Investment Research Report
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The Impact Bond Innovation Fund

The risks and returns of innovative finance for social change

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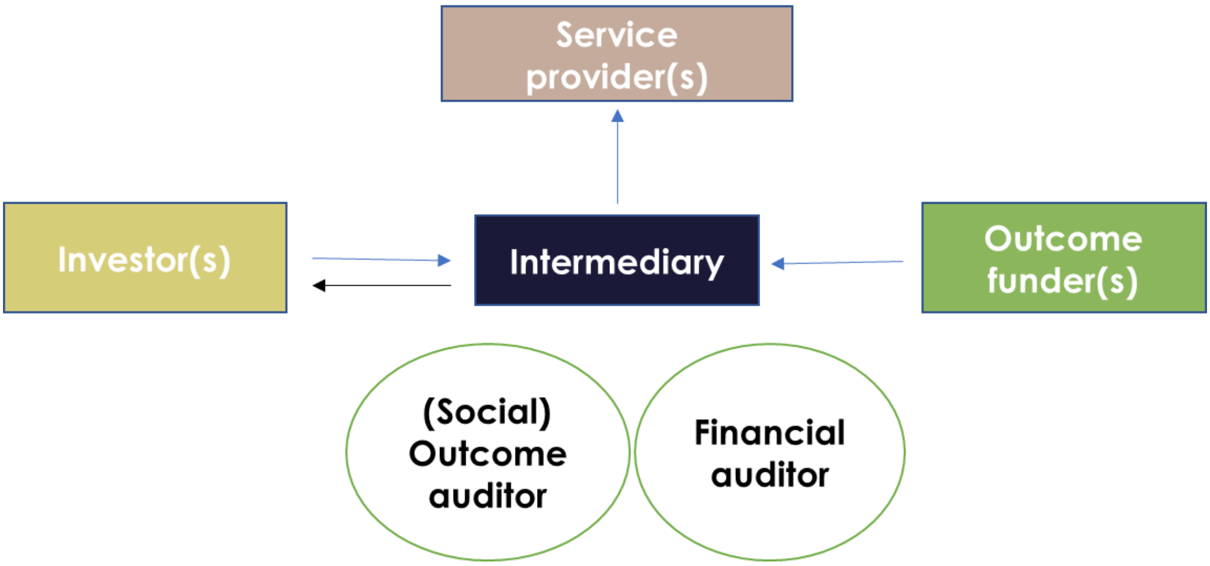
Executive Summary

In this report, we examine one of the first social impact bonds (SIBs) transacted in South Africa, the Impact Bond Innovation Fund (IBIF). This SIB aimed to deliver early childhood development (ECD) outcomes in the Western Cape. A SIB is a payment by results (PbR) financing mechanism, where investors provide working capital to implementing agents, typically NGOs, that act as service providers to deliver social welfare services. If the NGO successfully meets predefined outcome targets – such as improving school readiness through high-quality ECD services to a set number of children – outcome funders repay the investors. If unsuccessful, outcome funders do not pay, investors do not earn returns and could also lose their capital[1]. This success or lack thereof at a social level is confirmed by an independent outcome auditor. Financial success is determined by an independent financial auditor. An intermediary often manages the relationships between the different participants. The figure below illustrates the stakeholders and their relationships in a SIB.

Figure 1: General SIB structure



Impact investments generally, and social impact bonds specifically, present a new set of investment opportunities for capital markets. Independent analysis such as this report can guide future issuers and investors in such instruments. Unlike traditional investment reports that only focus on the financial returns, this report brings financial and social dimensions together.

SIBs, like other impact investment initiatives, must deliver both social and financial returns. The IBIF was launched in July 2018. This report covers performance up to October 2020. The SIB delivered above market returns during this period, with investors earning, on average, annual returns of 14%. The maximum possible return was 16%. The impact objective was the measurable performance of a home-based learning programme in two underserved areas of the Western Cape province in South Africa. Results during the period analysed show that it has been successful in improving the quality of early learning services for children reached in the target areas.

[1] In practice, outcome funders rarely pay nothing at all because service providers don't often completely fail – payments are usually proportional to the degree of success achieved by the service provider.

The table below summarises the competitive **financial** features of the SIB:

Table 1: Summary: the IBIF Social Impact Bond term sheet

Instrument type	Social Impact Bond
Issuer	The Impact Bond Innovation NPC
Issuer credit rating	None
Issued amount	R7.5 million
Price	R7.5 million
Issue date	November 2017
Maturity date	December 2020
Coupon rate	Variable, up to a maximum of 16% based on the performance of the service provider in delivering early learning services to specified numbers of children and improving their early learning test scores.
Coupon rate achieved to October 2020	14%
Coupon frequency	Annually
Callable?	No
Tradeable?	No (investors can be bought out but there is no liquid market to trade SIBs)
Early redemption options?	None
Issuance procedure	Private placement

On the social side, our assessment is based on the OECD-DAC framework for evaluating developmental effectiveness. Using these criteria (relevance, coherence, effectiveness, efficiency, impact and sustainability), we find that the IBIF delivered on social returns. It was relevant to beneficiaries' needs. It was also coherent and consistent with the early learning policy framework. It was successful in meeting its immediate aims. 4,000 preschool-aged children (and their caregivers) were provided with free early learning programming in their homes. This is double the target number of children. The quality of the services was indicated by children's scores on the Early Learning Outcome Measure (ELOM): a recently developed test to determine the extent to which ECD programming is adequately preparing children for grade R. Though the ELOM targets were missed, improvements were achieved on this score by the intermediaries and service provider.

The ELOM targets represented the true outcome measure in this SIB. That is, rather than simple output measures (number of children provided with services and number of sessions attended), the ELOM measures what that programming achieves for the children receiving it. However, less than 10% of the entire schedule of outcome payments were linked to this performance target. Returns to investors were therefore hardly affected by the underperformance against the ELOM target. Instead, the bulk of the payments were linked to recruitment and attendance targets that delivery agent FCW stood very little chance of missing based on their extensive track record prior to the IBIF.

Beyond the immediate outcomes, the IBIF is potentially catalytic for wider social changes in the lives of beneficiaries themselves and in generating improvements to the early learning ecosystem. However, we question its efficiency given large transaction costs and the high unit costs of delivering early learning services. Nonetheless, these higher costs were incurred by the outcome funders for services that are of demonstrably good quality[2]. This is unusual in the context of early learning in South Africa.

We also question its sustainability over the long term. In our view, future iterations of the IBIF could attract additional service providers, provide better quality services to more families in more areas, and enable experimentation in delivery and measurement of early learning services and outcomes. However, current outcome funders – the Department of Social Development of the Western Cape (DSD) and ApexHi - had not committed (as of the time of writing) to participation in future rounds. This is due to (a) the anticipated shift of all ECD programming from the DSD to the Department of Basic Education (DBE)[3]; (b) ApexHi's organisational strategy pivoting away from support to ECD; (c) diminishing budgets across the board at the DSD; and (d) perceived complexity of the SIB instrument by some at both outcome funding organisations. Outcome funders pay returns to investors. Without them there is no financial incentive for investors to participate and to supply working capital to the service delivery agent.

In this report we explore both the social and financial performance of the IBIF SIB in detail. We have produced a similar report for the Bonds4Jobs SIB. A third report summarises the performance of these two SIBs, and what this performance implies for the development of SIBs and impact investing in South Africa and elsewhere. In doing so, we have two aims: to build transparency in this young but growing sector, and to improve understanding among investors and the broader public of innovative mechanisms to tackle persistent social problems.

[2] From what we can gather, the IBIF provided the first data to show the efficacy of an early learning intervention carried out by community workers with young children in their homes in South Africa. Specifically, the data is from the long-running "Family in Focus" programme that was endowed with more resources (money, a new M&E system and technical support) for its implementation under the IBIF.

[3] In 2019, the Presidency announced that responsibility for early childhood development would shift from the Department of Social Development to the Department of Basic Education. It is not yet clear when exactly this shift will take place, but we do know that various government entities at provincial and national levels have begun to plan for a handover.

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Abbreviations, Definitions and Glossary

DBE: Department of Basic Education
DoH: Department of Health
DSD: Department of Social Development
ECD: Early Childhood Development
ELOM: Early Learning Outcomes Measure
EPWP: Expanded Public Works Programme
FCW: Western Cape Foundation for Community Work
FiF: Family in Focus Programme
LGT VP: LGT Venture Philanthropy
IBIF: Impact Bond Innovation Fund
m2m: mothers2mothers
PbR: Payment by Results
SDGs: Sustainable Development Goals
SES: Socio-economic status
SIBs: Social Impact Bonds

Introduction

In 2016, Social Finance – originators of the first social impact bond (SIB) – published a review[4] of the history of social impact bonds. It reported that while more than 60 projects had been launched around the world, with 30 active at the time of the report, none had been launched in Africa. This changed in 2018 with the launch of two SIBs in South Africa. First, the Inclusive Youth Employment Pay for Performance Platform (otherwise known as Bonds4Jobs), and second, the Impact Bond Innovation Fund (IBIF) whose target is to improve early childhood development (ECD) outcomes[5]. The IBIF is a three- year transaction that concluded at the end of 2020. In this report we assess its performance up to October 2020.

South Africa is at an important inflection point on sustainable investing. In June 2019, the Financial Sector Conduct Authority (FSCA) issued a guidance notice[6] to encourage institutional investors to consider environment, social and governance (ESG) issues in respect of their portfolios. ESG investing is one of seven commonly accepted strategies in sustainable investing[7]. Impact investments are another and are defined as investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return, although in some cases that financial return can be negative[8].

In a survey of South African pension and provident funds that oversee about 65% of the industry's assets under management, Intellidex found that the FCSA guidance has motivated most funds to start reviewing their policies[9]. While the mainstream domestic investment industry is only beginning to understand and integrate ESG into investment decision making, the global trend indicates that investors[10] will increasingly consider social and environmental impact as part of their decision-making processes.

SIBs are a further step towards more impact-oriented investments (that is, movement to the right in the figure below) and could be a tool for investors to improve their ESG and impact performance. South Africa's triple burden of substantial poverty, unemployment and inequality justifies an increased role in social delivery for the private sector. The IBIF provides important lessons on the feasibility of SIBs as instruments to do so.

