

An overview of evidence regarding the impact of impact bonds as innovative financing mechanisms for education in development contexts¹

Chris Joynes
Education Development Trust
25 February 2019

Question

1. What evidence is there that innovative finance mechanisms such as Social Impact Bonds (SIBs) and Development Impact Bonds (DIBs) in India or other low- and middle-income country settings have impacted quality, inclusion and enrolment in primary and secondary education?
2. What view can be drawn on value for money provided by these mechanisms based on available evidence?

Contents

1. Executive summary
2. An overview of evidence related to impact bonds
3. Gathering evidence: issues with the evaluation of impact bonds
4. Evidence of impact: two case studies of impact bonds
5. Conclusions
6. References

¹ This paper is the second part of a two-part study on innovative financing undertaken for DFID. The first paper is 'An overview of innovative financing mechanisms for education in development contexts'.

The K4D helpdesk service provides brief summaries of current research, evidence, and lessons learned. Helpdesk reports are not rigorous or systematic reviews; they are intended to provide an introduction to the most important evidence related to a research question. They draw on a rapid desk-based review of published literature and consultation with subject specialists.

Helpdesk reports are commissioned by the UK Department for International Development and other Government departments, but the views and opinions expressed do not necessarily reflect those of DFID, the UK Government, K4D or any other contributing organisation. For further information, please contact helpdesk@k4d.info.

1. Executive summary

This report provides a summary overview of the evidence regarding the impact of impact bonds (including Social Impact Bonds and Development Impact Bonds) in their application as innovative financing mechanisms for supporting education in development contexts.

Within the education sector, impact bonds have emerged over the last 4-5 years as one innovative financing mechanism that uses private investment to support social development. From a developmental perspective, this emerging model encompasses two recent and clearly-defined global trends: firstly, an increased focus on programmes that deliver results and, secondly, an increased drive to support collaboration between the public and private sector (Innovative Financing Initiative 2014: v).

Evidence suggests that there has been a significant growth in the application of impact bonds in a range of global settings, including for education in low- and middle-income countries (LMICs). These mechanisms are seen to be particularly valuable when operating in complex, fluid contexts (REACH 2017), and, with appropriate design, can also contribute towards the development of wider systemic capacity. There is also an emerging literature offering guidelines for the development and implementation of these models. These form the basis of a range of technical support interventions that can be used to assist in their development. However, due in part to their relative newness, a number of issues also exist over the perceived value of these models from a market perspective (Lampert 2014: 13; Innovative Financing Initiative 2014: 20), plus a lack of evidence on their effectiveness from a social development perspective (Terway 2018).

In discussing the availability of evidence on the use and effect of impact bonds for education in LMICs, the majority of commentators cited in this review highlight the limited data available. So far, only an estimated 15 to 21 impact bonds – whether Social Impact Bonds (SIBs) or Development Impact Bonds (DIBs) – have been completed, and few results have been published. In addition, there are significant limitations of evidence related to the specific focus of this study. According to the Social Finance SIB database², there are currently nine impact bonds worldwide with a particular focus on education and early years learning, and only two impact bonds for education operating in contexts that might be described as low- and middle-income or as emerging economies. Both are in India – the Educate Girls Rajasthan DIB 2015-2018, and the Quality Education India DIB 2018-2022.

In gathering the evidence presented in this report, this study undertook a broad review of recent surveys on innovative finance mechanisms, with a particular focus on education in LMICs. This produced a longlist of approximately 20 different currently-used innovative financing mechanisms mentioned in documents published between 2010-2018. These include mechanisms associated with both international finance (i.e. for global education and/or donor-led finance) and domestic finance (i.e. country-specific mechanisms). In addition, across the documents reviewed, there is a large diversity of models featured: innovative financing is a complex area of research, with many possible variable models. Across the majority of documents looking at innovative financing, there is no substantial mention made of those specific mechanisms included in the request

² <https://sibdatabase.socialfinance.org.uk/> (accessed 16.01.19)

question itself: SIBs and DIBs. Any information on these mechanisms comes from a small number of documents published since 2013, all which look exclusively at SIBs and DIBs.

In terms of content, much of the literature on innovative financing for development discusses the mechanisms and procedures from the perspective of financial management rather than from the perspective of social development. In this context, the primary measures of effectiveness are in terms of each mechanism's ability to attract investment, mobilise resources and provide a return on investment (see, for example, Lampert 2014; Terway 2018; Innovative Financing Initiative 2014; Leading Group 2012; Loder et al. 2013). As a result, the literature places a particular focus on key developmental sectors seen as 'high-yield' (e.g. global health, agriculture and food security, and climate, environment and energy), and limits the discussion of education.

In providing an overview of the available evidence related to impact bonds in particular, commentators highlight a number of common claims about their benefits. Firstly, there is a strong focus on outcomes, placing greater incentives on results and encouraging service providers to adapt approaches to the achievement of the pre-agreed outcomes. Secondly, impact bonds are seen to have the capacity to improve existing performance management and encourage the establishment of new sector-wide systems. Thirdly, the multi-partner nature of impact bonds is seen to encourage collaboration across the public and private sectors (REACH 2017: 6, 11-12; Gustafsson-Wright et al. 2017: 13; Floyd et al. 2017: 10; Dalberg 2014). However, commentators also note several areas where evidence on the value of impact bonds against their perceived benefits has yet to be presented. In particular, DFID has previously concluded that there is currently no empirical evidence for or against most of the elements, linkages and assumptions related to impact bonds (DFID 2014b, cited in Drew & Clist 2015: 30).

In seeking to explore further some of the underlying issues impacting on the current availability of evidence regarding impact bonds, this report also looks at current approaches to the evaluation and data-gathering on impact bonds. There is currently a broad diversity of approaches to both evaluating impact bonds and reporting on the findings, thereby undermining the veracity of findings (see Drew & Clist 2015). In addressing this issue in particular, several commentators make the case for the development of a uniform approach to evaluation design, as well as the need for putting in place a centralised synthesised body of evidence on impact bonds (see Drew & Clist 2015; REACH 2017).

However, based on evidence largely drawn from the case of the Educate Girls Rajasthan DIB 2015-2018, findings indicate that, with appropriate technical design and highly flexible and adaptive approaches to delivery, impact bonds can have a substantial positive impact on educational quality in terms of learning outcomes, on educational inclusion, and on school enrolment and retention. It is also noted that the design and project management of the bond itself are regarded as key factors influencing the attainment of specific social development outcomes. In the context of the Educate Girls DIB, evidence of the effectiveness of the bond's approach to design, management and implementation is inferred by the extent to which this DIB has operated as a 'pilot' initiative informing the design and implementation of the far larger Quality Education India DIB 2018-2022.

In terms of value-for-money, the majority of commentators conclude that the current evaluations of impact bonds do not adequately assess whether they represent better value-for-money when compared with other financing mechanisms. While there are a range of hypotheses about why impact bonds may be preferable to other models of financing in particular situations, so far there

is not an evidence-based case for choosing impact bonds over other funding models (Floyd et al. 2017: 12).

2. An overview of evidence related to impact bonds

Introduction

Within the education sector, impact bonds have emerged over the last 4-5 years as one innovative financing mechanism that uses private investment to support social development. From a developmental perspective, this emerging model encompasses two recent and clearly-defined global trends: firstly, an increased focus on programmes that deliver results and, secondly, an increased drive to support collaboration between the public and private sector (Innovative Financing Initiative 2014: v).

