</p>

3.2.1 Did DEEPEN lead to better learning outcomes?

Learning outcomes were not measured as part of the endline evaluation; neither are any recent data available from DEEPEN's internal monitoring and evaluation. It is too early to assess the impact of the programme on learning outcomes, and given the implementation challenges, the extent of school-level change that can be reasonably expected to lead to learning outcome improvements in the future is also limited, particularly in low cost schools.

46. Average learning outcomes measured at baseline were higher than the programme assumed at inception (EDOREN, 2016). However, fewer children achieved the expected Primary Grade 3 (P3) level for numeracy than for literacy. There was therefore room for improvement, especially in low- and medium-fee schools (EDOREN, 2016). DEEPEN was implemented within a context in which there was a

growth in private schools (EDOREN, 2015b). There were multiple factors that contributed to the growth of private schools, including insufficient public schools to meet the demands of the rising population (EDOREN, 2015b), perceptions regarding the quality of public schools, and parents' preference to send children to nearby schools that are closer to their homes.

47. Quantitative evidence from the DEEPEN Comparison Study (2016) shows that children going to private school are more proficient than public school children in English literacy, and are less proficient in numeracy compared to government schools. In public schools, 30% of children are achieving below the proficiency level for literacy, as compared to 7% of children in private schools (EDOREN, 2017). The numeracy assessment shows that 74% of P4 public school children and 79% of private school children are achieving at or above the expected proficiency range (EDOREN, 2017).
48. Directly comparable learning outcome data were not collected at endline, in line with the changes in evaluation design. The main reason why it is unlikely that significant changes would be observed at this point is that DEEPEN's synergistic theory of change—the ability of the four workstreams to jointly contribute to a causal impact chain leading to learning outcome improvements—crucially depended on the large-scale roll-out of GAPS, which to date has not taken place due to the government's unwillingness to participate. The programme was slow to alter its approach in light of the challenges to GAPS and this, coupled with the contextual factors of political resistance, has meant that many of the causal chains envisaged in DEEPEN's theory of change did not materialise.
49. The qualitative endline indicates that a number of schools have benefited from some of the interventions, and that in some cases this has led to improvements in pedagogical practices, the learning environment, and other school-level changes at the output level. Various combinations of DEEPEN's interventions have in some cases led to positive changes that are likely to be attributable to DEEPEN, based on the 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 at this point quite far removed from the learning outcomes in the imagined causal chains underpinning DEEPEN's theory of change, as discussed in detail in Section 4.2.1.2 of the technical report.
50. It is likely that some gains in learning outcomes will be observable by 2020 as a result of these changes, but the lack of 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 targeted. 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 manifest themselves, and that measuring learning outcomes several years after the end of the programme, in, say, 2023, would be more likely to yield meaningful data.
51. 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 of schools in quality, crowding in of service providers, parents' awareness of school quality) that might take a long time to cause improvements in learning outcomes. Nevertheless, it would be helpful to have more fine-grained data on these in order to be able to track the empirical performance of the programme in relation to different assumptions made in the underlying theory of change.

3.2.2 Did DEEPEN lead to better private sector school and market performance?

As a result of DEEPEN, gains have been made in the performance of both the market for private education and in the associated markets for the provision of services to schools. However, the benefits to low cost schools have been limited, and while there are children from poor households in medium-fee schools that have benefited more, the very significant number of children from this socioeconomic group that depend on low cost private schools has seen more modest improvements in school performance.

52. Under DEEPEN's theory of change, better understanding (by both parents and schools) 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 face competitive pressure from parents, teachers, and pupils to improve (Mott Macdonald, 2014, p. 6). Since programme interventions on both sides have not taken off as planned, DEEPEN cannot be expected at this point 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 benefited from Business Development Services (BDS) and School Improvement Services (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 improved parental understanding of quality.
53. While DEEPEN was able to help service providers create low cost school improvement products, and thus improved the performance of this market, the endline evaluation also found that proprietors were reluctant to invest in training their staff due to the perception that it better positions staff to move jobs. 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 looked at (low cost) private school jobs as temporary, or had better alternatives, DEEPEN was able to improve pedagogy via trainings with limited success. For schools whose staff received training, changes may be expected to be more likely along those aspects of good pedagogy already commonly understood as 'good' or valuable. The peer-to-peer learning cluster has been shown to be useful in encouraging continued engagement with what was learnt in the modules.
54. 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).
55. 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. This categorisation roughly followed the categorisation used in a DEEPEN poverty paper (Tooley 2013) 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.³

56. 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. This could imply that up to 50% of households in most schools that participated in DEEPEN interventions were from the richest 17% of households in Lagos, but the data are not robust enough to make this claim. 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.
57. 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 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.
58. 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.

3.2.3 What were the impacts and outcomes of DEEPEN's intervention areas?

59. The impacts and outcomes of DEEPEN are discussed below for each of the four individual workstreams of the programme: rules and standards, information, finance, and school improvement.