[4] Social Finance, *Social Impact Bonds*. In this report we use abbreviated footnote references which are expanded fully in the bibliography section at the end of the report, as per the Chicago Manual of Style Online, "Notes and Bibliography".
[5] It would be more accurate to say that in November 2017, for the first time in South Africa, social service delivery using a SIB structure began. Actual close-out of the contracting for the IBIF only happened in July 2018. Bonds4Jobs – the second SIB in South Africa to begin the negotiation process – technically launched before IBIF in April 2018, at which point contracting had closed and implementation began.
[6] FSCA, "FSCA Guidance Notice 1 of 2019".
[7] Global Sustainable Investment Alliance, *Global Sustainable Investment Review 2018.*
[8] GIIN, "Impact Investing".
[9] Theobald et al., *Investing for Impact*.
[10] Global Sustainable Investment Alliance, *Global Sustainable Investment Review 2018.*

Figure 2: The Spectrum of Capital[11]

	Traditional investing	***Socially responsible investing***	***Sustainable investing***	***Thematic investing***	***Impact investing***	***Impact first investing***	***Philanthropy***
	Maximum returns, minimum risk	ESG Risk management	ESG opportunities	Measurable strategy with high impact solutions			
Objective	Seeks financial return regardless of ESG factors	Investments are screened out based on ESG risk in order to protect value	Financial returns and sustainability factors that may enhance value drive investment selection	Targeted themes and financial returns drive investment selection	Seeks to generate competitive financial return, <u>may</u> deliver below market return for investors	ESG factors take precedence over financial returns, <u>will</u> deliver below market return for investors	Seeks ESG solutions that cannot generate financial return
Approach	Mainstream investment analysis and due diligence	Negative screens for tabaco, alcohol, weapons, gambling, pornography, nuclear energy	Considers carbon footprint, resource use, waste reduction, compen-sation, product safety, gender equality	Seeks solutions for climate change, population growth, urbanisation, water scarcity, food systems	Augment and expand proven commercial models that deliver ESG outcomes	Aims to support innovation and risk taking, proof of concept/ pilots, enabling environments, commercial capital leverage	

The overarching goal of this report is to provide detailed research to the investment community and social delivery partners to build insight into SIBs as a potential financing and project governance mechanism.

The purposes of this report are as follows:

- Along with our reports on the Bonds4Jobs SIB and the summary report, this report aims to promote transparency in this nascent sector.
- To define a standard for assessing the performance of SIBs, thereby building knowledge around these innovative finance mechanisms among investors, governments and the NPO sector.
- To assess performance rigorously along financial and social dimensions.

[11] Modified from G8, *Allocating for Impact*.

Investment report

The business model

The bond and the special purpose vehicle

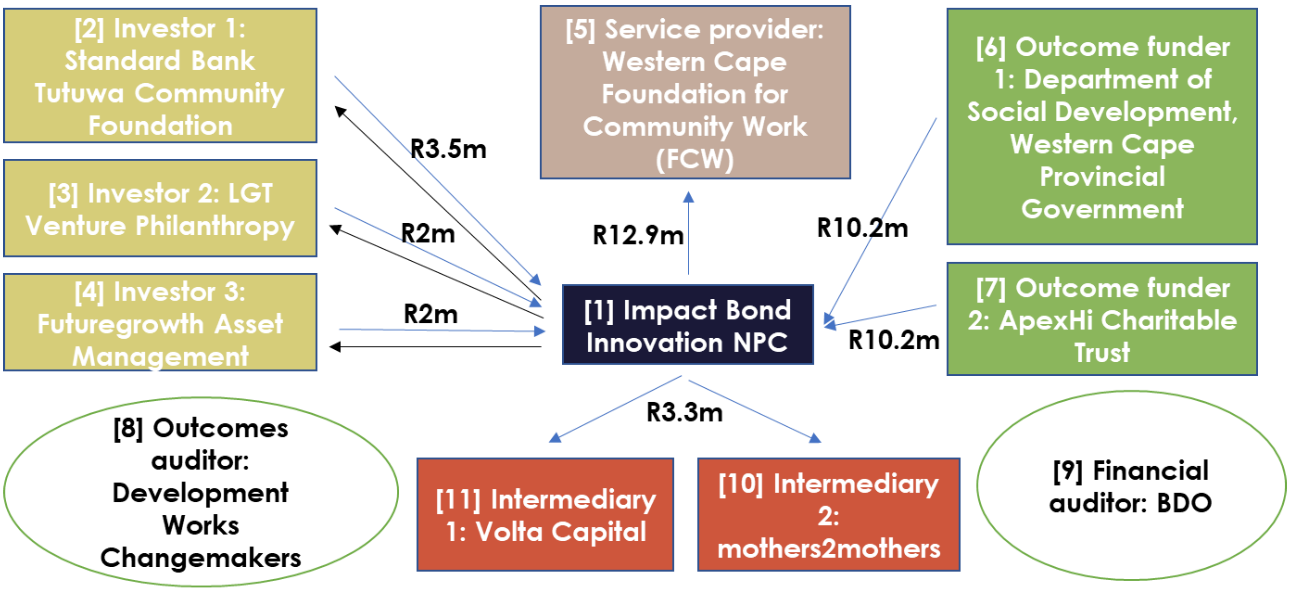
The IBIF was one of the first SIBs to be launched in the developing world, and one of only a handful globally that focused on early childhood development (ECD)[12]. SIBs are collaborations between governments, NGOs, and private investors to develop and implement social programmes. These programmes are measured and evaluated. If the programme achieves predetermined social outcomes and performance targets, then an outcome funder representing a government entity[13] (and often additional non-governmental funders too) repays an original investment with interest (made upfront by a private investor) that financed the delivery of the programme (typically done by an NGO). However, if the programme does not achieve set targets, the outcome funder pays a pro rata portion of what has been achieved (and in the unlikely case that the programme completely fails to provide a service to anyone, outcome funders will not disburse any funds)[14]. The risk of performance failure is borne by private investors[15] with the outcome funder paying only if the desired social outcomes are achieved.

With successful programmes, theoretically, everyone wins: the investors earn financial returns and meet their social outcome objectives; the NGO gets the working capital at the start and can focus on results while innovating and improving their operations; and governments along with other outcome funders pay only for successful social delivery. Everyone also learns about what works and what doesn't work in a specific funding area, potentially leading to better performance and allocation decisions across government.

For the IBIF, ECD programme delivery began in November 2017 for a three-year period ending in November 2020. The diagram below maps the stakeholders that are parties to the transaction and how these stakeholders relate to each other.

[12] For definitions, see the "Social Impact" section of this report.
[13] Social Impact Bonds always include a governmental outcome funder, while Development Impact Bonds have donors acting in this capacity instead.
[14] Social Finance, *Social Impact Bonds.*
[15] Gustaffson-Wright, Gardiner and Smith, *Effective Outcome-based Financing.*

Figure 3: IBIF structure



The **Impact Bond Innovation (IBI) non-profit company (NPC)** [1] stands at the centre of the IBIF transaction. As a special purpose vehicle (SPV), its purpose was to act as a neutral coordinating mechanism with which all stakeholders contracted. All payments and other deliverables over the lifecycle of the bond were processed through it. At the start, the NPC borrowed R7.5 million from three different investors [2][3][4], who paid the amount upfront and in full to the NPC. This provided the working capital for the **service provider, the Foundation for Community Work (FCW) [5]**, to deliver its "Family in Focus" (FiF) ECD intervention in two target areas in the Western Cape. To access this money, FCW initially submitted monthly budgets, and later proof of expenditure, to the NPC. Then, drawdowns from the total investment amount were approved for FCW to work with.

The successful delivery of the FiF programme triggered payments to provide a return to investors. Success was defined by three indicators stipulated in contracts and which were measured on set annual dates (these indicators are described below). The payments were made by **two outcome funders** in a matched funding arrangement: **the Department of Social Development (DSD) in the Western Cape [6] and ApexHi Charitable Trust [7]**, administered by Tshikululu Social Investments. Payments up to a maximum of R10.2 million (R3.4 million per year) from each outcome funder were possible. The full amounts were budgeted for at the outset, but payments depended on the degree to which the service provider had met the performance targets at each assessment point.

Outcome payments were made into the NPC, from which the investors were paid. Interest payments up to a maximum of 16% on the initial three-year investments were made annually (with annualised rates of return). These, like the outcome payments, depended on the performance of FCW. Repayment of capital, however, would take place only at the end of the three-year term and again, was performance dependent. Reports detailing performance against the targets were prepared by FCW with the assistance of the technical intermediary, **mothers2mothers (m2m) [10]**, and submitted to the outcome funders. These reports were audited by an **outcomes auditor, Development Works Changemakers [8]**. Depending on the findings in these reports, the intermediaries, m2m [10] and **Volta Capital [11]** on behalf of the NPC board, submitted invoices to the outcome funders. Payments were then made to the NPC and then to the investors, once a year on the anniversary of each investor's initial payment. Payments were calculated according to a pre-determined methodology. **Financial auditor, BDO [9]** (which replaced Deloitte), audited the NPC's financial statements annually (FCW's financial statements were audited by the NPC).

The final two actors in the transaction are the **intermediaries.** The **technical intermediary mothers2mothers (m2m) [10]** is a longstanding and highly successful international NGO specialising in HIV-related programming; reproductive, maternal, adolescent, new-born and child health; and ECD. It provided technical assistance and capacity building services to FCW to maximise the potential of meeting targets and was paid by the NPC for these services. It was also responsible for financial management on behalf of the SPV. The **financial intermediary** was **Volta Capital [11]**, which did the cash flow modelling, set up the financial structure and contracting and drew on previous experience in designing SIBs, including in other parts of Africa. As a team, Volta and m2m also raised investments, managed the SPV and the relationships between stakeholders, provided performance management and M&E capacity building services to FCW, and assumed responsibility for project reporting to the IBI board.

The cost of intermediation was budgeted at R3.2 million. This included bonuses for the intermediaries as well as for the service provider at the end of the transaction. Bonuses were subject to successful performance and full repayment to investors and other debtors as well as the availability of surplus funds in the SPV. The intermediaries each had continuous representation on the IBI board of directors. m2m appointed two directors and Volta appointed one. Each investor could appoint one director. There were thus six directors in total, who met on a quarterly basis. The outcome funders and FCW were not represented on the board but had separate quarterly meetings with the intermediaries.

The IBIF was intended as a three-year pilot intervention which would test the SIB financing model and its governance structure on a relatively small scale. If the pilot were to demonstrate success, the NPC was seen as a structure that could potentially be used to replicate IBIF on a larger scale, or to house new transactions. This could take the form, for example, of a second iteration of the IBIF with the same or different investors or outcome funders, or a SIB or other payment by results (PbR) transaction with an entirely different focus area.

The Family in Focus (FiF) intervention

History

FCW was established in 1974 to serve the welfare needs of impoverished communities on the Cape Flats with a core focus on ECD programming. It has operated home-based ECD services for zero- to six-year-olds for decades through the Family in Focus programme (FiF). Despite various iterations over the years, FiF remains focused on training community workers (hereafter referred to as "home visitors") to deliver early learning services directly within people's homes rather than in ECD centres or schools. This mode of delivery recognises that for many children in the Western Cape, conventional, centre-based programmes (that resemble formal schooling because they take place in classrooms within ECD centres or schools) are unaffordable. In addition, the aim is for home visitors to build the capacities of caregivers to engage with their children in such a way that they meaningfully contribute to their early learning and in turn their healthy development.

For IBIF, essentially the same version of the programme was delivered that had been delivered for about the previous 10 years across the Western Cape. But delivery in only two service areas would form part of the IBIF: Delft (more urban) and Atlantis (peri-urban). Moreover, the weekly sessions with home visitors would be slightly longer (45 minutes instead of 30 minutes, with the effect that home visitors would spend more time with fewer children and their caregivers). Finally, the version of FiF for the IBIF was more rigorous and data-driven. This was necessary since payments to investors based on meeting predefined targets meant robust information and measurement systems had to be put in place.

Performance targets

FCW had to meet three targets for the investors to be repaid.