As evidence of this, the emergence of impact bonds has taken place within a wider global context of increased non-state educational delivery that has seen, for example: an expansion of domestic and international NGOs as key providers in low-resource settings; the growth of low-cost private schools in India, Pakistan, Kenya, Ghana and Nigeria; and an increased parental dissatisfaction with public schools leading to an expansion of the private corporate sector within educational markets. It is also reflected by the growth of donor policies exploring public-private partnerships (PPPs), such as, for example, DFID's 2015 strategic model focussing on 'development capital', which presents the private sector as 'a driver of growth and development' (DFID 2015: 1) and a key contributor of capital for the support of development (DFID 2015: 2). In education specifically, the engagement with PPPs is seen in DFID's Girls Education Challenge, which involved entirely non-state providers (Burnett 2014: 19).

The development of impact bonds has also been informed by donor concerns that, firstly, aid from traditional sources will not be sufficient to meet the concessional finance needs of low-income countries, and secondly, the way that finance is both raised and spent is an important factor in ensuring outcomes (Burnett 2014: 21).

The availability of evidence on impact bonds

In discussing the availability of evidence, the majority of commentators cited in this study highlight the limited data on impact bonds. So far only an estimated 15 to 21 impact bonds (whether SIBs or DIBs) have been completed and so it is understandable that few results have been published. In addition, existing examples also show a range of different approaches to evaluation and to results publication. Together with concerns about opaque and inconsistent uses of technical terminology, this impacts on assessments of the quality of available evidence related to impact bonds (Floyd et al. 2017: 17).

However, commentators also acknowledge that as increasing numbers of impact bonds around the world complete and mature, greater amounts of evidence on both bond processes and sector-specific interventions will become available. Boglidd-Jones & Gustafsson-Wright (2019) point towards the range of evaluative publications on impact bonds available through the Brookings Institute as evidence of this.³

³ See for example https://golab.bsg.ox.ac.uk/knowledge/resources/?page=1&resource_type=Evaluation+report

Evidence on the effectiveness of impact bonds for social development

Commentators highlight a number of common claims about the benefits of impact bonds made in the literature and by practitioners.

Firstly, there is a strong focus on outcomes: outcome funders see impact bonds as a way to draw attention to certain results by placing greater incentives to reaching them. The focus on results that emerges from the financing mechanism is claimed to encourage service providers to adapt approaches in light of feedback, ensuring that interventions are focussed on the achievement of the pre-agreed outcomes (REACH 2017: 6, 11-12; Gustafsson-Wright et al. 2017: 13).

Secondly, impact bonds have the capacity to improve existing performance management and encourage the establishment of new sector-wide systems in order to meet the need for the focus on outcomes and adaptation. Building on this, their use is also claimed to help build a sector-wide culture of systemic monitoring and evaluation (REACH 2017: 6, 11-12; Floyd et al. 2017: 10).

Thirdly, the multi-partner nature of impact bonds is seen to encourage collaboration across the public and private sectors, and across government both vertically and horizontally. They also offer the potential to increase collaboration between service providers working in the same sector and/or serving the same populations (REACH 2017: 6, 11-12; Gustafsson-Wright et al. 2017: 13; Floyd et al. 2017: 10; Dalberg 2014).

However, commentators note several areas where evidence on the value of impact bonds against their perceived benefits has yet to be presented. In particular, DFID has previously concluded that there is currently no empirical evidence for or against most of the elements, linkages and assumptions related to impact bonds (DFID 2014b, cited in Drew & Clist 2015: 30). For example, it is not yet clear whether impact bonds actually reduce the risk of investment for government. Nor is there enough evidence that, by securing private investment in specific areas, impact bonds enable government funding to be released to support initiatives elsewhere (Drew & Clist 2015: 30).

In addition, the relationship between impact bonds and the use of technical innovation or innovative design approaches requires further analysis. While there is evidence of innovation in terms of combinations of services provided, new groups of beneficiaries reached, and increased adoption of new practices among service providers, as yet impact bonds have not been used to support truly experimental interventions i.e. those that thus far have no evidence behind them (REACH 2017: 12). In light of both the needs of investors as well as existing questions over the extent to which impact bonds can actively foster innovation while still attracting capital investments, any claims for innovation also needs to be balanced by some evidence of the model working to deliver outcomes, e.g. by introducing interventions or practices that have worked somewhere else in the world (REACH 2017: 12; Gustafsson-Wright et al. 2017: 13; Drew & Clist 2015: 10).

Finally, there is not yet enough evidence available to show that impact bonds can be used to deliver projects at scale, or can be used to sustain impact beyond the project lifetime (REACH 2017: 12; Gustafsson-Wright et al. 2017: 13).

Evidence on impact bonds in education

Looking specifically at the use of impact bonds in an educational context, there is very little published evidence examining their impact on outcomes related to either educational quality, inclusion, enrolment and retention or value-for-money. Evidence from LMIC contexts is particularly limited.

According to the Social Finance SIB database⁴, there are currently nine impact bonds worldwide with a particular focus on education and early years learning, and only two impact bonds for education operating in contexts that might be described as low- or middle-income or as emerging economies. Both are in India – the Educate Girls Rajasthan DIB 2015-2018 (referred to in the rest of this report as the Educate Girls DIB), and the Quality Education India DIB 2018-2022.

Boglidd-Jones & Gustafsson-Wright (2018i) corroborate the above findings, stating that, as a sector, education has lagged behind social welfare and employment, which account for the majority of the 134 impact bonds contracted to date around the world. They state that, worldwide in 2018, there were only four new impact bonds with a focus on education, only one of which was in a LMIC (Quality Education India DIB). However, they also state that South Africa launched a SIB with a focus on early childhood development (Boglidd-Jones & Gustafsson-Wright 2019).

Demonstrating this dearth, REACH (2017: 12) in their review of impact bonds for education in development contexts, cite only the cases of the One Service Peterborough SIB (UK, 2010-2013); the High Quality Preschool, Utah SIB (US, 2013 -); the Uniting Newpin Social Benefit Bond (Australia, 2017 -); and the Educate Girls, Rajasthan DIB (India, 2015-2018). Of these, only the Educate Girls DIB is an exemplar of an impact bond associated with mainstream schooling or from an LMIC.

Drew & Clist (2015), in undertaking a review with a similar scope to that of the REACH study, cite only cases of impact bonds from middle- or high-income contexts, none of which are associated with mainstream schooling. They partially seek to address this shortcoming by presenting a case for the transferral of findings across social sectors and/or economic contexts i.e. by using evidence from cases operating high-income settings such as the UK or US to as partial proof-of-concept for the use of impact bonds in LMICs. The limitations of available evidence on the use of impact bonds for education, whether in developed or developing contexts, has led other reviewers (e.g. Floyd et al. 2017) to take a similar approach to using data sources from non-development contexts.

When drawing on the literature on innovative developmental financing more generally, education as a sector remains under-represented. Much of the literature discussing innovative financing for development, especially through private financing, places a particular focus on financing mechanisms associated with key sectors including global health, agriculture and food security, and climate, environment and energy (Burnett & Bermingham 2010: 13). It is argued that this reduced focus on education has come about primarily because other sectors, such as those cited above, are seen by financial analysts to have a greater potential for investment through technical innovation, and for high returns on investment. In support of this, a number of analysts acknowledge that, in comparison with these high-investment-potential sectors, education in

⁴ <https://sibdatabase.socialfinance.org.uk/> (accessed 16.01.19)

general requires long-term investment and offers only low financial returns for investors (Terway 2018; Innovative Financing Initiative 2014; Leading Group 2012).

