



# **Investing in Social Outcomes: Development Impact Bonds**

The Report of the Development  
Impact Bond Working Group

# CONTENTS

2	Preface
3	Working Group Membership
4	Acknowledgements
5	Foreword
6	Summary
9	Development Impact Bond Working Group Recommendations
17	Section One – What are Development Impact Bonds and When Could They be Used?
38	Section Two – Applying Development Impact Bonds
38	Case Study 1: Reduction of Rhodesian Sleeping Sickness in Uganda
43	Case Study 2: Antiretroviral Treatment as Prevention of HIV and TB in Swaziland
52	Case Study 3: Low Cost Private Schools in Pakistan
57	Case Study 4: Access to Quality Secondary Education in Uganda
62	Case Study 5: SME Pipeline Generation and Value Creation
67	Case Study 6: Energy Efficiency Implementation
72	Section Three – Cross-cutting Issues for Implementing Development Impact Bonds
72	A. Measuring and Defining Success in a DIB Contract
77	B. Approaches to Valuing Outcomes
79	C. Determining the Risk-Return Profile
85	D. Role of DIB Parties
91	E. Resource and Expertise Required to Develop DIBs
96	F. DIB Structures
99	References
104	FAQs
III	Glossary
II5	Acronyms

"Innovative financing mechanisms such as Social Impact Bonds stand to improve the efficiency of development assistance in the coming years – and that is what has brought us to the Working Group. As a vital component of the impact investing sector, outcomes-based finance can be a powerful means of enhancing the effectiveness of aid and development finance."

**Elizabeth Littlefield, Working Group co-chair**



## PREFACE

Social Impact Bonds are a new form of impact investing that are changing the face of public service delivery across the world. Since Social Finance launched the first Social Impact Bond (SIB) in the criminal justice sector in the UK in 2010, variations of the model have been piloted in the UK, US, and other industrialised countries. Governments set the priorities and pay for results that benefit society, while their partners are able to innovate and deliver flexible, high quality services which meet social needs.

Social Impact Bonds are more than a new financing model: they are a new business model for delivering public services that provide the flexibility to focus on addressing individual needs and a clear incentive to re-engineer delivery and innovate to reflect learning as it is gathered. As such, they offer a powerful way to improve social outcomes. As the first SIBs began to roll out, experts at CGD and Social Finance started to think about whether this new model for cooperation between the public, private and non-profit sectors could be adapted for international development programmes. A partnership was born between our two organisations to look at how governments of developing countries and their development partners could put in place arrangements to attract new investment and create new business models to improve service delivery.

Our work on Development Impact Bonds (DIBS) builds on the idea of SIBs and on CGD's work on Cash on Delivery Aid, an outcomes-based approach to improving the quality and local accountability of development funding. For Social Finance, the opportunity to test the Impact Bond model in the international development context provides a chance to expand an emerging marketplace for social investment that can be used to increase effectiveness of, and funding for, innovative social programmes.

CGD and Social Finance jointly convened the Development Impact Bond Working Group in the spring of 2012 to explore challenges and possibilities in applying the SIB model in development. We are grateful for the contributions of Elizabeth Littlefield, co-chair of the Working Group with our colleagues Owen Barder and Toby Eccles, and all of the Working Group members for leading the thinking in this exciting new area of development finance. This report is informed by the Working Group's thoughtful deliberations over the course of a year, and highlights the Group's recommendations for taking the DIB approach forward. We firmly believe in the potential of DIBs to improve outcomes for people in developing countries and cost-effectiveness for governments and aid agencies and look forward to the lessons that will be gained as DIB pilots move from concept to practice.

A handwritten signature in black ink, reading "Nancy Birdsall".

Nancy Birdsall  
President  
Center for Global Development

A handwritten signature in black ink, reading "David Hutchison".

David Hutchison  
Chief Executive  
Social Finance

## Working Group Membership

The Center for Global Development and Social Finance UK convened the Development Impact Bond Working Group in the spring of 2012. Over the course of a year, the Working Group met to explore how this new approach to development funding could improve the quality of development programmes.

Working Group members serve on a voluntary basis in an individual capacity and their affiliations are listed for purposes of identification only.

Owen Barder, Center for Global Development (Co-chair)

Toby Eccles, Social Finance (Co-chair)

Elizabeth Littlefield, Overseas Private Investment Corporation (Co-chair)

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The Working Group was supported by a secretariat including:

Rita Perakis and Elina Sarkisova from the Center for Global Development and Diane Mak, Eleanor Nettleship, Peter Nicholas and Louise Savell from Social Finance.

## Acknowledgements

The Center for Global Development and Social Finance are grateful for the contributions of many individuals who made this work possible. We thank the Development Impact Bond Working Group members for generous contributions of time, insight and expertise over the course of three challenging and engaging meetings. During these meetings, Working Group members brought a range of perspectives to questions about how this new approach could help to drive development progress quickly and effectively, and explored a number of practical opportunities, highlighted in Section 2 of the report, to develop DIB pilots. The Working Group's thinking has helped tremendously to clarify the DIB concept and define steps towards building a market for DIBs.

The co-chairs and members would like to thank the many individuals and organisations that have participated in discussions about these ideas, and so contributed to the thinking of the Working Group. For their support to Working Group members in developing the report and DIB case studies we thank: Deborah Burand, Ellie Cockburn, Paul Coleman, Alison End, Amanda Glassman, JP Gibbons, Anne Holm Rannaleet, Ben Hubbard, Linda Jonsson, Margaret Kuhlow, Anja Langenbucher, Christopher Lee, Mead Over, John Rendel, Richard Shirrefs, Derek Strocher, Lynn Tabernacki, Drew von Glahn, Sue Welburn and Kathryn Wheeler.

We would also like to thank Ann Grant and staff at Standard Chartered for hosting a successful launch of the DIB Working Group consultation in June 2013. In addition, we are grateful to numerous people who took the time to share their feedback during the consultation period of this report and so helped to further refine the thinking around these ideas.

Beyond the Working Group membership and secretariat, there are several members of CGD and Social Finance's staff whose generous time and talents improved the products of the Working Group. First, for their support of this work and feedback that challenged and improved our ideas, we extend thanks to Nancy Birdsall, president of CGD, and David Hutchison, Chief Executive of Social Finance. For his early involvement in screening and developing the case studies, we thank Farid Tadros, formerly with Social Finance. For their expert assistance in communicating the ideas in this report to wider audiences, and support in various stages of planning for our publications and events, we are grateful to: Alisa Helbitz and Sarah Henderson from Social Finance, and Lawrence MacDonald, Clare Waite, John Osterman, Catherine An, Beth Schwanke, Jenny Kendra, and Kyla Lawrence from CGD.

Finally, The Center for Global Development thanks its Board of Directors and funders for contributions in support of this work. In addition, Social Finance would also like to extend its thanks to its Board of Directors and express our sincere gratitude to the Omidyar Network and Rockefeller Foundation for their generous financial support which has enabled this work to happen.

## Foreword

The way development is financed is rapidly changing. Aid now fits into a much richer and broader context of flows that are channelled to developing countries: remittances and private investment, often supported by growing development finance institutions, are now more significant than aid. The composition of aid itself is changing, with increasing flows from ‘new’ donors such as China and private philanthropy becoming more important. As economies grow and tax collection improves, governments – even in the world’s poorest countries – are becoming less dependent on aid and are increasingly using domestic revenues to finance government spending.

As the context changes, so too does the role of aid. The challenge for traditional providers of aid is to determine how aid can be used to catalyse and complement these other flows; and the challenge for all actors on the development scene is to ensure that access to services is within everyone’s reach, particularly among society’s poorest and most vulnerable.

Development Impact Bonds (DIBs) – a new platform for development cooperation – have enormous potential to bring together the private sector, civil society organisations, governments and donors, in a way that captures and complements the best contributions of each player to achieve social outcomes. In a DIB, public, private and non-profit actors come together and agree on what they want to achieve and a method for measuring success. Typically, but not always, an intermediary organisation will play the role of coordinating these actors: investors, who provide funds to roll out or scale up services; service providers, who work to deliver outcomes; and outcomes funders, primarily public sector agencies from developing or donor countries who pay for results achieved. Outcome payments are used to pay investors back with a premium, so that if interventions successfully achieve outcomes, the returns are social as well as financial. This structure allows each player to make a distinct contribution to the achievement of a desired social outcome more effectively than if it were acting alone.

Development Impact Bonds are being explored at a time when tightening public budgets and the shortcomings of traditional funding models have fuelled a movement towards results-based approaches. The last decade has seen donor money shift towards newer, more adaptive and more flexible results-based mechanisms such as Advance Market Commitments and GAVI Immunisation Support Services. However, operational, financial and political constraints have limited their widespread adoption. Development Impact Bonds are an innovative instrument that could help overcome some of those obstacles.

We hope that this report will stimulate a dialogue among donors, partner governments, investors and service providers to consider and test the opportunities that these rich collaborations might bring.



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## Summary

There is a revolution in development finance. Private financial flows are growing, and developing countries are increasingly financing their own public services with domestic revenues. Finance from abroad is becoming more diverse, with new development partners, development finance institutions, philanthropic organisations and private investors working alongside traditional donor agencies. These new sources of finance and expertise increasingly complement the offerings of traditional development cooperation. This creates opportunities for new forms of partnership which can leverage the best that each has to offer.

Impact investing – that is, investment intended to create a positive social impact as well as a financial return – has already begun to channel private sector capital and expertise into generating social benefit in richer countries. But it is early days for this kind of investment, particularly as a contribution to development finance. This report explains how Development Impact Bonds (DIBs) can enable more impact investment in development, by providing a shared platform for governments, donors, investors, firms and civil society to work together, achieving more in partnership than any of them could achieve separately.

Development Impact Bonds are a variation on Social Impact Bonds (SIBs), which have been implemented in the UK, the US, and other industrialised countries to facilitate impact investment. The first SIB was launched by Social Finance UK at Peterborough Prison in 2010, and it is showing how improved results can be achieved (in this case, reductions in reoffending) by orienting programmes toward outcomes and creating a space in which public services can make better use of evidence, innovation and adaptation.

The principles are the same for SIBs and DIBs. All partners agree on a common goal and a way to measure success. Private investors finance a programme aimed at achieving these agreed outcomes. They work with service providers – which can be any combination of public agencies, private companies and non-profits – to manage delivery and create space for innovation and learning. If the programme is successful – confirmed by independently-verified evidence – then the ‘outcomes funder’ (usually a public sector agency) repays the investors. In general, the more successful the programme, the greater the return to investors, perhaps up to some cap. At the centre of these arrangements there is usually an intermediary organisation which coordinates among the investors, the service providers and the outcomes funders, and puts together a deal to fit all their needs.

These approaches depend on joining together programmes – that need flexible risk capital to get off the ground – with investors, who want to use their resources (including their money, skills and expertise) to make a social impact. The investors are not passive sources of money: they have skin in the game, and so have reason to pursue innovation and excellence to drive better results. Early schemes are likely to depend on investors who are motivated as much by social impact as by commercial return; but as experience with these instruments grows, and the opportunities for investment diversify, they may attract a wider range of more mainstream investment capital.

In many developing countries, there may not yet be enough domestic revenues for the government to meet all of the outcomes payments, even though the investments would be worthwhile. A distinguishing feature of a DIB is that some or all of the outcome payments are provided by an external funder, such as a development agency or charitable foundation.



DIBs draw inspiration from recent efforts of donor agencies to experiment with results-based funding approaches, which build in a more rigorous focus on programme outcomes, and more flexibility for solutions to evolve and local actors to innovate. They are more than a new way to attract funding for development; they are a new business model for development programmes, designed to encourage the innovation and flexibility for better results that are often stymied by the limitations of government budgeting, contracting and performance management.

For example, a DIB could be used to attract finance for and improve the services offered by Business Development Service providers in developing countries (as outlined in [Case Study 5, p. 62, of the report](#)). Donors are often interested in supporting business development for small and medium enterprises to boost incomes and jobs, and help build more vibrant economies. But these approaches have often not proven successful. If donors agree to finance a DIB, then investors could provide the initial funding and manage the innovation needed to develop successful models for these services, knowing that they will be repaid by donors to the extent that they succeed.

DIBs are not intended to be a solution to all problems in development, but in some cases may offer a number of advantages over existing funding mechanisms. DIBs can raise money for worthwhile social investments in developing countries, improve the effectiveness of public service delivery, and improve the efficiency of aid spending. They may be attractive for donor agencies that want to enter into new partnerships to ensure that aid is catalysing and complementing other financial flows and meeting the growing demand to demonstrate effectiveness against rigorously-defined and measured outcomes, while also respecting the complexity and unpredictability of delivery and the need for adaptation and flexibility.

This approach offers potential advantages in the following ways:

- DIBs transform social problems into “investible” opportunities by monetizing the benefits of tackling social problems, so attracting private sector investors wanting to bring their resources and skills to development.
- DIBs create incentives for investors to put in place (typically through intermediaries) the necessary feedback loops, data collection and performance management systems required to achieve desired outcomes, resulting in a bottom-up, client-centred, and generally more effective, approach to service delivery.
- Because investors provide funding - and assume risk - for interventions expected to lead to improved social outcomes, DIBs could attract funding for interventions that donor agencies and governments might not be willing or able to fund directly.

DIBs are a new approach and, at first it will take time, resources and new skills and expertise to develop them. To ensure that initial DIB pilots get off the ground and to help stimulate a market for this approach, the Working Group makes the following general recommendations (see pp. 9–15 for detailed recommendations):

- Donors should establish a **DIB Outcomes Fund** and investors should establish DIB Investment Funds, which would enable these actors to share risks and **pilot a range of DIB models**.
- DIB parties will have to accept the high transactions costs of early DIB pilots. Foundations should consider subsidising these costs by **providing funding to catalyse the development of a DIB market**.

- DIB parties should invest in learning about this new approach; pilots should be **evaluated rigorously** and a group of donors and philanthropic organisations should set up a DIB **Community of Practice** to share and accelerate learning.
- DIBs should be **open by design**. Openness will accelerate confidence in DIBs for investors, governments, service providers and taxpayers and help to build a high quality market. Donors and foundations should lead on establishing a **research data protocol** which would provide a standard of data and facilitate information-sharing.

This report sets out more detailed recommendations for the key groups who can make DIBs happen: donor agencies, trusts and foundations, investors, governments of developing countries, intermediary organisations, and service providers. We also lay out broader recommendations for all of these actors which the Working Group has identified as first steps in the development of a market for DIBs.

The report is divided into three sections: Section 1 explains the concept of DIBs, challenges for development funding that the approach addresses, its value over alternative funding mechanisms, and what is needed to create a viable DIB market. Section 2 explores six DIB case studies to illustrate the breadth of social issues to which the approach can be applied and considerations for the design of DIBs. Section 3 provides more detail on technical considerations for audiences interested in exploring the implementation of DIBs.

## Development Impact Bond Working Group Recommendations

### RECOMMENDATIONS BY ACTOR

#### A. DONOR AGENCIES

- Make room for new partnerships to develop DIBs:** Development Impact Bonds are a new approach, and projects cannot be easily put together using the existing procurement systems of most public sector agencies. As the development of early DIBs is likely to be driven by commitments from outcome funders, we recommend that donor agencies consider how current systems can be adapted to allow them to take on the role of buying outputs and outcomes, which creates space for local actors to be innovative in their approaches to service delivery. Essentially, DIBs are about forming partnerships, and to adopt this new approach donor agencies should work closely with recipient country governments, potential investors, intermediaries and service providers. This collaboration will help ensure that DIB contracts developed are attractive to investors, create the right incentives for service providers and offer good value to outcomes funders, and so establish a good starting point for future deals.
- Establish a DIB Outcomes Fund:** Given the novelty of the approach and higher transaction costs likely to be associated with initial DIBs, individual donor agencies may find it easier to jointly fund outcomes of DIB projects. We recommend that a consortium of donors sets up a **DIB Outcomes Fund** to pool risk for initial DIB projects and to more easily share lessons learned. The Fund could be set up as a challenge fund, from which DIB intermediaries and other potential project implementers compete for funds, leading to innovation in design and the channelling of funds to the best-designed DIB proposals. To set up such a fund, donors could take advantage of existing joint efforts such as the Global Development Innovation Ventures (GDIV) platform set up by US Agency for International Development and UK Department for International Development. GDIV could be used to test innovative interventions under DIB models and drive results by committing more flexible funding to pay for the outcomes of successful interventions.
- Convene and participate in a DIB Community of Practice:** As DIB pilots emerge, to ensure that information is shared, disseminated, and ultimately applied, we recommend that an organisation of global reach and convening power, perhaps using the platform of the Global Partnership for Effective Development Cooperation, establish a **DIB Community of Practice**, consisting of donors, investors, DIB development intermediaries, government agencies from developing countries and larger service provider organisations, who would share their experiences and provide a forum for disseminating lessons that will inform the development and use of these instruments going forward. The Community of Practice should use lessons from Social Impact Bonds in developed countries and other forms of payment-by-results contracts.
- Insist on credible independent measurement and/or verification:** Donor agencies should require that outcome metrics be independently measured and reported by a third party to ensure that all parties have confidence in the results achieved.
- Promote openness and transparency:** To reduce transaction costs and help build an evidence base for DIBs, pilots should be developed, implemented and evaluated in

a transparent and “open source” way. Donor agencies can drive transparency in DIB transactions by requiring that outcomes data be made public, and contracts also be published. As a results-based approach, DIBs are meant to improve information about the impact of donor funding. This is only possible if information about how funding is being used and the results of programmes are publicly known (see Overall Recommendation #3 for more on how all DIB actors can help to ensure that the design and implementation of DIBs are open processes).

- **Support Social Impact Bonds in developing countries:** Donors should support the effective and efficient use not only of their own development funds (through DIBs) but also that of the partner countries in which they operate (through SIBs). Donors could do this either by setting aside grant funding for this purpose or by sharing knowledge through the DIB Community of Practice and other vehicles.

## B. TRUSTS AND FOUNDATIONS

- **Help lay the groundwork for early pilots:** In the short term, designing, developing and implementing early DIBs will involve high transaction costs. Given the newness of the approach, donors and/or investors may be unwilling to be the first to invest resources into building the DIB market. Foundations can make a big difference by providing subsidies that would catalyse the development of this market. Funds could be used to generate awareness of the DIB approach and its potential value; support the technical work of intermediaries who are likely to be pulling the first transactions together; and fund research to pool learning from early DIBs to help build an evidence base. The challenges that donors will face in piloting the first DIBs will also apply – arguably to an even greater extent – to governments in developing countries trying to pilot SIBs. Thus, foundations should consider subsidising some of those same start-up costs in developing countries.

**Figure 1:** Recommendations by actor

Donor Agencies	Trusts and Foundations	Investors
<p><b>DIB Outcomes Fund</b> – joint pool of capital from donor agencies to pay investors for outcomes achieved in DIBs</p>	<ul style="list-style-type: none"> <li>• Catalyse market by investing in early DIB design</li> <li>• Invest in DIBs</li> </ul>	<p><b>DIB Investment Funds</b> – pools of capital that invest in DIBs and take on outcomes delivery risks</p>
<ul style="list-style-type: none"> <li>• Insist on credible independent verification</li> <li>• Promote transparency</li> <li>• Support SIBs in developing and middle income countries</li> </ul>		<ul style="list-style-type: none"> <li>• Be the early adopters of DIBs</li> <li>• Bring rigour to DIB implementation</li> </ul>
<p><b>Research Data Protocol</b> – a standard for reporting DIB data that can then be used for learning and research</p>		
<p><b>Community of Practice</b> – a group of practitioners to share and accelerate learning</p>		
<p>Develop DIBs in Partnership, invest in measurement and evaluation, promote openness and transparency</p>		

- **Invest in DIBs:** In the longer term, trusts and foundations could consider investing more of their assets in impact investments more generally, and DIBs in particular, to gain both financial and social returns from their transactions.

### C. INVESTORS

*This set of recommendations is for socially motivated individuals and organisations who are likely to be the investors of early DIBs; this could include trusts and foundations, development finance institutions and high net worth individuals.*

- **Be the early adopters of DIBs:** The first DIBs are likely to be regarded as high risk by commercial or institutional investors as they are an unknown structure without a track record and involve implementing programmes through non-government organisations in developing countries. Social impact investors, who may be willing to take on higher risks in order to generate greater social impact, can be the trailblazers who make the first investments into DIBs/SIBs, thereby helping to crowd-in other private investors and catalyse the emergence of a deeper and broader market for investment in development outcomes.
- **Set up DIB Investment Funds:** Given the innovative nature of DIBs, raising capital for the first DIB transactions on a deal-by-deal basis could be a labour-intensive and time-consuming process. Investors could contribute to funds that would provide ready pools of capital to invest in DIBs, possibly organised according to sectors of interest to a group of investors. These **DIB Investment Funds** could, for example, be managed by a financial intermediary and could pool funds from development finance institutions, trusts and foundations, high net worth individuals, and others wanting to invest for both financial and social returns. Funds could also be initiated by one large institutional

#### Partner Governments

- Identify DIB suitability
- Provide space for service providers to innovate
- Consider funding SIBs

#### Intermediaries

- Bring together DIB parties
- Support DIB design and implementation
- Share learning

#### Service Providers

- Contribute to DIB development
- Adapt systems for results based contracting

investor such as a development finance institution. Bringing these investors together via DIB Investment Funds would help to reduce the amount of time and resources needed to raise capital for each DIB opportunity and would improve efficiency of the due diligence and transaction structuring processes.

- **Bring rigour to DIB implementation:** DIBs align incentives by tying investors' financial returns to the achievement of social outcomes. To ensure that this leads to more effective service delivery and improved results, investors – or investment funds or intermediary organisations on their behalf – must be actively engaged and willing to offer their expertise. For example, by bringing rigour to DIB service delivery, performance management and outcome measurement, investors can play an important role in driving performance to achieve better social outcomes.

#### D. GOVERNMENTS IN DEVELOPING COUNTRIES

- **Identify DIB suitability:** Governments, including regional and local authorities,<sup>1</sup> need to play a key role in selecting and screening DIBs, often in partnership with donor agencies, for instance by identifying complex social issues that could benefit from results-based approaches, a greater shift of resources towards preventative efforts, and/or private sector expertise.
- **Give space for service providers to innovate:** DIB contracts are structured around desired programme outcomes and are designed to allow local service providers more flexibility to tailor solutions to circumstances on the ground than they would have under traditional input-oriented contracts. Partner governments should allow space for service providers – including local government service providers where applicable – to innovate and modify interventions such that they are better able to adapt to the needs of the local population and achieve better development outcomes.
- **Stay involved throughout the DIB lifecycle:** The involvement of developing country governments in the design and implementation of DIBs – in a variety of roles including as outcomes funders, co-managers of contracts, service providers and/or observers/consultants – will ensure that DIBs reflect national priorities, take into account the local context, and spread learning to other public services.
- **Consider funding SIBs:** Where domestic resources for funding outcomes are available, emerging economy governments, including local authorities, could develop SIBs with funding and assistance from donors if necessary.

#### E. INTERMEDIARY ORGANISATIONS

- **Help bring together DIB parties to make transactions happen:** Intermediaries can help represent parties not in the room and support the negotiation of an agreement that fits the needs of all those engaged in the process. The experience of developing the Social Impact Bond market shows that intermediaries can play a critical role in getting transactions off the ground.
- **Support DIB design and implementation:** Particularly in early DIBs, intermediaries can play an important part in supporting DIB design and implementation, beyond the role of coordination. In particular, intermediaries can provide support to DIB parties

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<sup>1</sup> Taken throughout to include other public entities such as public utilities

according to demand in: feasibility assessment, contract development, capital raising, due diligence, performance management, service commissioning and capacity building.

- **Contribute to the Research Data Protocol:** Intermediaries should embrace openness in DIBs, including providing input into the design and setup of the Research Data Protocol and sharing data from DIB projects according to agreed Protocol data standards.
- **Share learning and help further understanding of DIBs:** Intermediaries should participate in the proposed Community of Practice and help further understanding of DIBs via conferences, publications, secondments and partnership working. This can help to facilitate a common understanding of DIBs and how they can be most effectively applied.