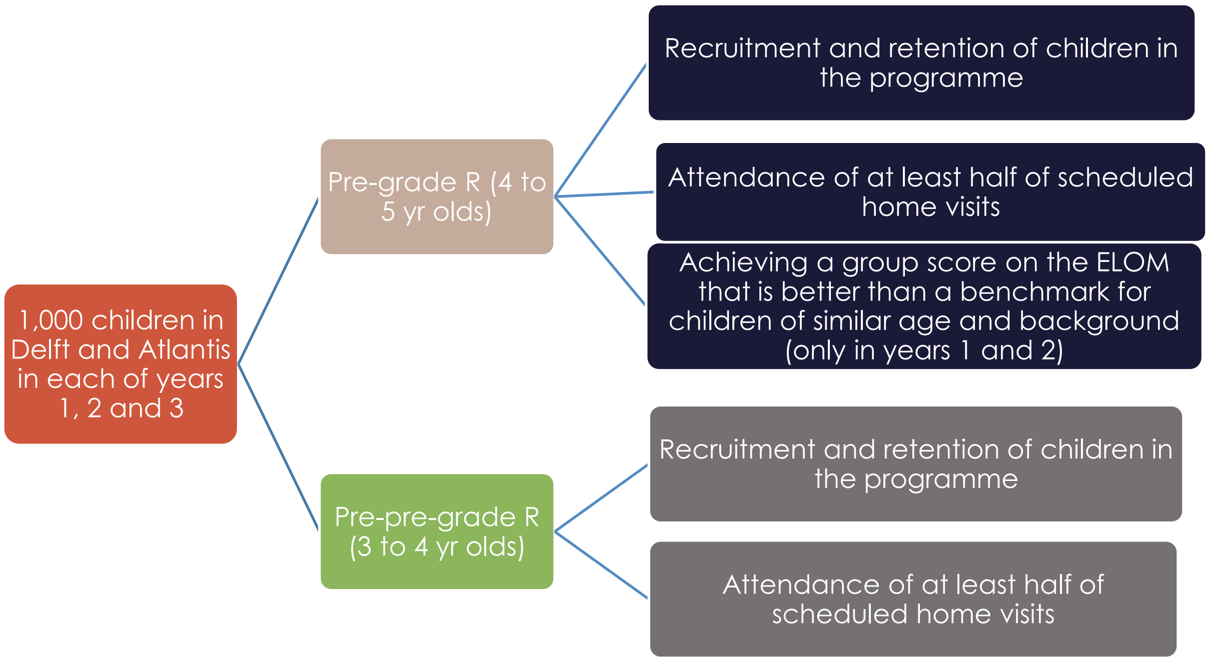
1. The **recruitment** of 1,000 children into the FiF programme per year, and the **retention** of these children in the programme over the course of each year (**recruitment and retention)**. Over three years, this amounts to an overall target of 2,000 children, given aging into and out of the two cohorts.
2. Beneficiaries **attend** (or receive) at least 50% of the programme over the year, measured by attendance records.
3. Success against the Early Learning Outcomes Measure (**ELOM**), an assessment tool which measures the extent to which ECD programming is adequately preparing children for grade R.

The group of 1,000 children was split in two ways each year (see figure below).

1. First, children from each of the Delft and Atlantis groups had to participate, in proportion to the number of home visitors already working in the area. In the beginning, this meant slightly more children in Atlantis than Delft.
2. Second, in each area, two age cohorts had to participate to make up the 1,000 target:
    1. pre-pre-grade R (three- to four-year-olds)
    2. pre-grade R (four- to five-year-olds).

The target of 1,000 children had to be composed of a minimum of 300 children in each cohort. The remaining 400 places could be filled by children in either cohort. Recruitment and retention (target 1) and attendance (target 2) applied to both age cohorts. However, the ELOM target (target 3) applied only to the older pre-grade R cohort in two years of the IBIF transaction (2018 and 2019) as the test was not designed for younger children.

Figure 4: Performance targets measured in IBIF



The outcomes payments were structured in such a way that, although DSD and ApexHi could end up paying R10.2 million each for maximum performance, the DSD's payments were conditional only on the recruitment and retention target. ApexHi's payments were conditional on the attendance and ELOM targets. In the pre-pre-grade R cohort, recruitment and retention and attendance carried equal weighting

(50/50). In the pre-grade R group, recruitment and retention also carried a 50% weight, but attendance and ELOM each had a 25% weighting (except for the final year where ELOM will not be assessed).

The ELOM measure was recognised upfront as the target that would be most difficult to hit, thus constituting less than 10% of the entire transaction. Conversely, recruitment and retention and attendance carried far less performance risk (discussed in more depth later), meaning the DSD faced an almost certain schedule of outcome payments.

In summary, recruitment and retention and attendance were targets for all three years for both age cohorts while ELOM was a target only for the older age cohort in each of the first two years (2018 and 2019). Beyond the initial agreement with the DSD that services would be delivered via a home visiting modality, no restrictions were imposed on FCW from an operational perspective regarding how it could deliver its programming to meet the targets, with expenditure monitored by the NPC.

However, the performance targets were fixed. If targets were missed in one year, the possibility existed to exceed those targets in subsequent years and thereby recoup missed payments from the outcome funders. Recruitment and retention and attendance were assessed on a per beneficiary basis. For example, if 20 fewer children were recruited in one year than required, an additional 20 could be recruited in a subsequent year. ELOM was assessed on a per cohort (that is, per group that is assessed) basis. If the first group were to achieve a group score below target in the first year of assessment, over-achieving in the second year by the second cohort could average out initial under-performance such that overall, the ELOM target could be met.

Investment appraisal

Introduction

In this section we review the financial performance of the IBIF. We compare the anticipated risks to investors against the returns earned to October 2020[16]. Our analyses are derived from interviews with 30 participants in various roles in the transaction, as well as with people who were involved in early discussions about the design of a SIB in South Africa[17].

Risk

Investors perceived various risks to participating in the IBIF. These are tabled below.

Risk	Description
Exchange rate risk	One of the investors is not based in South Africa and was investing in a rand-denominated impact bond. The rand has displayed substantial volatility in recent years.
Sovereign default risk	For the foreign investors, investing in an emerging market government with a weak credit rating posed a risk of one outcome funder potentially being unable to meet its payment obligations.
The three-year term of the bond	Some viewed three years as an unduly long time for repayment given the risks of performance failure.
Uncertainties around legislation	One investor (Tutuwa) and an outcome funder (ApexHi), both of which are non-profit trusts, were unsure if acting as

[16] The IBIF transaction ended in December 2020.

[17] For a more complete discussion of our research methodology please refer to the appendix of this report.

	an investor could be perceived as income-generating, thus representing a risk to their tax-exempt status (they ended up assuming different roles).
Service delivery risk	This is the risk of FCW not reaching its service delivery targets, with the consequence that investors would earn lower or no returns and potentially lose their capital. This was commonly regarded as the largest investment risk.
Agent risk	FCW was supplied with working capital upfront and did not bear any risk (besides reputational) of failing to meet performance targets.
Potential for lengthy delays	Due diligence took 18 months for one investor. This was due to a combination of the uncertainties around investing in a SIB for the first time and lengthy processes of contracting and approvals especially within government.
Interest rate risk	The 16% maximum return was not indexed to market rates, which reduced the risk of fluctuating market rates affecting investors' returns. However, the risk of market rates moving upwards could have increased the opportunity costs of being invested in the IBIF.

Below we outline how IBIF priced this risk into the interest rates and other aspects of the investment structure, as well as how governance and FCW's delivery evolved to manage it. First, we describe how investors managed the risk.

Diligence

The information required to probe and analyse typical investment opportunities is publicly available to enable potential investors to reach well-informed decisions. This is an important principle of company law, with detailed information requirements set out for any investment raised from the public. Typically, before any investment, financial statements and the terms of the investment instrument are scrutinised by analysts to establish whether a company has the capacity to honour its debt obligations. In the case of bond investments, technical aspects are also defined. These factors include the risk features of the bond (does it have a credit rating, or any credit enhancements such as guarantees); the price and interest rate (yield) of the bond; the maturity; and early redemption options. Finally, the investor also considers other details such as the company's investment strategies, fund management, fees and capital structure.

Additionally, institutional investors are bound by fiduciary duty because they are acting on behalf of their end-clients such as pension fund members. This obliges them to judge whether the investment is appropriate for their clients. If rigorous investigation of financial instruments cannot be conducted, institutional investors can be prevented from using alternative financing vehicles like SIBs in terms of their mandates from clients.

The table below highlights differences in the risks between typical vanilla bonds and social impact bonds[18]. IBIF investors and intermediaries described due diligence in this project as being "completely different to a normal investment", taking 18 months in the case of Futuregrowth, one of the commercial investors.

[18] The terminology is potentially misleading: social impact bonds are a unique type of bond. They are not publicly tradeable (at least, not yet, though in principle they could be). The main distinction is that investors' returns on SIBs (including the repayment of capital) depend on the achievement of social outcomes by a social service-providing organisation, rather than a typical bond which pays a set amount of interest and principal without reference to any other outcome (though there are several forms of bond that reference the performance of other reference assets in the determination of returns including exchange-traded notes and catastrophe bonds). The other important difference is that the cash flows that finance payment of the yield on the loans are paid by a third party, rather

Table 2: Vanilla Bonds vs Social Impact Bonds

Risk	Vanilla bond	Social impact bond
Credit risk	✓	✓
Interest rate risk	✓	~ (in IBIF, this risk manifests in the opportunity costs of having invested elsewhere if market rates were to increase)
Lengthy due diligence	×	✓
Performance failure of implementing NGO	×	✓
Agent risk	×	✓
ESG features	×	✓

The performance of the investment relied on an NGO's ability to deliver social welfare services, with the performance management support provided by the intermediaries to this NGO. The opinion of several investors was that this performance risk required having faith in FCW's abilities without necessarily having the firm data to back that up.

FCW's track record – and the presence of a solid, logical theory of change linking their inputs and activities to that track record (home visiting programmes by trained ECD practitioners can fill provision gaps in poor neighbourhoods and provide 2,000 children with quality services, basically) – somewhat reduced the perceived performance risk. Stakeholders knew, for example, that the longstanding FiF model had been scaled up substantially over the decade preceding IBIF implementation, from eight home visitors reaching 200 caregivers and children to 245 home visitors reaching 10 000 families and children. Moreover, the FiF programme was selected as the IBIF intervention model after a rigorous selection process which involved being selected first by m2m as the service delivery partner, and then in collaboration with m2m and Volta in the DSD's open tendering process. FCW had also been a partner of the DSD for 10-15 years and was in an existing funding cycle rolling out FiF in the Western Cape.

While these factors assuaged doubts about meeting recruitment targets, similar data on the quality of those services – the real outcome as opposed to output – was scarce. Meeting the ELOM target, then, was not perceived as a straightforward exercise. This doubt was reinforced by the nature of the ELOM measure itself. It was a new measure developed before the IBIF by Innovation Edge, and had not been used extensively in evaluations of children's early learning (and not at all by m2m and FCW, or in evaluations of non-centre based programmes).