3. Gathering evidence: issues with the evaluation of impact bonds

Introduction

In light of the limited availability of evidence regarding the impact of impact bonds, this section provides a summary overview of current approaches to the evaluation of impact bonds, and challenges with the evidence that they generate. It goes on to summarise a number of recommendations that commentators suggest might help overcome such issues.

However, while Drew & Clist (2015) make the case for the value of their findings to bonds operating in both educational and developmental contexts, it is important to note that, of the range of impact bonds they cite as part of their discussion of evaluative approaches to gathering evidence, none were operating in settings which might be described as international development contexts or LMICs. In addition, none operated within the education sector, or had measures related specifically to education outcomes within a schooling context. From the perspective of this study, these factors highlight the fact that there is an extremely limited literature looking at the evaluation of impact bonds supporting education in development contexts. It also raises questions over the extent to which those evaluative approaches outlined below can be considered relevant or suitable for projects operating to attain educational outcomes.

What to evaluate?

In general, there are a range of areas that the evaluation of an impact bond might be expected to cover, and the types of questions the evaluation might be expected to answer. However, a number of commentators place a particular emphasis on the importance of assessing the effectiveness of the bond's operating mechanisms, its role as a financial tool, and finally, the extent to which it enabled the fulfilment of any sector-specific technical outcomes. Within this context, key areas for evaluation might include (Drew & Clist 2015: 19):

- Data on how the impact bond functioned and operated to produce outcomes, i.e. the processes involved.
- Data on the roles of different actors and the relationships between them.
- Evidence of the extent to which the impact bond promoted 'innovation' in approaches to social development.
- Data on the added-value of using an impact bond, in terms of cost savings for government or donors as outcome funders

The Working Group on DIBs (CGD & Social Finance 2013a, cited in Drew & Clist 2015) places an emphasis on the need for rigorous independent evaluation of impact bonds, and the use of evaluation to generate:

- Information on intervention costs and pricing of outcomes and results.
- Assessments on whether and how the structure helped to lead to improved outcomes.
- Details of any positive or negative externalities.
- Guidelines to improve the future design of results-based contracts.

Further to this, the Group also specifies the role of evaluation in generating evidence on (CGD & Social Finance 2013b, cited in Drew & Clist):

- Whether and how the bond structure changed incentives and led to greater transparency around the impact of donor funding.
- Whether and how the bond structure led to greater innovation.
- Whether and how the bond resulted in greater efficiency in terms of services, stakeholder relationships and value-for-money.

Building on this, there is a range of suggestions for the specific issues that any evaluation of an impact bond should seek to cover. The Centre for Social Impact Bonds (2013, cited in Drew & Clist 2015) proposed the following as key evaluative questions:

- What difference did the services make? (i.e. impact evaluation)
- How were the services delivered? (i.e. process evaluation)
- Did the benefits of the social impact bond justify the costs? (i.e. economic evaluation or evaluation of value-for-money)
- What was the effect of using a payment-by-results, and more specifically the social impact bond, model? (i.e. evaluating the specific benefits of using an impact investment approach)

In using this to guide the choice of evaluation methodology, Gustafsson-Wright et al. (2017: 49) state that the selection of methodology can depend on five considerations:

- what the outcome funder is seeking to achieve;
- contextual issues, such as the availability of data or the presence of a comparison group;
- the timeline of the contract and how much time there will be for data collection;
- the evaluation budget;
- the political sensitivities around the transaction or the intervention.

Beyond this, further determinants of evaluation methodology could include data availability, measurement tool availability, evaluation costs, stakeholder capacity to collect and analyse data, and the existence of comparison groups. For example, if the goal is to achieve a set of outcomes and pay only for success, validated administrative data can be used, but if the aim is to determine the achievement of outcomes relative to a counterfactual, a Randomised Control Trial (RCT) may be the most appropriate methodology (Gustafsson-Wright et al. 2017: 50).

Issues with approaches to evaluation and evidence-gathering in impact bonds

In providing a programme environment that is conducive to effective evaluation of impact bonds, several commentators highlight the key roles of the Intermediary as project manager and the Evaluator. These stakeholders are seen to have a key influence on guiding both programme design and implementation to help ensure clear means of verification for outcomes (Drew & Clist 2015; Floyd et al. 2017).

In undertaking the evaluation itself, the Working Group (CGD & Social Finance 2013b, cited in Drew & Clist 2015) discuss 3 basic options that can be used, applying either experimental, quasi-experimental or non-experimental approaches. They also highlight the existing challenges associated with the application of each approach.

- ***Experimental approaches to evaluation***

Drew & Clist (2015: 20) state that, firstly, the form of experimental approach proposed appears to be a cluster-based, randomised control trial, a model which is also supported by other commentators (e.g. REACH 2017; Floyd 2017). The Working Group give some examples to illustrate this model, but Drew & Clist (2015: 21) state that they do not adequately explore the fact that some programmes are designed or delivered in ways which make experimental assessment through individual randomisation logistically difficult.

Gustafsson-Wright et al. (2017: 50) support this point, stating that there is considerable concern around whether impact bonds are suitable for evaluation through an RCT. In some cases, pressure may come from stakeholders to evaluate with an RCT, because of the rigor of this method. For several reasons, however, they state that an RCT may not be the best strategy. First, with impact bonds the focus is on results achieved, rather than on the effects of specific interventions. Moreover, if the goal is to meet a set of targets, rather than to test the causal relationship between treatments and outcomes, an expensive RCT may be less necessary for this purpose.

- ***Quasi-experimental approaches to evaluation***

The quasi-experimental approach proposed by the Working Group (CGD & Social Finance 2013b, cited in Drew & Clist 2015) is described as a 'live comparison group', a matched, non-random comparison. In critiquing this, Drew & Clist (2015: 20) state that there is not adequate recognition that, logistically, this method would still probably require multiple intervention and comparison groups. They also state that other quasi-experimental approaches, such as a discontinuity design, are not considered.

Against this, Drew & Clist cite the case of the Peterborough Reoffenders SIB in the UK, which commenced in 2010 and is regarded as the first impact bond, as an example of a bond which used a quasi-experimental approach to evaluation. Using a methodology which focussed on the collection of interview data, the project concluded that the development of a methodologically-robust outcome measure which had the confidence of all stakeholders was a time-consuming and analytically complex process. It recommended that those involved in future impact bonds and payment-by-results arrangements might wish to take into account the time and skills needed to develop robust evaluation measures (Rand, 2011; Disley et al., 2011, cited in Drew & Clist 2015: 21). In discussing this high-profile case, Drew & Clist (2015: 22) also advise caution in placing too much emphasis on findings from a single example, particularly in light of concerns over data quality, alongside relatively little qualitative analysis of contextual causal mechanisms.

- ***Non-experimental approaches to evaluation***

The non-experimental approach presented by the Working Group (CGD & Social Finance 2013b, cited in Drew & Clist 2015) is referred to as a 'historical baseline', drawing on previous data related to the same or similar beneficiary groups. Drew & Clist (2015: 20) state that, while it may

be possible to use this approach where the baseline is either static over time or where there is a predictable trend, previous experience of using this approach in evaluating other forms of Payment-by-Results financing has been problematic.