## F. SERVICE PROVIDERS

- **Contribute to development of DIB intervention models:** Service providers hold existing relationships to service users and their communities and may be well placed to assess what intervention is needed. Where relevant, providers should collaborate with donor agencies, national and local authorities in developing countries, target beneficiaries and other DIB parties to develop the DIB intervention model to ensure its relevance to the target population.
- **Adapt systems for results-based contracting:** Service providers may be unfamiliar with the requirements for delivering results in an outcomes-based contract. Being open to adaptations in terms of resources, processes and systems necessary for results-based contracting can help increase providers' ability to adjust their services in response to the emerging needs of the population and increase their impact.

## OVERALL RECOMMENDATIONS

The Development Impact Bond Working Group makes the following recommendations for all actors exploring Development Impact Bonds, to encourage the development of early DIBs and the establishment of a viable market:

### 1. ESTABLISH OUTCOMES AND INVESTMENT FUNDS TO PILOT A RANGE OF DIB MODELS

Interested investors, governments and donors, service providers, and intermediaries should explore how DIBs could improve the impact of development funding. A range of models – in terms of target outcomes, locations and structures – should be piloted to enable testing of different models of intervention and learning about the benefits and challenges of the DIB approach.

To facilitate the implementation of early DIB pilots, we recommend that a consortium of donor agencies establish a **DIB Outcomes Fund** (see p. 36). A commitment from multiple donors to pay for outcomes achieved in DIB contracts would catalyse the development of sound DIB propositions for investors and help get the first transactions off the ground.

Similarly, we recommend that investors set up **DIB Investment Funds**, which provide ready pools of capital for investment into DIBs. By reducing the amount of time and resources needed to raise capital for each DIB opportunity, DIB Investment Funds could enable the launch and implementation of early DIBs within a shorter timeframe and help catalyse market growth.



## 2. INVEST IN LEARNING ABOUT A NEW APPROACH

Early DIBs should be rigorously and independently evaluated. Evaluations should include information on intervention costs and pricing of outcomes and results, and assess whether and how the structure helped to lead to improved outcomes, in addition to including details of any positive or negative externalities. DIB actors should use learning from evaluations to improve the future design of results-based contracts.

To ensure that learning is shared, we recommend that a group of donors and philanthropic foundations establish a DIB Community of Practice of potential donors, investors, DIB development intermediaries and government agencies from developing countries to share learning from early DIB pilots and advise on the development and application of the model going forward.

This group should also consider lessons from Social Impact Bonds in developed countries and from other forms of payment-by-results contracts. DIBs involve many of the same challenges, including: defining appropriate outcome metrics; the need for multi-year donor funding commitments; and addressing public sector agencies' need to be accountable for programmes when they are not defining the way in which outcomes should be achieved.

## 3. MAKE DIBS OPEN BY DESIGN

We recommend that Development Impact Bonds are open by design. DIBs are a mechanism that encourages innovation and learning in service delivery and those lessons are most valuable if they are widely shared. Openness will accelerate confidence in DIBs for investors, governments, service providers and taxpayers and help to build a high quality market.

To enable the sharing of data, we recommend that foundations and donors who commit to funding DIBs consider establishing a **research data protocol**, which could build on existing reporting standards and be used to collect project-related data, including data on intervention costs, value of outcomes and impact data, which should be made available upon request from the public. The protocol could be enforced on all projects that receive outcomes payments from the DIB Outcomes Fund (as per Recommendation 1) and could become standard contractual practice thereafter.

DIB actors should accept the principles that data should be made available for free, in a timely manner, and in accordance with agreed standards that will make data comparable and over time reduce the cost of DIB development. More specifically, to ensure openness in the design and implementation of DIBs:

- Outcomes data should be made public when outcomes are measured to trigger payments.
- DIB contracts should be publicly available so that taxpayers understand how DIB funding is used and so that over time the cost of the contracting process could be reduced. Contracts should be fully transparent about the investments.
- More detailed information, such as intervention costs, additional input costs, breakdown of outcomes by different populations or areas etc. should be made available over time.




#### 4. ACCEPT ONE-OFF COSTS OF BUILDING A NEW MARKET AND INTRODUCING A NEW TOOL

The first DIB pilots will involve high transactions costs as all actors involved adapt to a new model of outcomes-based contracting that is backed by private investment. DIB actors, particularly outcomes funders, will need to invest resources in understanding and assessing the feasibility of implementing DIB structures, valuing outcomes and pricing risks (described in detail in Section 3). To ensure that initial pilots are not prohibitively expensive, funding should be made available for the design costs of early DIBs. This type of catalytic funding could ensure that outcomes funders and investors do not absorb the costs of “building a market” into the costs of early DIB pilots.

We recommend that foundations consider investing in the development of a DIB market, for example by providing funding to intermediaries to do this design work, as a catalytic public good. Experience from the development of Social Impact Bonds has shown that intermediaries have a key role to play in pulling together early pilots. Having a specialised organisation acting as the champion of the project, undertaking crucial feasibility work, coordinating DIB actors, representing parties not in the room and negotiating an agreement that fits the needs of all those engaged in the process, is likely to be just as important in the context of DIBs.

#### 5. SUPPORT THE BROADER ADOPTION OF SOCIAL IMPACT BONDS (SIBS) IN DEVELOPING COUNTRIES

As economies grow and tax collection improves, governments in developing countries have a growing pool of domestic revenues to finance government spending. We recommend that governments in developing countries consider using these revenues to pay for outcomes under Social Impact Bonds, and that donor agencies or foundations encourage the effective and efficient use not only of their own development funding (through DIBs) but also that of the partner countries they support (through SIBs, as they have been designed in industrialised countries). Because we expect developing country governments to face the same – if not higher – start-up costs in getting early SIBs off the ground, we recommend that donors and foundations consider funding some of the start-up costs associated with developing SIB markets, share learning, and provide technical assistance as needed. Although transaction costs may appear high at the beginning, it is likely that, over time, the cost of developing SIBs and DIBs will decrease due to sharing of information and learning among DIB actors as more products come to market.



DIBs are a financial instrument that can bridge the gap between investors and opportunities, and between financial returns and social benefits.

# 1 What are Development Impact Bonds and When Could They be Used?

## INTRODUCTION

The world has seen remarkable progress in achieving international development goals, but much remains to be done. The complexity and sheer scale of today's global challenges are daunting, but now more than at any other time in history, practical solutions and technologies to solve the world's problems exist, from life-saving vaccines to productivity-raising farming techniques. Often, the challenges of ensuring that these solutions and technologies reach the world's poorest people are questions of political will, leveraging limited resources, and the ability to target resources where they are most needed.

The good news is that the resources and diversity of players working to address development problems have been expanding. In addition to governments and donors, a growing number of private sector actors are contributing to development, ranging from philanthropic organisations to commercially motivated investors. Within this group is an emerging class of investors – called “impact investors,” who are motivated by both social and financial returns. Impact investing has begun to demonstrate that business can be a powerful force in bringing about sustainable solutions to social problems. Nevertheless, its potential is only just beginning to be realised. This is a largely untapped source of both funding and private sector expertise and could drive progress in the development of the world's poorest countries faster than ever.

Modelled on Social Impact Bonds (SIBs), which are already being implemented in many countries across the world from the UK to Australia, Development Impact Bonds (DIBs) are a new financing instrument that can help bring together the diversity of players involved in today's development scene, and use the best resources and expertise each player can offer to improve the quality and efficiency of social programmes and maximise social impact.

As with a SIB, **investors** provide funds to implement social interventions, **service providers** work to deliver outcomes, and **outcomes funders**, primarily public sector agencies, repay investors their principal plus a financial return if – and only if – independently verified evidence shows that outcomes have been achieved. SIBs and DIBs are therefore not ‘bonds’ in the conventional sense as investors stand to lose part or all of their investment if unsuccessful. A distinguishing feature of DIBs is that external development agencies would normally be needed to provide the outcome payment, or some portion of it, in partnership with a developing country government. DIBs are therefore a tool which can improve both the efficiency of public services in developing countries and the efficiency of donor spending.

In the following section, we describe why DIBs are a timely – and potentially powerful – approach to solving complex social problems in the developing world; the main characteristics of DIBs and how they add value over existing approaches; and what it will take to develop a viable market for them.

## SOCIAL IMPACT INVESTMENT: A GROWING YET UNTAPPED MARKET

In the changing context of development finance, limited public resources can be used to catalyse and complement other flows, including to unlock the potential of impact investors to drive social progress. Impact investments are investments that are intended to create

positive impact beyond financial returns.<sup>2</sup> Impact investment is not new but broader considerations of risk in investment decisions resulting from the 2008–2009 financial crisis, and the growing recognition that existing resources are insufficient to address today’s complex global issues, have led to rapid growth in the number and diversity of players involved. While exact figures are difficult to find, largely because there is no common definition of what constitutes an impact investment, the growth of impact investment vehicles – from Acumen Fund in 2001 to more than 125 funds and foundations supporting some form of impact investing in 2010<sup>3</sup> – illustrates the growing interest and activity in this sector. Today, impact investors range from philanthropic foundations to commercial financial institutions to high net worth individuals.<sup>4</sup>

Despite its potential, impact investing remains a new and fragmented marketplace, with surprisingly few deals given the growing number of players involved.<sup>5</sup> A number of challenges are slowing down the development of a thriving marketplace. First, a lack of mechanisms to connect interested investors with investment opportunities results in high transaction costs and fragmented supply and demand, making it difficult for individual investors to find investment opportunities that are of sufficient scale to justify the costs of sourcing deals and conducting due diligence. Second, insufficient information about the success (or failure) of social impact investments inhibits the flow of capital into the sector. Lastly, investors often cite a lack of financially viable social sector opportunities in which to place significant amounts of money as an obstacle to doing business.<sup>6</sup> In the absence of proven returns, investors will be reluctant to invest significant amounts of capital into the sector.

To create a thriving marketplace, more creative instruments are needed to bridge the gap between investors and opportunities, and between financial returns and social benefits.

## PUBLIC FUNDING STRUGGLES WITH COMPLEX PROBLEMS

In the last half-century the development community has achieved unprecedented improvements in health, education, gender equality, security and human rights, with aid agencies having played an important role.<sup>7</sup> At the same time, many believe that development spending, including the more than \$2 trillion spent in official aid in 50 years,<sup>8</sup> could have accomplished more; money does not always flow to where it is most needed and programmes are often run inefficiently. Part of the problem is in how development programmes are funded, with traditional, publicly funded programmes often finding it difficult to tackle complex problems. Development funding problems include:

*Poor targeting of resources:* In development, money does not always flow to where it is most needed. Governments may be reluctant to fund interventions with uncertain results or where results may not be observed until many years down the line. Underinvestment in prevention is a common problem: although it is cheaper to prevent a disease from taking hold than to pay for treatment later – including direct costs as well as the indirect costs of human suffering

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<sup>2</sup> J.P. Morgan, (2010).

<sup>3</sup> Simon and Barmeier, (2010).

<sup>4</sup> In one attempt to try to “size” the market opportunity in developing countries, J.P. Morgan looked at the amount of invested capital that would be required over the next ten years to fund businesses serving the “base of the pyramid” segment in emerging economies. It concluded that there is potential for invested capital ranging from \$400 billion to \$1 trillion and profits ranging from \$183 billion to \$667 billion. The Monitor Institute estimates that impact investing has the potential to mobilise \$500 billion annually within ten years. (J.P. Morgan, (2001); Monitor Institute, (2009)).

<sup>5</sup> J.P. Morgan, (2010).

<sup>6</sup> Simon and Barmeier, (2010).

<sup>7</sup> Kenny, (2011).

<sup>8</sup> Ibid.

and lost economic productivity resulting from poor health – preventative interventions often require governments to take on unacceptable levels of risk, with benefits accruing too far into the future and too difficult to demonstrate. It is often easier to justify spending scarce public resources on more tangible outputs, like treatment, than on prevention.

*Inadequate incentives to focus on outcomes:* Under standard funding models, governments and/or donors provide working capital (usually in the form of a grant) for social programmes. Money is disbursed regardless of whether or not outcomes are achieved, and never returned if the project fails. To mitigate risk, governments and donors are forced to focus on how their money will be spent – or on *inputs* – instead of outcomes. This limits the space for solutions to emerge, and often means that programmes end with uncertainty about the outcomes they have achieved.

*Limited space for innovation and adaptation:* An input-based approach – prescribing programme inputs and strategies at the onset – often involves rigid and prescriptive solutions that limit experimentation, adaptation and the emergence of locally tailored solutions. Development experts are increasingly supporting the idea that development programmes should build in more space for learning and adaptation: Andrews, Pritchett and Woolcock discuss how an idea they call “problem-driven iterative adaptation” can help countries to build state capabilities and improve performance;<sup>9</sup> Tim Harford has promoted the idea of churn and adaptation, that big problems can only be solved through a willingness to experiment and to fail;<sup>10</sup> and Ramalingam and Jones,<sup>11</sup> among others, have drawn on “complexity theory” to show that the complexity and interconnectedness of development challenges make linear approaches to problem-solving wholly inadequate. There is growing support for the idea that approaches must be adaptive if they are going to be successful. But the constraints of public funding makes it very difficult for donors to create circumstances for this adaptation to occur.

*Short-term funding focus:* Governments have incentives to focus on short-term programme delivery, especially when budgets are allocated year by year, but longer-term incentives might be needed to maintain or scale-up results.

*Insufficient evidence base to inform decision-making:* Collecting and monitoring data and creating effective feedback loops to be able to adjust programmes and policies to changing circumstances and/or new information are vital for ensuring that programmes achieve the best possible results, and governments, donors, or non-government service providers are held accountable. Although slowly improving, the availability of reliable data for monitoring development remains inadequate in many poor countries and the challenge of building effective in-country capacity to produce better policy-relevant data remains huge. Traditional input-based programmes do not create incentives to put in place the necessary systems to collect, monitor and evaluate information about outcomes and impact.

## DEVELOPMENT IMPACT BONDS: WHAT ARE THEY AND HOW DO THEY FIT IN?

### WHY PAY FOR RESULTS IN DEVELOPMENT?

To address the problems highlighted above and increase the effectiveness of development funding, donors have begun to experiment with results-based approaches to aid programmes. These approaches can take on many forms, from paying governments directly for high-level

<sup>9</sup> Andrews, Pritchett and Woolcock, (2012).

<sup>10</sup> Harford, (2011).

<sup>11</sup> Jones and Ramalingam, (2008).

outcomes achieved (“results-based aid”), to paying service providers for completing a series of outputs or activities (“results-based financing”) – examples are highlighted below in **Box 1** (see pp. 24–25). Their common feature is the linking of funding to results achieved.

Results-based approaches could increase aid effectiveness by shifting the focus of development programmes away from inputs and processes, creating incentives to improve the delivery of results, and creating incentives to generate better information about these results. Moreover, results-based approaches allow for greater flexibility in intervention strategies than traditional, highly prescriptive programmes. The theory behind results-based approaches, particularly outcomes-based approaches like Cash on Delivery Aid, is that they can more easily allow experimentation to take place because the funder is not committing the recipient to follow specific strategies and is not monitoring project inputs.<sup>12</sup> Giving greater ownership and responsibility to the recipients – who have the most at stake if results are achieved – creates space for learning and innovation, which can have an impact that far outlasts the duration of a particular programme.

Understandably, it is challenging for donor agencies to be “adaptive” and to experiment with potentially risky intervention strategies using scarce public sector funds. The financial crisis and austerity measures in several donor countries have added to the pressure to demonstrate successes and avoid failure in publicly funded development programmes, and have made donor agencies even more risk averse. Results-based approaches could be a solution to this because they allow donor agencies to transfer implementation risk to a third party and pay only for results achieved. However, despite the potential of results-based approaches, their uptake so far has been modest at best.<sup>13</sup>

## WHAT ARE DIBS AND HOW DO THEY SOLVE DEVELOPMENT FUNDING PROBLEMS?

DIBs form part of the wider movement in development towards payment for results and could help to shift more aid to this type of contracting. Like other results-based approaches, DIBs aim to align development funding more directly with improved social outcomes and increase the accountability of development spending. However, unlike other approaches, DIBs also provide a source of capital for interventions to be implemented in the first place, and allow governments or service providers to share risks with private investors.

This report does not argue that all aid should be channelled through Development Impact Bonds. They have particular value where a combination of public and private resources is needed. Without public help, the private sector alone cannot make investments in services with social value but insufficient financial return, and will be wary of investing in services for the poorest and most marginalised. Donors need private investors because their political accountability makes it difficult for them to provide public money in advance for risky programmes and yet leave sufficient space for services to develop according to local needs. Developing country governments and civil society organisations may be able to deliver services locally and be accountable, but often lack the financial resources to expand. DIBs address a coordination problem between projects that could benefit from this sort of flexible funding and investors that want to use their resources – in terms of money, skills and expertise – to make a social impact.

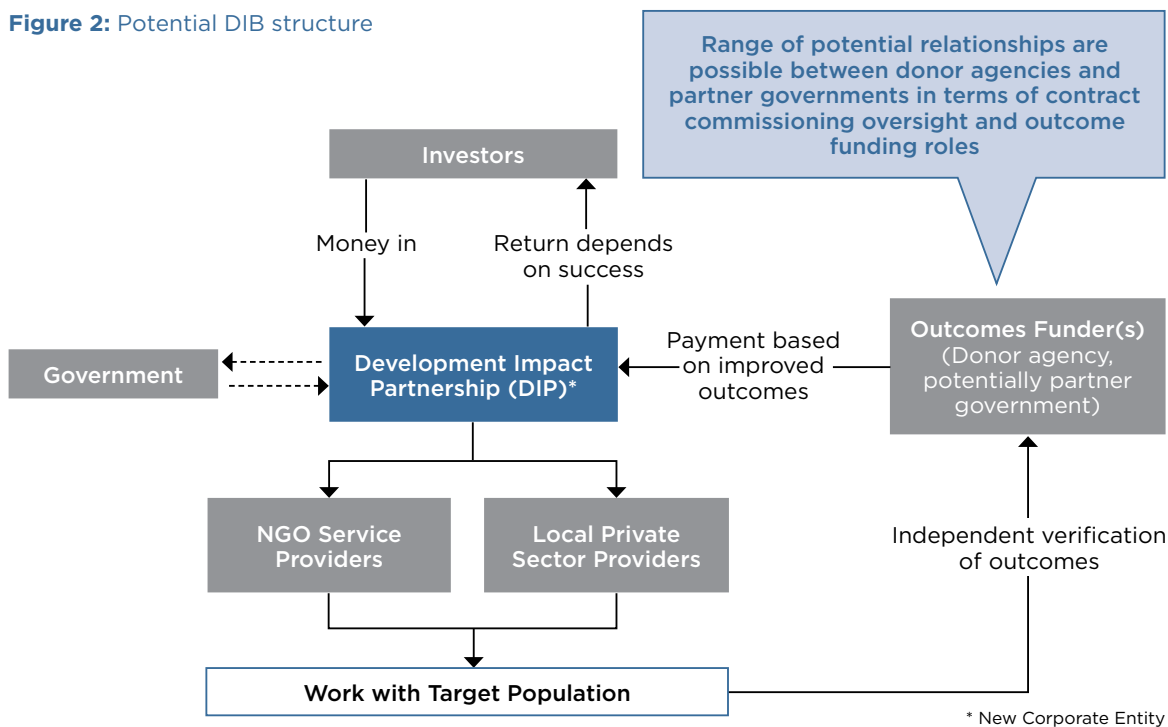
<sup>12</sup> Birdsall and Savedoff, (2010)

<sup>13</sup> According to one estimate, results-based approaches comprised just over \$5 billion in 2010, or just under 4% of total disbursements of net official development assistance from members of the OECD Development Assistance Committee. Pereira and Villota, (2012). This estimate involves a broad definition of ‘results-based approaches’ and does not include recent pilots such as the Payment by Results pilots by DFID which seek to test a “hands-off donor,” outcomes driven approach. However, a lack of common definitions of aid modalities and standardised reporting on results-based aid flows makes it difficult to assess how large the scale of these programmes has been globally.

**Box 1** (see pp. 24–25) compares the features of Development Impact Bonds with other examples of results-based funding approaches. Further ways that DIBs can add value compared to alternative approaches and circumstances under which it makes sense to use a DIB are discussed below.

Similar to Social Impact Bonds (SIBs) first piloted in the UK in 2010, DIBs are structured around defined social outcomes; stakeholders – public, private and non-profit – start by agreeing on the social outcome they want to achieve (e.g. improved learning outcomes among school-age children) and a method for measuring success (e.g. the number of students who can read, write and count well enough to meet minimum learning standards). Private investors provide funding to roll out and/or scale up an “optimal mix” of evidence-based interventions aimed at achieving the desired outcome, through a network of high-performing service providers put together and managed by a third-party intermediary or coordinating agency hired by investors. Data is collected and progress is closely monitored, also through the intermediary or coordinating agency. If – and only if – independently verified evidence shows that these programmes have succeeded in delivering the desired social outcomes, the outcomes funders, usually public sector agencies, repay investors their principal plus a return that is commensurate with the level of success (e.g. the greater the improvement in educational outcomes, the greater the return, above a minimum threshold).<sup>14</sup> To give the intervention(s) enough time to generate outcomes, a DIB would ideally be structured over a period of 3–10 years.

**Figure 2:** Potential DIB structure



By having private investors provide funding for (and assume risk for) social programmes and by introducing financial returns that are tied to the achievement of social outcomes – the distinguishing feature of the model – DIBs present a paradigm shift in how we fund social programmes. They are not merely a new financing mechanism but a new approach or business model for how development programmes are designed and operated:

<sup>14</sup> A threshold would be to ensure a statistically significant result.




- *DIBs transform neglected social problems into investible opportunities:* Although this is slowly beginning to change, social services – particularly those aimed at the world’s poorest, most vulnerable people – do not yield sufficiently high financial returns to attract private investment, despite their obvious benefits to society. This results in market failure. Governments, which in theory are expected to fill in gaps where there are market failures, face a different set of constraints – political, financial, and operational – that result in underinvestment in essential services, particularly in prevention. By attaching a monetary value to the achievement of social outcomes, DIBs transform seemingly intractable social problems – partly the result of both market and government failures – into “investible” opportunities for investors, while allowing governments to transfer some of the risks which prevent them from investing in tackling these problems.
- *DIBs introduce market rigour to achieving social outcomes:* Because investors’ returns are tied to the achievement of social outcomes – and because the size of the return is commensurate with the level of success (i.e. the higher the social gains, the higher the financial returns) – investors are given incentives to target populations that face the greatest needs, as this is often where the greatest gains (social and financial) are to be had. They are also given incentives to deliver those services in the most efficient and cost-effective way, and to put in place the performance management systems necessary to measure, track and improve outcomes. Early SIBs have shown the value of establishing proper data systems and detailed performance management in improving service provider efficiency and client specific needs analysis (for example, see [Box 2 on the UK Peterborough SIB, p. 28](#)).
- *DIBs create incentives to make funds available for longer periods of time:* Because it takes time for social outcomes to materialise, and because investors’ outcome payments are triggered by independent verification of outcomes achieved, an investment-backed structure like DIBs could create incentives to fund programmes over a longer period of time (5–10 years) than traditional development programmes, allowing service providers to lay the groundwork for scaling up interventions.

The key characteristics of a Development Impact Bond are:

- Some or all project financing is provided by **investors** who assume risk for project performance
- An **outcomes funder** must be willing to pay for pre-defined results after they are achieved
- **Financial returns** to investors are tied to the achievement of social outcomes
- **Outcomes funders do not specify interventions** – strategies for achieving outcomes are agreed between investors and service providers, usually through an intermediary or coordinating agency, with some flexibility for adaptation through the duration of the programme
- Contract outcomes and outputs are **independently verified** to ensure that both investors and outcomes funders are confident about the extent to which results have been achieved

More information on the different roles of DIB parties can be found in [Section 3D \(see p. 85\)](#).