In addition to the quality measure, both the financial instrument used for the IBIF transaction and the vehicle used to house it were completely new. The IBIF is South Africa's second SIB to launch and the IBI NPC was established specifically for IBIF. Interestingly, none of the investors mentioned the performance management and capacity building services provided by the intermediaries as mitigating performance risk (however, they were not specifically asked this question: this portion of the interviews was an open-ended

than the issuer of the bond. The outcomes funder pays if the social outcomes are achieved. From the outcome funder's point of view, the structure removes the risk of paying for social outcomes that fail to be delivered. Compared to typical public service procurement, the SIB transfers the risk of outcome shortfalls from the public sector (or other outcomes funder such as a charitable foundation) to the lenders. The lenders then have a strong incentive to ensure that delivery occurs. Another benefit from the structure is that is provides a kind of bridge loan to the NGOs working to deliver the public benefits that would be difficult to finance otherwise.

discussion of the factors that mitigated and increased investment risk). This may be a reflection of the perceived novelty of the SIB structure, especially for the two South African investors.

For some, the risk of being first movers in a new instrument could be lessened by rather waiting for others to prove the model first. Indeed, the novelty of various features of the IBIF gave it the characteristics of a high-risk equity investment. The quote below from a representative of the Tutuwa Foundation summarises these tensions:

> *"So, it's like a high-risk equity investment, if I can put it that way. I wouldn't say you'd be taking a derivative position, but it's backing a young start-up, maybe. Almost a venture capital type environment. A traditional investment, particularly where you use the word 'bond', obviously has so much certainty around it. You have coupons, you have a guaranteed return of your capital, pretty much. You can talk of default, and if there is default, you have mechanisms to provide you with collateral and the means to raise that collateral and protect your security. So, there's a vast difference. Absolutely vast, particularly in the world of fixed investing."*

One missing feature of a "normal" equity investment would be a financial interest of the entity actually delivering the product or service: the agent risk outlined in the table above.

Nonetheless there were other feasible investor options for the intermediaries. One non-participating investor that we interviewed manages an impact fund. The objective of the fund is to provide market-based financial returns at the same time as social impact – that is, they are not seen as pulling in different directions. The fund manager saw the IBIF as a perfect opportunity to do this but felt their fund was crowded out by the other investors and the small size of the total investment (and hence smaller returns and relatively large transaction costs).

Mitigation

Investors' motivations led them to approach this differently

Some of the risks identified above could not reasonably be alleviated – particularly the novelty of the transaction, the absence of performance data and the need to work with very different stakeholders than most investors would normally interact with such as NPOs and social development departments of government. This meant that the intermediaries recognised they would have to focus explicitly on impact investors.

Michelle Green at Futuregrowth cites their motivation as follows:

> *"Our sense of purpose is based on our belief that investors can make a positive difference in society while earning sound investment performance for pension fund members. Given that this investment is considered high impact and seeks to do social good, and have a positive impact on the economy, it is within our mandate… We want to do good and at the same time provide a risk-adjusted return for our clients, being the pension funds. That is part of the reason why we considered the investment when it was presented to us."*

Nonetheless, intermediaries found that Futuregrowth, as an institutional fixed income investment manager, had higher hurdles to jump in terms of satisfying fiduciary duty to their clients. Tutuwa and LGT VP were less bound by this. Tutuwa is an endowed charitable foundation. LGT VP is essentially a family foundation that positions itself as a global venture philanthropy organisation headquartered in Lichtenstein[19], with fully flexible capital to invest as it sees fit. It also has a longstanding relationship with m2m.

[19] From its website: "LGT Venture Philanthropy implements the venture philanthropy engagements of the Princely Family of Liechtenstein and LGT – the world's largest privately-owned Private Banking and Asset Management group".

Zanele Twala at Tutuwa believes her foundation had a kind of leveraging role for the other two investors. Tutuwa's investment was neither a first-loss position nor a guarantee, and it also was not subject to lower interest returns. But the riskier position was taken by making the largest investment of R3.5 million (LGT VP and Futuregrowth each invested R2 million). Tutuwa's investment did, to a certain extent, catalyse the smaller amounts from the other two investors, that could have opted for safer bets that could still be categorised as impact investments, such as infrastructure.

For Twala, financial returns were not the primary motivation for getting involved. The potential for capital repayment and interest payments represented an opportunity to recycle those funds into other social projects, ultimately ensuring that social spending goes further. Tutuwa would usually have made a grant, which is a non-recoverable expense that would be paid for a single purpose.

Finally, the three investors that participated in IBIF were *all* motivated to accept a degree of uncertainty because of a desire to be involved in an innovative pilot of a new structure that could potentially house larger transactions in future. It could lead to social returns of a less quantifiable nature if it resulted in significant changes to the way ECD programmes are conducted in the country. Another selling point was the opportunity to invest in early education. South Africa presents an unusual challenge in ECD as state resources are not adequate to ensure the required state of school readiness for the majority of children. An investable structure for this purpose was rarer still from a global perspective.

M&E

A payment structure that is tied to service delivery targets requires that the targets be unambiguously measured. For this reason, m2m worked with FCW to build and introduce a new monitoring and information management system for FCW to use in the IBIF delivery areas. The new system improved upon and maintained the existing paper-based system used by FCW for the first year of the IBIF. This evolved into a digital system for the remainder of the implementation period. With the digital system, home visitors used GPS-activated handsets to input data into an App about who they visited and for how long. Home visits were tracked in real time. This data was then synced automatically (or whenever an internet connection became available) with the server managed by the developer of the App. Home visitors were also able to track their own and others' performance using weekly reports generated by FCW that summarised the data.

The pre-IBIF monitoring system was found to be less accurate. Before IBIF, information about visits was entered on forms by home visitors, handed to team leaders at the end of the day and manually entered into a spreadsheet. This meant FCW had to rely, in the words of one FCW interviewee, "on the word of the home visitors" who could, in a worst-case scenario, "sit under a tree" instead of completing the visits. To a small extent this was true, as initial use of the new (at first paper-based) system began to show that the actual number of and duration of visits was slightly lower than what FCW management thought they'd been achieving. The first ELOM assessment, and then use of the App, confirmed some of these early findings.

FCW's IBIF project manager – introduced to manage performance – supplemented the App with on-site data verification, sharing of knowledge between the two implementation areas, and closer supervision, performance review and training of home visitors. Rather than taking a punitive approach to performance management, m2m fostered a more supportive environment. The new system came to be viewed by the home visitors and FCW as a tool to enhance their capacity to implement and to use technology more broadly – rather than an attempt by the intermediaries to micro-manage.

It is worth emphasising that the rigorous management information system is important for managing and understanding the performance of any organisation. FCW – despite being one of the larger NGOs in the ECD sector – did not have the resources to do this prior to IBIF. A stakeholder at m2m said:

"One of the things that you have to take into account is that in South Africa, and the Western Cape is not an exception to this, NGOs working in the ECD space are often small and ill-capacitated, and by that, I mean organisationally they may be doing really excellent work, but they usually are ill-funded, ill-resourced, they don't necessarily have strong organisational capacity. [However, the IBIF would] require a lot from them in terms of strong M&E, strong reporting, strong implementation, obviously strong accountability, being willing to receive direction and support from intermediary partners and have the big spotlight on them and everything."

New incentive structure for staff

A parallel effort to improve staff motivation accompanied the more intensive performance management in FCW. The first motivation mechanism was the payment structure for home visitors. Prior to the IBIF, home visitors were drawn from the Expanded Public Works Programme (EPWP). Under the IBIF, home visitors were still paid their base stipends by the EPWP, but top-up incentives were structured into the payments and, if workers performed well, were paid out by FCW's budget from IBIF. The base stipend from the EPWP was roughly R1,800 (the minimum wage for EPWP workers). With the performance-based incentives, total monthly take-home pay could be up to R3,300 – a substantial improvement.

The second mechanism was to revise the training programme to offer the home visitors a formal career path in ECD and to improve their skills as practitioners.

Finally, FCW introduced ongoing psycho-social support for home visitors. The home visitors typically lived in the same areas as the children and caregivers they worked with and faced the same stresses of poverty and violence. FCW management saw this (and the low EPWP stipend) as a contributing factor to high attrition rates and suboptimal performance, with the associated risk of missing IBIF targets.

Return

Given the risks outlined above, all IBIF counterparties in the design phase agreed upon a maximum interest return of 16% over the three-year investments for LGT VP and Tutuwa. Futuregrowth also earned an undisclosed, commercial rate of return. The discussion in the remainder of this section thus relates to the first two investors. However, the major principle underlying the calculation of returns – that is, the returns being dependent on cumulative performance – applies to Futuregrowth as well.

The interest calculation was performance dependent. A return of 16% would imply complete fulfilment of project targets by FCW, reducing by the percentage of fulfilment. For example, if 75% of targets were to be reached in the first year, an annualised return of 0.75*16=12% would be paid. If, at the end of the second year, a cumulative total of 90% of the targets had been reached, the returns would be 14.4%. The cumulative component of the calculation reflects the fact that underperformance against any of the targets in a given year could be averaged out by exceeding targets in a subsequent year.

Table 3: IBIF returns

Maximum interest rate return associated with achievement of 100% of the social targets	16%
Annual interest returns earned to October 2020	14%:

	1. Maximum payment received for recruitment and retention, paid per child beneficiary; 2. Maximum payment received for attendance, paid per child beneficiary; and 3. No payment made for the missed ELOM targets, paid on a cohort basis.
Comparison: FTSE/JSE All Bond Index (ALBI): annualised returns from July 2018 – October 2020	6.25 %[20]
Comparison: Annualised returns on interbank swaps, July 2018 – October 2020	7.39%[21]
Comparison: Annualised returns on the government bond curve, July 2018 – October 2020	7.68%[22]

LGT VP and Tutuwa earned average, annualised pro-rata returns of 14% from launch to October 2020. We can compare this with the returns of other similar tenor instruments (ie of three years to maturity) over the same period. Three-year interbank swaps would have seen an annualised return of 7.39% over that period, and interpolating an equivalent point on the government bond curve would yield annual returns of 7.68%. Similarly, annualised returns on the South African All Bond Index (ALBI) over a similar period (July 2018 – October 2020) were 6.25%.

The shortfall of two percentage points from the maximum potential return on the IBIF is due to slight underperformance by FCW on the attendance target in year one and having missed the ELOM (outcome) targets in years one and two. From a financial perspective, the returns have therefore been good. Not having ELOM testing in the final year of the transaction made it more likely that full payments would be made in the final year[23]. Although Covid-19 created challenges in measuring attendance, stakeholders worked out a feasible way to measure this target given the adjustments FCW made in the era of social distancing (this is explained fully later). In addition, the maximum return of 16% was not tied to prime or another benchmark: it was fixed. This meant that, given the sharply lower market interest rates since March, much bigger relative payoffs to investors were achieved especially in the final year.