Against this, Drew & Clist (2015: 22-24) cite the cases of a broad range of impact bonds operating in a range of contexts. They conclude that all impact bonds have a built-in evaluation mechanism that can generate evidence of impact across a range of criteria, but often only because payment is triggered by levels of performance in programme participants. In practical terms, support for high quality evaluation was not a priority beyond this payment-driven measure, although key stakeholders frequently need capacity development in evaluation and impact measurement. Furthermore, there were challenges in measuring and capturing savings made through impact bonds as a financing mechanism, with evidence of different views of how savings should be measured and calculated and in determining outcome measures. Finally, while the use of impact bonds is frequently considered as an exercise in innovation in a number of areas including financing, contracting and measurement, this has not yet been supported by the development of a sound evidence base across these areas (Dalberg 2014: 23).

Approaches to improve evaluation and evidence gathering in impact bonds

In response to the issues associated with the various modes of evaluation outlined above, Drew & Clist (2015) offer two approaches to addressing current shortcomings with evidence gathering on impact bonds.

Under the first approach, they outline an organising framework for the evaluation of impact bonds that enables stakeholder interests at multiple levels to be considered – a general model that is supported by other advocates (see, for example, Dalberg 2014; Lampert 2014). In essence their model involves the evaluation process following the projected theory of change, where inputs into an impact bond lead to a number of processes, which in turn are expected to produce particular impacts (2015: 29-30). They see that adopting a framework of this nature could have a number of significant advantages in evaluating impact bonds in the future, and would go some way to addressing DFID's 2014 conclusion that there is currently no empirical evidence for or against most of the elements, linkages and assumptions related to DIBs (DFID 2014b, cited in Drew & Clist 2015: 30). This framework-based approach to evaluation design is also echoed in the notion of wider impact bond design-sharing across impact bonds advocated for by REACH (2017: 10).

In discussing evaluation design, Drew & Clist conclude that, while experimental and quasi-experimental assessment models such as control-group comparisons would be preferred for assessing the impact of individual impact bonds, for practical and contextual reasons it seems unlikely that this will become common practice within individual bonds (Drew & Clist 2015: 35). However, they do raise the possibility of using historical baseline data as one possible, context-specific, alternative.

Under the second approach, they highlight the potential that a synthesised approach to gathering evidence might have for impact bonds, a model of information sharing that is also supported by Dalberg (2014: 24). In the first instance, Drew & Clist accept it is unlikely that individual bonds will be sufficiently similar in terms of context, sector, size etc. to allow them to be treated as individual experiments from which comparable data could be aggregated (Drew & Clist 2015: 3).

However, by having a common impact bond evaluation framework such as argued for above, they claim it should be possible to synthesise evidence from individual evaluations.

For impact bonds in particular, there is a priority placed on the role of data, and the need for service providers to be able to gather, analyse, and respond to information to achieve outcomes (Boglidd-Jones & Gustafsson-Wright 2019). The Working Group on DIBS (Centre for Global Development and Social Finance, 2013b, cited in Drew & Clist 2015: 26) conclude that, in order to ensure that learning is shared, it would be helpful to establish a DIB Community of Practice (including potential donors, investors, intermediaries and developing country governments) to share learning from DIBs and to inform the development and application of such models in the future. Within this, lessons learnt from SIBs in middle- and high-income countries, and from other forms of Payment-By-Results (PbR) contracts are also considered of relevance.

Conclusions

In concluding their review of approaches to the evaluation of impact bonds, Drew & Clist highlight the fact that robust evaluation should remain a key component of impact bond design for the 'foreseeable future', based on the relative novelty of DIBs and the paucity of the existing evidence base (2015: 28). In this context, they highlight the importance of using formative evaluation to shape the design and set-up of impact bonds. Building in evaluation from the earliest stage of design is seen to help provide stronger evidence and enable better delivery.

In terms of evaluation design, Drew & Clist seek to make a clear distinction between the evaluation of the intervention (i.e. the effectiveness of the project itself) and the instrument (i.e. the effectiveness of the bond). Evaluating the latter as well as the former will enable stakeholders to make a comparison between the value of impact bonds and other alternative funding mechanisms. With these factors in mind, they advise on the development of a basic framework to guide the evaluation of impact bonds, plus accompanying tools.

At an international level, evidence generated from synthesising experience across impact bonds is seen to be extremely useful at the formative and design stage of new impact bonds (Drew & Clist 2015: 19-20). Given the current rate of growth of impact bonds, Drew & Clist also suggest that a process of real-time synthesis should be an essential part of such an approach (Drew & Clist 2015: 36-37). They propose that, in the first instance, some form of agency-wide active and intentional synthesis process – such as that currently used by the Big Lottery Fund to evaluate SIBs in the UK – will be needed to ensure that this happens.

4. Evidence of impact: two case studies of impact bonds

Introduction

In this section, the review presents the available evidence associated with the two impact bonds for education that, to date, have been implemented in low- and middle-income contexts: the Educate Girls DIB, and the Quality Education India DIB. While only the Educate Girls DIB can present data on outcomes achieved, there is a close design relationship between the two bonds which may present some evidence associated with the 'proof of concept' of the application of impact bonds in the development context.

Case Study 1: Educate Girls, Rajasthan, India 2015-2018

The Educate Girls DIB was launched in Rajasthan, India in June 2015. It ran for 3 years, and final outcomes were announced in November 2018.

The project objective was to help improve education and learning outcomes for 18,000 children in 166 government primary schools in the Indian state of Rajasthan. The project targeted enrolment and learning among 9,000 girls not currently enrolled in government primary schools, and a further 9,000 children in Grades 3-5 (Social Finance 2019; REACH 2017: 3).

The key stakeholders in the Development Impact Bond were:

- *Investor*: UBS Optimus Foundation⁵
- *Service Provider*: Educate Girls⁶
- *Outcomes Funder*: Children's Investment Fund Foundation (CIFF)⁷
- *Intermediary agency*: Instiglio⁸
- *Outcome Evaluator*: IDinsight⁹
- *Process Evaluator*: Dahlberg¹⁰
- Two additional agencies provided legal and contracting support.

Project overview

The Educate Girls DIB was the first to be piloted in a low- or middle-income country with a non-governmental organisation as Outcomes Funder (Social Finance 2019).

The project aimed to enrol more girls in schools to improve their educational and wider life outcomes, and to improve the achievement of all students enrolled in government schools. The project also had a particular focus on marginalised girls and boys in remote rural districts. In outlining the identified need for this intervention, in Rajasthan, 40% of girls drop out before reaching Grade 5 and for those that remain learning quality is low; only 15% of children in

⁵ <https://www.ubs.com/microsites/optimus-foundation/en/home.html>

⁶ <http://www.educategirls.org/>

⁷ www.ciff.org

⁸ www.instiglio.org

⁹ www.idinsight.org

¹⁰ www.dalberg.com

primary school can read a simple story in Hindi. Uneducated girls in India are less likely to survive pregnancy and childbirth than their educated peers, marry four years earlier, and are three times more likely to contract HIV. Conversely, investing in girls helps disrupt the cycle of poverty: educated girls earn 10% more, have healthier and fewer children, and are more likely to send their own children to school (Social Finance 2019; Instiglio 2015: 5, 11).

The role of the DIB was to enable Educate Girls, an Indian NGO and the primary service provider, to help address these needs by scaling up its proven programme in Rajasthan and address identified needs around the target population. Educate Girls' programme approach consisted of enrolling girls in government schools, and supporting them to stay in education, while child-centric learning and teaching techniques improved motivation and learning outcomes (CIFF 2019; Social Finance 2019; Instiglio 2015: 12; IDinsight 2018). Additional inputs included the engagement of communities through school management committees and awareness-raising (Instiglio 2015: 12; IDinsight 2018). The Educate Girls DIB also sought to operate as a 'proof of concept' to demonstrate how DIBs can contribute to social good (Social Finance 2019).