DIBs encourage innovation and learning in service delivery and are most valuable as an instrument if lessons are widely shared.

## Box 1: The landscape of results-based contracting for development: DIBs vs. alternative approaches

Instrument	Shared characteristics	Key differences
<p><b>Results-based aid (RBA)</b> involves a funding relationship between a donor and a developing country government.</p>		
<p><b>Cash on Delivery Aid:</b> Donors agree to pay recipient governments a fixed amount (e.g. \$200) for incremental progress made towards a pre-defined outcome (e.g. each additional child who completes primary school).</p>	<p>Funders are non-prescriptive and 'hands-off', allowing room for service provider innovation and tailoring of solutions to local contexts.</p> <p>Outcomes are independently verified before payments are made.</p>	<p>COD Aid requires that governments use existing resources to cover programme costs and shifts implementation risk from donors to these governments.</p>
<p><b>Global Alliance for Vaccines and Immunisation, Immunisation Services Support (GAVI/ISS):</b> After receiving an initial cash grant to roll out an immunisation programme, partner countries received additional payments for incremental progress made against a baseline for the number of children vaccinated.*</p>	<p>Apart from the initial "start-up" grant, payments are made on an outcomes-basis, for incremental progress made.</p>	<p>GAVI ISS did not require independent verification of results, instead relying on the recipient country's reporting system.</p> <p>GAVI provides an initial investment to governments and only links part of funds to outcomes.</p>
<p><b>Budget support with variable tranches:</b> In addition to receiving a "fixed" tranche upon meeting eligibility criteria, partner countries may receive "variable" tranches if they meet mutually agreed targets (i.e. public finance and Millennium Development Goal-related indicators).</p>	<p>Budget support programmes offer recipient countries more freedom in setting priorities and implementing programmes than traditional aid.</p>	<p>Budget support programmes are not structured around a single clear outcome, making 'progress' more difficult to track and less transparent to recipient country citizens.</p>
<p><b>Results-based financing (RBF)</b> entails payments from domestic government sources and/or donors directly to beneficiaries or non-government providers. It includes output-based aid, provider payment incentives and performance-based transfers, among others.</p>		
<p><b>The Global Partnership on Output-Based Aid (GPOBA):</b> Contributions are channelled from donors to service providers, typically private firms and NGOs, for the delivery of specific outputs, such as schools built, or increased access to water supply.</p>	<p>Payments are tied to delivery of pre-agreed results.</p> <p>Outcomes are independently verified before payments are made.</p>	<p>GPOBA is primarily focused on outputs (i.e. schools built) instead of outcomes (i.e. improved learning).</p> <p>Like most RBA/RBF schemes, GPOBA does not provide pre-financing, which limits the number and types of organisations that could participate.</p>
<p>* GAVI ISS is currently being phased out, to be replaced by a new performance-based funding (PBF) scheme, approved in November 2011, which is moving toward the use of household surveys in some countries to verify results.</p>		

Instrument	Shared characteristics	Key differences
<p><b>Pull Mechanisms</b> are “carrots” designed to encourage private and public sector innovators to develop products and services that they would not otherwise bring to the market.</p>		
<p><b>Advance market commitments (AMCs):</b> By making a binding commitment to buy a technology at a guaranteed price if/when it is developed, donors create incentives for private companies to develop socially desirable technologies that would otherwise be financially unviable due to low demand.</p>	<p>There would be no cost to donors unless the result is achieved – i.e. the desired technology is developed.</p>	<p>The purpose of AMCs is to create markets where they don't exist, but incentive payments are not based on measured social outcomes (i.e. reduced child mortality).</p>
<p><b>Loan Instruments</b> usually involve a loan or credit component.</p>		
<p><b>International Development Association (IDA) debt buy-downs:</b> Donors agree to pay off the net present value of an IDA loan to a “least developed” country if - and only if - that country meets pre-determined performance targets.</p>	<p>IDA buy-downs offer recipient countries more freedom in setting priorities and implementing programmes than traditional aid.</p> <p>Results are independently verified before debt is paid off.</p>	<p>Although IDA provides developing country governments with a credit/loan to cover programme costs, it shifts 100% of implementation risk from donors to these providers.</p>

## THE VALUE OF DEVELOPMENT IMPACT BONDS

By building in a source of pre-financing, shifting risk to actors outside the public sector and creating incentives to focus on development outcomes, DIBs address a number of issues associated with existing results-based approaches. They also have enormous potential to serve as a *platform for development cooperation* – an instrument that brings together the best of the private sector, civil society organisations, governments and donors and provides a way to enhance coordination among them.

The value of DIBs over alternative results-based funding approaches can be classified into these three key categories: access to finance, incentives effectively to deliver results and a platform for development cooperation.

### ACCESS TO FINANCE

Results-based aid (RBA) approaches usually rely on developing country governments to supply funding for interventions and thus assume risk of failure, whereas results-based financing (RBF) approaches usually rely on service providers. However, developing country governments often find it difficult to fund social services independently (especially preventative interventions) because they have a small tax base and large informal economies. Moreover, high interest rates and low credit-worthiness can make it difficult for them to borrow in capital markets, especially to fund programmes whose outcomes are characterised by a high degree of uncertainty. Service providers, usually comprised of non-profit organisations and charities, are similarly limited in their ability to access finance. For these reasons, it is not always possible for governments and service providers to enter into traditional results-based contracts, where funding is provided only after the impact has been achieved.

DIBs solve this problem by having investors provide pre-financing – and assume risk – for interventions expected to lead to improved social outcomes. The structure can be used to pay for services to achieve outcomes where the delivery of effective interventions is not well understood, to expand programmes that have been effective on a small scale but about which there is uncertainty in scaling up, and to address other pressing social problems that require public agencies to take on unacceptable levels of risk.

### FOCUS ON RESULTS

Although provision of working capital is an essential characteristic of DIBs, involvement of the private sector provides benefits beyond just financial. For instance, the private sector can offer expertise in measuring performance data and establishing feedback loops, as businesses' survival often depends on their ability to collect (and quickly respond to) real-time data from customers. By tying investor returns to achievement of social outcomes, DIBs create incentives for investors to put in place – usually through a coordinating agency – the necessary feedback loops, data collection and performance management systems required to achieve desired outcomes, resulting in a bottom-up, client-centred – and generally more effective, innovative and flexible – approach.

Although contracting an intermediary is not a requirement of the DIB model, it can enhance the DIB structure's focus on results in a number of ways. Because it exists independently of any single actor involved in the DIB, it can serve as an honest broker and maintain a singular focus in achieving social outcomes. For example, in the case of the Peterborough prison SIB ([Box 2, see p. 28](#)), by integrating client data and case management systems and ensuring access to robust management information, the coordinating agency allowed the programme

to adapt and improve (see p. 89 in Section 3 for more on the role of the intermediary organisation). This adaptability and flexibility are key features of DIBs: coordinating agencies and private sector actors can alter interventions and manage service providers in response to changing circumstances and new information, more easily than government agencies.

## PROVIDING A PLATFORM FOR DEVELOPMENT COOPERATION

Lastly, DIBs provide a development cooperation platform that is well suited to the diversity of players – public, private, and non-profit – involved in development today. Not only does this platform allow these actors to work together, but also captures and complements the best of the contributions each player can make to achieve development outcomes, which none could achieve on their own.

Used appropriately in well-designed programmes, Development Impact Bonds have the potential to:

1. Enable **private investors**, whether they are looking for commercial returns or wanting to combine financial returns with social impact, to support the delivery of services which have social value but which may not – under current models – yield a financial return that is big enough or quick enough to attract private investment; and enable investors to inject management systems that are based on evidence, data, and incentives, and may be more flexible and efficient than current public sector contracting and management systems;
2. Provide finance to **service delivery organisations**, enabling them to expand their services and at the same time to be responsive to local priorities, to build services around clients and not contracts, to take risks, to learn and adapt;
3. Enable **countries and governments** to invest in people for the long-term benefit of the country; to make investments in institutions, infrastructure and human capital in ways which would otherwise be unaffordable today despite the long-term social value; and enable countries to set their own priorities, and innovate with the benefits of support from donors but without the risk of excessive oversight; and
4. Enable **donors** to catalyse change with modest amounts of aid, leveraging the benefits of private finance and know-how; to focus on what is achieved rather than how money has been spent; to implement the aid effectiveness principles to which they are committed but which they have had difficulty reconciling with their own accountability needs (namely country ownership, country systems, harmonisation, mutual accountability and management for development results, etc.).

Further discussion of the role of each actor can be found in [Section 3D](#) (see p. 85).

## **Box 2: Performance management and intermediation in the Peterborough Prison Social Impact Bond**

Early implementation of Social Impact Bonds in the UK has shown investors, commissioners and service providers the value of investing in data systems to enable routine monitoring and evaluation of performance. For the Peterborough SIB focused on reducing the reoffending rates of short term prisoners, Social Finance manages providers' performance on behalf of investors. The performance manager promotes and establishes partnerships across a range of stakeholders including statutory and voluntary services (e.g. children and family services, the police, probation, local authority housing, community safety partnership, the prison and third sector service providers) to ensure a consistent and high quality delivery of services to clients, pre and post release. The role involves understanding offending behaviour, managing performance at the four levels of operation (the service user, caseworker, individual service provider and overall SIB service levels), and producing regular progress reports to investors. In turn, detailed data collection and analysis inform resource allocation decisions and enable adaptations to service provision that drive better outcomes.

### **Data collection**

Social Finance collates data provided by four main service providers, The Ormiston Trust, St. Giles Trust, MIND, and SOVA, local charities that provide individualised support to ex-offenders through activities including engaging clients before and after their release, and helping them to find accommodation, access public benefits, avoid substance abuse, and find employment. The types of data collected relate to the entire 'client journey' from entry into HMP Peterborough until exit from the service and include needs, activities, outputs and milestones. Caseworkers are provided with remote internet access and voice recorders to facilitate data capturing and uploading on a day-to-day basis.

### **Data analysis**

Social Finance also provides monthly information 'dashboards' – co-developed with providers – to track performance along key agreed indicators. This data is used both at the detailed service provider level for their monthly reviews of internal performance and also at the higher management level by the SIB director and advisory board.

Specific day-to-day management and data analysis includes: collecting data around client needs and services; tracking performance along key agreed indicators; and discussing monthly performance data and potential changes to services with the service providers involved.

### **Using data to adapt service provision**

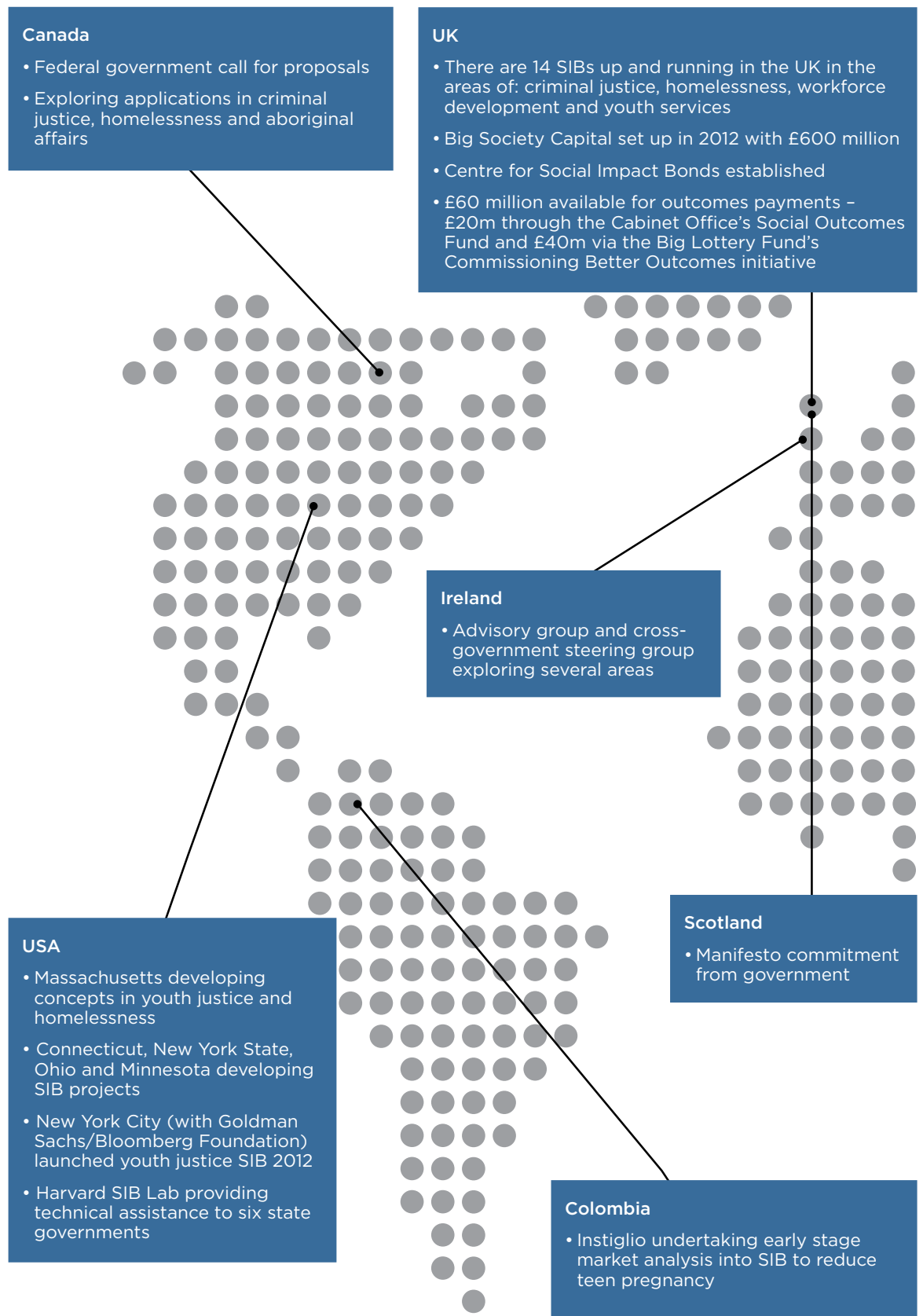
Since the start of implementation, a number of changes have been made to the way services are shaped and delivered as a direct result of the data and analysis performed by Social Finance. For example, it was identified that unresolved mental health issues had a statistically significant and substantive impact on the cohort's reoffending behaviour; this information led to the commissioning of an additional and complementary low-level mental health intervention.

## HOW FAR HAVE DIBS PROGRESSED?

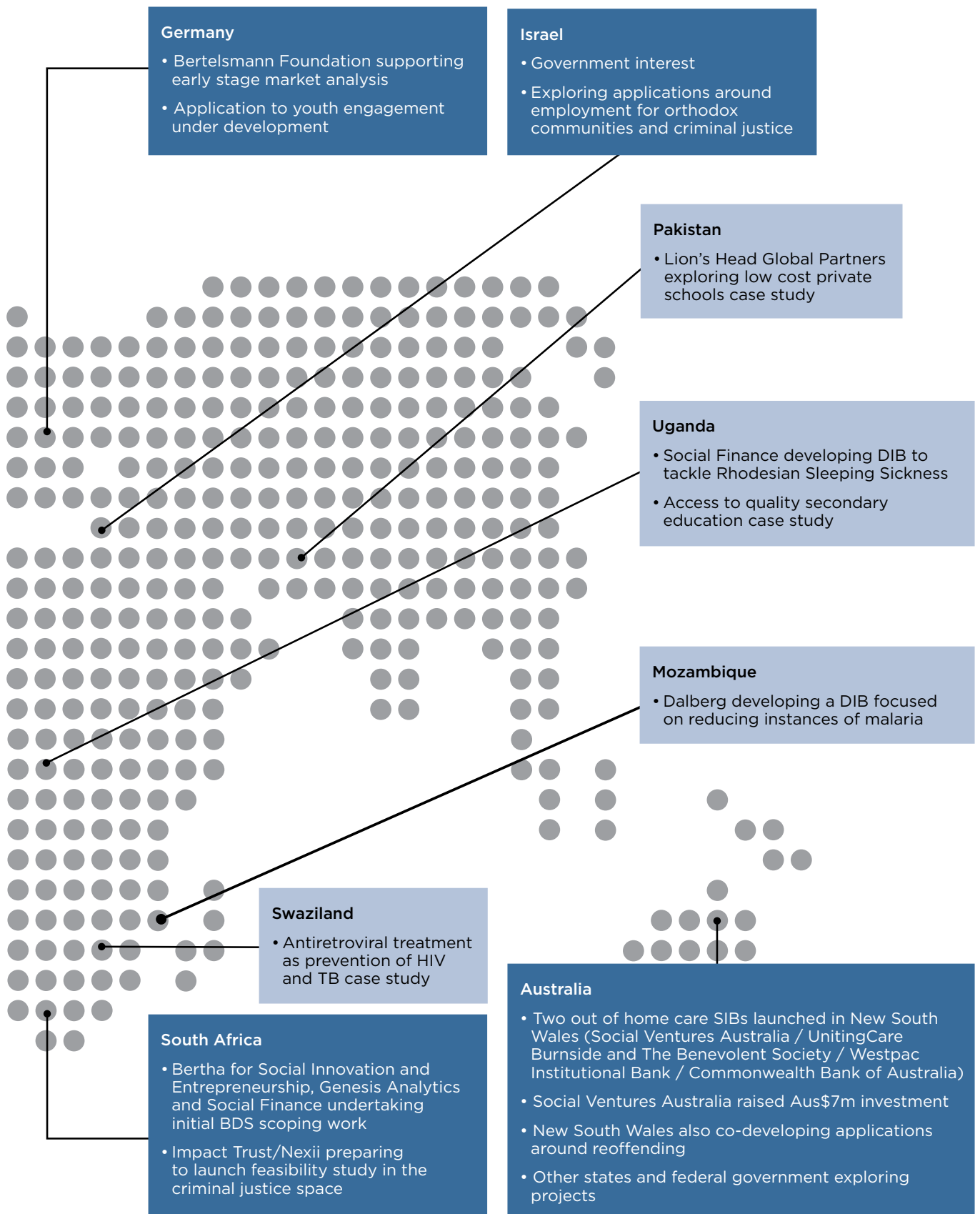
There are several SIB pilots in industrialised countries (**Box 3**, see p. 32) but the model has only recently gained attention in international development circles. Thus, it comes as no surprise that it has yet to be formally launched in any developing country. There are, however, a number of pilots in various stages of feasibility, development and negotiation and a number of actors working in this area, from donor agencies and development finance institutions to service providers and intermediaries.

Social Finance is working with partners to develop a number of potential models, some of which are included in the six case studies considered by the DIB Working Group (see [Section 2 – Applying Development Impact Bonds](#)) and some of which are described further in [Figure 3](#) (see p. 30). Instiglio, another intermediary organisation which is focused on implementing DIBs in low and middle-income countries, is currently exploring the application of the model in several emerging economies and is in the feasibility stage of developing a SIB to reduce teen pregnancy in Antioquia, a department of Colombia. Dalberg (via D. Capital) is also currently working with partners to explore how this model could be used to fight malaria in Mozambique.

**Figure 3:** DIBs and SIBs around the world







### Box 3. Social Impact Bonds in developed economies

To date DIBs are in the early stages of development; however a similar investment backed model is being increasingly piloted in more developed countries. The UK pioneered the creation and development of SIBs in 2010 with the launch of the world's first SIB pilot in the UK criminal justice sector, described in detail below. A number of developed countries, including the U.S., Australia, Canada, Ireland and Israel, are now in varying stages of exploring, developing and/or implementing SIB pilots. To date these have been focused mostly on criminal justice, homelessness, workforce development and youth services, but work is underway to develop applications in new sectors like health, social care and drug rehabilitation.

A number of factors have contributed to the rapid spread of the SIB model in developed countries. First, in times of economic recession and austerity, governments are under pressure to do more with what they have. Early intervention programmes focused on reducing recidivism and homelessness, helping troubled teens to remain safely with their families, and keeping individuals stably employed, can achieve value for money, as an investment today can generate considerable public benefit later down the line. SIBs provide working capital to fund these services, transferring the risk away from the public sector should the implementation of these interventions prove unsuccessful in improving outcomes. Second, an international precedent, as pioneered by the UK, has made SIBs a more viable opportunity for other countries, pointing to the potential for reduced transaction costs as more pilots get off the ground. It is our hope that once a handful of DIBs start to be implemented, other developing countries will similarly follow suit.

#### Criminal Justice

In 2010, Social Finance UK raised £5 million from 17 investors to provide comprehensive assistance to three cohorts of 1,000 men (3,000 in total) released after serving short-term jail sentences in Peterborough Prison. Their recidivism rates are tracked for 12 months following discharge and compared to the rates of a matched control group. If rates fall by at least 7.5 per cent across all three cohorts compared to the control group, the British government will repay the investors their principal plus interest. The higher the drop in recidivism rates, the higher the government payment to investors, capped at 13 per cent per year. If the threshold is not met, investors will lose their investment.<sup>i</sup> Although the Peterborough SIB will take 8 years to complete, investors can expect to receive their first payment as early as 2014, when results for cohort 1 will become available.<sup>ii</sup>

The financial crisis and pressure on budgets have pushed U.S. leaders to consider adopting SIBs, or "Pay for Success" contracts, to cut costs. The Justice Department, which gave priority consideration in the 2012 Second Chance Act grant programme to applicants who incorporated a SIB model into their programme design, has made two Pay for Success awards: an implementation award to Cuyahoga County, Ohio, and a planning award to Lowell, Massachusetts.<sup>iii</sup> The Second Chance Act, passed into law on 9 April 2008, is designed to improve outcomes for people returning to communities from prisons and jail.

New York City has also launched a SIB in the area of criminal justice. Announced in August 2012, the New York City SIB will use a \$9.6 million investment from Goldman Sachs to fund a programme targeted at reducing recidivism among annual cohorts of 3,000 young men discharged from Rikers Island prison.<sup>iv</sup> Currently, nearly 50 per cent of young men released from Rikers reoffend within a year.<sup>v</sup> If recidivism rates drop by 10 per cent over 4 years, Goldman Sachs is repaid its investment and – if the programme achieves a greater success rate – could receive a return on its investment not exceeding \$2.1 million in total. If the programme fails to achieve a 10 per cent reduction in recidivism, Goldman Sachs stands to lose part of its investment. However, its maximum loss is capped at \$2.4 million due to a \$7.2 million loan guarantee from Bloomberg Philanthropies.<sup>vi</sup> Results are expected in 2016.

In the same week that New York announced its SIB agreement, Massachusetts announced the selection of initial successful bidders for SIBs to address juvenile justice and chronic homelessness.<sup>vii</sup> It has also adopted legislative backing for "Pay for Success" contracts and has announced a desire to sign up to \$50 million in contracts under the programme.<sup>viii</sup> Jay Gonzalez, Massachusetts's secretary of administration and finance, indicated that if the pilots are successful, Massachusetts will expand into other areas, perhaps higher education.<sup>ix</sup> The Massachusetts programmes are currently under development and yet to be announced.

In 2013, further U.S. developments include six technical assistance awards to state and local governments by the SIB Technical Assistance Lab established by Harvard Kennedy School to develop pay-for-success concepts using SIBs.

In addition to the two SIBs which have been launched in out of home care, the Government of New South Wales, Australia is also developing a SIB (using the local terminology 'Social Benefit Bonds')

which focuses on reducing reoffending.<sup>x</sup> This SIB pilot is currently at a Joint Development Phase, to be finalised between Government, preferred proponents, service providers and potential investors.