However, financial returns are offset somewhat by IBIF's transaction costs: specifically, the legal costs of contracting, the costs of due diligence and the opportunity costs implied by the long set-up period. Setting up the IBIF was a complex and costly process beset with lengthy delays[24]. The transaction was opened in October 2016 with briefings to interested investors[25]. In April 2017 – which was the anticipated start-date for

[20] Data obtained from https://www.bloomberg.com/markets/rates-bonds
[21] Ibid.
[22] Ibid.
[23] Full payments were indeed made in the final year despite Covid-19.
[24] This is not a unique feature of the IBIF – SIBs around the world have tended to involve lengthy negotiations and extensive transaction costs, especially when the SIB is the first in a given market. These issues are unpacked in our summary report outlining the IBIF and the Bonds4Jobs SIB in South Africa and the implications of their implementation for SIBs more broadly. This report can be accessed at https://www.intellidex.co.za/reports/
[25] By the time of the transaction opening for investors, several years of work had already been done, starting with the Bertha Centre and Social Finance in designing and developing the structure, working with the provincial government of the Western Cape, defining outcome measures and identifying intermediaries, and then by the intermediaries and FCW in fine-tuning the intervention design. More details of the extensive design and development process for the IBIF – including the negotiations around the second planned SIB with a local NGO and the Department of Health– can be found in an upcoming teaching case study authored by the Bertha Centre for Social Innovation and Entrepreneurship at the University of Cape Town. See Rayner and Nkonyeni, *Financing Early Childhood Development.*

implementation – a second SIB, with different implementing and government partners but the same investors and intermediaries, collapsed. This SIB, housed within the same NPC, was intended for launch at the same time as the IBIF. It focused on improving the health of pregnant women and infant children and would have been rolled out by a local NGO and co-funded by the Western Cape Department of Health and a corporate foundation. The initiative collapsed due to inequities in the budgeting process perceived by the local NGO and disagreements about the more complicated outcomes measurement.

This meant the contracts for IBIF had to be renegotiated. Investors were expecting a larger investment amount with their risk spread across two initiatives. The implementation start date was moved back to November 2017, but even by then negotiations with investors had not been finalised. FCW began implementation at its own cost and continued in this way until the deal was closed in August 2018. In addition, the complexity of the extensive negotiating and contracting was amplified with government as a key participant. Government is accountable to the broader public whereas in a private company or NPO, approvals can be processed within days. A DSD participant mentioned contracts and procurement – and of course the continuous amendments and appendices – needing up to four levels of approval, while the smallest error or adjustment requested by one party could set the approval process back significantly.

Notwithstanding these delays, and in addition to the tangible financial returns, the project has yielded definite social returns, such as evidence of a successful ECD intervention in a context where evidence is scarce. Reflecting a widely shared view, one of the investors from LGT VP said:

> *"What is almost even more important [than the financial returns] is to know what works and what doesn't work and [knowing] to not continue funding programmes with no evidence if they positively impact our children … it would be tremendous progress if funders and government would pay for results rather than activities."*

These lessons in relation to social impacts are described in the next section.

Social impact

In this section, we discuss IBIF's social impacts along the six dimensions of the OECD-DAC framework for evaluating developmental effectiveness[26].

Relevance and coherence

An analysis of an intervention's relevance and coherence determines whether the intervention is designed to do the right things. Relevance is determined by the needs in a particular context. Coherence refers to the extent that the project complies with existing local and international policies and frameworks. The IBIF does well on both counts. We explain how in this section.

Early childhood development in South Africa[27]

ECD refers to our physical, cognitive, social and emotional growth until entering formal schooling, and to the work that is required to promote this growth. A significant component of ECD is early learning. Early learning "happens when children use their five senses, move their bodies, hear and use language, experience different places, interact with people, and explore different objects"[28]. It occurs in everyday interactions when caregivers read, play with or tell stories to their children. In South Africa, many (perhaps

[26] OECD, "Revised evaluation criteria definitions".
[27] For more detail about the landscape of ECD in South Africa, please consult the appendix of this report.
[28] WHO, "WHO Guideline".

the majority) of caregivers have neither the time nor the resources (such as knowledge and books) to do this adequately and require more structured, professional support. Structured early learning can take place in group-based settings (for example in ECD centres led by qualified teachers, creches and playgroups) or during home visits by qualified ECD practitioners[29].

Unfortunately, though, 36% of children aged three to five do not attend any type of early learning programme. Cost is a major barrier to access. In South Africa, roughly one third of children under the age of five live in households with no employed members[30], half of households live in poverty[31] and the median wage is well below the cost of basic needs[32]. Yet only around 12% of children have access to *partially* subsidised ECD programming where caregivers must usually pay a variable portion of the required fees[33]. The state also underspends on ECD relative to other areas, whose beneficiaries have the kind of voice that enables greater action (an example of this activism is the "fees must fall' campaign). In 2018, 1.5% of GDP was spent on ECD and only 6,5% of that amount was spent on early learning, nutritional support and responsive parenting[34].

Nonetheless, Ilifa Labantwana, a major national ECD initiative, estimates that half of the three- to four-year-olds in an early learning programme are receiving low quality services[35]. Studies show that ECD programming at grade R and earlier levels suffers from inadequate training of teachers and practitioners as well as under-resourcing[36]. More widely, very little data are collected on service quality and learning outcomes. We therefore do not know definitively how best to modify service delivery for better learning outcomes.

This reflects characteristics of South Africa's education system more broadly, where access (quantity in enrolments) has been prioritised over quality[37], with a lack of effective structures of accountability for poor teaching and learning outcomes, inadequate teacher training and poor infrastructure[38]. Problems in education reflect problems in governance in general. Performance management and M&E in the public sector is governed by multiple but discrete frameworks and enacted by different levels of government, leading to blurred lines of accountability[39]. There is also evidence to suggest a weak performance culture, driven by haphazard enforcement of performance contracts[40], malfunctioning penalty systems and poor data and information management[41].

Limited access to quality early learning is a serious problem. Early childhood marks the fastest growth phase for human brains, which are also uniquely responsive and sensitive both to positive and negative stimulation, or "plastic" (malleable), at this time[42]. We now know from neuroscience and biology that failure to provide the right kinds of stimulation can lead to physical underdevelopment of the brain that can set children at a disadvantage from which they never recover[43]. While the longitudinal evidence in South Africa is still not

[29] Hall et al., *Early Childhood Review*.
[30] ibid.
[31] Stats SA, *Poverty Trends*.
[32] Isaacs, *National Minimum Wage*.
[33] Hall et al, *Early Childhood Review*.
[34] Ilifa Labantwana, *Early Childhood Development*.
[35] ibid.
[36] Van der Berg et al., *Introduction of Grade R* and *Binding Constraints in Education*; Hall et al., *Early Childhood Review*.
[37] Gustaffson-Wright, Gardiner and Smith, *Effective Outcome-based Financing*.
[38] Van der Berg et al., *Binding Constraints in Education*; OECD, *Quality and Relevance of Skills*; Cameron and Naidoo, "Managing for Performance".
[39] Ijeoma and Sambumbu, "Improving Public Accountability".
[40] Hendricks and Matsilitza, "Management of Employee Performance".
[41] Cameron, "Smoke and Mirrors".
[42] Gustaffson-Wright, Gardiner and Smith, *Effective Outcome-based Financing*; Yoshikawa et al., "Effects of Covid-19 on ECD".
[43] Yoshikawa et al., "Effects of Covid-19 on ECD".

extensive, it is not unreasonable to conclude that widely observed poor learning outcomes among older children[44] are a result of not having had an adequate early learning foundation.

There is an enormous funding gap if universal coverage of ECD services across the five domains of the essential ECD package (explained in the Appendix) is to be achieved by 2030. In 2018 the gap was estimated at R34.3 billion by Ilifa Labantwana[45]. At the same time, government's ability to pay is declining due to the economic recession and falling tax revenues. This calls for innovative financing mechanisms – like SIBs – to mobilise private capital[46]. In the IBIF, the potential of drawing in private investment capital represented a welcome injection of funds into an under-resourced area. Although it is the outcome funders who ultimately pay for successful programmes, the investors here catalysed the innovations in early learning service delivery that have improved the quality of services received by children and their caregivers.

Effectiveness and impact

In this sub-section we interrogate the extent to which the IBIF met its social objectives, that is, its **effectiveness**. We also assess what sort of differences the intervention has made, which goes beyond assessing the immediate results to judge the **impact** of the IBIF on its beneficiaries and other stakeholders. Broadly, IBIF was effective in meeting its **output** objectives of recruitment, retention and attendance. But it was not as effective in meeting the ELOM **outcome** target. We also see the potential for IBIF to have a definite, positive impact on the ways that early learning is conducted in South Africa.

The IBIF performance targets

Recruitment and retention of children in the home-based learning programme, along with **attendance**, were the most basic indicators of the ability of the programme to promote **access** to early learning in areas characterised by poverty and limited centre-based opportunities. **Quality** of that access was determined by the third IBIF target, the Early Learning Outcomes Measure (ELOM).

The **ELOM** measures "what children of particular ages and stages should know and be able to do"[47], via a 45-minute test administered by a qualified ECD practitioner. The test assessed, in a random sample of IBIF children, gross motor development, fine motor coordination and visual motor integration, emerging numeracy and mathematics, cognition and executive functioning, and emerging literacy and language. Establishing what an appropriate score is on these tests is the result of a norming exercise conducted by the researchers who developed the ELOM tool. "Norming" is the process of developing a set of norms or standards for performance on a test for a specific population, against which a sample can be compared. For the ELOM, norming entailed piloting the test across South Africa's five school quintile areas[48], in five languages and in urban and rural areas. The ELOM was therefore developed in South Africa for South African children. Most similar measures are developed in the global North for children living in quite different socioeconomic circumstances.

This led to the development of a distribution of scores, with the top 40% of scores assumed to reflect healthy, normal development. The IBIF sample of pre-grade R children could then be compared against this distribution to assess group performance relative to South African children of similar socioeconomic

[44] For example, international benchmarking tests consistently rate literacy and numeracy for senior primary school learners as exceptionally low (see Howie et al, *Grade 4 PIRLS Literacy*; Spaull & Taylor, *Educational Quality*; Hall et al, *Early Childhood Review*; and OECD, *Quality and Relevance of Skills*) and the dropout rate from high school is alarmingly high (see Weybright et al., "Predicting Secondary School Dropout").
[45] Ilifa Labantwana, *Early Childhood Development*.
[46] De Witt, *Innovative Financing for Education*; UN, "Sustainable Development Goals".
[47] Dawes et al., *Early Learning Outcomes Measure*.
[48] School quintiles are a system for classifying South African schools, with quintile 1 schools representing the poorest 20% of schools and quintile 5 the wealthiest 20% of schools.

background (socioeconomic status, or SES) and age. The SES quintile selected as the appropriate benchmark for the IBIF children was quintile 2 (5 is the most well-off quintile). The ELOM target for IBIF was thus set at the average score for quintile 2 children, plus 0.2 standard deviations. The 0.2 standard deviations was assumed to be a reasonable estimate of an effect size for a home-based early learning programme by those who designed the measure. In other words, IBIF children were expected to perform slightly better on the ELOM test than similar children not exposed to any early learning programme by virtue of having gone through the FiF programme.

Box 1: The difference between outputs and outcomes

In the IBIF, only the ELOM was a true outcome measure. Outputs are chosen more often than outcomes in outcomes-based contracts such as SIBs[49]. Outputs are the tangible products or services that an organisation produces. Outcomes are the effects of those products and services on the behaviour, knowledge or wellbeing of their consumers or beneficiaries.