3.2.3.1 Rules and standards

DEEPEN has succeeded in fostering a better regulatory environment for schools through improved practices and attitudes of key government figures. It has not managed to roll out GAPS, the key component of this workstream, however, and this has had major implications not only for the regulatory environment but also for interventions in other workstreams that depended on GAPS for generating the desired impact.

³ 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.

60. The lack of a large-scale roll-out of GAPS, for reasons discussed in Section 3.1, constrained DEEPEN’s ability to affect rules and standards for private schools in Lagos State. In spite of this major limitation, DEEPEN contributed to some important 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 Ministry of Education 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, and private school students can now more easily sit public exams. 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, 43% of school proprietors felt the process of registering private schools had improved over the last three years. High-fee schools were slightly more likely to feel an improvement than low cost schools (54.5% against 46.1%), while both types of schools indicated that registration added value (DEEPEN, 2017). Furthermore, the 2017 Logframe survey showed that 78% of schools (and 77% of low cost schools) felt that their experience of dealing with ministry officials was better or much better, and only 5% felt it was worse, than in the past.
61. 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.
62. As a result of these strategies, some individuals within the government are now considering steps towards 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 for all schools in Lagos State, private and public alike, replacing the current registration procedure. DEEPEN report that several policy documents issued by the government since the endline evaluation fieldwork took place now reflect policy positions that have been influenced by DEEPEN’s work, which is a major achievement and makes the sustainability outlook regarding these changes more favourable.
63. 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 approval process as prohibitively difficult. It should be noted, however, that some of these schools are nevertheless working towards approval, and since this is a lengthy process, it may not be completed during DEEPEN's implementation period for many of these schools. Replacing the approval process 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 to 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.

64. DEEPEN has also made inroads with the government of Kano State, where GAPS might also be taken up in the future, although there were no concrete signs of writing GAPS into this state's legislation at the time of the endline qualitative evaluation in December 2017.
65. With regards to taxation policy, while the endline qualitative evaluation did not reveal any consistent patterns in terms of positive changes, DEEPEN's internal surveys point to improvements. The 2017 Logframe survey indicated that 11% of school proprietors surveyed reported paying less illegal taxes than in the previous year. Regression analysis conducted by the DEEPEN team suggested that "medium- and high-fee schools are significantly more likely to be paying less in illegal taxes," which is unsurprising while low cost schools remain unregistered and illegal. A second indication of a potential improvement comes from the 2017 Tax Sensitisation Survey, which showed that amongst low cost schools, 12.9% indicated that they had been threatened by the tax authorities with closure of the school (DEEPEN, 2017). While there is no direct comparison for this figure, it is lower than might be expected given the lack of formal registration in these schools. Finally, 59% of schools in the 2017 Logframe survey felt that the process of paying taxes had improved compared with three years previously. 92% of high fee schools felt this, and 61% of low cost schools.
66. Despite these positive changes in regulation and tax, more than half the schools surveyed by the Logframe survey report that it has become more difficult to operate in Lagos, and only 34% that it has become easier. Given that overall the regulatory environment appears to have improved, this is likely because of increased competition from more supply and the general economic downturn (limiting demand). These changes are unlikely to be directly related to DEEPEN, although it is possible that more schools will start in a more favourable environment.

3.2.3.2 Information

DEEPEN has influenced media houses to think beyond quiz or spelling bees shows when thinking about education-based programmes. For most of 2017 three different channels have broadcast radio shows providing information relevant to improving parental understanding of good schooling. However, the extent to which parents listen to the radio on education-related matters is questionable, as is the sustainability of the radio programmes. The Civil Society Organisation (CSO) intervention, which could have sensitised parents in their constituencies on radio as a potential source of information, seems to have missed the possible synergies.

67. 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's mandate was to work with mass media organisations to increase the frequency and calibre of educational reporting. Beyond dissemination, DEEPEN also needed to work to demonstrate the importance, relevance, and reliability of information,

which would possibly involve sensitising parents to its value, with clear guidance on its use (Mott Macdonald, 2014, p. i).