### Homelessness

In 2012, the Greater London Authority (GLA) awarded SIB contracts to two providers to pay for interventions to tackle rough sleeping in London. The Department of Communities and Local Government (DCLG) will transfer funding to the GLA for the SIB outcomes payments worth up to £5 million. The 3-year programme, to be delivered by London-based homelessness charities St. Mungo's and Thames Reach, will provide intensive support to a cohort of 831 entrenched rough sleepers who have been recorded rough sleeping and/or have stayed in a London rough sleeping hostel in the last three months, and who have been recorded rough sleeping at least six times over the last two years.<sup>xi</sup> If service providers deliver improved outcomes, including achieving sustained accommodation, reducing visits to A&E hospital departments and helping to place individuals into volunteer or paid positions, they will receive up to £2.4 million each to repay investors and provide a financial return.<sup>xii</sup> Investors will receive single-digit financial returns and the charity will receive all remaining profit.

The governments of Massachusetts, Ireland, and the United States are also exploring the potential of SIBs to address chronic homelessness, among other social issues. However, this work is still in the early stages of development.

### Workforce development

The UK Department of Work and Pensions (DWP) has made up to £30 million available to pay for improved employment outcomes for young people. This money comes from the DWP's Innovation Fund, which backs new payment-by-results schemes to tackle youth unemployment. To date, ten investment backed contracts have been awarded to providers across the UK. The DWP has identified a number of outcomes against which programmes will be measured, including improved behaviour, school attendance, educational qualifications and employment opportunities.

Similarly, the U.S. Department of Labor has made up to \$20 million, funded by the Workforce Innovation Fund, available for SIB programmes that focus on employment and training outcomes.<sup>xiii</sup>

### Youth services

Essex County Council (ECC) in the UK has recently backed a SIB that focuses on 11-16 year-olds at the edge of care or custody in Essex, with the objective of improving their long-term social outcomes through providing support to them and their families so that they can safely remain at home.<sup>xiv</sup> Social Finance UK, the organisation contracted to deliver the SIB, has raised £3.1million from investors, who can expect a return if the scheme succeeds in reducing number of days spent in care by adolescents in the programme. Broader outcomes measured by the SIB include school attendance and attainment, offending and measurements of emotional wellbeing. The scheme will provide interventions for around 380 adolescents and their families, with the aim of diverting around 100 from entering the care system by funding a series of evidence-based programmes.<sup>xv</sup> Initial results are expected at the end of 2013.

It was announced in April 2013 that the first SIB contract in New South Wales, Australia, has now been signed with UnitingCare Burnside – a family restoration programme for children in out of home care – and Social Ventures Australia has raised Aus\$7million investment. In June 2013, the Government of New South Wales announced a second SIB targeting improved out-of-home care for children.<sup>xvi</sup> Westpac and the Commonwealth Bank of Australia have jointly supported The Benevolent Society to launch a SIB for its diversion programme.

SIBs targeted at young people are also being developed in the U.S., such as the SIB targeted at early childhood education announced by United Way of Salt Lake City, with J.B. Pritzker and Goldman Sachs providing funding.

i Disley, Rubin, Scraggs, Burrowes, and Cully, (2011).

ii There are two targets for reducing reconviction rates, both of which can trigger outcome payments if they are reached. The first target is a 10 per cent reduction in each cohort of 1,000 prisoners (the minimum required to achieve statistical significance in a cohort of this size). If a 10 per cent reduction is not detected for any of the 3 cohorts at the end of the entire SIB period, the cohorts will be evaluated together, resulting in the second trigger – a 7.5 per cent reduction across all 3 cohorts. If this threshold is achieved, investors will be paid an agreed fixed sum per reconviction event avoided. The pay-out year 2014 is based on the estimate that it takes approximately 2 years for a cohort of 1,000 unique offenders to be discharged from HMP Peterborough, a further year to assess their re-offending behaviour and a final year to process reconvictions in court, confirm data, verify outcomes and calculate outcome payments.

- iii U.S. Department of Justice, (2010).
- iv Office of the Mayor, NYC, (2012).
- v Chen, (2012).
- vi Preston, (2012).
- vii Executive Office for Administration and Finance, State of Massachusetts, (2012).
- viii Costa and Kohli, (2012).
- ix Rosenberg, (2012).
- x New South Wales Government website [http://www.treasury.nsw.gov.au/site\\_plan/social\\_benefit\\_bonds](http://www.treasury.nsw.gov.au/site_plan/social_benefit_bonds)
- xi Social Finance UK website <http://www.socialfinance.org.uk/work/sibs/homelessness>
- xii As the rough sleeping cohort has multi-dimensional needs, five outcome metrics were identified to assess the effectiveness of Social Impact Bond-funded interventions in sustaining the cohort to live off the streets. The metrics are intended to incentivise substantial additional progress beyond the core outcome to reduce rough sleeping. They include:
  1. Reduction in the number of individuals with a bedded down street contact each quarter;
  2. Confirmed sustainment of tenancy in a non-hostel setting;
  3. Confirmed reconnection to a country in which individual enjoys local connections;
  4. Sustained volunteering, part-time or full-time employment; and
  5. A decrease in the average number of A&E episodes per person per year.
- xiii U.S. Department of Labor, (2012).
- xiv Social Finance website <http://www.socialfinance.org.uk/work/sibs/vulnerable-children>
- xv Action for Children have been contracted to deliver Multi-Systemic Therapy (MST), an evidence-based programme delivered in the home by highly qualified therapists, focused on improving parenting and rebuilding positive relationships within the family and between the family and the wider community.
- xvi New South Wales Treasury website, [http://www.treasury.nsw.gov.au/site\\_plan/social\\_benefit\\_bonds](http://www.treasury.nsw.gov.au/site_plan/social_benefit_bonds)

## CREATING A VIABLE MARKET FOR DEVELOPMENT IMPACT BONDS

Development Impact Bonds have the potential to improve the impact of development funding. For DIBs to reach scale and become a normal tool for achieving results in development, a viable market of investors and outcomes funders will gradually need to form. A mature market will require: (1) a robust supply of investors, (2) confident demand from outcomes funders, and (3) market infrastructure, or mechanisms that facilitate the investors and outcomes funders doing business together. Over time, a well-functioning market for DIBs would improve the quality of social services and increase the quality of funding, both by providing a clear indication of the results achieved by development programmes and by channelling resource allocation towards services based on evidence of what generates the highest impact.

Developing DIBs – and implementing them at scale – will take time, resources and new skills and expertise. Partner governments and donors will need to adapt their commissioning capabilities to fit the needs of results-based contracting, think creatively about valuing outcomes and decide what risks to transfer to the private sector and which to keep for themselves. Private investors, many of whom will be relatively new to investing in outcomes-based contracts, must be able to assess risks that are unfamiliar to them. Intermediaries, also new to the scene, will need to develop the capabilities to support governments and investors in structuring DIBs, bridging the gap between different institutional cultures and providing technical support to determine outcome values, risk premiums and payment schedules that will be attractive to both investors and outcomes funders. As the market develops, different players may be able to build capacity to take on different roles in building a DIB – the intermediary may then play a lighter touch role, for example only taking part in the capital raising period or taking on the performance management role. Lastly, service providers must develop the necessary tools and capacity, potentially with the support of intermediaries, to measure, track and ultimately deliver social outcomes effectively and at good value for money.

In the short term there will be costs to introducing and refining these DIB structures. Interested outcomes funders, investors and service delivery organisations will need to work in partnership and devote resources to understanding and developing the approach in order to determine whether and how they can implement it. For example, there will be transaction costs associated with assessing the feasibility of a DIB approach in solving specific social problems and with monitoring and verifying outputs and outcomes more closely than would otherwise be required. Because of these additional costs associated with putting together the first deals, donors, partner governments and private investors may be hesitant to be the first to put their money on the line to test the approach. Unless someone is willing to bear the costs of catalysing the new market, the potential long-term benefits of a more effective partnership which achieves better development impact at lower cost may never be realised. Although transaction costs may appear high at the beginning, it is likely that, over time, the cost of developing DIBs will decrease due to sharing of information and learning among DIB actors as more products come to market.

To ensure that initial DIB pilots get off the ground, funding should be made available to cover the costs of developing initial pilots, which will lead to the development of a viable market. *The DIB Working Group recommends that external organisations willing to take on higher levels of risk in return for achieving high social impact, such as trusts and foundations, provide this funding to catalyse the formation of a market for DIBs.* This funding could be used to: generate awareness and understanding of DIBs and the potential benefits they can bring; support the intermediation that is needed to bring different parties together and

negotiate an agreement that fits all those engaged; as well as to support the more technical work of intermediaries in the design of early DIB pilots, including tackling some of the key challenges related to valuing outcomes and pricing risk (the role of intermediaries is discussed in detail in Section 3). This initial funding could also be used to fund research to assess the benefits of the DIB structure as compared with alternative approaches, thus building an evidence base for DIBs as an instrument.

As potential outcomes funders, investors, government agencies in host countries, and service providers become aware of this approach and the potential value that it could bring, *the DIB Working Group recommends that these parties should convene in partnership to explore potential DIB pilots and ways that the model can address challenges that are not adequately addressed by current funding mechanisms.* Working collaboratively will ensure that early DIB contracts are attractive to investors, create the right incentives for service providers and offer good value to outcomes funders, thereby leading to the implementation of pilots that can provide examples and lessons about how the approach works.

Particularly while DIBs are a new approach, various outcomes funders should strongly consider creating a mechanism that would allow them to share risks as well as lessons learned. They could set up a **DIB Outcomes Fund** to provide joint funding of development outcomes. This could, for instance, be set up as a challenge fund, where DIB intermediaries and other potential project implementers compete for funds to be used as outcome payments, leading to innovation in design with funding flowing to the best-designed DIB proposals.

In parallel, investors should consider establishing a number of **DIB Investment Funds** to provide ready pools of capital and cornerstone investment into DIB contracts. This would not only reduce the amount of time and resource needed to raise capital for each DIB opportunity, improving efficiency of due diligence and transaction structuring, but also help to crowd in other private investors interested in investing in development outcomes, catalysing the launch and implementation of a range of early DIB pilots.

As pilots develop, in order to determine whether DIBs are an effective approach to solving development problems and, if so, to take the approach to scale, it will be important that lessons from DIB design and implementation are shared. *The DIB Working Group recommends that investors, intermediaries, outcomes funders, and service providers share lessons about this new approach to improve the design of future DIBs and help the market grow.*

First, a rigorous evaluation design should be built into pilots. Evaluations should assess whether and how interventions led to better outcomes; whether and how the structure changed incentives and led to greater transparency around the impact of donor funding; whether and how the structure led to greater innovation; and whether and how it resulted in greater efficiency in terms of services, stakeholder relationships and value for money. This will help build the evidence base for DIBs and allow good approaches to emerge and spread, and bad ideas to “fail quickly.” These evaluations should be made public as soon as they are available to ensure that lessons from past evaluations can be used to inform the design of future programmes.

Second, to promote and accelerate learning about DIBs as pilots begin to take shape, donor agencies and philanthropic foundations could also establish a DIB Community of Practice of potential donors, investors, DIB development intermediaries and government agencies from developing countries to share experiences and learning from early DIB pilots and advise on the development and use of these instruments going forward, possibly using lessons from Social Impact Bonds in developed countries and from other forms of payment-by-results contracts.

Lastly, it is important that DIB pilots are sufficiently transparent so that these lessons are shared and used to advance the development of a market. *DIBs should be developed, implemented and evaluated in a transparent and “open source” way.* Donors and governments that are parties to DIB contracts should make all contracts publicly available as part of a broader movement towards more open government processes. Publication of contracts is important because (1) citizens have a right to know how their tax money is being used and (2) it can increase the quality of government investment decision-making by exposing decisions about how funds are being used to public scrutiny.<sup>15</sup>

When pilots are underway, data on outputs or outcomes should be made public when they are measured as the basis for payments, for the benefit of local stakeholders and beneficiaries as well as taxpayers in donor countries. More detailed information, including on the design and costs of specific interventions and pricing of outcomes, should be made available over time as the results of independent evaluations are released. Openness will help to generate evidence of the effectiveness of the approach, accelerate confidence in DIBs for investors, governments, service providers and taxpayers, and reduce transactions costs over time.

Detailed recommendations, including for individual DIB actors, are set out on pages 9-15.

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<sup>15</sup> These ideas are explained more fully in Kenny and Karver, (2012).



## 2 Applying Development Impact Bonds

The Development Impact Bond Working Group explored potential Development Impact Bond models through six case studies developed in collaboration with a range of partners. These case studies span a number of sectors including health, education, business development services and energy efficiency in a range of countries, from Uganda to Pakistan. They are in various stages of development, with design features being continually refined, and may or may not ultimately be developed into DIB contracts. They are included here to illustrate the breadth of social issues to which DIBs can be applied and to explore potential models and considerations for their design.

### CASE STUDY 1: Reduction of Rhodesian Sleeping Sickness in Uganda

#### THE SOCIAL ISSUE

Rhodesian sleeping sickness threatens 9 million people in Uganda, mostly in poor, rural areas. It is expensive and difficult to diagnose and treat in humans; as a result it is often fatal. Historically, cases have been limited to the south-east of the country; however the affected area has been expanding over recent years, driven by the movement of cattle.

Two forms of human sleeping sickness exist, Rhodesian and Gambian. Uganda is the only country where both forms are found. Gambian sleeping sickness is a chronic illness that is transmitted from person to person via tsetse flies. Rhodesian sleeping sickness is the acute form of the disease – cattle act as the main reservoir for the human infective parasite, also transmitted via tsetse flies.

#### THE OPPORTUNITY - WHY IS A NEW FINANCE MODEL NEEDED?

Without intervention, there is a significant risk of convergence of the two strains of disease within the next 10 years. The public health consequences are potentially large with significant cost implications. There is an established government infrastructure in Uganda for coordinating and monitoring sleeping sickness interventions. However, due to a lack of resources, current control efforts are insufficient to effectively control the transmission of zoonotic sleeping sickness and to halt overlap of the two strains of disease.<sup>16</sup>

Cost effective, preventative measures to reduce instances of Rhodesian sleeping sickness through the targeting of cattle have been developed and piloted.<sup>17</sup> Treating cattle reduces the prevalence of the human infective parasite unlocking human health benefits. It also reduces the prevalence of the animal infective parasite, unlocking animal health and cattle productivity gains. However, to maintain this reduction, cattle in the areas in which sleeping sickness is prevalent need to be sprayed regularly with insecticide to ensure that gains in the short term and sustained over the longer term.

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<sup>16</sup> Welburn and Maudlin, (2012).

<sup>17</sup> Stamp out Sleeping Sickness (SOS) website <http://www.stampoutsleepingsickness.com/>



There is an existing network of local partners focused on sleeping sickness in Uganda and the DFID funded Research Into Use (RIU) programme supported delivery of a number of small scale interventions through the Stamp out Sleeping Sickness (SOS) Alliance. A DIB could rapidly scale interventions to reduce Rhodesian sleeping sickness and make gains sustainable in the longer term – potentially eliminating Rhodesian sleeping sickness in Uganda.

## TARGET LOCATION AND POPULATION

To quickly reduce prevalence of the human infective parasite in Uganda and prevent overlap of the two strains of disease, interventions must be implemented rapidly and at scale. A total of 32 high risk districts and 18 lower risk districts would form the target area.

## OUTCOMES METRICS AND PROPOSED INTERVENTION

The aim of the programme would be to reduce the level of the human infective parasite in cattle – a strong proxy for reduction in the incidence of Rhodesian sleeping sickness in humans. It is envisaged that success payments would be triggered by:

- 1) Effective delivery of the mass treatment programme in years 1-3; and
- 2) A sustained reduction in the human infective parasite prevalence rate in cattle in years 4-8.

By triggering payments relatively early in the contract, the cost of capital can be minimised, offering better value for money for outcomes funders. Investors are rewarded partially for the operational risk they assume in delivering the cattle treatment programme, but are fully compensated for ensuring that the resultant impact on parasite levels is sustained – for example, through sustainability activities such as the establishment of a community based insecticide spray network to maintain reduction of the human infective parasite in cattle.

## ADDED VALUE OF A DIB

The DIB model differs from traditional aid approaches and other results-based approaches in a number of important ways. The following table highlights the value of applying a DIB in the context of reducing sleeping sickness in Uganda.

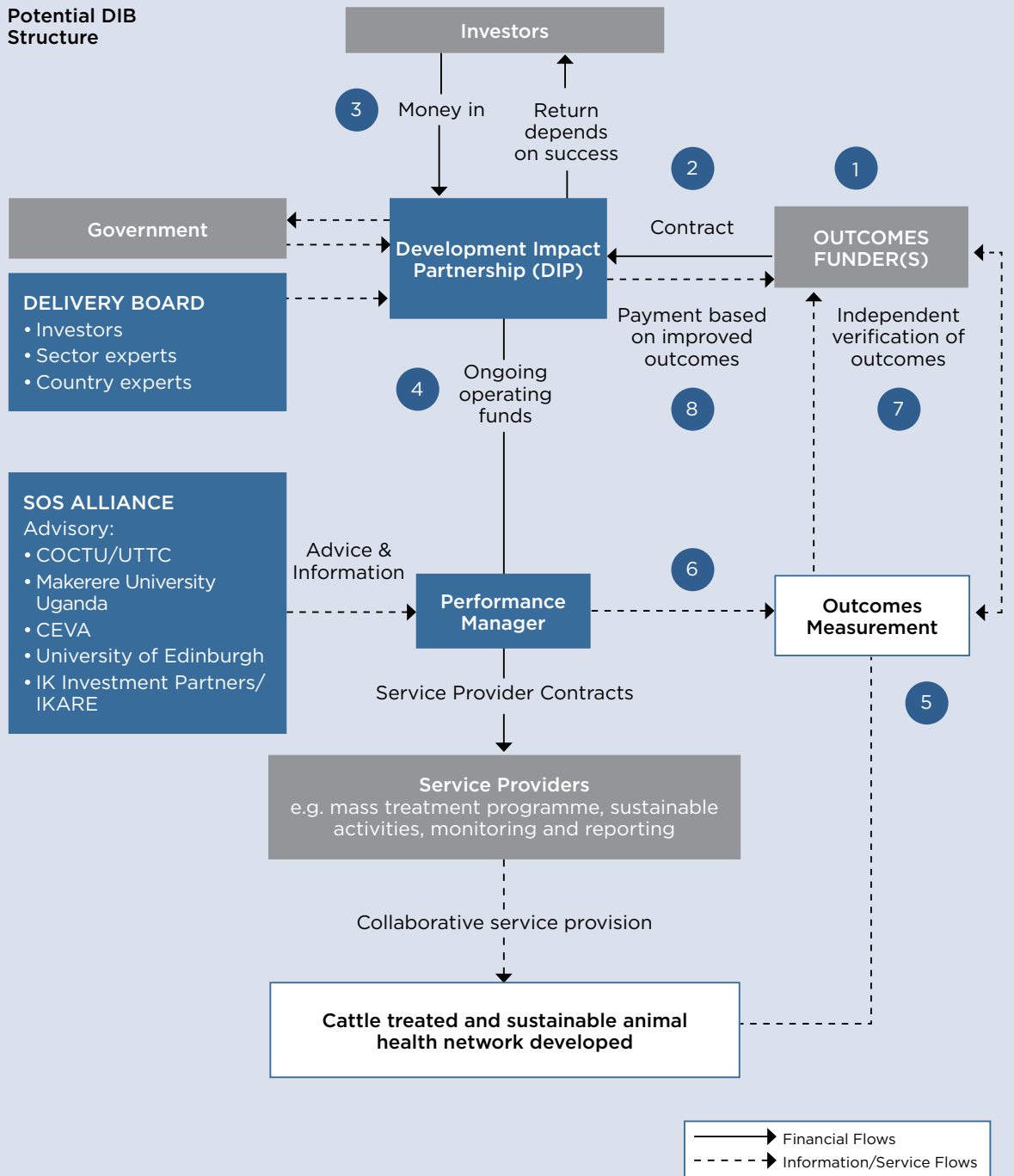
## ROLE OF PARTNER GOVERNMENT

The cross ministerial body Uganda Trypanosomiasis Control Council (UTCC) (and its secretariat the Coordinating Office for Control of Trypanosomiasis in Uganda (COCTU)) has responsibility for coordinating sleeping sickness interventions and managing all related data in Uganda. As such, it would be important to ensure that the UTCC/COCTU are involved with the data collection and tracking process and well informed about operational developments to maintain coordination between different levels of government during the mass treatment intervention – for example, this could range from ensuring continued ministerial buy-in to enabling coordination between district veterinary officers and local council members.

## How a Development Impact Bond could add value

	Value of a DIB	Other aid approaches
<b>Rapid scaling up of intervention requires a large investment at the outset and involves significant operational and delivery risks</b>	To maximise the impact of the programme and prevent overlap of the two strains of sleeping sickness, the interventions have to be implemented at scale (mass treatment of 8 million cows across 50 districts in Uganda). Within a DIB structure, private investors provide the working capital necessary to roll out and scale up interventions before the two strains of disease merge. As a key part of sustaining reduction in the human infective parasite will be regular spraying of cattle with insecticide in the at-risk districts, investors not only take on the operational and delivery risk associated with a mass treatment intervention but also those associated with setting up sustainability activities to prevent reinfection of the cattle. Donors do not pay unless outcomes are successfully verified.	<b>Traditional Aid:</b> Although donors could directly fund interventions, they would have to pay regardless of whether or not the intervention was successfully delivered. To successfully sustain reductions in the human infective parasite, a flexible and innovative approach is required. A results based structure enables donors to transfer delivery risk to a third party (partner government, service provider or investor) better suited to manage this risk.  <b>RBA/RBF:</b> Other results-based approaches could be used to contract on an outcomes basis, however this would require access to working capital, which prevents participation by many, particularly smaller, service providers.
<b>Large-scale and complex intervention requires successful stakeholder coordination</b>	The intervention has not previously been implemented at the proposed scale and success depends on coordination of multiple actors working together to achieve a common outcome. The DIB model offers a clear management and governance structure, with a specified DIB coordinator (e.g. a performance manager) having overall responsibility for bringing actors together to deliver the intervention. Detailed data management and analysis of service provider performance will ensure that delivery remains on track.	<b>Traditional Aid:</b> Although funding could potentially be provided through a number of traditional service contracts, success still relies on a number of individual stakeholders working together. There is limited incentive for them to do so in a traditional service contracts.  <b>RBA/RBF:</b> Other results-based approaches will not necessarily have a specified coordinating role, so getting multiple stakeholders to work together to deliver outcomes may still be a challenge.
<b>Discipline in delivery crucial to achieving and sustaining desired outcomes</b>	A minimum number of cattle need to be treated to enable significant reduction in sleeping sickness cases. As payment back to investors is dependent on successful delivery, investors have a strong incentive to monitor performance and intervene if necessary to ensure effective delivery. This drives efficient and effective service delivery. The payment structure also creates investor incentive to sustain impact in later years.	<b>Traditional Aid:</b> Payment from donors in traditional service provider contracts is not necessarily dependent on ability to deliver interventions, nor success in achieving outcomes.  <b>RBA/RBF:</b> These approaches do not necessarily leverage the skills and expertise of the private sector to drive efficient and effective service delivery – an essential component for successful delivery in this example.
<b>Greater transparency around the impact of funding</b>	Outcomes would be independently verified before payments are released. This process is central to a DIB contract and ensures that outcomes funders only pay for outcomes which have been achieved. This mechanism should improve accountability in terms of development spending and outcomes achieved.	<b>Traditional Aid:</b> As traditional service provider contracts do not automatically require recording and verification of results, there is often limited understanding about the impact of development spending and outcomes achieved.