In supporting this, the Investor, UBS Optimus (the philanthropic arm of UBS Bank), provided US\$270,000 of capital to fund Educate Girls' programme activities. The Outcome Funder, CIFF, reimbursed UBS Optimus for financing Education Girls, plus additional incentive payments, once the achievement of agreed measurable educational outcomes for the enrolment of out-of-school girls and improved literacy and numeracy skills were met and validated by iDinsight, the independent evaluator (CIFF 2019; Social Finance 2019; IDinsight 2018).

Target outcomes and performance management

The target outcomes linked with payment to the investor from the outcome funder included:

- 79% of out-of-school girls aged 7-14 and targeted by the project enrolled in government schools over the course of 3 years (20% of outcomes payment)
- Agreed levels of improved literacy and numeracy skills in maths, Hindi and English (80% of outcomes payment).

For the first target, 'enrolment' was defined as the percentage of out-of-school girls who are enrolled on school rosters by the end of the project's three years. For the second target, the levels of improved learning were measured using the ASER test, a widely used test of basic numeracy and basic literacy in both Hindi and English. Results were measured against a control group in a randomised control trial, with 'impact' defined as the difference in student learning gains between the intervention group and the control group (Social Finance 2019; Boggild-Jones & Gustafsson-Wright 2018; Instiglio 2015: 10, 19; IDinsight 2018).

From a financial perspective, the anticipated investor returns if these targets were met were 7-13% per annum, with a maximum rate of 15% over 3 years (CIFF 2019; Instiglio 2015: 15).

In seeking to deliver these, the bond put in place a performance management system that focussed on tracking inputs and activities against selected outcomes of its intervention, such as out of school girls' enrolment, student attendance, and learning. This system was designed to enable Educate Girls to manage its resources effectively and track progress during service delivery. Within this, the bond's focus on performance management also shifted from managing activities to managing results. Therefore, the objective of the performance management was to

help track project progress with a view to managing those intermediate outcomes that would lead to higher levels of enrolment and learning outcomes of the project (Instiglio 2015: 39).

To support the performance management process, Instiglio also put in place a coordination framework that set out the mechanisms for interaction and information-sharing between stakeholders across the 3-year lifetime of the project. These consisted of a number of scheduled committees and working groups, plus reporting frameworks (Instiglio 2015: 41-42).

Evaluation design

Learning gains on the Educate Girls DIB were evaluated through a quasi-experimental approach, using a clustered randomised control trial (IDinsight 2018: 13). Given sampling constraints, the Evaluator (IDinsight) used all eligible schools for the evaluation, rather than selecting a random sample of schools from the sampling frame. The sample consisted of 396 schools in 338 villages.

Within eligible villages, all out-of-school girls (based on Educate Girls' verified lists) were included in the sample. Eligible out-of-school girls are those aged 6–14 years, who are mandated to be in schools under the Right to Education Act. These include: girls without access to a school in their community; girls who don't enrol despite having a school in their community available; girls who enrol, but don't attend; girls who enrol, but drop out of the education system (UBS 2018ii: 3). Within eligible schools, learning outcomes were measured by using data on all students in grades 1-5 as a baseline (as well as newly-enrolled students).

To construct the sample and to identify eligible schools, IDinsight used school-level data for the two selected blocks in Bhilwara district, Jahajpur and Mandalgarh, collected by the District Information System for Education (DISE) in 2013-2014 (Instiglio 2015: 26-34; IDinsight 2018). Finally, the evaluation design also took account of a broad range of potential issues that might impact on the assessment of outcomes, including those associated with causal identification (Instiglio 2015: 36-38; IDinsight 2018).

Evidence of bond performance and educational impact

As the world's first impact bond, the progress of the Educate Girls DIB was carefully tracked and reported on throughout its 3-year lifetime. The results show that there was a variable rate of progress across the project lifetime.

In Year 1, there were several project implementation goals set, in terms of the delivery of key tasks (see Instiglio 2015: 22-24). In terms of outcomes against targets, it was reported that (REACH 2017: 3; CIFF 2016; IDinsight 2018):

- Against Target 1, the project had enrolled 44% of the 835 girls identified as being out-of-school across 140 target villages.
- Against Target 2, the project achieved 23% of the 3-year target for learning improvement outcomes.
- In terms of financial returns, the Investor (UBS Optimus) recouped 40% of their US\$267,000 investment.

Based on these Year 1 results, it was reported that the DIB has been 'transformational' in delivering impact, with the model closing the gender gap in enrolment and improving children's learning levels in the target location. In addition, the DIB was seen to demonstrate how innovative financing models can access new sources of funding while delivering greater impact on the ground (CIFF 2016; Instiglio 2015).

From a design perspective, Educate Girls reported that the DIB's focus on data collection and analysis had affected the organisation's way of working during Year 1. In particular, this included an increase in the feedback and analysis of data from the field to help identify programme changes, leading to a flexible and responsive approach being adopted across other programmes. Cited examples include when, halfway through the delivery of the curriculum, data showed that the girls in the programme were falling behind with English. Investigations revealed that some teachers were uncomfortable about their own ability in English and struggling with the lesson plans. Teacher support measures were put in place, and girls' learning subsequently accelerated (Educate Girls 2016, cited in CIFF 2016; IDinsight 2018).

However, key stakeholders also emphasised that DIBs would only likely be relevant for specific scenarios. They also placed importance on having a rigorous understanding of the issue to be addressed, of any inputs past results, and the institutional capacity to improve internal performance and management systems (CIFF 2016; Instiglio 2015).

In Year 2, it was reported that (REACH 2017: 3; IDinsight 2018):

- Against Target 1, the project had enrolled 87.7% (579) of the 835 girls identified as being out-of-school across 140 target villages.
- Against Target 2, the project achieved 50.3% of the 3-year target for learning improvement outcomes target.
- In terms of financial returns, the Investor was reported as remaining 'on track' to recoup its initial funding investment of US\$267,000.

Based on these outcomes, progress against Target 1 on enrolment was going well, but progress against Target 2 was regarded as presenting a greater challenge, whether in terms of metric or delivery. From these Year 2 results, it was anticipated that, by project end, the Investor (UBS Foundation) would recoup only 72% of their initial investment and 54% of the expected outcome payment (REACH 2017: 13).

Finally, in Year 3, it was reported that (Boggild-Jones & Gustafsson-Wright 2018; IDinsight 2018):

- Against Target 1, the project had enrolled 92% (768) of the 835 girls identified as being out-of-school across 140 target villages, thereby surpassing the 90% target.
- Against Target 2, the project achieved 160% of the 3-year target for learning improvement outcomes target.
- In terms of financial returns, the outcome funder (CIFF) repaid the investor (UBS Foundation) its initial funding investment of US\$267,000 plus an internal rate-of-return of 15% (US\$40,050).

The final results of the Educate Girls DIB are seen to show impressive gains in both enrolment and learning outcomes, with a marked increase in the third year (Boggild-Jones & Gustafsson-Wright 2018), particularly against the learning target. The final results were verified by evaluator IDinsight (2018).

Against Target 2, student learning outcomes, which made up 80% of the outcome payment, were measured for girls and boys using the ASER test for English, Hindi, and Math, in which students receive a grade between A-E for each subject. Using a randomised controlled trial, IDinsight compared the progress on this test for children receiving the intervention to those in a comparison group. The target over the three years was a combined increase of 5,592 more learning levels for the students receiving the intervention, above the comparison group (IDinsight 2018).