68. As part of its mandate to engage with mass media organisations DEEPEN worked closely with radio stations to get them to dedicate airtime to discussing issues of education and to increase the frequency and improve the calibre of educational reporting by partnering with them to create weekly radio programmes on education issues. Based on feedback, including from the EDOREN baseline (2015), DEEPEN expanded its partnerships to radio stations that broadcast in Yoruba and Pidgin, as well as those that have a wider audience.
69. By the end of 2017, DEEPEN had been successful in engaging with three radio channels 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, choosing comfort over attractiveness in uniforms. All three stations cover issues affecting both government and private schools, which allows the possibility of learning from overlaps in relevant issues.
70. Interviews with the DEEPEN team revealed that continued reporting on education issues by these radio channels once DEEPEN finishes may not be guaranteed. The media industry, as attested by DEEPEN staff, is profit-driven and the three radio shows were being supported financially by DEEPEN for marketing and production. If the shows on education are not profitable they will be dropped, or else modified in a way which makes them financially viable. Unless independent producers for the show are found that will share profits with the radio station, the sustainability of radio stations reporting on low-cost private school quality is limited. Some of these programmes received sponsorship which would be crucial to their sustainability.
71. School-level fieldwork at the endline does not provide much evidence that parents listen to the radio to obtain information on education and school quality. Only one parent recollected that they heard on the radio that one should look at playgrounds and toilets when selecting schools. In general, the endline revealed that parents may not have been aware that there are radio shows from where they can get information on good schooling. This risk was identified early on and one recommendation was to use the CSO route for sensitisation. However, it must be noted that CSO interviews did not point to sensitisation work around accessing information for parents. It is not evident thus to what extent synergies between the CSO and the radio workstreams were tapped.
72. In addition to its work with radio stations DEEPEN rolled out an intervention targeted at CSOs to improve parental awareness of good quality education since the majority of parents rely on informal sources of information about school quality: for example, talking to other parents in the community. The 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).
73. DEEPEN's work with CSOs was 'combined with social mobilization 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, the main work involved setting up functioning parent forums in schools or reviving existing ones which were defunct, and setting up community forums to explore how the community could engage with schools. The CSO study 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 in schools which did receive the CSO intervention, parents have more information on the schools where their children study, as a result 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.

74. Lastly, the Programme for Improving Education Reporting for media executives was also started, under which DEEPEN hosted forums with media practitioners and executives. This is more relevant for the dissemination of evidence for policymakers than informing parental understanding of quality and is not discussed here.

3.2.3.3 Finance

DEEPEN did lead to some improvements in financial performance related to schools, but not to the extent envisaged. DEEPEN was able to facilitate loans from Accion to private schools at all fee levels using a subsidised line of credit from the Central Bank to Accion. Other providers of credit started to crowd in, but the sustainability of Accion's loans may depend on the continued credit subsidy. Parental saving schemes and mobile money interventions were only rolled out in a limited manner before being suspended. The access of unregistered medium and low cost private schools to credit was constrained by the delay in GAPS roll-out. BDS was also rolled out under the finance workstream to enable schools to function better as businesses, with the aim of subsequently accessing finance more easily.

75. DEEPEN's finance workstream was originally meant to focus on three intervention areas: (i) mobile money; (ii) saving schemes for parents; and (iii) access to credit for low-cost private schools. The mobile money intervention was discontinued in 2015, after initial pilots, as well as the EDOREN baseline report, pointed to its lack of feasibility. Supported by DEEPEN, a saving scheme was introduced by Accion Bank but it failed to take off and was discontinued. Accion Bank reported that this was because parents viewed the saving scheme more as a tool to help schools than to help them. Other than this, no other formal saving scheme was introduced by DEEPEN, though schools themselves promoted informal schemes to help parents, such as allowing them to pay fees in instalments, as was noticed in the baseline and endline research conducted.
76. The area in which DEEPEN focused its maximum attention was encouraging banks to lend to low-cost private schools, the majority of which are unregistered. In 2018, 1,415 schools received short-term loans (loans with terms of less than one year), and 244 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-term 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 duration to private schools.
77. DEEPEN's initial memoranda of understanding (MOUs) with banks, such as Sterling Bank and FCMB, were based on agreements that the banks would lend to unregistered schools if GAPS was rolled out. Unfortunately, due to the delay in GAPS roll-out these MOUs did not succeed, though in November 2017 Sterling Bank finally received an internal agreement to lend to unregistered schools without GAPS. Other lenders, such as the Lagos State Employment Trust Fund (LSETF), acknowledge private schools as a potentially lucrative sector to invest in but are still awaiting a tool such as GAPS to enable them to lend to unregistered schools. After fieldwork, the DEEPEN team report that these other providers are lending to private schools.
78. DEEPEN also engaged with Lotus Capital that has a Sharia law-compatible lending policy, including interest-free school loans (the payment of interest was of concern to Islamic schools). A DEEPEN team member noted that there has been an exchange with the League of Muslim School Proprietors to understand issues around access to finance that is Sharia-compliant. Among the endline sample schools, two were run by Muslim proprietors; one of them expressed that he could not access finance that was not Sharia-compliant. The other school accessed loans from Accion Bank, which has been the

only bank to roll out lending to private schools, including low cost schools (both registered and unregistered), in a substantial manner.