Potential DIB Structure



- 1 A range of potential relationships are possible between donor agencies and partner governments - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
- 2 Development Impact Partnership (DIP), a new corporate entity,\* contracts with Outcomes Funder(s)\*\*
- 3 Investors provide upfront financing to DIP
- 4 DIP funds and manages service providers to generate outcomes - performance manager hired by DIP to work-in-country
- 5 Measurement and reporting of contracted outcomes/outputs either by the DIP or by an independent third party as appropriate
- 6 Performance manager reports additional management information and data to outcomes funders as appropriate
- 7 Independent verification of contracted outcomes/outputs
- 8 Outcome Funder(s) pay according to outcomes/outputs achieved

\* The exact legal form of this entity will depend on the needs of the specific outcomes funders and investors involved

\*\* See Section 3F (p. 96) for further details on DIB structures

## POTENTIAL OUTCOMES FUNDERS

It is anticipated that donor agencies, like DFID, who have a long history of investing in understanding and piloting solutions to address Rhodesian sleeping sickness, would be the most likely bodies to pay for outcomes within this contract. While there is significant potential benefit to the programme in terms of both humans and livestock, it is unlikely that this will be cashable in the short-term. A large part of the benefit of this programme would be avoiding potentially costly and catastrophic cross-over of the two sleeping sickness strains.

## POTENTIAL INVESTORS

Potential investors may include:

- Health and agriculture focused trusts and foundations
- High net worth individuals and Africa focused impact investment funds

### Sleeping sickness: illustrative investor proposition

**Geography:** Uganda – 50 districts at risk of Rhodesian sleeping sickness

**Capital requirement:** \$20-30m

**Range of outcome payments:** \$0-40m

**Investment term:** 8 years

**Impact objectives:**

- Years 1-3: ≥65% of cattle in high risk districts treated
- Years 4-8: significant reduction in human infective parasite prevalence from YO baseline

**Base case:**

- Assumes that in Year 1, 85% of cattle treated in high and lower risk target districts and in Years 2 and 3, 85% of cattle treated in the high risk districts only;
- Assumes parasite prevalence reduced from 5% to 1.5%;<sup>i</sup>
- >80,000 DALYs averted;<sup>ii</sup>
- >\$70m of social benefit (animal and human health).<sup>iii</sup>

**Payment mechanism:**

Payments at the end of years 1, 2 and 3 could be capped at the cost of intervention plus a modest return. Payments would be triggered by an independent audit of the cattle mass treatment programme. This recognises and rewards the significant operational risk in this phase of the programme.

Payments at the end of years 4-8 provide a risk-related return to investors in the event of success. Payments could be triggered by reductions in cattle parasite prevalence in high risk areas. This creates an investor incentive to sustain the impact of the mass cattle treatment programme.

**Threshold:** Delivery payments only triggered once 65% cattle treated in high risk districts

<sup>i</sup> Figures estimated based on Muhanguzi, Welburn, et al. (2013 in preparation); and the results of previous smaller scale interventions under the Stamp Out Sleeping Sickness campaign <http://www.stampoutsleepingsickness.com>

<sup>ii</sup> Figures estimated based on: Odiit, Coleman, Liu, McDermott, Fèvre, Welburn and Woolhouse, (2005); Fèvre, Odiit, Coleman, Woolhouse and Welburn, (2008); and Shaw, (2013 in preparation)

<sup>iii</sup> *Ibid.*

**The Development Impact Bond Working Group would like to thank H2o Venture Partners and the DFID Research Into Use programme for their support in developing this case study.**



## CASE STUDY 2: Antiretroviral Treatment as Prevention of HIV and TB in Swaziland

Treatment as Prevention (TasP) could be a potentially revolutionary way to improve health outcomes for HIV-infected people and to reduce the number of new infections, saving both lives and scarce government resources. However, more evidence is needed to show if/how TasP could be implemented at scale and whether it could be a cost-effective way to help tackle the HIV crisis. Rolling out a TasP implementation study would require a significant front-loaded investment to test the intervention more widely. Given the global financial crisis and the levelling off of funding for HIV more generally, donors and local governments are interested but reluctant to fund outright before the model has been more widely tested. A Development Impact Bond could help mobilise the financing necessary to implement a TasP implementation study and test its scalability. Swaziland, which has the highest HIV prevalence rate in the world, shows potential as a good place to start.

### THE SOCIAL ISSUE

Despite remarkable progress in HIV treatment and prevention over the last decade, there were still an estimated 1.7 million AIDS-related deaths in 2011 and the global AIDS epidemic continues to spread more quickly than it can be treated,<sup>18</sup> with about two new HIV cases for every one person placed on treatment in 2009.<sup>19</sup> Furthermore, international funding for HIV has flat-lined, while costs continue to rise and patients require more sophisticated treatments.

Swaziland has the highest HIV prevalence rate in the world at 26% of the population aged 15-49 (approximately 200,000 individuals are estimated to be living with HIV).<sup>20</sup> Pregnant women are a particularly vulnerable population: 41% are HIV-positive. Swaziland also has the world's highest TB incidence rate per capita (1,317 cases per 100,00 people in 2011),<sup>21</sup> with escalating rates of multi-drug resistant TB and individuals co-infected with HIV.

To date, 80% of those individuals in need of treatment (as defined by the national guidelines) in Swaziland are receiving it and the government is committed to continue expanding access to treatment.<sup>22</sup> This is a remarkable achievement given the scale of the epidemic in Swaziland and the current global financial crisis. Nevertheless, despite this success, estimates show that the number of new infections per year is still too high to turn around the epidemic without a new and significant intervention.

### THE OPPORTUNITY

Treatment as Prevention (TasP) is a new approach that has the potential to dramatically decrease the number of new HIV infections while improving the lives of individuals living with HIV – but one that has not yet been implemented at scale. TasP uses early anti-retroviral treatment (ART) to reduce morbidity and mortality among people living with HIV, as well as to prevent transmission.

Positive results from the groundbreaking HPTN 052 trial have caused many in the HIV/AIDS sector to regard TasP as an exciting new approach to improve the health of individuals living

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<sup>18</sup> UNAIDS, (2012).

<sup>19</sup> Over, (2011).

<sup>20</sup> UNAIDS, (2011).

<sup>21</sup> World Bank, World Development Indicators, (2011).

<sup>22</sup> UNAIDS, (2011).

with HIV/AIDS and to reduce new HIV infections.<sup>23,24</sup> However, questions surrounding the feasibility and scalability of the approach still remain. Further work is needed to explore how TasP could be implemented within a national health system (e.g. analysing the effect of increasing ART patient numbers on other health services and looking at how TasP could work in combination with other HIV prevention strategies such as medical male circumcision) and assess the cost effectiveness and sustainability of the approach in specific country contexts.

### WHY IS A NEW FINANCING MODEL NEEDED?

Rollout of a TasP implementation study would require significant funding in advance. The MaxART programme in Swaziland (*Maximizing ART for Better Health and Zero New HIV Infections*)<sup>25</sup> which is being implemented through a consortium of partners with the support of the Ministry of Health (MOH), estimates that \$10 million would be needed for an initial 3-year implementation study of TasP in a selected community in Swaziland. This would pay for the intervention costs, including mobilisation and testing activities; anti-retroviral medicines for individuals who will receive treatment earlier than currently prescribed; and research into the feasibility, acceptability and scalability of the approach. It would also cover costs associated with measuring outcomes and impact. If an implementation study proves successful in improving health outcomes and demonstrating a return on investment, an additional investment (not yet determined) would be needed to scale up TasP to all individuals living with HIV in Swaziland.

In addition, TasP is relatively new and untested at scale, making the funding of an implementation study difficult for donors to justify. Donors may be more willing to fund this approach if they are able to transfer some of the risks associated with implementation and scale-up to private investors, as they may be better suited than traditional donors to oversee the complex nature of coordination efforts and to manage performance and risks. A Development Impact Bond could provide the pre-financing needed to implement a TasP implementation study and enable the kind of risk transfer that could make it easier for donor funders to participate.

### TARGET LOCATION AND POPULATION

An initial 3-year implementation study is proposed, which would involve offering treatment to all individuals diagnosed with HIV in a selected community. This would involve a minimum sample size of approximately 3,400 individuals enrolled on ART in the intervention community and the same number in a comparison community.<sup>26</sup>

If the implementation study is successful – and generates support for changing national policies, which would likely involve eliminating treatment thresholds and therefore

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<sup>23</sup> HIV Prevention Trials Network, (2003)

<sup>24</sup> Results from this trial demonstrated that early ART for HIV patients reduced transmission of the virus by 96% among heterosexual couples where one partner was infected and the other was not. Results from the same trial also demonstrated a 30% decrease in morbidity and mortality and an 83% reduction in the incidence of tuberculosis. Because of the potential of this approach to change the response to the AIDS epidemic, in 2011 Science magazine chose the discovery as its “Breakthrough of the Year”.

<sup>25</sup> MaxART is supported by a number of different partners including the Clinton Health Access Initiative (CHAI) and STOP AIDS NOW!, as well as the local and global Networks of People Living with HIV, University of Amsterdam, South African Centre for Epidemiological Modelling and Analysis (SACEMA), and Southern Africa HIV/AIDS Information Dissemination Service (SAfAIDS).

<sup>26</sup> The target and comparison communities have been carefully chosen to find the closest possible match. Taking into consideration the size of the target populations, distribution of patients, development of the communities and the number, type and volume of patients of the facilities in each community.



putting more HIV-infected individuals on ART at an earlier stage – TasP could be scaled up nationally and treatment could be offered to all individuals diagnosed with HIV in Swaziland. At that point in time, estimates are that this would be approximately 100,000 additional individuals.

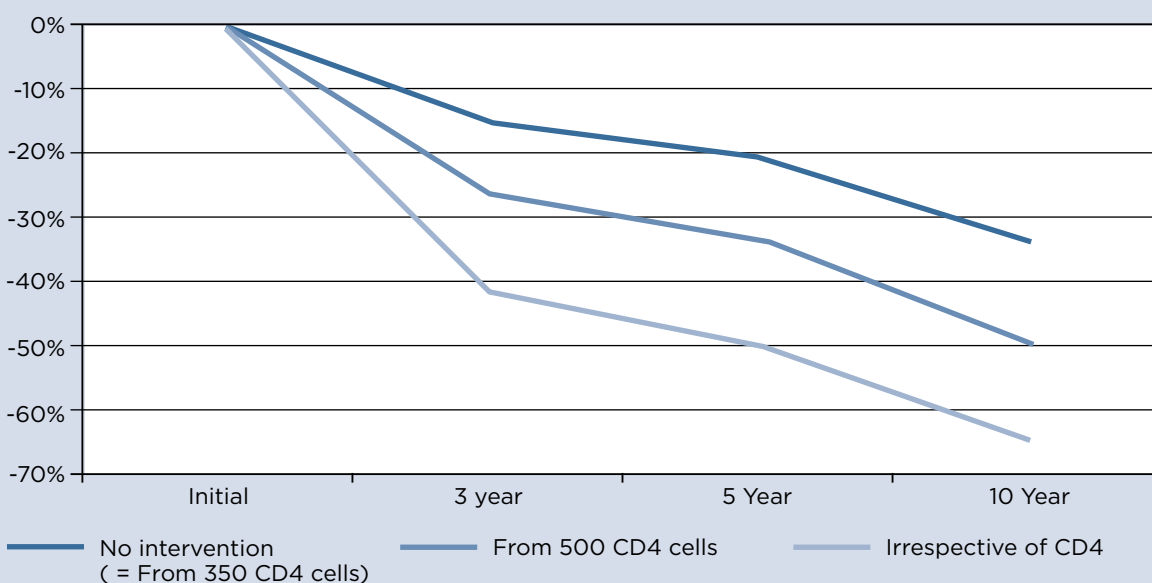
### POTENTIAL OUTCOME METRICS

A TasP DIB would aim to increase the proportion of HIV-positive individuals alive and on antiretroviral treatment and ultimately to reduce HIV incidence. Partners within *MaxART* are currently working to refine an epidemiological model for the country that projects both reductions in HIV incidence and reduced mortality. In addition to demographic data and assumptions about the nature of Swaziland’s HIV epidemic, the model will take into account indicators linked to impact on transmission including: uptake of HIV testing, acceptance of ART, retention of individuals in care, and viral suppression.

Analysis from the *MaxART* team projects that as a result of continuing with the current national guidelines we would expect to see a reduction in HIV incidence of 34% over a 10 year period and that if we were to introduce treatment for all, irrespective of CD4 cell count, we would expect to see a 65% reduction over the same time period. Based on the actual incidence we measure at 10 years, the reduction in incidence for all CD4 cell counts as compared to the reduction in incidence for the current situation (treatment at below 350 CD4 cells) can be seen as a 47% reduction (*Figure 4*).

**FIGURE 4. MODELING THE IMPACT OF THRESHOLD FOR TREATMENT ON HIV INCIDENCE REDUCTION IN SWAZILAND.**

**This plot models how changing the threshold for treatment could impact on HIV incidence reduction. It shows the percentage reduction for three scenarios: treatment from 350 CD4 cells (current national policy), treatment from 500 CD4 cells and a Treatment as Prevention strategy (where treatment is given irrespective of CD4 cell count), keeping many of the other factors within the treatment continuum the same. The model – and therefore the estimated impact of the intervention – will continue to be updated as more is learnt about the different components of care and how they are impacted by a change in CD4 cell treatment threshold.**



Source: SACEMA May 2013.

It is expected that the model will be sufficiently sensitive to the impact of interventions to form the basis of a DIB contract, although further work will be needed. While there will be multiple prevention efforts ongoing within the country, the model would enable an understanding of the estimated contribution of treatment to a reduction in new HIV infections. Investors and outcomes funders would need to be comfortable that they were being adequately paid/paying only for the impact of DIB-funded activities.

It may also be desirable, in the implementation study phases, to measure the impact of the TasP programme on other outcomes for patients, including indicators of treatment failure, mortality and TB infection rates.

## POTENTIAL INTERVENTIONS

An initial investment could fund:

### INNOVATIVE INTERVENTIONS TO OVERCOME CHALLENGES OF IDENTIFYING PEOPLE LIVING WITH HIV AND ENSURING THEY ARE RETAINED IN CARE AND TREATMENT:

One factor contributing to the HIV/AIDS crisis is that too many individuals do not know that they are HIV-positive and do not seek treatment until they fall ill and are highly infectious.<sup>27</sup> A TasP approach would involve a concerted effort to identify all individuals in a population living with HIV and offer them treatment upon diagnosis, with the goal of treating many more individuals at an early stage of the disease. Interventions could include community mobilisation efforts, home-based testing programmes, or developing systems for following up with people diagnosed with HIV who do not return for regular treatment.

### TRAINING AND TECHNICAL ASSISTANCE FOR THE NEW CHALLENGES OF ROLLING OUT TREATMENT FOR PEOPLE AT EARLIER STAGES OF INFECTION:

Whilst there is some evidence from clinical trials demonstrating the potential impact of TasP on projected reduction in HIV incidence, limited practical experience identifying what is really required to implement earlier treatment within a government system currently exists. For example, there are potentially unique considerations in terms of the acceptability of treatment for individuals with HIV who are asymptomatic, as well as additional challenges around retaining them on treatment. It will be essential to support Swaziland in responding to the specifics that arise, including training of HIV counsellors and nurses on how best to communicate new factors related to rolling out earlier treatment.

### OPERATIONAL COSTS OF INDIVIDUAL CLIENT CARE, INCLUDING ART AND LAB MONITORING:

One significant component of the investment is procuring ARVs for many more individuals both now and for their lifetime. The expectation is that this will enable Swaziland to get out in front of the epidemic – investing in treatment now so that there will be fewer new HIV infections each year, thereby reducing the people in need of treatment each year rather than adding them incrementally over time. As with most new interventions, it is essential to

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<sup>27</sup> For example, despite substantial efforts to expand access to voluntary HIV testing, nearly 80% of HIV-infected adults in Sub-Saharan Africa are unaware of their status and more than 90% do not know whether their partners are infected with HIV, Granich, Gilks, Dye, De Cock and Williams, (2009). Effective TasP rollout would require innovative interventions to overcome some of the challenges associated with identifying HIV-positive individuals.



understand individual outcomes and to monitor a variety of different factors to ensure that the intervention is beneficial and is not causing harm. Due to the new nature of early ART, Swaziland will need to strengthen its laboratory monitoring systems to ensure it has the evidence it needs to understand the outcomes for individuals who start ART upon diagnosis.

## ROLE OF THE PARTNER GOVERNMENT

The Government of Swaziland is leading efforts to employ new tools for HIV treatment and prevention, including this TasP implementation study. CHAI, the MaxART Consortium, and other partners in Swaziland, have been playing a strategic and technical support role to the government to strengthen the HIV response.

If outcomes funders and/or investors take interest in a DIB approach to solve any funding gaps in implementing TasP, they can explore with the Government its role in a DIB contract, for instance in design and management of the DIB or as a potential co-funder.

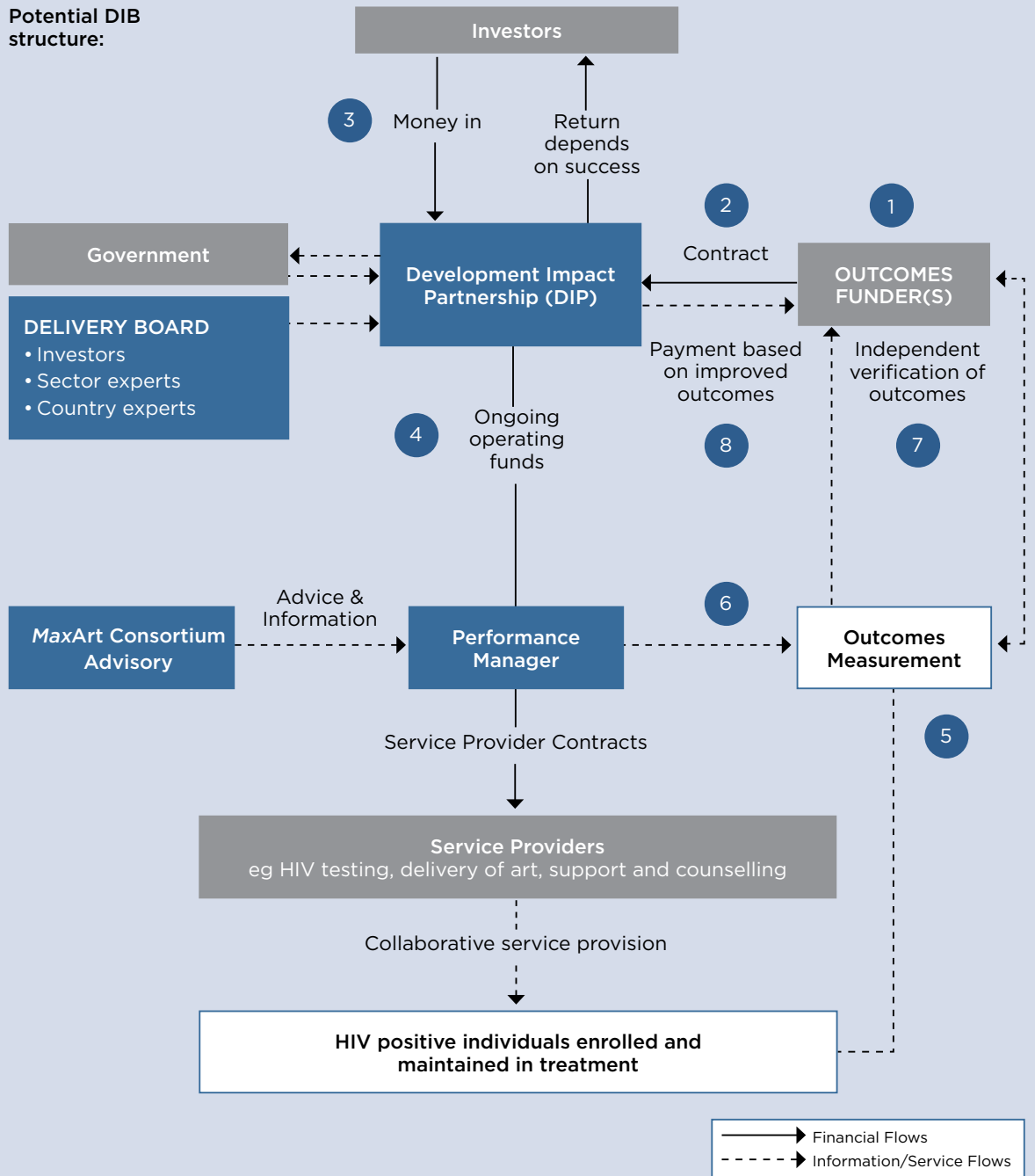
## WHAT MIGHT THE INVESTOR PROPOSITION LOOK LIKE?

Returns to investors would initially be based on interim metrics of testing, treatment, retention and viral suppression, which assist in estimating the reduction in new HIV infections over the 3-year implementation study, as well as projecting the potential impact of new HIV infections on a national level, if scaled up. It may also be possible to base payments on improved health outcomes for existing HIV positive individuals.

Because HIV creates economic as well as societal burdens (for example, orphaned children, marginalisation of people living with the virus, as well as significant hospitalisations for related infections), there are potential significant reductions in future financial burdens as well as quantifiable social savings to be gained from providing earlier ART.

The value of outcomes could be based on some combination of estimated future financial savings (from reduced HIV-related mortality and morbidity, and associated medical costs including inpatient care), and quantifiable social benefits (such as DALYs averted or a nominal value of a healthier, more productive workforce). Investors and outcomes funders would have to be confident that gains can be attributed to the TasP approach in order for the strategy to be considered successful and worth bringing to scale.

Potential DIB structure:



- 1 A range of potential relationships are possible between donor agencies and partner governments - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
- 2 Development Impact Partnership (DIP), a new corporate entity,\* contracts with Outcomes Funder(s)\*\*
- 3 Investors provide upfront financing to DIP
- 4 DIP funds and manages service providers to generate outcomes - performance manager hired by DIP to work-in-country
- 5 Measurement and reporting of contracted outcomes/outputs either by the DIP or by an independent third party as appropriate
- 6 Performance manager reports additional management information and data to outcomes funders as appropriate
- 7 Independent verification of contracted outcomes/outputs
- 8 Outcome Funder(s) pay according to outcomes/outputs achieved

\* The exact legal form of this entity will depend on the needs of the specific outcomes funders and investors involved

\*\* See Section 3F (p. 96) for further details on DIB structures


## How a Development Impact Bond could add value

	Value of a DIB	Other aid approaches
<b>TasP roll-out requires significant investment at the outset</b>	<p>An estimated \$10 million would be needed to roll out an initial 3-year implementation study of TasP in Swaziland. With a DIB, private investors could provide the working capital necessary to roll out the study and as donors only pay for success, investors assume risks associated with implementation, innovation and delivery which donors are less able to control and manage. Because the repayment of their principal plus a financial return is tied to successful delivery of the programme, investors would be incentivised to put in place the performance management systems necessary to manage these risks and ensure efficient and effective delivery of the project.</p>	<p><b>Traditional Aid:</b> Although an implementation study could in theory be directly funded through traditional aid, uncertainties surrounding the scalability of the intervention have deterred potential funders, especially given the size of the investment required. If funded through a traditional input-based model, donors and/or governments would have to pay regardless of whether or not the interventions are successful (for example, by increasing uptake of testing, treatment, retention, viral suppression etc.), thus potentially making it too risky for donors and/or governments to justify funding on their own.</p> <p><b>RBA/RBF:</b> Other results-based approaches, while focused on outcomes, would require service providers, or the Government of Swaziland, to fund the implementation study upfront. Service providers – particularly the smaller ones – are often unable to assume such risks; even if they could, they often find it difficult to secure commercial working capital loans due to uncertainties surrounding their ability to repay such loans. Although the Government of Swaziland could co-fund outcomes, it is unlikely to be able to fund (and assume risk) for a programme of this size on its own.</p>
<b>Discipline in delivery is crucial to achieving and sustaining desired outcomes</b>	<p>By linking private investor returns with desired outcomes, a DIB could introduce a strong incentive towards cost control, intervention effectiveness and outcome delivery, usually through a coordinating agency. As outcomes are independently evaluated before payments are released, a DIB could also increase transparency around the impact of funding.</p>	<p><b>Traditional Aid:</b> Insufficient information about which interventions work and which service providers are effective in delivering results limit donors’ ability to drive discipline in delivery. Moreover, because donors pay regardless of whether or not the intervention succeeds, there are insufficient incentives to measure and track outcomes.</p>

	Value of a DIB	Other aid approaches
<p><b>Reducing HIV incidence through TasP requires successful coordination of a complex mix of interventions tailored to the local context</b></p>	<p>Successful implementation of TasP to ensure positive outcomes for HIV-positive individuals and the broader population, including a reduction in new infections, requires coordinating a mix of interventions such as: diagnosis of people living with HIV;<sup>i</sup> ensuring acceptance and uptake of earlier treatment; retaining all individuals in care and treatment,<sup>ii</sup> and maintaining adherence to lifelong treatment.</p> <p>This requires an integration of community and facility-level interventions, a focus on specific individual client care, establishing robust systems within the health system, and understanding behaviour and perceptions of earlier treatment. Through the performance manager, hired by investors to oversee operational delivery of the intervention(s), the DIB structure provides a flexible coordinating mechanism which helps stakeholders work together to achieve common outcomes, creates incentives to collect and react to performance management data, and brings flexibility to the intervention approach, allowing for change and adaptation to improve programme efficiency and effectiveness.</p>	<p><b>Traditional Aid:</b> Traditional aid models are often highly prescriptive, inhibiting service providers' ability to tailor solutions to local contexts.</p> <p><b>RBA/RBF:</b> Even though RBA/RBF approaches are similarly focused on outcomes, they do not necessarily employ a coordinating agency singularly focused (and incentivised) on achieving outcomes.</p>

**The Development Impact Bond Working Group would like to thank CHAI for its support in developing this case study.**





Now more than ever, practical solutions and technologies to solve the world's social problems exist. DIBs can help ensure that these solutions and technologies reach the world's poorest.