Outputs are preferred for several reasons. First, wellbeing is complex and difficult to attribute. For example, if the DSD implements an early learning programme, would it be fair at a later date to attribute better early learning indicated by ELOM scores solely to the DSD? What about maternal health programmes run by the Department of Health? Or the effects of community safety and sanitation policies, implemented by different departments but which both affect early learning? Perhaps their caregivers had a material change in circumstances that increased household income, reduced stress and increased their ability to "home-school" their children.

Some of these aspects can be controlled for in evaluation but this typically requires measuring them, which is expensive and time-consuming and can distract from actual programme delivery. It is far easier to measure and attribute responsibility for a programme delivered to a certain number of children with a set number of lessons.

Performance on targets 1 and 2: Recruitment and retention and attendance

In year one (2018), FCW fell slightly short of the **attendance** target in the pre pre-grade R group. Ninety percent of children and their caregivers completed at least 50% of planned sessions with the home visitors. Subsequent recruitment and retention and attendance targets were exceeded. FCW exceeded the targets in 2019 for pre pre-grade R, and in 2018 and 2019 for the pre-grade R cohort. Part of the reason for FCW missing the target for the pre pre-grade R group was the delay in investment. FCW had to operate using its own funds for the first eight months and could only implement the new digital M&E system much later to replace the less accurate paper-based reporting system.

Exceeding the targets in subsequent years allowed investors to claw back returns lost in the first year. For the final year, 2020, stakeholders agreed a new way to measure attendance in the context of social distancing. Apart from this issue, attendance and recruitment targets were regarded universally as clear, easily quantifiable and realistic. Overall, the IBIF provided services to 4,000 children in the target age group and to their caregivers.

Performance on target 3: Early Learning Outcome Measure (ELOM)

FCW missed the ELOM targets at both assessment points in 2018 and 2019. Several reasons were proffered for missing the target on the first ELOM assessment. One set of reasons relates to the poverty that the

[49] Gustaffson-Wright, Gardiner and Smith, *Effective Outcome-based Financing.*

beneficiaries live in. At the first ELOM assessment, some children needed to be excluded due to malnourishment and hunger.

A second set of reasons derives from the nature of the ELOM assessment. It required that the children interact, on a one-on-one basis (without their caregivers), with a stranger (the trained assessor), in a strange environment (the testing location) for 45 minutes. For children not in a centre-based early learning environment and therefore not accustomed to this kind of interaction, this proved to be challenging.

FCW worked with these insights to ensure that despite missing the target again in year two, improvements were seen in the results. FCW did this by familiarising children with the testing process via mock testing; introducing psychosocial support services to home visitors (along with the system of monetary incentives described earlier) to motivate them for better performance; and introducing a component of their standard non-IBIF work into the IBIF in the form of parenting groups where caregivers can support each other. FCW also made the testing day easier by providing food packs to caregivers and children. Finally, FCW made a greater effort to ensure that the next cohort of children and their caregivers attended more sessions and that programme content was more closely adhered to. This meant that this group received more and more intensive early learning services in the year leading up to the assessment.

FCW had hoped to do a third ELOM assessment at the end of the final year of the IBIF despite it not being part of the contracting, to see if it could sustain improvements. This did not happen due to Covid-19.

Some believed that the missed target in the second year indicated that ELOM was inappropriate for a home-based early learning programme. This measure was decided on in the very early stages of the IBIF's design, without consultation with the intermediaries and service provider who would ultimately have to work with it. Children at ECD centres learn in a more structured and intensive way, where there is more control over content and dosage (repetition of content). Most caregivers in the IBIF were regarded as unable to provide that kind of intensive structure daily (recall that home visits happened weekly and between visits it was up to caregivers to repeat content and take charge of the learning process). An interviewee from m2m said:

> *"They have a lot of other stresses within the household. Something as basic as, for example in Delft, gangsterism – just shooting by gangsters and that kind of thing at any given moment. There's socioeconomic conditions under which they operate. So, … in the centre based ECD programme you would have almost a bubble or a cocoon of children that are in that centre that are sort of cut off from everything and everything is just centred around them and them being able to do what needs to be done. That doesn't apply to children that are being home schooled, as good as it is in creating the bond between caregiver and children."*

Some of the interviewees regarded the children in the IBIF as being more vulnerable and impoverished than centre-based children. The underlying assumption amongst these interviewees was that centre-based children are better off because their parents can pay for those (more expensive) services. They therefore thought that the benchmark was set at an unfairly high level.

An M&E specialist who was involved in selecting the outcome measure before FCW had been chosen as the implementing partner said that, had she known that a non-centre-based intervention would be chosen for IBIF, a different tool could have been more appropriate (such as the Piccolo measure of the quality of caregiver-child interaction). Nonetheless, she and others provided good reasons for having stuck with it. First, ELOM was regarded as appropriate for South Africa given its development and testing in the country and the context-specificity of early learning. In addition, the norming process for ELOM removed, to some extent, the need to use a more expensive methodology such as measuring a control group, because norming by definition compares scores against what is considered normal or healthy for the target population.

Box 2: The home visitors' and caregivers' perspectives

Interviews with home visitors confirmed several findings arising from the interviews with the other IBIF participants.

Four of the nine home visitors we interviewed began working for FCW in 2018 or earlier and were therefore able to comment on the changes to their work that the IBIF brought about. One of these home visitors, who works in Atlantis, spoke about the new performance management system:

> *"When we started [as IBIF home visitors] we were writing down everything. We were writing down all the information about the visits. Also getting the parents' signatures. But in 2018, they introduced the phone. So now we are capturing all the data on the phone. The time we come into the house, the time we leave, our comments, how the lesson went, if the child understood…things like that. At first it was not easy because we were not used to writing down everything in detail, but as time went on, we got used to the phone. Now it's good. We understand what to do, what to write, so at the office they get the correct data. But I still have my own notebook where I capture the information. So if they at the office say we didn't get the information on this day, I can show them. Because it happens sometimes, because of network [issues], they say, 'we didn't receive your work for this day'. So it helps to have my notebook...it comes in very handy."*

Thus while using the App had become easier, challenges – or 'hiccups' in the words of another home visitor – remained. The biggest challenge was the syncing of data, particularly when network coverage is spotty. This could lead to data on some visits being lost. A common strategy home visitors used to mitigate against this was to maintain written records of all visits.

Other changes to FiF for the IBIF mentioned by the home visitors include longer visits with fewer children, in a narrower age range (two and a half years to five years, compared with conception to six years pre-IBIF). Those who mentioned the age changes reported that they had stopped seeing the babies that they worked with pre-IBIF, or during the IBIF worked with one sibling (in the target group) and not the other (outside the target group) in some households[50]. These home visitors and the children's caregivers were not happy with this change (a reflection of the value that caregivers attach to programme participation).

There was also mixed reaction to the changes in session length and target numbers. Instead of having to conduct 30-minute sessions with 35 children per week, the IBIF target was 25 children per week in 45-minute sessions. Though the reduction in numbers meant fewer households to visit, less time spent recruiting and less time spent walking from house to house, some preferred the shorter sessions. They said that children and the caregivers often struggled to concentrate for the full 45 minutes. In addition, getting caregivers to commit to a session upfront proved to be more difficult with the longer sessions. Caregivers tended to come up with more excuses for not being available at the time of a scheduled visit than before.

[50] A representative of m2m notes that this was not intended. In some cases, home visitors continued to work with both siblings, but IBIF reporting only included data on children in the narrower age band, as this was related to outcome payments.

Indeed, working with the caregivers was seen by most of the home visitors as being more challenging than working with their children. Poverty and unemployment and accompanying social ills like alcohol and drug abuse are rife in Delft and Atlantis and affected many caregivers participating in the FiF programme. But despite not being professional social workers or counsellors, home visitors appeared to be skilled in working through caregivers' often serious personal problems. One home visitor in Delft said:

> *"Last year I had a parent…because of the programme, she's working now. She's off the drugs and went to rehab. The IBIF programme helped a lot. So this parent got help, changed her lifestyle, and is a better parent now. She's been off drugs since last year November, which is almost a year now. So I think the programme really helps the parents as well, not only the child. We go out there and give the parents hope, try to encourage them. And because of IBIF we were able to give them direction and also we had information we were getting from them, like the substance [abuse] helplines. So when we fill in the information in the App [about caregivers' problems], it tells us where the parent can go for help, what they can do, and stuff like that."*

A home visitor in Atlantis said that beyond drug and alcohol abuse, there is a general sense of hopelessness in the area that often left caregivers demotivated and disengaged from their children's learning. Keeping caregivers, rather than children, interested over the course of the year was difficult:

> *"Many times, you find the child is eager to learn but the caregiver is not willing to do the homework. When I'm there is the only time the child is learning. So I need to find ways to encourage the caregivers, to keep them interested in the programme."*

This frequently took the form of "giving the parents hope", or providing emotional support, as highlighted in the previous quote. One upshot of the large-scale unemployment in the areas is that it made recruitment and retention and attendance targets easier to meet as most caregivers did not have working obligations that kept them away from home for long periods of time. Nonetheless because of the prevalence of alcohol abuse and what appears to be substantial depression amongst caregivers, the caregivers were not always in the right frame of mind for an early learning session with their children and the home visitors.

There is also a lot of crime in the two areas that endangered the home visitors during their work. They walked from house to house and were subjected to the threat of both contact crimes such as mugging and organised gang violence which frequently erupted into indiscriminate gunfire[51]. On days when the violence was particularly bad caregivers typically refused to admit the home visitors to their homes.

Finally, the home visitors were unanimous in their views of the impacts of their work. When asked what her work means to her, one home visitor reflected on the need for home-based early learning services and how delivering those services makes her feel:

> *''To me it means a lot. A lot of parents – a lot of the parents we work with, don't have the money to send their children to creche. So for me to be able to go out there and empower the children, and empower the parents as well, it really means a lot."*

[51] National and local police have failed, over many years, to curb gang violence on the Cape Flats. The violence has killed thousands of people, many of whom are children caught in the crossfire. See for example Meyer, "Cape Flats Violence" and Dordley, "Gang-related Violence".

Another talked of the improvements in child-caregiver relationships that her work brought about:

> *Interviewer: "Have you seen any changes in the families you work with?"*
>
> *Interviewee: "Yes! I'm going to talk about a child I started working with in January. Most caregivers, they don't know how to communicate with their children. How to convey a message to their children, they shout, they swear…but as time goes on I see the bond between this little boy and his mother is so much stronger…the mother is calmer when communicating with the child, those things make me happy. Another family, when I go in, the whole family comes and sits down. Even the father, he comes and sits down and participates, he helps the child. All these things make me feel I need to continue doing this. Another parent, last year, the child went to grade R and the parent was commenting about how well the child is doing in school. And now because they learned how to communicate with the child, how to help with the homework, it's easy for her to help the child now in grade R when she comes with the homework. Now the parent finds time to sit down with the child and do the homework with the child because they're used to that – to talking and working together…it's so helpful because she even tells the neighbours! So even they want to put their children in the programme and that's making recruitment easier for me!"*

The national lockdown (see also Box 3) also had the unanticipated consequence of increasing fathers' involvement with their children which has endured since the end of the lockdown:

> *"The response we've got from the fathers was brilliant. They've now seen what the mothers were going through during the day [the FiF programme prior to lockdown] and they enjoyed it, so they've built these bonds, playing together. We'll ask on Monday what did you do over the weekend? And we hear the whole family, not just the mother, but the mother and the father, are bonding and interacting with the child."*

Overall, the home visitors were happy with the way that the IBIF was managed. Particular plus points were the introduction of the performance incentive and higher monthly salary; the weekly meetings with team leaders who are the first port of call when home visitors are experiencing any difficulties with either learning content or dealing with difficult caregivers; and the psychosocial support sessions.