79. Accion Bank loans were designed keeping the characteristics of low- and medium-cost schools in mind. They were offered at a relatively affordable interest rate compared to the market as Accion managed to get subsidised credit from the Central Bank of Nigeria. This credit is no longer available and current rates are close to market interest rates, so there is a question about whether demand for these loans will be sustained at the higher interest rate, but DEEPEN report that they are still commercially viable and successful. The majority of loans (56%) were accessed by medium-fee schools, but 14% went to low cost schools (DEEPEN, 2017). The loans provided are mostly short-term and are earmarked as asset or working capital loans.
80. In addition, DEEPEN introduced a BDS intervention under the finance workstream. This had not been envisioned at the start of the programme but was the result of a more in-depth understanding of what would help low cost private schools to develop commercially. BDS training was composed of six modules. The content of the modules differed from provider to provider, but broadly consisted of: human resource management, leadership, marketing/customer relations, school planning, management for profit, and the importance of record-keeping (understanding financial management, financial record-keeping). By June 2017, 373 schools had accessed one or more BDS trainings, of which 353 schools were 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.
81. Through the endline fieldwork there is evidence that some knowledge and tools imparted in the training have been adopted by sampled schools. However, there is no evidence yet to show whether this has translated into improved profitability and a change in investment patterns. During endline fieldwork, proprietors, who usually attended BDS training, most often mentioned that these trainings have helped them keep better records, which is a step forward towards accessing loans and improved financial management in general. However, financial history is only one amongst many constraints to accessing credit (see Section 3.2.10). 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 the process to be completed relatively more easily (and thus made the schools 'loan ready'). The endline indicates that while proprietors mentioned conducting better record-keeping due to BDS, their ability to calculate profits and use this for decision making (via tools like the school development plan) was not often mentioned in interviews.

3.2.3.4 School improvement

DEEPEN contributed to the improved availability of teaching development initiatives and services for private schools. It introduced SIS providers to a potential market of low cost private schools, which they previously did not consider, and supported them to adapt their business models to serve this market. Despite certain challenges, schools have attended SIS training and benefited from them.

82. DEEPEN has improved the availability of teaching development initiatives and services by enabling access to school improvement services. By June 2017, 1,666 school staff were trained under SIS, of which 1,332 served low-income households (DEEPEN, 2017). 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 association offices and using flipcharts instead of projectors, to mention a few examples. By working with DEEPEN SIS providers also realised they could reach a large number of low cost schools by working with school associations, such as the National Association of Proprietors of Private Schools (NAPPS) and the Association for Formidable Educational Development (AFED), instead of having to conduct door-to-door visits, which would be more costly.

83. 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. There is also evidence from the endline that school proprietors are reluctant to invest in school improvement training for their teachers due to fear of teacher attrition. This is further supported by DEEPEN's 'My School Plus' study, which showed that no schools, regardless of fee level, are investing in the training of school managers or teachers, which is in line with claims by SIS providers that schools are not willing to pay for their services. The majority of credit is being used for infrastructure investments. This is unsurprising given that the endline fieldwork highlighted that parents do feel paying a higher fee is justified if the school provides a better environment, which is mostly understood to relate to infrastructure.
84. Despite these challenges, schools did attend SIS trainings. In addition, deliverable payments by DEEPEN to service providers was linked to the number of schools and teachers trained. Amongst those schools that were aware of private service providers, the percentage of low cost schools using low cost training services was fairly steady at 74% in 2016 and 77.2% in 2017. In addition, the average spending on teacher training increased from Nigerian Naira (NGN) 6,714 to 11,222 (DEEPEN, 2017). 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 produced some free training with the associations, to highlight its usefulness to its members, to improve uptake.
85. Visits to a small sample of schools during the endline fieldwork indicates that head teachers and teachers at low cost schools had been part of teaching development initiatives and benefited from them. The initiatives have provided insights to schools on methods of teaching and use of instructional material. 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.

4 Sustainability

86. This section explores the extent to which DEEPEN's impact is sustainable in the medium to long run after DFID's support is withdrawn. 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.
87. The analysis of sustainability in this section relies on data about both the supply and demand side of the private education market and associated markets for provision of services to private schools. While, on balance, more data are available to understand the supply side (and these data generally point 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 are thinner when it comes to the demand site, the evaluation therefore uses these 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 endline

As DEEPEN had a modest success overall in generating structural transformation to the market, many of its impacts are not 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 changes, particularly ones at the level of government practices vis-à-vis private schools, are likely to be sustained if the current favourable political climate continues. Other impacts, such as the gains generated through DEEPEN's information workstream, are unlikely to be sustained even under favourable outside conditions.

4.1 Findings

88. 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.
89. By the standards of most market systems programmes, it is quite early to assess 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 has not been achieved and needs further support to fully materialise, as well as areas where it is unlikely to be achieved unless changes are made.
90. 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, impacts that may or may not be sustained depending on exogenous factors outside of DEEPEN's control, and impacts that are unlikely to be sustained.
91. Where DEEPEN has succeeded in creating structural transformations in the market, its impacts are likely to be sustainable without further donor support. New products were created with DEEPEN's help, most notably Accion Bank'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 school improvement services aimed at pedagogical improvements are also sustainable. These services are already operating with minimal outside support and are likely to be sustained.
92. The endline's qualitative survey of 20 schools indicated that proprietors of over two-thirds of the sample schools did not think of school improvement services 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 methodology allowed us to interview proprietors at length and to gain an understanding of the complexities of their decision making, and while we cannot vouch for the generalisability of these findings to all private schools in Lagos, we believe that these results suggest demand for school improvement services appears to be limited at this point, especially among proprietors of low-fee private schools.