## THE OPPORTUNITY – WHY IS A NEW FINANCE MODEL NEEDED?

Low cost private schools in Pakistan are micro-businesses operated by local entrepreneurs and generally operate on a fairly healthy financial basis in terms of their cashflow.<sup>32</sup> Low operating costs mean that adding additional children is profitable (10-20% margins) meaning that expansion can make the overall school more sustainable. Nevertheless, these schools have historically struggled to access the capital they would need to expand and improve their facilities to meet demand.

The returns to investment in education are often regarded as too uncertain to attract mainstream lenders into the market. At the same time, donors can be unwilling to lend to low cost private schools without a mechanism for accountability in terms of the resulting education access and quality. While lack of access to capital is not the only constraint on these schools, if the overall profitability could be raised, many of the other constraints, like hiring teachers and improving textbooks, could be addressed.

Development Impact Bonds could potentially be used to create a low cost private school loan fund to significantly improve access to investment capital for low cost private schools while also creating an incentive to ensure education access and quality for low income populations.

If the Pakistani government and/or donor agencies were willing to pay for improved education outcomes in terms of access and quality, this could be used to provide full or partial loan forgiveness to schools borrowing from the facility providing they meet the key education out-comes.

Such a model would potentially be attractive to low cost private schools, donor agencies and potential investors:

- Low cost private schools would have both access to capital and the potential to expand sustainably if they deliver improved education outcomes;
- Donor agencies have a mechanism for impact accountability and avoid the potential tension between picking winners and ensuring funds are well spent; and
- Potential investors would not be so reliant on ensuring that their investment generated a sufficient uplift in profitability to return their investment as delivery of education outcomes could trigger an alternative means of getting their capital back.

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<sup>32</sup> International Finance Corporation & the State Bank of Pakistan, (2011)

i For example, despite substantial efforts to expand access to voluntary HIV testing, nearly 80% of HIV-infected adults in Sub-Saharan Africa are unaware of their status and more than 90% do not know whether their partners are infected with HIV. Effective TasP rollout would require innovative interventions to overcome some of the challenges associated with identifying HIV-positive individuals.

ii In order for TasP to be effective in reducing HIV transmission and to avoid problems related to drug resistance, patients must adhere to a strict drug regimen over the course of a lifetime. This can be challenging, particularly among people who show no symptoms of HIV (usually in earlier stages of infection), especially if patients show adverse effects related to medication. Effective TasP scale-up would therefore require careful programme monitoring to ensure high levels of adherence, while at the same time guarding against coercion or infringement of human rights.

## How a Development Impact Bond could add value

	Value of a DIB	Other aid approaches
<b>Payment structure provides access to finance and incentives to focus on quality of education delivered</b>	<p>Low per pupil operating costs often mean that once schools have basic infrastructure and learning resources in place they are able to operate with healthy cashflows. However, to expand, they need working capital, something which is often difficult for them to access. A DIB could be used to raise investment for private school investment funds which could provide small loans to be repaid by donors on the meeting of educational outcomes.</p> <p>Investor returns could be fully or partially tied to quality outcomes for the schools receiving investment to improve the accountability of such schools and help to incentivise the delivery of high quality education.</p>	<p><b>Traditional Aid:</b> Although funding could potentially be provided upfront by donors, they would have to pay regardless of whether or not educational outcomes such as quality education were successfully delivered. Thus, there are insufficient incentives to focus on results.</p> <p><b>RBA/RBF:</b> Other results-based approaches could be used to contract on an outcomes basis, however this would still require access to working capital, which the majority of low cost private schools lack. The DIB model provides a way for low cost private schools to access working capital to support their growth and development.</p>

### TARGET LOCATION AND POPULATION

Illustrative target location and population: Punjab province, Pakistan. Primary age children from low income families, particular focus on hardest to reach areas (south Punjab/rural areas with low quality of education).

The proposed approach allows targeting specific sub-regions for specific challenges (eg. South Punjab for a \$10-30m programme). This could also leverage and build on the existing infrastructure for support and quality assurance testing of the low cost private school sector in Punjab. A DIB structure, for instance, could be used in parallel with or through the Punjab Education Fund (see case study box).

### OUTCOMES METRICS:

It is envisaged that success payments would be triggered by desired education outcomes such as school capacity, attendance rates and learning outcomes.

#### Case Study: Punjab Education Foundation (PEF)

Established in 1991 as an autonomous statutory body to encourage and promote education in the private sector, the PEF receives money from the Punjab Government, the World Bank and DFID for its programmes.



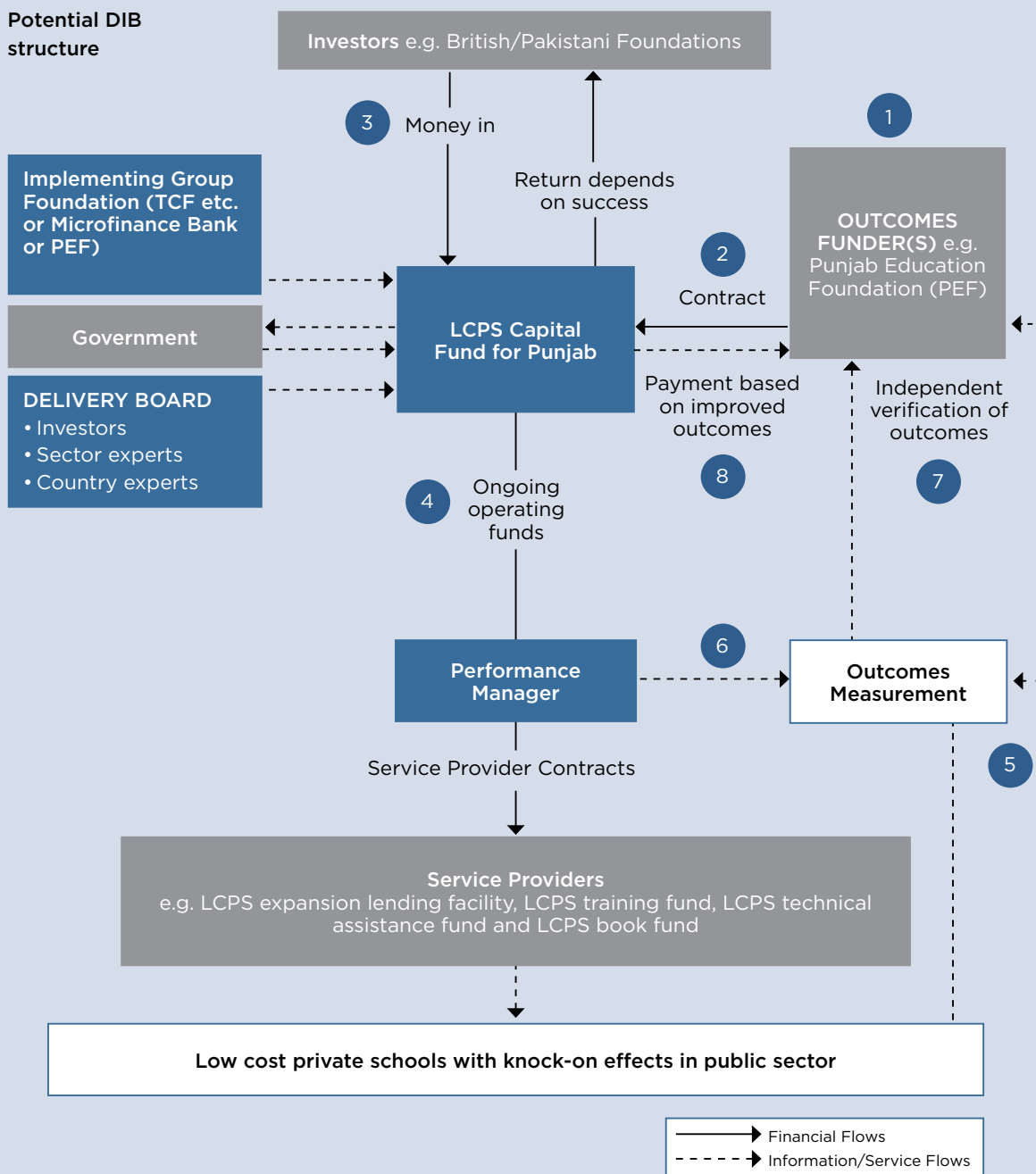
Through its Foundation Assisted Schools (FAS) programme, schools are given student subsidies of PKR350 - PKR400 for primary and secondary school students on the condition that they offer free education to all students and that they achieve a minimum student pass rate of 67% on the Quality Assurance Tests (QAT). Bonuses are awarded to teachers and schools with the highest pass rates, as further incentive to improve the quality of the education they provide. This programme currently assists over 1,300 schools, reaching approx. 600,000 students. A World Bank impact assessment of the programme suggested it is one of the cheapest programmes for increasing enrolment in the developing world.

Through its Education Voucher Scheme (EVS), children aged 4-17 years from poorest families to get free education in the nearest (PEF EVS) private schools of their own choice. In March 2008 it had enrolled 10,000 low-income students in 52 private schools.

PEF supported schools have seen significant increases in the number of students and schooling inputs, improved gender ratios and low dropout rates.



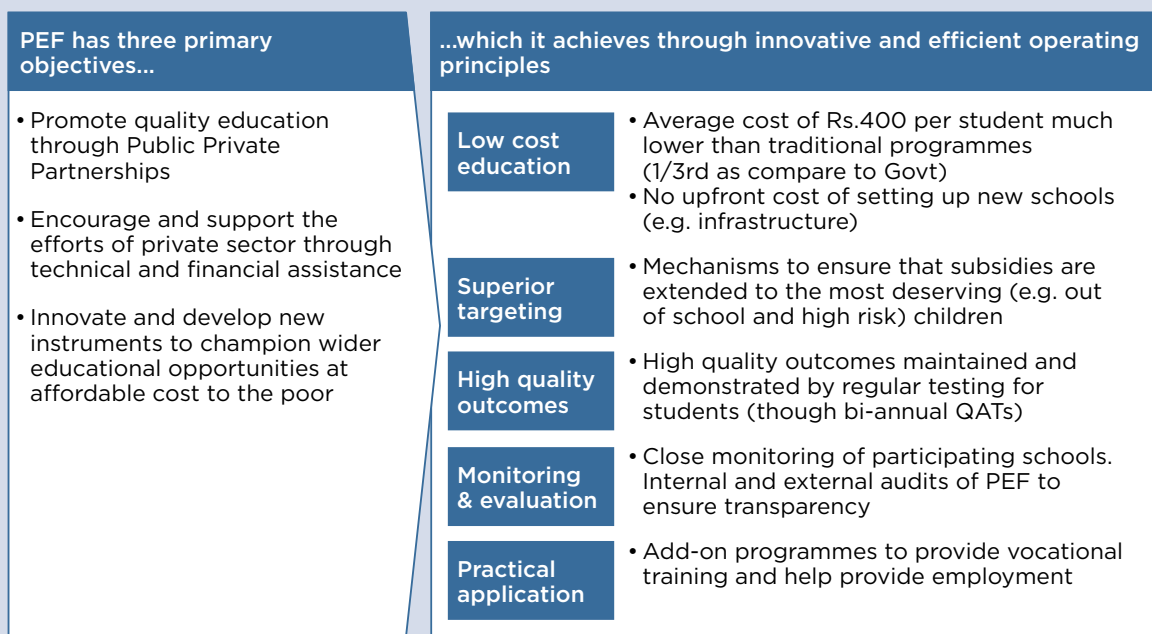
Potential DIB structure



- 1 A range of potential relationships are possible between donor agencies and partner governments - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
- 2 Capital Fund for Punjab (a new corporate entity),\* contracts with Outcomes Funder(s)\*\*
- 3 Investors provide upfront financing to LCPS Capital Fund for Punjab
- 4 LCPS Capital Fund for Punjab funds and manages service providers to generate outcomes - performance manager hired by DIP to work-in-country
- 5 Measurement and reporting of contracted outcomes/outputs either by the LCPS Capital Fund for Punjab or by an independent third party as appropriate
- 6 Performance manager reports additional management information and data to outcomes funders as appropriate
- 7 Independent verification of contracted outcomes/outputs
- 8 Outcome Funder(s) pay according to outcomes/outputs achieved

\* The exact legal form of this entity will depend on the needs of the specific outcomes funders and investors involved

\*\* See Section 3F (p. 96) for further details on DIB structures



Low cost private schools: investor proposition

<b>Geography</b>	Pakistan
<b>Capital requirement</b>	\$25 million
<b>Investment term</b>	TBD
<b>Impact objectives</b>	<p>Assume standard loan per school of \$5,000.</p> <p>There are 47,000 LCPS in Punjab province. PEF is currently working with 2,400 and is expanding progressively. We assume that 5,000 schools could be eligible for a DIB facility.</p> <ul style="list-style-type: none"> <li>• School classes added: 5,000</li> <li>• Number of children per class: 35</li> <li>• Impact: 175,000 new school places created</li> </ul> <p><b>\$143 Cost per child per sustainable education place created</b></p> <p><b>Additional impact on education outcomes tbd</b></p>

The Development Impact Bond Working Group would like to thank Lion’s Head Global Partners for its support in developing this case study.



## CASE STUDY 4: Access to Quality Secondary Education in Uganda

### THE SOCIAL ISSUE: INSUFFICIENT SUPPLY, POOR QUALITY OF EDUCATION

Uganda introduced free universal primary education in 1997, driving net enrolment in primary schools to 97% in 2011.<sup>33</sup> Ten years later, Uganda became the first country in sub-Saharan Africa to introduce universal secondary education, free to any child who passes the Primary Leaving Examination. However, the capacity of the Ugandan secondary school system is not currently sufficient to enable access to all eligible children; a lack of schools – particularly in rural areas – and limited infrastructure in existing schools,<sup>34</sup> mean that transition rates for pupils leaving primary education and entering secondary education remain around 65%.<sup>35</sup> Overall, an estimated 75% of secondary school-aged children in Uganda are not enrolled in a secondary school with the lowest rates among girls and young people from rural areas.<sup>36</sup>

For those students who are enrolled in secondary school, education quality is an issue. For instance, 75% of students in the 2011 Ugandan Certificate of Education exams failed chemistry and 50% failed Biology. It is clear that the creation of physical secondary school places is a necessary but insufficient condition for improving education outcomes. Resources must be focused on improving both.

Investing in increasing the availability and quality of secondary education in Uganda gives children access to the knowledge and skills that lead to improved social outcomes. Secondary education has been shown to contribute not only to individual earning and economic growth, but also improvements in health, equity and social conditions.<sup>37</sup> A Development Impact Bond could provide the funding needed to address challenges that are preventing students from continuing school beyond the primary level and receiving a quality education.

### THE OPPORTUNITY - WHY IS A NEW FINANCE MODEL NEEDED?

One of the key drivers behind the insufficient number of affordable secondary school places in Uganda is a limited supply of capital to build or expand secondary schools. International attention and most donor funding in the education sector has gone towards supporting universal primary education, this has meant a lack of focus and consequently a lack of supply of affordable places in secondary schools.

The Ugandan government currently provides payments of around £10 – £11.50 per eligible pupil per term to government and private schools that provide universal secondary education. Within these tight margins, funding to invest in school capacity, facilities and staff training is limited, as is the potential to repay borrowed capital while keeping fees affordable. Despite the need for start-up funding, donors can be reluctant to fund the construction of schools without evidence that students will attend and receive a quality education.

In addition to overcrowded schools and classrooms resulting from the introduction of free

<sup>33</sup> UNESCO Institute for Statistics, (2011)

<sup>34</sup> James and Gerretsen, (2012)

<sup>35</sup> UNESCO Global Education Digest, (2012)

<sup>36</sup> ARK website <http://www.arkonline.org/education/uganda>

<sup>37</sup> World Bank, (2005)

universal secondary education, a number of factors undermine the quality of education students receive, including: insufficient teaching and learning materials, poor teacher quality, absenteeism, poverty among students, and problems with school management and supervision. Development Impact Bond financing could help to build the capacity of Uganda's secondary school system in terms of physical infrastructure while creating incentives to provide quality education.

#### TARGET LOCATION AND POPULATION

To ensure greatest impact, a DIB could focus on targeting secondary school provision for lower secondary school children in underserved poor and rural areas, and those with low primary to secondary transition rates.

#### POTENTIAL INTERVENTIONS

A DIB could channel private investment to expand secondary school capacity in public or low cost private schools. This investment could cover the costs of the necessary inputs for quality secondary education that the government of Uganda cannot afford on its own. These inputs could include capital investment to establish new non-profit or low fee private schools; to expand and improve facilities in existing public or low fee private schools; to improve the quality of education through teacher training and/or school leadership development; and to remove poverty-related barriers to education, perhaps through income generating activities, life-skills training and/or nutritional programmes. Interventions would be aimed at increasing the number of primary school graduates attending secondary school and receiving a quality education.

Donor and investor commitment to such a programme may be predicated on a commitment from the Ugandan government to continue providing per pupil funding sufficient to cover school running costs on an on-going basis.

#### OUTCOMES METRICS

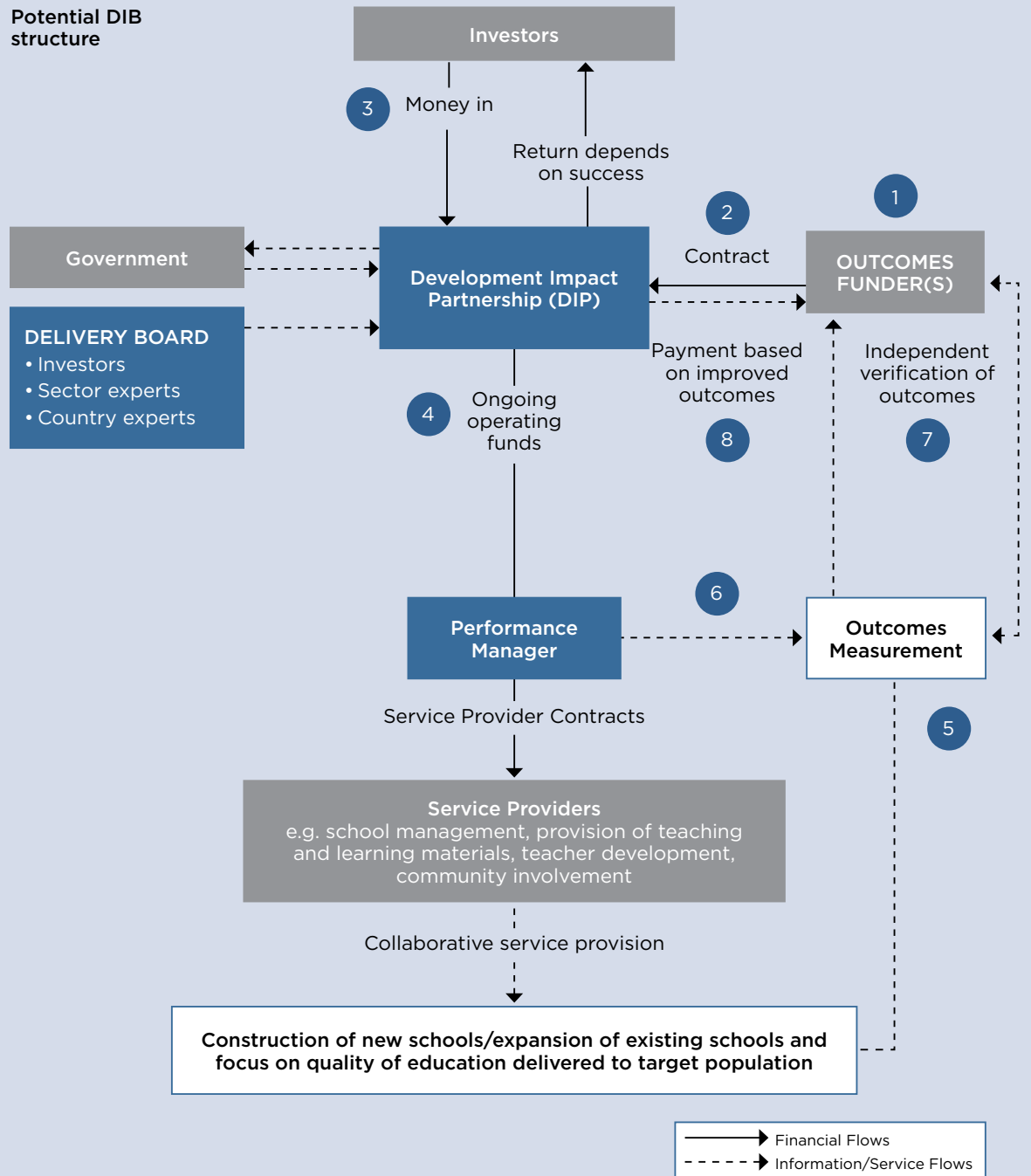
Creation of secondary school places is necessary, but not sufficient for improving education outcomes. Because financial returns are tied to achievement of educational outcomes, a DIB could create a strong incentive for investors to work closely with service providers and schools – most commonly through a performance manager – to improve education quality. Potential metrics include:

- Increased number of secondary school places resulting from DIB investment – linked to school attendance and potentially verified through unannounced school visits by an independent evaluator; and
- Level of UCE (lower secondary) exam results in DIB funded schools achieved, relative to historical district-level performance.