Against the 52% achieved by the end of Year 2, the final year saw a huge increase in learning outcomes for the students receiving the intervention: by the end of Year 3, this group had improved their test performance by 8,940 more learning levels than the comparison group, equivalent to 160% of the target (Boggild-Jones & Gustafsson-Wright 2018; IDinsight 2018). In order to achieve this, especially following the poor progress made in Year 2, Educate Girls, as the service providers, used new information to improve their service provision, and thereby made a number of adjustments to boost students' success. This included structural changes to delivery (e.g. increased number of sessions; teaching groups aligned with competency levels) and improved curriculum content which emphasised personalised learning. Additional updates included: home visits for persistent absentees, and further training for teachers (Boggild-Jones & Gustafsson-Wright 2018; UBS 2018ii: 5; IDinsight 2018).

Conclusions

The Educate Girls DIB 2015-2018 overachieved relative to the required targets for enrolment and learning outcomes. The evidence is seen to demonstrate two key aspects (Boggild-Jones & Gustafsson-Wright 2018):

- Firstly, the success of the technical design and approach used by Educate Girls intervention;
- Secondly, a proof of concept for impact bonds, in that this DIB:
 - Provided return on investment for UBS Optimus Foundation;
 - Provided a structure of performance management and support for the service provider;
 - Used a focus on outcomes to enable the service provider to learn from and respond to new information.

It is argued that the model has led to a raft of innovations, both within the contexts of educational provision and social financing through private investment (UBS 2018i: 1; UBS 2018ii: 2). Key factors that are seen to have contributed to the DIB's success include the underlying focus on outcomes, combined with a flexible funding structure, which provided the basis for Educate Girls to adapt its programme to focus on outcomes around children's learning as well as enrolment. In addition, the performance management system assisted Educate Girls to develop the necessary frameworks, processes and capabilities to measure and track outcomes, identifying gaps, and draw learnings that would help them achieve the outcome goals more swiftly (UBS 2018ii: 6).

In terms of evidence related to the effectiveness of impact bonds, the massive increase in the effectiveness of Educate Girls' programme in the final year suggests that the combination of implementer flexibility and rigorous evaluation can create conditions for rapid learning and improvements. For example, the first two years of the evaluation showed that children who were chronically absent from school were not benefitting from the programme. In the third year, Educate Girls added home visits and remedial classes to better reach these students, and subsequently their gains were comparable to students who attended school regularly (IDinsight 2018: 10). However, it is also stated that the benefits of DIBs' focus on outcomes can only be realised if those outcomes are measured and evaluated correctly. Less rigorous methods, such as before and after studies, risk reaching the wrong conclusion about whether targets are met, thereby damaging the core value proposition of a DIB through incorrect performance payments, or ineffective or harmful programme adjustments (IDinsight 2018: 10).

Finally, in terms of value-for-money, it is important to note that while the results of the evaluation demonstrate that the intervention was a success, there is still a lack of rigorous evidence assessing the value and impact of the DIB financing mechanism against other financing mechanisms (Boggild-Jones & Gustafsson-Wright 2018).

In discussing this high-profile case, Drew & Clist (2015: 22) also advise caution in placing too much emphasis on findings from a single example, particularly in light of concerns over data quality, alongside relatively little qualitative analysis of contextual causal mechanisms.

Case Study 2: Quality Education, India, 2018-2022

The Quality Education India DIB was launched in September 2018 and will run for 3-4 years until 2021-2022. The project objective is to drive learning outcomes for 300,000 primary school children in India through a range of interventions focussed on improving the quality of learning rather than on school enrolment and attendance. While it is anticipated that the range of service provider inputs will evolve over the project lifetime, initial interventions will include: high-quality privately-operated free schooling in urban slums; leadership training for principals and teachers; and teacher training in remedial education and multiple-ability classes (Quality Education India 2019).

The key stakeholders in the Development Impact Bond are (Quality Education India 2019):

- *Investor*: UBS Optimus Foundation
- *Service Providers*: Gyanshala¹¹; Kaivalya Education Foundation¹²; The Society for All Round Development¹³
- *Outcomes Funders*: Michael & Susan Dell Foundation¹⁴; British Asian Trust¹⁵; Tata Trusts¹⁶; The Mittal Foundation; British Telecom¹⁷; Comic Relief¹⁸.

¹¹ <http://gyanshala.org/>

¹² <http://www.kefindia.org/>

¹³ <http://www.sardindia.org/>

¹⁴ <https://www.msdf.org/>

¹⁵ <https://www.britishasiantrust.org/>

¹⁶ <http://www.tatatrusters.org/>

¹⁷ <http://www.globalservices.bt.com/en>

¹⁸ <https://www.comicrelief.com/>

- *Intermediary agency:* Dalberg Global Advisors
- *Evaluator:* Grey Matter India¹⁹
- Additional technical support in programme management is provided by DFID, and there are several additional advisory agencies providing legal support - Hogan Lovells, J. Sagar Associates and Reed Smith.

While the Quality Education India DIB is significantly more complex in scale and scope, the design and focus of this DIB draws heavily on the design, approaches and impact of the Educate Girls DIB. In this context, the service provider on the Educate Girls DIB, the NGO Educate Girls, is also contributing to this DIB in an advisory capacity during 2019 (Social Finance 2019ii).

Project overview

The project aims to improve literacy and numeracy skills for more than 300,000 children, with a specific focus on learning outcomes. In outlining the need for this intervention, while efforts to increase school attendance in India have been very successful during the last 5 years, there remains a gap in learning achievement. A typical Indian student is at least two grades behind the level expected for their age in literacy and numeracy. By grade 5 (age 10) fewer than 50% of children can read to the level of grade 2 (age 7) (Quality Education India 2019).

In making approaches to address these concerns, the Quality Education India DIB is taking a highly adaptive and flexible approach to design. Funding in Year 1 (2019) will be invested in three established NGOs, operating to provide different services in different contexts:

- Gyanshala will provide 'high-quality privately-operated free schooling' for primary-school-aged children living in urban slums in Gujarat.
- Kaivalya Education Foundation will provide a leadership foundation programme that trains principals and teachers in integrated schools in Gujarat.
- Society for All Round Development will run two programmes in the North of Delhi providing government teachers with the skills to teach remedial education and handle multiple-ability classes.

Each year, each service providers' progress towards agreed outcomes will be assessed, including measuring of the interventions' effectiveness at raising educational outcomes in numeracy and literacy (Social Finance 2019ii). In terms of costings, under the Quality Education India DIB, just under 80% of funds will be allocated to service provision, with 16% allocated to programme management costs and an anticipated 6% set aside as a potential return to the risk investor once outcomes are met (Social Finance 2019ii).

Exploring the relationship between Educate Girls DIB 2015-2018 and Quality Education India DIB 2018-2022

In looking at the decision to roll out and upscale the use of DIBs for education within the same national context, India is seen as a good context in which to pilot DIBs as a model for innovative financing. Quality Education India (2019) cites the increase in entrepreneurialism in India, the willingness of government to work with business and others, the increased levels of financial transparency, and the fall in international-aid funding as India's economy has strengthened, as

¹⁹ <http://www.graymatters.in/>

key factors that make the country a good setting in which to explore new ways to approach the financing of social development.