93. The sustainability of other impacts is promising, but is 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 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. There is, therefore, cause for optimism, even if, in the politically turbulent context of Lagos, sustainability is difficult to predict with a high degree of confidence.
94. 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. 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 a decline in their publishing of material about low cost 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 non-market-driven programme that requires continued funding to continue generating awareness among parents, is by design not sustainable after donor funds are withdrawn.
95. 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 roll-out of GAPS would not only turn altered government perceptions into policy (and thus make these impacts less dependent on continuity in staff and institutional memory), but could also lead to more stimulation in regard to the markets for financial and school improvement services, as well as in regard to the media's reporting about education quality in Lagos. While there are signs that this might happen, it is not possible to predict with confidence the likelihood of government's large-scale adoption of GAPS, especially in the current economic climate in Nigeria.

4.1.1 Vulnerability to exogenous changes

96. The significant negative impact of the change in political dispensation in 2015 and the economic recession of 2015 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 of the technical report).

97. DEEPEN has been highly successful in building capacity with another set of actors—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 4.2.2.1, 4.2.2.7 and 4.2.3.4 of the technical report 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 cost 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 pass on to future leaders the knowledge and skills they have gained as a result of DEEPEN’s capacity building efforts, and establish an apprenticeship-like system to do this, are promising. AFED’s ability to act as an advocate for low cost 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 (akin to the 2014/2015 political and economic changes) on DEEPEN-generated gains for low cost private schools.

4.1.2 ‘Scaled up’ effects in non-intervention schools

98. 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, the team sought to generate leads from schools that had directly benefited 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 conditions might be needed for such ‘ripples’ to emerge.
99. 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 that were willing to be included in the study. Of the seven schools in this category in the qualitative research, three emerged as having possible ‘ripple effects’, of which two can be reasonably linked to DEEPEN-induced change.
100. 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. 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 serving an important need. Seen from this perspective, 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.

101. 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 the willingness of schools to share best practices irrespective of competition. DEEPEN has recognised this potential in its work with school improvement services 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.

4.1.3 Sustainability of systems-level change

102. Though 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, the research team 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 during which 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 had put pressure on schools to increase their quality. This is a development that would have likely taken place irrespective of DEEPEN’s interventions, as the market has been showing signs of growth and increased competitiveness. 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 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.

103. There does seem to have been an improvement in the associated market for the provision of services to schools. The experts interviewed by the evaluation team picked up on the increased availability of more affordable services: this awareness was particularly strong with regards to school improvement services, with comparatively less awareness of 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.

104. 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 might also increase the sustainability of the positive impacts on the associated markets for school service provision that DEEPEN has already achieved.

5 Efficiency and value for money

105. This section addresses the evaluation of DEEPEN's efficiency and value for money with respect to its business case. The findings in this section rely on existing data – primarily, annual reviews.

High-level efficiency question at endline

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

106. 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.

5.1 Findings

107. DEEPEN's business case estimated costs of GBP9.6 million (DFID, 2013). The calculation of benefits was not straightforward and is not made at all clear in the business case.

108. Benefits in the business case were expressed in terms of the increased individual incomes resulting from improved learning for graduates from Junior Secondary School grade 3 (JSS3). The section on benefits for facilitating change uses the GAPS as a basis for estimates of 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 GBP21 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) are 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 not entirely clear. Applying a discount rate of 10%, these assumptions yield a monetary value of the benefit of GBP313.6 million, stated by the business case to be conservative.

109. There are four major difficulties with assessing DEEPEN's value for money in comparison with this business case objective. First, DFID and DEEPEN agreed to focus on primary schools rather than JSS. Second, with the cancellation of endline surveys and DEEPEN's outreach surveys, there are no data on improved learning outcomes or the number of JSS3 graduates affected by DEEPEN. Third, the component of the programme – the GAPS – that the business case estimates were based around was not fully rolled out. Fourth, there are no data available for the earnings of JSS3 graduates in Lagos, so this cannot be examined directly.

110. Up to and including the July 2017 review, DEEPEN annual reviews – the agreed data sources for answering these evaluation questions – have limited their discussions of value for money to the economy and efficiency with which the GBP9.6million 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.'