## How a Development Impact Bond could add value

	Value of a DIB	Other aid approaches
<p><b>Creation of school places requires significant investment in education infrastructure and training</b></p>	<p>The number of secondary school places in Uganda is insufficient to meet demand and in many cases the quality of education delivered is poor. Many donors are reluctant to fund the construction of school infrastructure without the certainty of improving educational outcomes; however, the expansion of access to secondary education requires a large investment which the government is currently unable to provide.</p> <p>A DIB could help to address this problem by aligning payment for school construction with educational outcomes such as exam marks or number of school completers and spreading the cost of repayment to investors over time as education outcomes are verified.</p>	<p><b>Traditional Aid:</b> Although donors could provide funding for the creation of additional secondary school places independently, this would be at significant cost and without any guarantee that the investment would translate into the achievement of educational outcomes. RBA/RBF and DIB models ensure a focus on results which traditional aid – with its focus on inputs – often does not do.</p> <p><b>RBA/RBF:</b> Other results-based approaches, such as RBA/RBF, do ensure a focus on meeting outcomes; however, to address the undersupply of secondary school places, service providers (or the government) would be required to provide (and thus assume risk for) funding to spend on education infrastructure and training. Service providers – particularly smaller ones – often find it difficult to assume such high levels of risk, and/or secure commercial working capital loans (even if they were willing/able to assume such risks) due to uncertainties surrounding their ability to repay.</p>
<p><b>Improving educational outcomes requires the coordination of a range of targeted interventions and flexibility in the way that they are delivered</b></p>	<p>Achieving educational outcomes, particularly among underserved and poor, rural communities, requires a range of targeted interventions tailored to the local context (such as school construction, provision of teaching and learning materials, teacher development, school management and community involvement etc.) to overcome poverty-related barriers, improve teacher quality and address resource/space constraints. A DIB structure offers a way to coordinate service providers and other stakeholders, ensuring that they are able to work together effectively to deliver locally-appropriate interventions.</p> <p>Due to the need to monitor and measure outcomes to trigger payments, a DIB structure also provides the performance oversight which enables service providers to assess their progress and monitor the effectiveness of the services they deliver. As payments back to investors are based on outcomes rather than inputs, this structure also provides the flexibility to adapt intervention models based on real-time progress on the ground.</p>	<p><b>Traditional Aid:</b> Traditional service contracts are often highly prescriptive, inhibiting service providers' ability to tailor solutions to local contexts. A focus on inputs often means that service providers lack the incentive to monitor progress and measure outcomes achieved – donors pay regardless of how the intervention is delivered.</p> <p>In addition, traditional service contracts provide limited incentives for providers to work collaboratively even though this is often what is needed to ensure that positive social outcomes are achieved.</p> <p><b>RBA/RBF:</b> Although focused on outputs and outcomes, current results-based approaches do not automatically provide a coordinating structure to manage activities and enable multiple service providers to work collaboratively, even though this may be the most effective way to tackle complex social problems. This means that by engaging in results-based contracts which require multiple interventions (and service providers) to achieve results but do not provide upfront capital, service providers also take on the risk of others delivering their interventions efficiently and effectively to achieve the common results on which payment is based.</p>

Potential DIB structure



- 1 A range of potential relationships are possible between donor agencies and partner governments - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
- 2 Development Impact Partnership (DIP), a new corporate entity,\* contracts with Outcomes Funder(s)\*\*
- 3 Investors provide upfront financing to DIP
- 4 DIP funds and manages service providers to generate outcomes - performance manager hired by DIP to work-in-country
- 5 Measurement and reporting of contracted outcomes/outputs either by the DIP or by an independent third party as appropriate
- 6 Performance manager reports additional management information and data to outcomes funders as appropriate
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\* The exact legal form of this entity will depend on the needs of the specific outcomes funders and investors involved

\*\* See Section 3F (p. 96) for further details on DIB structures

## ROLE OF THE PARTNER GOVERNMENT

The government of Uganda could be engaged in the development of the DIB contract in several possible ways, including:

- Defining the target group for interventions (e.g. by income level, region, gender, etc.);
- Agreeing the desired programme outcomes to ensure that they are in line with national development goals;
- Committing to provide long-term, sustainable funding for school places so that they can continue to offer a high quality of education at the end of the DIB contract; and
- Contributing towards outcomes payments in partnership with donor agencies.

## WHAT MIGHT THE INVESTOR PROPOSITION LOOK LIKE?

The scale of investment and investor risk would vary significantly according to the payment structure used to implement a DIB programme in this area. Payments based on completion of an output, such as schools built, are far less risky for investors than payments based purely on educational outcomes, such as exam results, which are harder to achieve and depend on a variety of factors. To make the investment proposition an attractive one, for both investors and outcomes funders, the triggers for success payments would need to take into account the nature of risk transfer in delivering the desired outcomes.

One possibility would be to make repayment of a proportion of investor principal subject to the successful delivery of outputs, such as new schools built, with remaining investor payments triggered after outcomes, such as quality-based education metrics are independently measured/verified. This would help to keep the cost of capital lower because investors would start to receive repayments earlier than under a model where all repayments are triggered by outcomes. Investors would still be incentivised to ensure – for example, through a performance manager – school attendance and high quality education because a positive return on their investment would still be linked to achievement of these outcomes.

### Secondary education in Uganda: Illustrative investor proposition

<b>Geography:</b> Uganda	<b>Capital requirement:</b> £23m
<b>Range of outcome payments:</b> £23 - £35m	<b>Investment term:</b> 10 years
<b>Impact objectives</b>	Impact objectives: Physical building/facilities <ul style="list-style-type: none"> <li>• Construction of 50 new schools Y1-4</li> <li>• 750 additional student places in each new school</li> </ul> Quality and enrolment <ul style="list-style-type: none"> <li>• Enrolment and quality outcome metrics for target schools</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>• Assumes repayment of principal with a 3% IRR on basis of school attendance</li> <li>• Assumes additional return of up to 5% IRR based on above baseline UCE exam results – additional 50% of quality payments given to providers as performance incentive</li> <li>• Total investor returns of 8% IRR has been held constant across scenarios, inflation 3%</li> </ul>

**The Development Impact Bond Working Group would like to thank PEAS for its support in developing this case study.**





## CASE STUDY 5: SME Pipeline Generation and Value Creation

### THE SOCIAL ISSUE:

Small and Medium Enterprises (SMEs) occupy an important place in virtually every country or state. Because of their significant roles in the development and growth of various economies, they have been referred to as “the engine of growth” and as “catalysts for socio-economic transformation of any country.”<sup>38</sup>

However, impact oriented investors and funds often find it uneconomical to support and manage investments into SMEs, given the relatively small transaction size (typically USD\$50,000 – \$500,000) compared to average deals and significant resource commitment needed to source high-quality SMEs and get them investment ready.

In recognition of the importance of SMEs to economic development and growth, donor agencies spend significant amounts of money funding Business Development Services (BDS) for small and medium sized enterprises (SMEs) in developing countries, but have little certainty around their impact in terms of helping SMEs access finance and improving their business performance.

### THE OPPORTUNITY - WHY IS A NEW FINANCE MODEL NEEDED?

For many SMEs, accessing finance is often difficult and costly, representing a significant barrier to SMEs’ sustainability and growth. Local BDS providers can play an important part in building the capacity of SMEs and supporting them to get investment ready. Supporting and improving the quality of the services these BDS providers offer is one way to enable the generation of a strong SME pipeline, ensuring these businesses are attractive to investors and capable of absorbing additional capital.

However, BDS providers themselves frequently lack the balance sheet and credit strength required to attract the commercial working capital necessary to provide capacity development and investment readiness services at a significant scale. Using a Development Impact Bond model, rather than traditional donor contracts, to finance BDS Providers could:

- Create a market-driven approach to foreign assistance; and
- Compel the impact investment community to invest in their own market infrastructure.

An investor-backed fund to pay for business development services, with outcome payments triggered if BDS providers successfully support local businesses to raise and repay third party finance could incentivise higher quality BDS provision, increase the availability of investible opportunities and potentially reduce the transaction costs of small deals to investors.

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<sup>38</sup> Ogbo, (2012)



## How a Development Impact Bond could add value

	Value of a DIB	Other aid approaches
<b>Expanding BDS support requires access to working capital</b>	Existing BDS providers are capital constrained and are an often overlooked component of the market infrastructure. Without an initial investment and working capital they are unable to participate in outcomes-based contracts. A DIB could provide this investment.	<b>RBA/RBF:</b> Other results-based approaches could be used to contract on an outcomes basis, however this would still require access to working capital which many BDS providers lack.
<b>Investor oversight provides better targeting of resources</b>	Involvement of investors in deciding which BDS to fund (typically via a representative, e.g. an intermediary or performance manager hired by investors) helps focus investment into BDS with highest potential to deliver outcomes. In addition, outcomes-based payments to BDS also incentivise them to target their support at SMEs that would be attractive to investors.	<b>Traditional Aid:</b> Existing donor funding for business development services is not allocated on an outcomes basis and its impact is poorly understood. A DIB model offers the opportunity for outcomes funders to pay only for outcomes in terms of investments made into SMEs and the performance of those SMEs further down the line.
<b>Outcomes focus incentivises higher quality service delivery from BDSs</b>	Because investors' returns (and repayment of principal) are tied to the ability of BDSs to improve SME investment readiness, they are incentivised to ensure that BDSs provide sustained, high quality services.	<b>Traditional Aid:</b> Although funding could potentially be provided by donors, this reduces the incentive for BDS providers to continue providing support to SMEs past the initial investment.

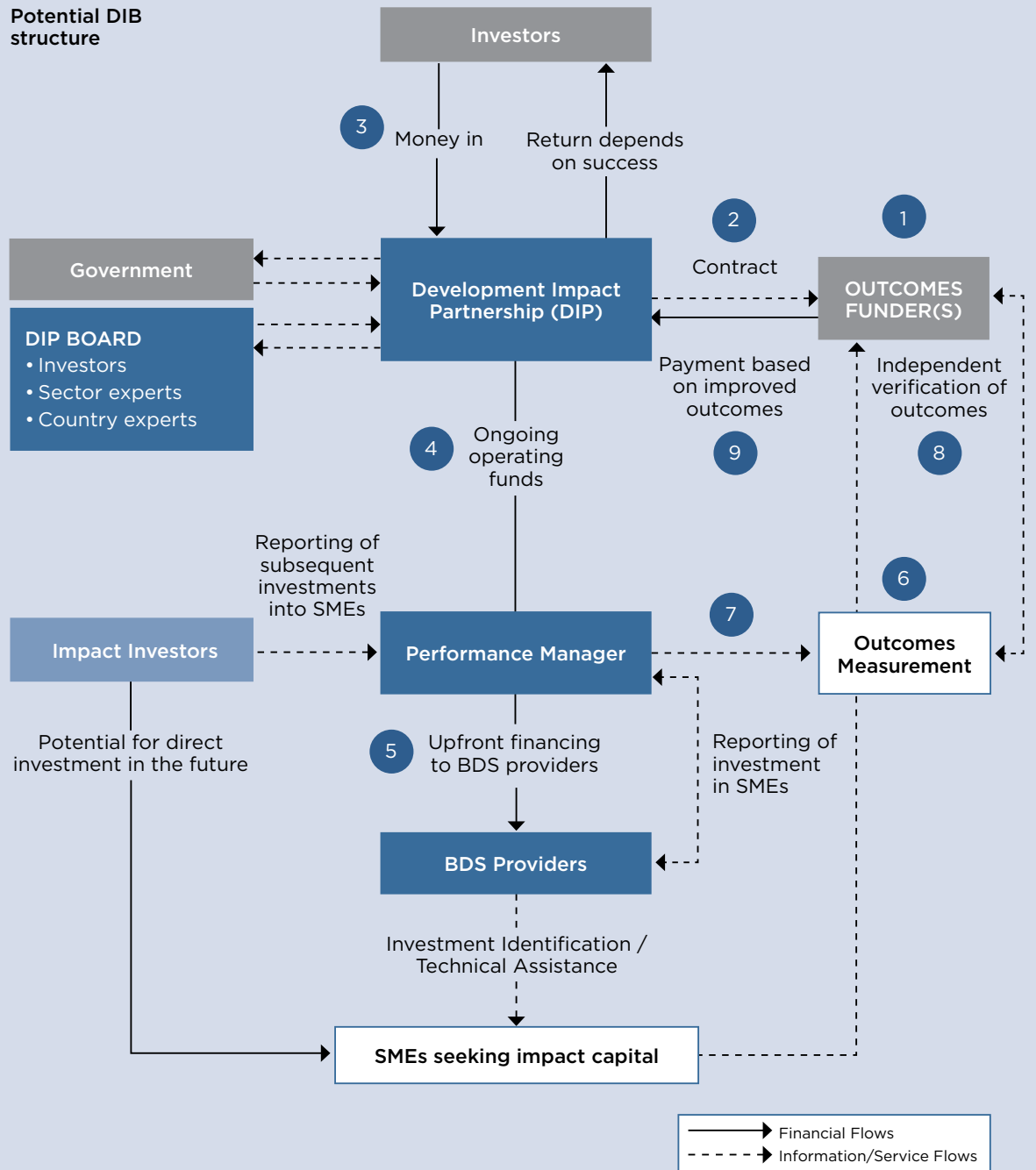
### OUTCOMES METRICS:

Outcome metrics are yet to be developed but could focus on two key indicators of progress in this sector:

- The first measurement of success could be SMEs (which have received support by a BDS provider) successfully attracting capital from investors.
- The second measurement of success could be the performance of the SMEs and the returns achieved on the investment capital.

The first metric would create a strong incentive for BDS providers to provide a high quality service and to target their support to businesses that have potential to be attractive to investors. The second metric would create an incentive for BDS providers to continue their support to SMEs receiving investment, potentially making smaller investment deals more attractive to investment funds by reducing the costs associated with ongoing support.

Potential DIB structure



- 1 A range of potential relationships are possible between donor agencies and partner governments - where donor agencies and partner governments co-fund the outcomes payments, they will both act as an Outcomes Funder
- 2 Development Impact Partnership (DIP), a new corporate entity,\* contracts with Outcomes Funder(s)\*\*
- 3 Investors provide upfront financing to DIP
- 4 DIP funds and manages service providers to generate outcomes - performance manager hired by DIP to work-in-country
- 5 BDS providers receive upfront financing that enable them to provide services to SMEs. The receipt of ongoing funding from DIP depends on measured performance of BDS providers
- 6 Measurement and reporting of contracted outcomes/outputs either by the DIP or by an independent third party as appropriate
- 7 DIP reports additional management information and data to outcomes funders as appropriate
- 8 Independent verification of contracted outcomes/outputs
- 9 Outcome Funder(s) pay according to outcomes/outputs achieved

\* The exact legal form of this entity will depend on the needs of the specific outcomes funders and investors involved

\*\* See Section 3F (p. 96) for further details on DIB structures

## Key actors:

Actor	Role
<b>Outcomes Funder(s)</b>	<ul style="list-style-type: none"> <li>• Reviews performance reports sent from the DIP</li> <li>• Repays DIB investors based on successful performance criteria</li> </ul>
<b>DIB Investors</b>	<ul style="list-style-type: none"> <li>• Provide input into identifying BDS providers and the Performance Manager</li> <li>• Invest in the DIB</li> <li>• Receive outcome payments via the DIP based on the performance of SMEs</li> <li>• Receive investment reports from the DIP detailing the performance of BDS providers</li> </ul>
<b>DIP - providing performance management and support to BDS providers</b>	<ul style="list-style-type: none"> <li>• Syndicates the DIB to a group of investors interested in financing the growth of local BDS providers</li> <li>• Contracts the performance manager who provides input into BDS provider selection, supports BDS providers, manages payments to them and reports to investors on BDS performance</li> <li>• Provides reporting details to DIB investors and outcomes funders</li> <li>• Oversees the selection of BDS providers that generate the SME Pipeline</li> <li>• Receives and transfers DIB proceeds to DIB investors</li> </ul>
<b>BDS Providers</b>	<ul style="list-style-type: none"> <li>• Create pipeline of investment-ready SMEs</li> <li>• Use DIB proceeds to increase breadth and scale of services provided to SMEs and increase pipeline for impact investors</li> <li>• Provide technical assistance to SMEs to create value and increase potential investment returns</li> </ul>
<b>SMEs</b>	<ul style="list-style-type: none"> <li>• Identified by BDS providers as a potential investment opportunity for impact investors based on specific screening criteria</li> <li>• Receives services from BDS providers</li> <li>• Potential to receive direct investment from impact investors once investment ready</li> </ul>
<b>Impact Investors</b>	<ul style="list-style-type: none"> <li>• Some DIB investors may also act as impact investors, who invest independently in SMEs identified by BDS providers</li> <li>• Impact investors will report investments in SMEs to BDS providers Support and Performance Manager</li> </ul>

Business Development Services – Illustrative investment proposition	
<b>Geography</b>	Sub-Saharan Africa
<b>Capital requirement</b>	TBD
<b>Investment term</b>	10 years
<b>SME Profile</b>	Agriculture Sector businesses seeking investment between \$50-\$500k.
<b>Repayment Structure</b>	Starting in year 2, repayments would be made on a semi-annual basis after verification of two criteria: the number of investments made and the returns on those investments.
<b>Governance</b>	Independent auditors would regularly report to the DIP, BDS providers and Outcomes Funders on performance.
<b>Performance Management</b>	DIB Performance manager would manage BDS Providers and payments. Reports to Development Agencies on performance.
<b>Investors</b>	Interested parties comfortable in making investments in the African SME market and wanting to make a positive development impact.
<b>Return on Investment</b>	A DIB would be expected to carry a level of risk and required rate of return similar to that of the SMEs in their pipeline. The DIB will be repaid at the two defined trigger points by Outcomes Funders if outcomes are successfully achieved.

**The Development Impact Bond Working Group would like to thank USAID for its support in developing this case study.**



## CASE STUDY 6: Energy Efficiency Implementation

### THE SOCIAL PROBLEM

Alongside renewable sources, energy efficiency is one of the two key strategies that governments are deploying to cut greenhouse gas emissions. The UN argues that using less energy has the potential to balance energy supply and demand far more quickly and cheaply than renewables.<sup>39</sup> Measures can be as simple as installing loft and wall insulation, draught-sealing windows and doors and replacing incandescent bulbs with energy-efficient ones, and can reduce the need to invest in energy infrastructure, cut energy bills, improve health, increase competitiveness and improve consumer welfare.

Despite its apparent benefits, experts observe an “energy efficiency gap” between actual and optimal energy use. Consumers – whether individuals, firms, and/or governments, in both developed and developing countries – consistently fail to make seemingly economically beneficial investments in energy efficiency, foregoing substantial long-term cost savings and environmental benefits.

Research by the McKinsey Global Institute finds that investing \$90 billion annually into energy efficiency improvements in developing countries to 2020 would generate up to \$600 billion in savings, and free countries from having to invest nearly \$2 trillion to expand the supply capacity necessary to meet growing demand if energy productivity remains constant.<sup>40</sup> Despite the attractive economics of energy efficiency investments, developing countries – and those in the developed world – have thus far left much of this potential untapped.

### THE OPPORTUNITY

A number of significant barriers prevent customers from making financially and environmentally beneficial investments into energy efficiency. First, energy efficiency measures typically require a substantial investment in exchange for savings that accrue over the lifetime of the deployed measures. Many households and businesses lack the working capital required to make such investments, particularly in emerging economies, where “discretionary” income is often a luxury enjoyed by few in society.

Second, uncertainty surrounding cost savings generated by energy efficiency upgrades makes it difficult for customers – whether individuals or businesses – wishing to make energy efficiency upgrades to access loans from commercial banks. For example, an energy services company (ESCO) could provide customers with a window glazing service that can reduce energy needs and save them money down the line. Customers may approach a commercial bank to ask for a loan to cover the initial investment required to make the upgrades but could be refused due to uncertainty surrounding potential cost-savings and, thus, the customer’s ability to repay the loan.

Uncertainties surrounding cost savings are due in large part to informational asymmetries between customers and ESCOs, resulting in moral hazard. For instance, consider a homeowner wishing to insulate the walls of his/her house to reduce heating bills. She contracts an ESCO to install insulation panels. However, because she does not have the technical skills to judge whether insulation panels have been properly connected (and

<sup>39</sup> Hohler, Greenwood and Hunt, (2007)

<sup>40</sup> Farrell, Remes and Charles, (2008), p.8

because the ESCO is aware of her limitations), the ESCO does not have a clear incentive to ensure that the insulation is properly installed, resulting in lower than anticipated energy savings. Experts estimate that ESCOs install some 90% of heating, ventilation and air conditioning equipment and insulation sub-optimally, reducing efficiency to 20–30%.<sup>41</sup>

A Development Impact Bond (DIB) could help overcome these obstacles by generating the upfront capital necessary to make energy efficiency investments and by clearing up some of the informational asymmetries that are preventing a commercially viable market from forming. Donors potentially contribute to outcome payments to investors, or could play a part in providing technical assistance, for example through helping to share knowledge and best practice.

### TARGET LOCATION

The DIB model could be applied to a variety of different energy efficiency scenarios in the household, commercial and industrial sectors.

### OUTCOME METRICS

Outcome metrics could be both environmental and monetary. The environmental outcomes could be measured in terms of both lower energy usage and in the Green House Gas (GHG) equivalent reductions, whereas monetary reductions can be measured in terms of cash savings generated; both can be easily measured with existing technologies, even at the individual level.

In addition to environmental and monetary impact, there is also potential for social impact in the form of positive job creation. This is particularly true in emerging markets, where ESCOs tend to be smaller local companies. With access to additional capital, they can grow and create more jobs for their communities.

### INVESTOR PROPOSITION

The returns to the DIB investor are directly related to the energy efficiency gains. In developed markets, ESCOs are a multibillion dollar industry. In emerging markets, where financing is less readily available, regulatory environments are less stable, and ESCOs are not yet a widely used model, the potential energy efficiency gains may be even greater. As a result, on a risk-adjusted basis, returns to the investor may be higher in emerging and developing markets. In addition, since this model can be financially sustainable, the gains to the DIB investors can be recycled into other investments, thereby increasing the impact.

THERE ARE TWO PROPOSED MODELS:

#### **Investment via an energy services company (ESCO):**

Investors put money into a DIB fund. This money goes directly to an ESCO, either as an equity investment or as a loan, and the ESCO acts both as lender (to customers wishing to make energy efficiency upgrades) and service provider (to provide and install the energy efficiency upgrades). If customers borrowed from the ESCO to fund these services and the energy efficiency improvements generate cash savings (for example through a reduction in the amount of energy used by the customer) customers use the savings they have made to pay back the ESCO (plus interest). The ESCO then uses this capital to pay back investors

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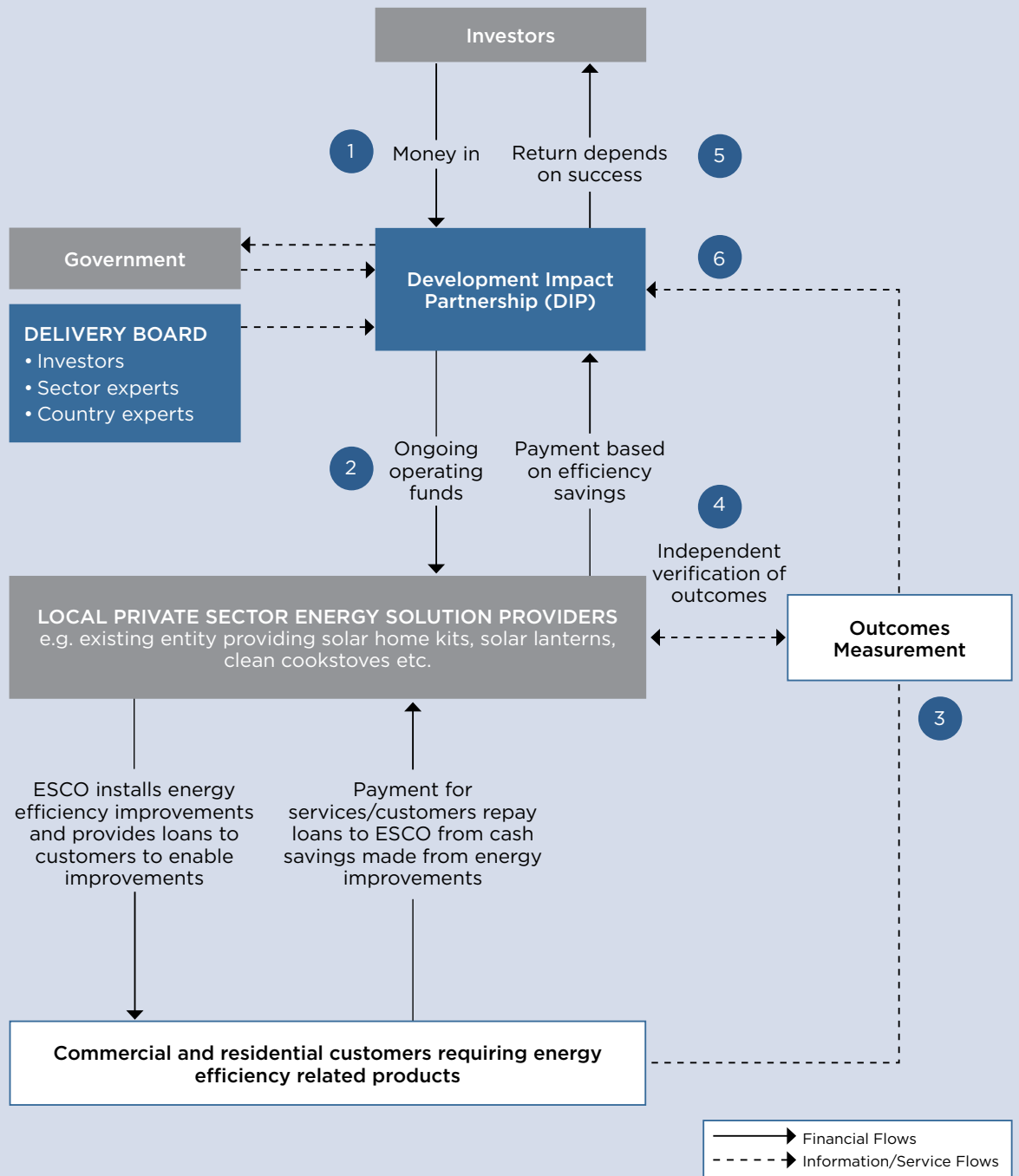
<sup>41</sup> Granade, Creyts, Derkach, Farese, Nyquist and Ostrowski, (2009), p.35

their initial investment (plus interest). Because customers' loan repayments are tied to cost savings generated from the upgrades, the ESCO is incentivised to ensure that their upgrades actually generate the cost savings they are supposed to; if they do not, ESCO stands to lose all or a portion of its loan. As for investors, if the original payment was provided in the form of an equity investment, investors get paid only to the extent that the ESCO has distributable cash on an annual basis. If it was provided in the form of a loan, investors get paid on a scheduled basis or the repayment could be deeply subordinated, with a bullet repayment at the end of the term. Regardless of whether the money to the ESCO is in the form of equity or a loan, the ESCO must retain some financial risk to ensure quality work and sound underwriting of customer loans over the long term.