Unfortunately, we only managed to get hold of three caregivers for interviews about their experiences. All three women enrolled in the programme in 2019 – that is, in the middle of the IBIF implementation period. They were all happy with the programme, with one caregiver emphasising the value of the home visitors' work with under-privileged families:

> *"The programme cares a lot about the children, and it helps them a lot if the parents can't help them."*

Some of the content areas they mentioned their four- and five-year olds having learned when they were part of the IBIF include:

- Being able to relate their personal details, such as their names, ages, addresses and family members' names.
- How to describe the weather.
- Identifying different colours, shapes and parts of the body.
- Counting from one to ten.

- How to identify and talk about emotions.

Beyond these specific lessons, the caregivers all noted better relationships with their children, who have become more confident since their weekly sessions with the home visitors:

> *"I can see some changes in my daughter especially when I compare her to other children who don't follow the programme. She is now able to talk much more easily and she knows things that other children don't know. My daughter is now more open with other children and she finds it much easier to speak to other children. Also, she is able to count better than other children and she can name different body parts in English while other children can only do this in their own languages. And I think my relationship with my daughter has changed since she has been part of the programme. Also, previously she only spoke to the family, but now she can speak to other people too."*

The only recommendation arising from these three interviews was for more sessions:

> *"I am happy with the programme, but I think it will be better if they can see my daughter more than once a week. The programme is nice and my daughter has learned a lot and I am very happy about that".*

Evaluation methodology

Development Works Changemakers was contracted to verify FCW's performance against the two output targets as claimed in the outcome reports submitted by FCW. When the pre-specified numbers of children had been recruited and attended the minimum of 50% of planned sessions with a home visitor, this was regarded as success. The numbers reported by FCW and the intermediaries were assessed for accuracy by checking data records, site visits and phone calls with caregivers. The evaluation also included a separate, one-off M&E systems review to assess the App, supervisory procedures, training of home visitors and other processes. The ELOM test was administered by a separate team of ECD experts, and Development Works Changemakers checked the accuracy of reporting against it. As with the output targets, when a pre-defined (average) score on the ELOM test was achieved, this was taken as an indication that the FiF programme had been successful in improving children's early learning.

The evaluation that Development Works Changemakers were contracted to conduct is not an impact evaluation. It is more accurate to refer to their work as a 'social audit' of the progress against performance targets reported by FCW. As such it does not test the quantitative impact of the IBIF FiF on its beneficiaries and was not intended to do so. Nonetheless, data were collected by various parties on the FiF's performance and outcomes. The remainder of this sub-section is therefore not intended as a criticism of the social audit, and more a discussion of what might have been possible in terms of the measurement of the IBIF's social impacts.

The "gold standard" in impact evaluation is the randomised controlled trial (RCT). RCTs involve comparing the outcomes achieved in an intervention group with a control group – that is a group of similar children that did not receive the intervention. The latter group provides the counterfactual: a proxy of what intervention beneficiaries' outcomes might have been if they had never been part of IBIF.

The IBIF did not include measurement of a control group, for understandable reasons. RCTs are expensive and require intensive ongoing management to ensure they are conducted correctly. However, a counterfactual can be arrived at in other ways. To some extent, the nature of the ELOM tool mitigated the need for a control group because it compares the IBIF children against a rigorously defined benchmark for South African children of similar age and socioeconomic background. In addition, because ELOM was measured twice, the first year could be considered a baseline, and the second year a loose measure of the effectiveness of the adjustments to programming made by FCW. However, an ELOM assessment run on groups from Atlantis and Delft that did not participate in the IBIF may have provided a sounder measure of the IBIF's impact.

In the case of the output targets, we do not know exactly how many children were reached by the pre-IBIF version of FiF in Delft and Atlantis, nor who would likely have continued to receive that version of FiF in the absence of the IBIF. Such information would assist in identifying the impact of the IBIF on increasing access to early learning. However, we do know that FCW reduced the numbers of beneficiaries served in the two areas. This was due to a desire to focus on quality in the IBIF age groups and also because many home visitors focused their work on these age groups, rather than children in the full 0-6 age range. The net effect of the IBIF, while improving service quality, may therefore have been to decrease access to early learning in Delft and Atlantis.

It might also have been useful to explore variation within the sample of children. This can be useful in non-experimental designs. For example, data at the level of the child (eg sex, health), caregiver (eg education, health) or household (eg income, employment) could be analysed to determine how the intervention works differently for different sub-groups of children and caregivers in the different areas. Some of this data were collected by FCW. But to the best of our knowledge these analyses are yet to be undertaken by FCW, the intermediaries or social auditor. Finally, adherence – that is, whether and to what extent the curriculum was being complied with – was not assessed. This means we cannot determine the different kinds of impact the FiF had on different children and caregivers, nor whether certain aspects of the curriculum are more useful than others.

Nonetheless we can speak of positive impacts more qualitatively. First, FCW and m2m worked intensively on fine-tuning and improving the FiF programme. This was in part motivated by the SIB structure and the need for children to perform well on assessment tests. These programmatic improvements would have been less likely to happen in the absence of the IBIF and if children had continued to receive the same type of and intensity of services as before (recall FCW operated in these areas prior to IBIF), without the impetus provided by the outcomes focus or the organisational knowledge provided by the new M&E system. A clear benefit of IBIF, then, is that children receive a more effective service. The fact that organisational learning has occurred and that FCW has already begun making changes in other areas of its operations make it likely that other children and their caregivers will also in future receive better early learning services. The new data have also confirmed for FCW that its intervention design is sound, with implications for example in the ability to attract funding.

There are also implications for governance and social service delivery beyond FCW. The DSD now has a much better idea about what is needed to ensure effective home visiting programming whereas solid data had previously been scarce. It believes ELOM can help it to define early development and school readiness more objectively and has adopted it as a measure in a separate DSD project (though not in a PbR-type contract). This marks a significant shift in how early learning is being tracked by DSD, away from inputs and outputs (ie, the numbers of children accessing services or numbers of care workers delivering services) and towards actual learning outcomes.

BOX 3: Covid-19

Covid-19 and the attendant lockdown did not interrupt IBIF programming to the extent that was seen elsewhere in the ECD sector. This because of two reasons. First, the early learning programme was carried out by home visitors during home visits with children and their caregivers, rather than the children having to attend a physical facility. This had the unanticipated benefit of not needing a classroom environment to continue.

Second, FCW exhibited a great deal of flexibility and innovation to ensure that learning was not interrupted. This involved a rapid shift to e-learning, made possible by the preceding shift to the virtual M&E system, FCW's longstanding practice of providing home visitors with mobile phones, and budgeting flexibility for FCW built into the IBIF. During the lockdown, instead of home visits, home visitors made weekly calls to caregivers explaining content for the week. They also sent daily WhatsApp messages as reminders. FCW's home visitors worked around the issue of data unaffordability by asking caregivers to use WhatsApp status updates to upload images of the activities completed each week.

The lockdown also meant that the measurement of the attendance targets had to be renegotiated for the final year of the transaction, given the impossibility of home visitors making physical visits. Luckily ELOM testing – which would have required a lot of face-to-face interaction – was not scheduled for 2020 at the start of the IBIF transaction.

Efficiency

Efficiency analysis assesses how well resources are used to achieve the programme outcomes and impacts. This is difficult to assess without rigorous data from the DSD on children reached, resourcing requirements and learning outcomes prior to IBIF. However, we do know that paying for successful IBIF outcomes (the adjusted FiF programme and intermediaries via the SIB model) is more expensive than the version of the FiF programme that the DSD funded previously on an input-basis (and currently in non-intervention areas) by DSD, and that it reached fewer children. The DSD therefore paid more to reach fewer children – R10.2 million for 2,000 children (ApexHi roughly matched the DSD's outcome funding and could be seen as paying for the other 2,000 children)[52]. In addition, home visitors continued to earn EPWP stipends during the IBIF, which is a cost that would be borne by the DSD whether the IBIF was ultimately successful or not (though ApexHi's funds mean the DSD paid *less* on home visitor staffing costs for the IBIF). However, these purely short-term financial losses are difficult to compare against (a) the social benefits that derive from having delivered higher-quality early learning to these children and (b) the possibility that lessons from the IBIF can be applied across FCW, other ECD providers and government entities responsible for ECD due to the availability now – for the first time – of high-quality data.

Sustainability

Whether the IBIF's benefits will carry into the longer term – that is, whether these benefits are **sustainable** – is open to question. The transaction concluded at the end of 2020. There are plans afoot to launch an IBIF 2.0 with more beneficiaries and larger investment amounts. However, not all parties had recommitted to another round of participation at the time of writing, which would scale back the positive yet small gains from the first IBIF transaction.

If IBIF were not to continue, evidence of FCW's willingness to implement the lessons from its experience is encouraging. It has plans, for example, to roll out a version of the App across the organisation and to

[52] Although the IBIF target was to run the FiF programme with 2,000 children, they actually reached 4,000 different children in the target age range during the IBIF implementation period.

continue with the more rigorous, broader M&E system. But this is expensive and was made possible only by the outcome funding catalysed by the investors in the IBIF.

Exit from the SIB would most probably lead to a reversion to the previous funding arrangement. It would enter into a direct funding relationship with the DSD, with a smaller budget per area. Home visitors would receive EPWP stipends without additional monetary incentives and there would be no outcome testing.

DSD's budgets were being cut even before Covid-19 and it has had to divert resources and attention to its crisis response. It will therefore likely reduce budgets for FCW, despite being satisfied with its capabilities. Regardless of the DSD's situation, the upcoming shift in mandate for early learning from the DSD to the Department of Basic Education (with the full shift envisioned in the next five years) would require having to introduce the SIB concept and negotiate with an entirely new set of stakeholders. The experience in the IBIF has demonstrated that this would be a complex (though obviously not impossible) endeavour.

ApexHi has also ruled out further participation (despite being happy with FCW and establishing a side relationship on food relief to support broader FCW operations) due to a decline in endowment (another Covid-19 consequence) and having less money available for funding. More importantly, it has undertaken a major strategic shift away from ECD.

Analysis and recommendations

We conclude with a short discussion of IBIF's strengths and weaknesses.

The IBIF **provided investors with decent returns** that are **above market returns.** Over the first two years, investors earned annualised returns of 14%, out of a maximum of 16%. By the end of the third year in November 2020, this annualised rate likely increased slightly. This is because the difficult **ELOM** outcome (the early learning test) did not form part of the third year's assessments. In the third year, only **recruitment and retention** and **attendance** were assessed with outcome payments made on the basis of performance against them. These targets were far easier to meet.