111. GBP32.10 per child is over 2.5 times more expensive than the business case's anticipated cost (even though this is still less than the GBP65 per child the DEEPEN business refers to in the ESSPIN school improvement projects). The per-student cost will be very dependent on the number of students that DEEPEN claims it is benefitting. It appears very odd that DEEPEN's costs are GBP32 per student benefitting from school improvement and around GBP100 per school participating in the school improvement workstream, since there are certainly more than three students per school. This needs further investigation.
112. At the same time, the calculation of per child benefits is focused on schools participating in particular interventions. To the extent that DEEPEN makes changes in the wider environment (e.g. through encouraging a more sympathetic government attitude to private schools or students taking exams), many more schools and students will benefit. The figure of GBP32 per child is therefore quite likely to be an upper estimate of the cost per student that DEEPEN reaches, and if some of the work with wider scope (i.e. activities affecting the market rather than individual schools) takes off, it would come down substantially.
113. The vast majority of spending (62% in 2017) was on staff (who are to some extent spread across the four DEEPEN intervention areas). Management and administration constituted 20% of expenditure. Programme activities accounted 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 was not provided in annual reviews (other than in 2013/14).
114. Without a measurement of the benefits this GBP32.1 provides, it is not possible to assess whether this represents good value for money, though given higher than expected costs per student and lower than expected numbers of students (at least if we focus on students in schools participating in specific interventions), it is likely that the value for money in terms of cost/benefit is lower than that in the business case.⁴ It is not clear, however, whether this value for money calculation, if known at the design phase, would have led to a different conclusion on whether to implement DEEPEN in its current form. It is also not clear what the value for money would be if the work on the wider environment accelerated.
115. 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 in regard to improving the quality of government schools, spent around GBP5,000 per school in 2015 (so about 50 times what DEEPEN spends).⁵ ESSPIN's per-student costs, however, are slightly lower than DEEPEN's, at GBP13.75 in 2015 (compared to DEEPEN's GBP32). This presumably reflects, in part, higher enrolment in schools where ESSPIN operates, but also the uncertainty around DEEPEN's per-student estimates noted above.
116. 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 (GBP796 vs GBP634 per day) and long-term technical assistance (GBP438 versus GBP261), but long-term costs were much lower than the Teacher Development Programme (GBP549). These data are, of course, difficult to compare directly, given the different composition of the technical assistance teams and tasks, and the various geographical locations across which the projects work. The range of average costs (GBP438, GBP261, GBP 549) for long-term technical assistance from these three Nigerian education programmes operated by the same company (Mott Macdonald/Cambridge Education) is evidence for the difficulty of making this comparison. 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.

⁴ The business case estimated a net present value of DEEPEN of GBP47 million.

⁵ Data come from ESSPIN's Project Completion Report. Similar data are not available for the Girls' Education Project Phase 3 (GEP3).

117. On balance, this evidence supports the intuitive idea that DEEPEN's market-based approach is cheaper than direct intervention (through, for example, 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.⁶

⁶ That both programmes tend to score As in annual reviews is not very instructive for this type of comparison.

6 Relevance

The extent to which DEEPEN is suited to the priorities and policies of poor households and children in Lagos, the Lagos state and Nigerian federal governments, and DFID.

6.1 Findings

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. However, there are some specific areas, such as demand for school improvement services, mobile money, and factors influencing school choice, where evidence has emerged that markets are less amenable to change than 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.

6.1.1 DEEPEN's assumptions about primary education

118. 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 endline as well.
119. Learning outcomes were probably better in private schools than anticipated before DEEPEN was designed, but there is plenty of room for improvement. As found in the baseline and in 2016 and 2018, for the most part learning outcomes are lowest in low cost schools and highest in high-fee schools, though there are exceptions to this trend (EDOREN, 2015). Parents do care about school quality, though the way in which this is understood is complex and is not based on learning outcomes alone. Ultimately, school choice decisions are primarily influenced by location, cost and factors (such as infrastructure) that may be related to learning outcomes though in complex ways. Evidence has also emerged that suggests school choice decisions may be stickier than originally anticipated, keeping in mind the costs associated with changing school, such as buying new uniforms (DEEPEN 2017).
120. Learning conditions in low cost schools are typically inadequate and only a minority of schools are investing in teacher training, finance, and business development. However, through DEEPEN, schools,

including low cost schools, have accessed SIS and BDS training, confirming that a market for such services does exist. The market for SIS, however, may not be as strong for low cost schools as originally anticipated as recent evidence suggests that school proprietors are reluctant to invest in teacher training because of high teacher turnover. Evidence on how schools use credit in fact shows that schools, regardless of fee level, are not investing in school improvement and teacher training, with the majority of investment concentrated in infrastructure and classroom repairs (DEEPEN, 2017). Schools consider parent perceptions of school quality when making investment decisions and it seems parents are willing to pay more for better infrastructure. While schools also care about government rules and regulations, the requirements for registration and approval often seem so unachievable that this is not the main driver for investment decisions.

121. There may be viable market for financial services for low cost schools. Schools would like to access credit and support to help them improve management, but have limits to what they can afford to pay in terms of interest rates and training costs. Fee arrears by parents continue to be a problem, especially for already financially constrained schools and testing whether saving schemes for parents and other solutions can work still remains relevant. Mobile money has not taken off in Lagos as anticipated. Banks and other financial organisations do recognise the potential of schools as a portfolio, including low cost schools, but lack of registration continues to be a barrier, which the eventual roll-out of a tool such as GAPS can help tackle. Thus, difficulties in registration and approval continue to hinder schools from accessing credit – and consequently investing in school improvement.