In comparison with the Educate Girls DIB, the Quality Education India DIB involves a significantly larger initial investor contribution: US\$3m compared with the US\$297,000 for Educate Girls DIB. Similarly, the current total outcome fund is set at \$11m, with a view to enabling the size of the DIB to double over the 3-4 year lifetime (Quality Education India 2019).

In addition, in terms of stakeholders, the Quality Education India DIB currently has multiple service providers as well as outcome funders, with the British outcome funders operating as part of a consortium formed by the British Asian Trust. It is also anticipated that the range of service providers and outcome funders may be extended during 2020 and 2021 (Social Finance 2019ii; Quality Education India 2019).

At a design level, as a result of findings from the Educate Girls DIB, which is described by Quality Education India (2019) as 'a pilot programme', there are several new design approaches that have been taken by the Quality Education India DIB. Firstly, the Quality Education India DIB's outcomes will focus on quality of learning and not on attendance. Secondly, this DIB will spend less money on assessment. Thirdly, by working with multiple delivery partners operating across differing interventions, this DIB is seen to have diversified the risk. Fourthly, in practical terms, the outcome funders will make payments to the risk investor at the *end of each year* rather than just at the very end of the programme (Quality Education India 2019).

In addition, the Quality Education India DIB is taking a highly adaptive and flexible approach to design. Firstly, funding in Year 1 (2019) will be invested in the three established NGOs, each of whom will operate to provide clearly different services in different contexts – this is in contrast with the Educate Girls DIB, which worked with a single service provider on a limited range of inputs within a specific regional context. Secondly, it is anticipated that in subsequent years 2020-2022, Quality Education India is likely to evolve its social development portfolio by engaging further service providers operating to provide additional services in additional contexts, thereby expanding the reach and scope of the DIB (Quality Education India 2019).

There are a number of conclusions that it might be possible to draw from the above.

Firstly, the scale of the Quality Education India DIB, particularly when based on the design of the Educate Girls DIB, can be assumed to provide evidence that the Educate Girls DIB fulfilled the necessary 'proof of concept' for DIBs in relation to social development, as outlined by Social Finance (2019).

Secondly, the involvement of multiple service providers (and outcome funders) can be assumed to provide evidence of DIBs' functionality to 'pool performance-based contracts' (Innovative Financing Initiative 2014: 4; 18), in that the flexible framework combines multiple interrelated performance-based contracts with a range of service providers under a single management and investment framework.

Thirdly, the adaptive and shape-shifting approach to design and implementation can be assumed to provide evidence, or at least a substantial belief among stakeholders, that DIB frameworks and delivery mechanisms allow for adaptive and highly flexible approaches to funding social development initiatives within an educational context (Quality Education India 2019).

Finally, the Quality Education India DIB is also anticipated to build on the Educate Girls DIB's role as a 'proof of concept'. With the introduction of the extended approaches to delivery see above, plus, new perspectives from the broad coalition of actors, it is hoped that this DIB will offer valuable lessons for the future of innovative financing for education. In particular, one ambition is to use information gathered during the Quality Education India DIB to create an education 'rate card', which would include details of cost prices for the achievement of particular goals to streamline the process of paying for outcomes (Boglidd-Jones & Gustafsson-Wright 2018i).

5. Conclusions

In summarising the findings of this study, there are a number of conclusions that can be drawn from the documentation and data gathered.

Firstly, there is only limited evidence available that discusses the impact of impact bonds either on education or in LMICs. In general terms, the majority of available evidence on impact bonds is drawn primarily from Social Impact Bonds designed and implemented in high-income countries, in particular the UK and the US (see Drew & Clist 2015; Floyd et al. 2014; Loder et al. 2013; REACH 2017). In addition, the majority of available evidence on impact bonds is drawn from those bonds implemented in association with interventions in sectors other than education (see Drew & Clist 2015; Floyd et al. 2014; Loder et al. 2013; REACH 2017; Terway 2018).

Within this general context of available evidence, this study found that there is a particularly limited literature that discusses the impact of impact bonds on education in LMICs. In practical terms, concrete evidence within this scope is available only in reference to the Educate Girls DIB 2015-2018 and, based on anecdotal or discursive analysis, to the Quality Education India DIB 2018-2022 that has been implemented partly as a result of the Educate Girls DIB.

The current limitations on the availability of evidence of impact bonds in relation to education in LMICs can be put down to four main factors (Terway 2018; REACH 2017; Boglidd-Jones & Gustafsson-Wright 2017):

- the relative novelty of impact bonds as a financing mechanism, in that they have only been widely applied within the last 5 years;
- related to the above, the fact that only a small number of bonds have yet reached full completion;
- the fact that, to date, impact bonds have been mostly applied in 'high-yield' social sectors, rather than in education;
- the fact that, to date, only a very small number have been developed for application in national contexts associated with 'international development'.

Secondly, in discussing the evidence on impact bonds that is available, analysis from a range of commentators highlight a number of additional challenges. Evidence suggests there is a broad diversity of approaches to both evaluating impact bonds and reporting on the findings, thereby undermining the veracity of findings (see Drew & Clist 2015).

For example, in general terms, much of the literature available orientates evaluation largely around the extent to which the impact bond operates as an effective financial mechanism i.e. in terms of an ability to mobilise resources, or fulfil targets associated with outcomes payments to investors. As such, there is not necessarily a focus on evaluation in relation to social development outcomes. In the context of education, for example, these might include technical measures associated with quality of learning, inclusion, enrolment and retention, and so on.

In addition, commentators conclude that the evaluation of impact bonds is not currently conducted using uniform design approaches, largely due to the relative novelty of this mechanism. This limits the cross-sectoral relevance of evidence available, and therefore makes it difficult to compare findings across cases. In addressing this issue in particular, several

commentators make the case for the development of a uniform approach to evaluation design, as well as the need for putting in place a centralised synthesised body of evidence on impact bonds (see Drew & Clist 2015; REACH 2017).

Thirdly, despite the limitations of evidence outlined above, it is still possible to draw some conclusions on the possible impact of impact bonds on education in LMICs. Based on evidence largely drawn from the case of the Educate Girls DIB, findings indicate that, with appropriate technical design and highly flexible and adaptive approaches to delivery, impact bonds can have a substantial positive impact on educational quality in terms of learning outcomes, on educational inclusion, and on school enrolment and retention. However, these results are highly context specific and are drawn from a single case study, so questions of wider applicability and robustness should be applied to these conclusions.

In addition to any sector-specific technical interventions, it is also noted that the design and project management of the bond itself are regarded as key factors influencing the attainment of specific social development outcomes. In the context of the Educate Girls DIB, it can be argued that evidence of the effectiveness of the bond's approach to design, management and implementation is provided by the extent to which this DIB has operated as a 'pilot' initiative informing the design and implementation of the far larger Quality Education India DIB.

Fourthly, in terms of value-for-money, the majority of commentators conclude that the current evaluation of impact bonds do not adequately assess whether they represent better value-for-money when compared with other financing mechanisms. This remains the case with the Educate Girls DIB, which did not include such a value-for-money comparison as part of its evaluation design. While there are a range of hypotheses about why impact bonds may be preferable to other models of financing in particular situations, so far there is not an evidence-based case for choosing impact bonds over other funding models (Floyd et al. 2017: 12). It is important to note the continued difficulty in isolating whether using the impact bond financing mechanism actually adds value. Even for impact bonds where rigorous evaluations were used to measure outcomes, only the effectiveness of the intervention itself was captured. Based on this, it is not possible to know if the same results could have been achieved with input-based financing, traditional payment by results, or even just providing cash inputs (Boglidd-Jones & Gustafsson-Wright 2019).