The impact of Covid-19 on the Family in Focus (FiF) programme was managed very well by FCW, with the support of the intermediaries. Despite not being able to physically conduct home visits during lockdown (which began a couple of months into the start of year three), innovative solutions were instituted to maintain service delivery and thus the retention and attendance of children in the FiF programme.

However, getting the IBIF up and running was expensive and time-consuming. Most parties agree that some of these costs will fall as the market for SIBs develops and people become more accustomed to working through each other's processes, to contracting norms and to the prices of service delivery. In addition, the NPC has been set up and is ready to house future transactions. But some costs will be unavoidable. Government approvals will likely always be time consuming (and especially so for more complex transactions like SIBs), as will due diligence by investors on social delivery – which is intrinsically more complex than financial due diligence.

Whether investors who are not motivated to innovate and do not have the strong interest in education that characterised the three participating investors in the IBIF are willing to bear such costs is an open question.

On a unit basis, the IBIF also appears to have been expensive for outcome funders. It cost R20.4 million in outcome payments to reach 4,000 children, indicating a unit cost of R5,100 per child. This figure excludes the unquantified costs of getting the transaction up and running. Reaching many more beneficiaries would be necessary to bring these costs per unit down. But the gains from the building of FCW's capacities, the demonstration of how to achieve high-quality early learning and the likely lifelong benefits derived by participating children are difficult to quantify and to offset against the hard, short-term costs. It is also reasonable to assume that the unit costs will be lower in future rounds because some of the costs of setting up the NPC will not need to be repeated.

The misallocation of risk and returns. The question raised by several interviewees here is, now that the costs of delivering quality programming and capacitating service providers to do so have been established, is government (and the taxpaying public) willing to pay for it? In the case of the DSD, it appears not, given that it has not yet committed to a second round of IBIF implementation. This could partly be explained by the costs, declining budgets from National Treasury, and by the Covid-19 crisis.

But the mispricing of risk in this transaction surely also plays a role. Almost 100% of the outcome payments for the DSD were linked to almost certain delivery targets: indeed FCW had to reach and retain *fewer* beneficiaries than it was used to, and on the same output-tracking basis as before (though it is important to note that (a) fewer beneficiaries received services that are most probably of superior quality, and (b) FCW's management and home visitors report serving more children in the two IBIF areas prior to the IBIF, but the FiF's data system prior to the IBIF was less reliable, as described earlier). Investors therefore didn't bear much risk. The risky target, ELOM, constituted less than 10% of the entire schedule of payments. To be more attractive for government in future, investors will have to shoulder a greater degree of risk. This is because for government, in the words of a Volta representative:

> "*… the value proposition is, OK, you guys are going to pay a little bit more if success is achieved. But that's great, because then you know [what works] and it's what you actually care about at the end of the day. And if it doesn't [succeed], then good news. You don't have to pay for something that doesn't work, right? Someone else is taking that risk.*"

But again, the true value of successful ECD delivery, and of potentially preventing a host of future problems including youth unemployment, crime, poor health and a reduced tax base, is difficult to quantify.

It could be argued that ECD is underappreciated by National Treasury (which allocates funds to social development departments) in the same way as it is by broader society because it is perceived as an extension of the unpaid care work that women do for young children on the basis of love rather than as critical, skilled work undergirding society's human capital development[53]. This is reflected in under-resourcing (relative to other levels of education) and also in the subsuming of many aspects of ECD and early learning into the EPWP: the expanded public works programme which is aimed at providing temporary, low-paying work opportunities for "low-skilled and unemployed" people[54]. It is not meant to be a permanent employment opportunity. Stipends are well below the standard minimum wage and not enough to cover workers' most basic needs. The IBIF has certainly gone some way towards rectifying this through its better remuneration of home visitors and other forms of support, which are regarded by many as contributing to the success in meeting and improving performance targets.

There are also shorter-term economic arguments to be made for investing in ECD and specifically early learning. While numbers are hard to come by, the sector is estimated to employ at least 200,000 people, most of whom are black women[55]. This is with a coverage rate of less than half of all children. Expanding this sector and supporting the creation and growth of small social enterprises could thus provide jobs to

[53] BRIDGE et al., *Plight of the ECD Workforce*; Folbre and Nelson, "For Love or Money".
[54] EPWP, "Recruitment Guidelines".
[55] BRIDGE et al., *Plight of the ECD Workforce*.

thousands. There are also opportunities to expand the supply chains that serve these facilities in food production and construction. There are thus substantial opportunities for sustained, localised economic development that would flow from greater investments – from private or public sources – in ECD.

Finally, **to achieve larger scale, the promise of additionality will need to be fulfilled in future SIBs**. The IBIF did not necessarily bring in any new money to the ECD sector; nor did it roll out services to beneficiaries who were not receiving anything previously. It therefore did not raise additional funding or reach additional beneficiaries compared to the situation before IBIF. However, the biggest gain from this project is in ensuring that demonstrable quality programming is being delivered and the promise that these higher-quality interventions will now be implemented more widely.

Appendices

The Context of Early Childhood Development in South Africa

The essential package of ECD services[56] captures both local and global consensus around the services that caregivers and their children need for optimal development. This consensus is reflected in South Africa's National Integrated ECD plan and in the Sustainable Development Goals (SDGs), both of which aim for universal coverage of basic services by 2030.

Figure 5: The essential package of ECD services (source: Ilifa Labantwana, Early Childhood Development*).*

South Africa has made good progress in some areas during the democratic era, notably in the rollout of anti-retroviral therapy (ART)[57] and the Child Support Grant[58]. But large gaps remain, with high stunting rates[59] and very limited access to psychosocial services for caregivers despite high levels of stress and depression[60]. Early learning is also a major gap. As noted in the "relevance and coherence" section of this report, 36% of three-to-five-year-olds do not attend any type of early learning programme. This includes grade R, the year

[56] Formulated by Ilifa Labantwana.
[57] Ilifa Labantwana, *Early Childhood Development*.
[58] See Khan, "Child Support Grant", and Patel et al., "Child Support Grants". The Child Support Grant is a means-tested cash transfer to support the care of children whose caregivers are of limited means and currently reaches approximately two thirds of children under 18.
[59] Devereux and Waidler, *Why does Malnutrition Persist*.
[60] Hall et al, *Early Childhood Review*.

of schooling prior to starting primary school for four-to-five-year-olds. This figure increases to 45%[61] in the younger age cohort of three-to-four-year-olds and excluding grade R enrolments.

The Covid-19 pandemic has increased the early learning coverage gap. In March 2020, South Africa entered a strict lockdown to curtail the spread of the virus. Most of the economy was shut down, including ECD operators. Early learning in South Africa is intended to be delivered via a public private partnership model, where small, independent operators which are run as either NPOs or social enterprises are provided with subsidies by the state. However, BRIDGE and others (2020) estimate that less than a third of ECD operators are currently registered with the DSD and thus eligible for receipt of subsidies. This leaves the bulk of operators (serving 1.5 million children) without the subsidies during the lockdown period; subsidies which would cover the fee payments caregivers would no longer be making.

But even registered entities receive only small subsidies, of around R15 per day per child. This is not enough to cover operating and staff costs. Because early learning practitioners typically earn low wages and have minimal benefits it is likely that many will leave the sector altogether. Widespread job loss during lockdown also means many caregivers won't be able to afford services anymore. As a result, many children will not have an early learning programme to return to once lockdown ends. The significant pressures faced by ECD centres, alongside the pressures faced by most of South Africa's caregivers, bolster the case for expanding quality home-based early learning services as per FCW's and m2m's Family in Focus model.

Methodology

This impact investment research report, with its companion research report on Bonds4Jobs, seeks to:

1. Promote transparency in South Africa's nascent SIB and impact investing sector and build knowledge for diverse audiences, including investors, governments and the NPO sector.
2. Define a standard for assessing the performance of SIBs.
3. Bring together analysis of financial and social performance.

A case study methodology was used to collect data and analyse it. Case studies are particularly well-suited to the study of new and/or underexplored topics (like SIBs) and their application and unfolding in a specific context (South Africa)[62]. The depth of information obtained from multiple sources typically provides a comprehensive understanding of the phenomenon under study and of the contextual particularities that influence the ability to generalise insights to other contexts.

Data collection involved the following:

1. Interviews (sometimes multiple) with all representatives of key stakeholder organisations involved in each of the South African SIBs.
2. Reviews of publicly available documentation about the South African SIBs.
3. Desktop research on academic, policy and financial literature relating to SIBs around the world.

The table below summarises the interviewees with the various IBIF participants:

Table 4: Interviewees

Participant type	Number of people interviewed
Developers	7

[61] Own analysis of weighted National Income Dynamics Study data, wave 5 (data source SALDRU, *National Income Dynamics Study*).
[62] Yin, Case Study Research.

Intermediaries	7 (5 from technical; 2 from financial)
Service providers	3
Investors	4 participating investors, plus 1 non-participating investor
Outcomes funders	7 (2 from DoH)
Outcomes auditor	1
Home visitors	9
Caregivers	3
Total	**42**

All interviews excluding those with the home visitors and caregivers were conducted using Microsoft Teams, Zoom or WhatsApp and ranged from 45 minutes to an hour and a half in duration. Interviews with home visitors and caregivers were conducted telephonically and took 10 to 25 minutes each to complete. Interviews were recorded, transcribed, and in most instances anonymised as per the interviewees' preferences. Staff at the Department of Social Development of the Western Cape were inundated with work due to the Covid-19 pandemic and attendant crisis response. For this reason, we solicited written feedback from three of their staff that were involved in the IBIF in addition to a full telephonic interview with an additional staff member. The interviews were split or co-conducted between Intellidex and the Bertha Centre at the University of Cape Town. The Bertha Centre is completing their own case study of the IBIF along similar themes, and the shared data collection process was aimed at avoiding duplication of research and respondent fatigue. All interviewees (except for the caregivers) were involved directly in the design and/or implementation of the IBIF via their employment at participating organisations, bar three. These three additional interviewees were conducted with (a) two representatives of the Western Cape's Department of Health who were involved in negotiations to set up the health-related impact bond, and (b) a non-participating investor in the IBIF. Finally, fifteen phone numbers for caregivers and home visitors were supplied by FCW and contacted by Intellidex researchers. While they provide valuable insights into the implementation and effects of the FiF, we cannot claim that their views represent all participating home visitors or caregivers. All interviews were conducted in English except for the three caregivers' interviews, which were conducted in Afrikaans.

We conducted thematic analysis of the interviews. To improve the validity of these analyses we (as per Yin):

1. Triangulated sources of data, asking similar questions of different participants where appropriate to get arrive at a view of the IBIF that was as complete as possible. Triangulation also involved comparing respondents' answers with written documentation (reports, articles, media statements) about the same themes.
2. Developed a conceptual framework, based on published literature on SIBs, regarding how we envisioned a SIB would achieve success. In the summary report for IBIF and Bonds4Jobs we outline this conceptual framework and compare it against the empirical findings from both SIBs. We then make recommendations and discuss the development of SIBs and impact investing in South Africa and beyond.

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