6.1.2 Pertinence of approach and design

122. At a general level, the large numbers of children in private schools, including children from poor households, and the room for improvement in learning outcomes means that any programme focusing on the private sector is pertinent given a concern about education outcomes and poverty. Of course, there are also children from poor households (and indeed they are typically poorer than children in private schools) in public schools where learning outcomes remain poor. A focus on the private sector, therefore, while necessary, is not sufficient, to improve education for children from poor households.
123. A market systems approach to improving outcomes (as was DEEPEN's design) in the private sector is pertinent. The design work explored the possibility of alternative approaches, such as vouchers or some form of direct support to private schools. Vouchers were not considered good value for money given the costs of voucher provision and the low probability of government taking operational or financial responsibility within the DEEPEN timeframe. Direct support for 17,000 or more schools was prohibitively expensive. Findings from the evaluation confirm that a market systems approach is a pertinent design. There were – and indeed still are – clearly parts of the market system that constrain the ability of private schools to provide quality education, and these problems can be addressed with a market systems approach. DEEPEN has demonstrated some success relieving these constraints in some areas, but not others. This has not yet led to demonstrable changes in learning outcomes.
124. The absence of demonstrable impact so far generates an important question about pertinence. This is: given enough time, would a market systems approach be sufficient to generate changes in learning outcomes of 6% or above, including for the poorest children, as envisaged by the business case? One hypothesis is that a market systems approach – and indeed DEEPEN itself – would be sufficient to improve learning outcomes for the poorest children given enough time to address all the constraints. A second hypothesis is that while a market systems approach is necessary to improve learning outcomes for the poorest children in private schools, it is not sufficient on its own.
125. Given the timing of the endline and the data currently available, we are not in a position to answer this question confidently. We therefore return to this question in the section on lessons learnt. There is probably sufficient evidence to suggest that a market systems approach is an experiment worth repeating in similar contexts. There is not enough evidence to be confident that a market systems

approach alone will improve learning outcomes for the poorest children in private schools. In particular, the data collected by DEEPEN and at endline suggest that constraints facing low cost schools (which available data suggest contain a higher proportion of the poorest than medium fee schools) are still largely in place, where for medium fee schools they have eased slightly more.

6.1.3 Coherence with policy environment

126. 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 has 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.
- 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 to nudge the Lagos state government towards providing a more supportive regulatory environment for private schools. This is in line with the Lagos government’s recognition of the existing role of private schools in the state and its desire to welcome donor support to the sector, which indicates a move away from its previous attitude towards private schools.
- A private sector M4P approach also chimed with emerging DFID priorities, after the 2010 UK election, to promote private sector development.

127. 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 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 for 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 has 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 2018).

7 Conclusions and recommendations

128. This section focuses on three sets of conclusions: factors that facilitated and inhibited the implementation of DEEPEN, a comparison of these with the experience of DFID's other education programmes in Nigeria (ESSPIN and GEP3)⁷, and recommendations for further action. The general lessons about the applicability of market systems approaches to education derived from the evaluation of DEEPEN are the subject of the following section.

7.1 Factors that facilitated and inhibited implementation

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	Developing political will of Lagos state government to rolling out GAPS for a second time after a change in government halfway through the initial process
	Economic recession
	Slowness to adapt

129. The key factor that facilitated implementation was the flexible approach in specific areas of some of the workstreams, which 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.

130. 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 take risks in developing products 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.

131. The biggest factor inhibiting DEEPEN's implementation was the slowness of the Lagos state government to the large-scale introduction of GAPS in the aftermath of the change of government in 2015. GAPS was designed not only as an intervention that would set standards and measure the quality of schools but also one that would facilitate the signalling of information about quality in the market for private education, as well as the associated markets for the provision of services to private schools. GAPS would ensure that parents have access to a reliable, standardised measure of the quality of the 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. Media would also play an important role in disseminating the information generated by GAPS, and thus further improve the performance of these markets. In the ecosystem of interventions, in DEEPEN's theory of change, GAPS played a significant role. 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

⁷ A third programme, the Teacher Development Programme, is much more narrowly focused than the other programmes – principally concerned with improving in-service teacher training – and is therefore a less helpful comparison.

cornerstone of the programme, underpinning many of its envisioned causal pathways to impact, cannot be denied.

132. The fact that GAPS has not yet been rolled out at scale therefore severely constrained the impact potential of all of DEEPEN's interventions. In the absence of the standards and signalling GAPS would provide, DEEPEN had to resort to alternative methods of helping to generate the supply of credit, school improvement services, BDS, and media programming about school quality. While these were to some extent successful in that markets for credit and school improvement services were created, these markets were arguably more limited than would have been expected with GAPS in place.
133. A further constraining factor was the economic recession of 2014/15, which reduced the purchasing power of parents, which in turn affected 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. Media in Lagos were also hit by the recession, which 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.
134. In addition, as discussed in detail in Section 3.2.2 of the technical report, the programme faced internal challenges in its relationship with the changing advisers at DFID, the lack of continuity in its internal monitoring and evaluation, caused by staff shortages, and a perceived lack of autonomy for intervention leads to pursue a more experimental approach to their work. These factors, too, constrained DEEPEN's ability to deliver on its outputs.