To conclude, impact bonds remain a complex and time-intensive mechanism for contracting services, and decision-makers must ensure that contracting on outcomes and engaging private investors, are the right options for both the context and the social problems they are trying to solve. Going forward with this, evidence of impact, both in terms of technical and managerial design, will be key to informing the decision-making process. Efforts to streamline this process, such as the Education Outcomes Funds for India, and Africa and the Middle East, offer one potential solution. Additionally, future DIB architects will need to think carefully about the role of the domestic government, and the sustainability of outcomes after the end of the contract, for example by ensuring that the government is engaged, and can share in the learning and capacity building (Boggild-Jones & Gustafsson-Wright 2018).

6. References

- Boggild-Jones, I. & Gustafsson-Wright, E. (2019) 'A global snapshot: Impact bonds in 2018' Brookings website, publ. 2nd Jan 2019. <https://www.brookings.edu/blog/education-plus-development/2019/01/02/a-global-snapshot-impact-bonds-in-2018/>
- Boggild-Jones, I. & Gustafsson-Wright, E. (2018) 'World's first development impact bond for education shows successful achievement of outcomes in its final year'. Brookings website, publ. 13th July 2018. <https://www.brookings.edu/blog/education-plus-development/2018/07/13/worlds-first-development-impact-bond-for-education-shows-successful-achievement-of-outcomes-in-its-final-year/>
- Boggild-Jones, I. & Gustafsson-Wright, E. (2018i) 'A landmark month for impact bonds in education: two new initiatives focus spending on results' Brookings website, publ. 25th Sept 2018. <https://www.brookings.edu/blog/education-plus-development/2018/09/25/a-landmark-month-for-impact-bonds-in-education/>
- Burnett, N. (2014) 'Do we need new forms and sources of financing for education?' Presentation, 23.10.2014. CICE Seminar, Hiroshima University
- Burnett, N. & Bermingham, D. (2010). Innovative Financing Recommendations: International Commission on Global Education Financing. Washington, DC: Results for Development.
- CIFF (2016) 'World's First Development Impact Bond On Track To Deliver Social Impact And Financial Returns' webpage: <https://ciff.org/news/worlds-first-development-impact-bond-track-deliver-social-impact-and-financial-returns/> (accessed 11.02.19)
- CIFF (2019) 'Education Development Impact Bond' webpage: <https://ciff.org/grant-portfolio/education-development-impact-bond/> (accessed 28.01.19)
- Dalberg (2014) 'Innovative financing for development: scalable business models that produce economic, social, and environmental outcomes'. Global Development Incubator, The Citi Foundation & AFD
https://www.citigroup.com/citi/foundation/pdf/innovative_financing_for_development.pdf
- Drew, R. & Clist, P. (2015) Evaluating Development Impact Bonds: A Study for DFID. UK Government: Department for International Development.
- Floyd, D., Croome, A. & Duncan, J. (2017) 'Social Impact Bonds: An Overview of the Global Market for Commissioners and Policymakers'. Centre for Public Impact, BCG Foundation.
- Gustafsson-Wright, E., Boggild-Jones, I., Segell, D. & Durland, J. (2017) 'Impact Bonds in Developing Countries: Early Learnings from the Field'. New York: Convergence/Center for Universal Education at Brookings.
- IDinsight (2018) 'Educate Girls Development Impact Bond: Final Evaluation Report'. India: Children's Investment Fund Foundation, Educate Girls, Instiglio, UBS Optimus Foundation
https://static1.squarespace.com/static/5b7cc54eec4eb7d25f7af2be/t/5b8f0cbb575d1ff85e7397c/1536101613230/Project+Report_28th+August_Revised.pdf

Innovative Financing Initiative (2014) 'Innovative Financing for Development: Scalable Business Models that Produce Economic, Social, and Environmental Outcomes'. Paris: Global Development Incubator.

Instiglio (2015) 'Educate Girls Development Impact Bond: Improving Education for 18,000 Children in Rajasthan'. Instiglio. <http://instiglio.org/educategirlsdib/wp-content/uploads/2016/03/EG-DIB-Design-1.pdf>

Lampert, S. (2014) 'Innovative Financing for Development: Scalable Business Models that Produce Economic, Social and Environmental Outcomes': Landscape Overview for the Leading Group Expert's Workshop. Presentation. Paris: The Leading Group for Innovative Financing for Education.

The Leading Group for Innovative Financing for Education (2012) 'Innovative Financing for Education: Moving Forward'. International Expert Report. Paris: The Leading Group for Innovative Financing for Education http://www.leadinggroup.org/IMG/pdf/5-_Innovative_financing_for_Education_-_Moving_Forward-3.pdf

Loder, J., Rocyn Jones, G. & Norman, W. (2013) 'Social Investment in Education'. London: Private Equity Foundation / Big Society Capital.

Quality Education India (2019) 'Quality Education India: Development Impact Bond'. Website, accessed 29.01.19 <http://www.qualityeducationindiadib.com/>

REACH (2017) 'Can Impact Bonds deliver better results, faster and cheaper? Panel Discussion on Social and Development Impact Bonds as a Results Based Financing (RBF) Approach in Education.' Results-based financing in education, Note 5. New York: World Bank.

Social Finance (2019) 'Educate Girls, Rajasthan, India'. Social Impact Bonds database, accessed 28.01.19 https://sibdatabse.socialfinance.org.uk/?project_id=54

Social Finance (2019ii) 'Quality Education, India'. Social Impact Bonds database, accessed 29.01.19 https://sibdatabse.socialfinance.org.uk/?project_id=4

Terway, A. (2018) 'Innovative financing for education: New actors and approaches.' Presentation. NORRAG

UBS (2018i) 'Educate Girls Development Impact Bond delivers impressive results, surpassing both target outcomes'. News Release, 31st June 2018. India: UBS

UBS (2018ii) 'Knowledge is power: the world's first Development Impact Bond in education'. Knowledge brochure. India: UBS.

Acknowledgements

We thank the following experts who voluntarily provided suggestions for relevant literature or other advice to the author to support the preparation of this report. The content of the report is the sole responsibility of the author and does not necessarily reflect the opinions of any of the experts consulted.

- Kausthabhi Harit, DFID
- Sanjay Valsangkar, DFID

Suggested citation

Joynes, C. (2019). *An overview of evidence regarding the impact of impact bonds as innovative financing mechanisms for supporting education in development contexts*. K4D Helpdesk Report. Brighton, UK: Institute of Development Studies.

About this report

This report is based on 12 days of desk-based research. The K4D research helpdesk provides rapid syntheses of a selection of recent relevant literature and international expert thinking in response to specific questions relating to international development. For any enquiries, contact helpdesk@k4d.info.

K4D services are provided by a consortium of leading organisations working in international development, led by the Institute of Development Studies (IDS), with Education Development Trust, Itad, University of Leeds Nuffield Centre for International Health and Development, Liverpool School of Tropical Medicine (LSTM), University of Birmingham International Development Department (IDD) and the University of Manchester Humanitarian and Conflict Response Institute (HCRI).

This report was prepared for the UK Government's Department for International Development (DFID) and its partners in support of pro-poor programmes. It is licensed for non-commercial purposes only. K4D cannot be held responsible for errors or any consequences arising from the use of information contained in this report. Any views and opinions expressed do not necessarily reflect those of DFID, K4D or any other contributing organisation. © DFID - Crown copyright 2019.