7.2 Comparison to DFID's other education programmes in Nigeria

135. All three of DFID's education programmes in Nigeria (DEEPEN, ESSPIN, and GEP3) have faced similar challenges with trying to improve learning outcomes through systems change 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. ESSPIN had some successes in building capacity at different levels of the education system and on strengthening some aspects of school quality, and likely had a positive impact on learning outcomes relative to outcomes in schools that were not supported by ESSPIN (EDOREN, 2016). However, the overall trend for learning outcomes in ESSPIN-supported states was of stagnation or decline. Early results from GEP3 suggest a similar picture is likely.⁸ 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.
136. The similarities in these pictures are, in our judgement, in part 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 some of the parts of the system that are necessary for better learning outcomes. Especially in a country like Nigeria which has a large and growing population, and a relatively weak education system today with generally poor learning outcomes, they are rarely able to improve all parts of the system sufficiently to improve 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 teachers' effectiveness). Understandably from a political perspective in both Nigeria and partners (such as the UK), development partners financing

⁸ GEP3 endline results are not yet complete, but the baseline report indicates this is plausible (EDOREN, 2016).

education programmes expect measurable change in learning outcomes within a within a five- to 10-year timeframe. 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. DFID and other organisations may have to find ways to communicate and justify the pace of change in education systems programmes to their constituents, and at the same time manage suppliers effectively over the long-term.

137. In our judgement, the difficulty of achieving medium-term change in outcomes through ‘systems’ projects is not 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 change in learning outcomes within unrealistically short timeframes.

7.3 Recommendations for further action

138. **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.
139. **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.
140. 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.

141. **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, the evaluation was not able to address research questions related to learning outcomes. While the roll out date for GAPS is still to be determined if it 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) in order 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 changes in learning outcomes.

8 Lessons learnt

DEEPEN is the first attempt we know of to apply the principles of M4P to education. As such, it offers opportunities for learning and has implications for future programmes that apply a market systems approach to education.

142. While the inability of the programme to bring about sustainable, systems-level transformation of the kind envisioned in its theory of change 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 can be attributed to challenges that are specific to the context in which DEEPEN operated. Furthermore, the programme has not attempted modifications to its approach that might have helped overcome some of its challenges, and has therefore been more risk-averse and less flexible than it might have been. The short evaluation time and the shortage of market systems technical expertise in the DEEPEN team further limit the evaluation findings' relevance for other contexts.
143. Several key lessons for the applicability of M4P to education 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. 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 involved parties. 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. This means 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. DEEPEN's experience also shows that the triple strategy of persistent engagement, indirect lobbying through representative bodies (such as school associations) and working with government officials who are not necessarily in a position to make decisions about the regulatory environment for private schools but might be able to influence those who can, can over time lead to improvements in the government regulations even in a hostile political climate.
144. 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. In particular, a market systems programme that does not incorporate a demand-side subsidy component is unlikely to substantially and meaningfully benefit the very poor. Low cost private schools often operate on budgets that are 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 also introduced.
145. The third major lesson is related to the scale and geography of programme implementation. Many of those interviewed by the endline evaluation team saw the fact that the programme was constrained to Lagos State as a mistake in its 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 more open to the idea of M4P than the government of Lagos State. This suggests that even though M4P programmes require a high degree of localisation and sensitivity to local context, they should also not be too narrowly constrained in their geographical reach.

146. The evaluation also points to the need to be realistic about timing and cautious of setting overly optimistic targets. Market systems approaches tend to take longer to achieve results than direct delivery programmes, 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 in which to expect 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.
147. The previous point raises the issue of the timing of evaluations of M4P programmes in education. M4P interventions generally target market institutions or providers of services 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 (probably at least three to five years) after the completion of the programme, and this should be taken into consideration when designing evaluations for future programmes.
148. It is also 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—including the performance of the market, school investment in quality, crowding in of service providers, parental perceptions of quality—might take a long time to manifest themselves 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. 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.
149. In the absence of government support, much of DEEPEN’s work was done independently from the government by directly engaging schools, service providers, media, 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, but it also underlines the limited capacity of the Lagos state government to regulate and oversee all aspects of education in the state. 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 school improvement services by compiling lists of recommended providers in a market that is currently unregulated.
150. 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’ standards, are there any mechanisms of democratic accountability in the process of transforming the market through an M4P programme? Who has the power to decide what interventions will be chosen and which underlying educational philosophies will be reflected in these interventions? Might an M4P programme in education end up, over time, contributing to the erosion of state authority in areas such as enforcing standards of acceptable pedagogy and curricula?
151. These questions further highlight the case for a careful consideration of political economy, not only vis-à-vis the pragmatic goal of delivering on the 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 in other contexts be 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.

152. In developing markets for the provision of services 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, a 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 school improvement services 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.

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