**Investment via local lending intermediaries:**

Investors put money into a fund. A financial intermediary (which could be established as a bank, fund or leasing company) would lend that money to individual customers, who would then contract an ESCO to install upgrades. Customers would then pay back their loan principal plus interest, based on cost savings generated through energy efficiency upgrades. In this model, the ESCO would guarantee a certain level of technical performance/energy savings but would not take the commercial risk of the lending activity. This model may be preferable to the first model with new ESCOs.

Potential DIB Structure



- 1 Investors provide upfront financing to DIP\*
- 2 DIP funds and manages\*\* service providers to generate outcomes – performance manager hired by DIP to work-in-country
- 3 Measurement and reporting of contracted outcomes/outputs
- 4 Independent verification of contracted outcomes/outputs
- 5 Payments made back to investors based on cashable savings realized as a result of energy efficiencies
- 6 Potential role for outcomes funders in guaranteeing and/or providing early outcomes payments to investors

\* The exact legal form of this entity will depend on the needs of the specific outcomes funders and investors involved

\*\* See Section 3F (p. 96) for further details on DIB structures



## How a Development Impact Bond could add value

	Value of a DIB	Other approaches
<b>Energy efficiency investments require significant investment in advance</b>	Energy efficiency measures typically require a substantial investment in exchange for savings that accrue over the lifetime of the deployed measures. Many households and businesses lack the working capital required to make such investments, particularly in emerging economies, where “discretionary” income is often a luxury enjoyed by few in society. In a DIB, investors provide upfront funding for energy efficiency investments.	Other approaches require commercial banks and/or the ESCO to provide upfront funding and thus assume risk. However, ESCOs often do not have sufficient capital or liquidity – particularly small players in emerging markets – to provide financing to their customers, and a traditional bank’s uncertainty as to the technical performance / energy efficiency savings keeps banks from lending to customers wishing to make energy efficiency upgrades, resulting in underinvestment in energy efficiency.
<b>Aligning incentives around outcomes is crucial to creating viable market for energy efficiency</b>	Misaligned incentives (in the form of moral hazard) resulting from informational asymmetries between customers and ESCO contractors are preventing a viable market from forming. By tying repayment of loans and financial returns to cash savings resulting from energy efficiency upgrades, DIBs help to clear up some of the informational asymmetries and pave the way for a viable market in energy efficiency.	In an effort to boost demand for its services, ESCOs have begun to act as both lenders and services providers (i.e. “Energy Savings Performance Contracts”), tying repayment of customers’ loans to cash savings generated from the energy efficiency upgrades. Although this framework successfully aligns incentives, the ability of such scenes to reach scale is limited by ESCO’s customer base – and the willingness (or lack thereof) of ESCOs to act as banks (see above).
<b>Greater transparency around the energy efficiency market</b>	Cash savings generated from energy efficiency upgrades would be independently evaluated before payments are made, and data related to the costs, value and impact of energy efficiency investments would be made publically available, thus improving accountability and market transparency.	In the current market, data related to the costs, value and impact of projects is not always made publically available.

**The Development Impact Bond Working Group would like to thank OPIC for its support in developing this case study.**



## 3 Cross-cutting Issues for Implementing Development Impact Bonds

This section explores some of the cross-cutting issues in the design and implementation of Development Impact Bonds. It explores ways of measuring and defining success in a DIB contract, approaches to valuing outcomes and determining the risk-return profile, resources and expertise required, role of DIB parties and potential DIB structures. Whilst this section aims to highlight themes for consideration in developing DIBs, the particular characteristics of a DIB will depend on various factors, for example the specific objectives of the DIB (e.g. the social issue and geography it is looking to address), the size of the transaction, the parties involved in the DIB contract, and the roles they would like to take on.

### A. MEASURING AND DEFINING SUCCESS IN A DIB CONTRACT

When considering how success in a DIB should be defined, a good starting point is to consider the outcomes that the DIB is trying to achieve and the best way to measure these outcomes. Outcome metrics – the way in which outcomes are measured – are crucial as they form the foundation of the DIB contract. The chosen metrics should help align incentives amongst DIB actors (donors, investors, partner governments and service providers), such that financial returns to investors are aligned with success in achieving desired social outcomes. This alignment helps to drive the focus on results in the DIB.

Key considerations in the process of identifying appropriate outcome metrics include: measurability, avoidance of perverse incentives, ability to evaluate success, and the potential for independent verification of results.

#### 1. MEASURABILITY

As a minimum, the outcomes identified need to be measurable. Measured changes in the chosen outcomes metrics over the duration of the programme should enable an assessment of whether or not the programme has been successful in achieving its objectives. Given that the DIB contract transfers all or part of the implementation risk to investors, who are only paid when expected outcomes are achieved, all stakeholders need to trust that the outcome metrics can be measured effectively and objectively.

There are various levels at which outcome metrics can be measured – for example, at the individual, cohort or community levels. There are also different types of metrics that can be used – for example, binary metrics which are a “Yes/No” measurement of whether something has occurred, or frequency metrics which measure the number of times an event occurs within a given period. In some cases, the level of resources needed to collect data on the desired metrics may be unrealistically high, or it may be challenging for the metrics to be measured objectively. In such cases, alternative metrics which act as strong proxies for the desired metrics will need to be identified, or cost-effective, innovative measurement methodologies will need to be developed to enable data collection.

**Case Study: Using innovative measurement methodologies to measure teacher absenteeism in India\***

An example of an innovative measurement approach is the use of portable cameras in classrooms to measure teacher absenteeism in Udaipur, India. The programme is run by Seva Mandir, a voluntary organisation working on rural and rural development issues in Rajasthan and evaluated by the Abdul Latif Jameel Poverty Action Lab. Teachers were instructed to have a student take a picture of the teacher and other students at the beginning and end of each school day, using a tamper-proof camera with date and time stamp to record whether or not they attended class. This enables teacher absenteeism to be measured without the need for high numbers of school visits and also enables objective monitoring, since self-reporting (without photographic evidence) would most likely result in underreporting of absence rates.

\* Abdul Latif Jameel Poverty Action Lab, (2008)

**2. AVOIDANCE OF PERVERSE INCENTIVES**

DIBs allow donors, and in some cases country governments, to pay incrementally for outcome improvements. Selection of the appropriate outcome metrics helps incentivise behaviour that leads to improved outcomes, targeting of the hardest to reach populations and reduces the possibility of undesirable and unintended results that are contrary to the interests of DIB stakeholders. A focus on inappropriate metrics could lead to undesirable results or behaviours like gaming (e.g. improving or cheating on reporting, rather than improving performance), focusing on activities that are most easily measured and achieved (e.g. quick fixes) and ignoring of tasks that are not rewarded.<sup>42</sup> As there are limited precedents in international development of defining and paying against degrees of progress on development outcomes, early DIBs will need to be carefully designed to take into consideration possible perverse incentives.

When considering the issue of perverse incentives, it is important to identify what perverse incentives already exist in the present system and assess the key challenges that the DIB structure is looking to address. For example, it may be the case that present incentives lead to a disproportionate focus on achieving input or budget targets, as opposed to incentivising the achievement of outputs and/or outcomes. Or, there may be so many output or outcome indicators identified for a specific intervention project that the incentives become diffuse and there is little focus on core outputs or outcomes. In some cases, it may be that an “all or nothing” payment based on whether a particular output or outcome target is reached leads to perverse incentives to cheat on reporting or to spend less effort and resources on delivery if providers decide halfway that they are not on track to meet the target. Careful selection of DIB outcomes metrics and design of the payment structure should help to reduce, if not eliminate, existing perverse incentives. Rigorous monitoring systems are also needed to ensure that any unintended and undesirable results can be highlighted and remedied quickly.

**Case Study: Avoidance of perverse incentives in the diagnosis and treatment of Tuberculosis in India\***

A range of performance incentives such as direct payment, deposit return or food rations and vouchers have been used to successfully improve health outcomes across the world. However, one danger of offering food or money as an incentive to encourage patients to be tested or treated is that this may lead to perverse incentives. In India, for example, monitoring of a programme focused on treating tuberculosis patients revealed that some individuals attempted to prolong the treatment period – and therefore the period in which they received the performance incentive – by avoiding taking the full course of medicines so that they could continue to receive a monthly payment. In response to this, the scheme was adjusted so that payment was restricted to a limited period of six months from when the treatment began – sufficient time to ensure that treatment was delivered effectively. In this instance, ongoing monitoring of the programme enabled managers to identify the problem and put a mechanism in place to stop this from happening. However, it highlights that careful programme design and rigorous monitoring systems are required to ensure that unintended and undesirable results are prevented from happening.

\* Beith, Eichler and Weil, (2009)

<sup>42</sup> DFID, (2005)

### 3. ABILITY TO EVALUATE SUCCESS

To be able to contract based on outcomes, a robust system for evaluating success needs to be put in place. A control/comparison group or baseline can be established to reflect expected outcomes in the absence of DIB-funded interventions. Outcomes achieved by the DIB can then be compared against control/comparison group or baseline outcomes to determine the impact that has been generated by the DIB-funded interventions. This helps to reduce two important attribution risks: first, the risk that outcomes funders end up paying for an outcome that would have happened anyway; and second, the risk that DIB investors do not get paid for outcomes that the DIB-funded interventions have generated.

Three potential ways of evaluating success are described below:

#### **Randomised-controlled trials**

Randomised controlled trials (RCTs) are widely considered to be the most rigorous way of determining that a significant change has occurred and that this change can be attributed to the intervention. In an RCT, “control” and “treatment” (i.e. intervention) groups are established by randomly assigning participants to these two groups. Random assignment helps ensure that any potential participant biases are evenly distributed across the treatment and control groups, such that any differences in measured outcomes across the two groups can be attributed to the intervention.

RCTs can be particularly valuable when trialling new interventions ([see p. 81 on Intervention Risk](#)). In these scenarios there is relatively little understanding around whether and to what extent the new interventions will bring about the desired impact. By evaluating the pilot results rigorously using an RCT to understand whether or not an intervention works, an informed decision can be made about whether it is worthwhile scaling up the intervention to a wider population.

The costs associated with designing and implementing an RCT will partly depend on whether the outcomes data of interest is already routinely collected and if a large sample size is required to provide robust results. Where an intervention delivers a large benefit (i.e. a large effect size), an RCT trial with a relatively small sample size will be able to detect this effect; however, detecting more subtle differences (i.e. a small effect size) will require a larger sample.<sup>43</sup> Particularly when testing out interventions with relatively little track record, it is important to focus on what the costs of not doing a rigorous programme evaluation will be, rather than the cost of the RCT exercise itself – the potential costs of rolling out an ineffective intervention, which could be potentially harmful rather than beneficial to the target population, should be carefully considered.

**Case Study: Using an RCT to test the effect of village-based schools in Afghanistan prior to scaling up\***

An RCT was used to test the effect of village-based schools in Afghanistan before scaling up the intervention. A five-year USAID-funded programme (called the Partnership for Advancing Community-based Education in Afghanistan) was established to expand educational opportunities to children, especially girls, in areas of Afghanistan that lack access to formal governmental schools. With a sample of 31 villages in two districts in northwest Afghanistan, 13 villages were randomly selected as sites for community-based schools a year before this community-based approach was implemented in the entire sample of villages. This phased-in approach enabled estimation of the one-year impacts of the community-based schools on children’s school attendance, knowledge of maths and the local language.

\* Burde and Linden, (2012)

<sup>43</sup> Haynes, Service, Goldacre and Torgerson, (2012)

In the above example, the “units” being randomly selected (or randomisation unit) are villages. The randomisation unit could also be individual people (e.g. patients randomised to either receive or not receive a particular drug treatment), or institutions (e.g. schools randomised to either receive or not receive an education intervention). Where frontline workers are uncomfortable about randomising individuals, or where randomising individuals is actually inappropriate (e.g. where the spread of infection is likely to be high and a whole group needs to be treated for the intervention to have the desired impact), it may be better to randomise institutions (e.g. schools) or geographical areas receiving the intervention.

### **Live comparison group**

This approach compares the outcomes achieved by the intervention group against a contemporaneous comparison group that is monitored during the period of intervention. The comparison group established seeks to mirror the target group in characteristics as far as possible.

Ideally, the only difference between the intervention and comparison groups is that the latter does not receive the DIB-funded services that the target group benefits from. However, given that there is no random assignment to treatment and control groups under this approach (in contrast to randomised controlled trials), there may still be important differences between the treatment and comparison groups. Where these differences may be related to whether or not outcomes are achieved, the validity of the evaluation exercise will come into question. There are a number of techniques for reducing the differences between the comparison and intervention groups. These include, for example, propensity score matching, a technique that attempts to predict the comparison group’s “normal” outcomes from the characteristics of the group (e.g. age, gender, education, ethnicity, disability) via statistical procedures, and then applying a formula to the intervention group to predict what their outcomes would have been without the intervention (i.e. their “normal” outcome). The intervention group’s actual results are then compared to their predicted results to assess the impact of the intervention.<sup>44</sup>

Given that live comparison groups do not require the evaluator to control who does, and does not, get the intervention, there may be a pragmatic design choice in certain situations where doing an RCT is not practical or feasible. In certain cases, neither RCT nor live comparison group methodologies may be practicable, particularly in cases where there are clear reasons for not wanting to exclude any individuals from the intervention. For example, where interventions have already been rigorously evaluated as beneficial for the target population, there will be less reason to exclude certain subgroups from the intervention in order to establish control or comparison groups for evaluation purposes.

### **Establishing a historical baseline**

In some cases, it would be appropriate to establish a historical baseline, against which future outcomes can be compared to evaluate the success of interventions. Historical baselines are best when there is a reasonably stable target population with a consistent level of outcomes (or a predictable trend in outcomes) over a number of years. They also work best for outcomes that are not likely to be significantly affected by broader socio-economic trends and external factors outside of the control of service providers. An advantage of using a historical baseline is that there is no need to exclude individuals who could benefit from interventions when

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<sup>44</sup> Duignan, (2009)

these come on-stream, since all the data needed for establishing the historical baseline would have been collected before the start of the DIB intervention. This contrasts with control or live comparison groups, where individuals in the comparison or control group will need to be excluded from interventions in order to accurately measure DIB impact.

#### 4. IMPORTANCE OF INDEPENDENT MEASUREMENT AND VERIFICATION

Within a DIB contract, outcome metrics form the basis on which payment-flows between outcomes funders, investors and service providers are determined. Outcomes funders need to have confidence that the reported outcomes provide an accurate reflection of the improvement in desired outcomes for the target population before making payments to investors. DIB contracts should require that outcome metrics be independently measured and reported by a third party (i.e. not the parties with a financial interest in whether or not outcomes are achieved). This should not undermine partner governments' data collection systems but rather is intended to improve local data and monitoring systems by providing a quality assurance test for information that local authorities collect. Where a baseline or a comparison/control group is established for the purpose of evaluating success, this should also be verified by the independent third party. Metrics that are based on qualitative, self-reported data or interview responses are less objective and auditable. Service providers, investors and outcomes funders may be less comfortable relying on qualitative or subjective metrics as the primary outcome metrics on which payment will depend, although this data can still provide valuable information for the purposes of performance management and programme evaluation.

The verification process should be tailored to the specific programme area and context. For example, it could include an assessment of the reliability of reporting by providers through some form of repeated measurement or "recount" of the original or source data by an independent party. Where the discrepancy between the data originally reported and the "recounted" data is found to be within an acceptable, pre-determined margin of error, the original data report is accepted and outcomes payment are calculated on that basis. Other components of a verification process could include random spot checks of beneficiaries (e.g. sampling patients drawn from health facility registers to ensure that those reported to have received health services actually received them) or direct observations by an independent agent of the conditions of service delivery (e.g. directly observing the provision of care by a health facility's staff to its patients and an audit of management practices, equipment, supplies and information).<sup>45</sup> Where possible, a verification process may adopt a combination of the above and/or other verification approaches in order to triangulate outcomes data from a variety of sources.

#### Case Study: Verifying results in Cordaid's Performance-Based Financing (PBF) pilot to improve basic health care in Burundi\*

To improve basic health care in two provinces in Burundi, the Dutch NGO Cordaid created a number of Local Fund Holding agencies (FHAs), which were responsible for contracting individual health facilities and introducing PBF for a set of well-defined services. The FHAs were also responsible for verifying service quantity (and quality) in health centres and hospitals as a condition for releasing performance-based payments.

To verify service quantity, the FHAs' auditors, who are independent of the local health system and government, visit each public health facility monthly. They verify the consistency of the data reported on monthly summary reports by reviewing the records of the health facility (and any sub-contracted facility) and recounting the number of services registered for the specific indicators. In addition, the FHAs contract one local community organisation for each health facility to carry out additional verification, including tracking a proportion of patients registered in the health facility to verify that these patients exist and have actually received the services.

\* Naimoli and Vergeer, (2010)

<sup>45</sup> World Bank, (2010)



## B. APPROACHES TO VALUING OUTCOMES

A DIB contract sets out the price that outcomes funders pay to investors for successfully achieving agreed outcomes. A minimum pre-condition for DIB suitability is that the value society places on the potential outcomes that the DIB can achieve is higher than the cost of delivering the DIB. When pricing outcomes, the value needs to be high enough such that investors are compensated for investing in the DIB and for taking on the risk of failing to deliver outcomes. At the same time, the outcome value should not be so high such that all of the societal value generated is captured by investors.

Experience from developing SIB contracts has shown that working in partnership is crucial to valuing and pricing outcomes for early transactions. For early DIBs, as with SIBs and other payment by results approaches, the process is likely to involve negotiation rather than precise calculation due to a lack of historical data and precedent transactions currently in this space. Nevertheless, there are a number of approaches which can be used to inform discussion and to enable triangulation of the most appropriate outcomes value and price for early DIBs. Some examples of potential approaches to valuing outcomes are discussed below.

### 1. COST-PLUS PRICING

The lower bound for the outcome value in a contract is simply the cost of provision. Cost-plus pricing uses the cost of provision as the basis of the price of outcomes, and simply adds on a certain percentage to the costs to provide a pre-determined maximum rate of return. Cost-plus pricing is primarily used because it is easy to calculate and requires minimal information. Particularly in an uncertain market where there is little information available to establish prices, cost-plus pricing offers some clarity to DIB parties as to what the rate of return is on the investment transaction.

### 2. HISTORICAL COST OF DELIVERING OUTCOMES

When considering the most appropriate price for target outcomes, governments and donor agencies could look at the average cost to them of delivering comparable target outcomes through their historical outcome spend on similar initiatives. It is important to appraise previous initiatives in aggregate, taking into account the expenditure on those initiatives that were successful in achieving desired outcomes, as well as those that were less successful or failed to deliver at all. If only the most successful programmes are included in the comparison, the cost of achieving successful outcomes will be underestimated, providing an unrealistic benchmark against which to compare DIB costs. It is also important to reflect the true cost of historical provision by taking into account service provider and donor overheads, performance management and other indirect costs in addition to direct intervention costs.

Outcomes funders may be able to use historical information to inform outcome cost comparisons where a potential DIB targets the same or similar outcomes as prior initiatives. However, direct comparisons may be harder to achieve if historical programmes have targeted a broad range of outcomes at once. For example, family planning interventions may have targeted reductions in maternal mortality, as well as increased use of contraceptives, alongside other outcomes/outputs. This could make it challenging to distil the average cost of delivering a particular outcome. In such cases, this type of analysis will more likely inform a decision around the order of magnitude in which the outcome value should lie, rather than enable a robust value calculation.



In addition, there may be in some cases a desire to achieve outcomes which have never been achieved before and which would require new interventions and approaches. Under these circumstances, it may not be possible to quantify outcome values by analysing previous initiatives and it may be helpful to consider alternative valuation approaches.

### 3. CASHABLE BENEFITS

For Social Impact Bonds in developed countries, calculating potentially cashable benefits has been the main starting point for outcomes funders when assessing potential outcome values. This analysis may either be based on future costs which could be averted as a result of successfully achieving the target outcomes (for example, an anticipated reduction in the cost of health services during the course of the contract or over the longer term) or additional revenue generated as a result of achieving the target outcomes (for example through strengthening the tax basis of a country or utilities income to government).

Consideration of cashable benefits may be relevant in the international development context where donor agencies anticipate a long term funding commitment to a particular issue area in which preventative action could avert significant future spending, such as malaria control or HIV diagnosis and treatment.

However, developed country analyses focusing on cashable benefits rely on the assumption that public services – such as the high cost of inpatient hospital bed use by patients with long term conditions – would continue to be funded at the same level in the absence of the outcomes-based contract. By funding successful preventative interventions, such as community support by specialist consultants and nurses, these costs could either be avoided or greatly reduced.<sup>46</sup>

In a developing country context, the existing supply of services may often be insufficient to meet the needs of the population. In such contexts, at best, preventative services free up resources to address other issues and/or prevent unmet need from rising further. As such, achieving target outcomes may not result in direct monetary savings for the government or donor agencies and it may be helpful to consider other approaches of valuing the social benefits achieved.

### 4. QUANTIFIED SOCIAL VALUE

In areas where there would not necessarily be a cashable benefit to donors or governments, but where significant value to society would be gained from the successful delivery of outcomes, an estimated value of social change can be calculated. The quantified social value provides an upper limit to the outcomes value in a DIB contract. Depending on factors such as the type and level of risk transferred to investors, investors' appetite and ability to take on these risks and the scale of the capital requirement, the final outcomes value may be negotiated and adjusted downwards from the quantified social value.

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<sup>46</sup> Corrigan, (2011)

### Case Study: Quantifying the Social Value of Commercialising an Aflatoxin Biocontrol Product\*

Aflatoxin is a toxic chemical produced naturally by fungi which contaminates maize, groundnuts and other crops, causing severe health consequences when ingested. Whilst Aflatoxin can be found around the world, it is particularly problematic in developing countries, where regulators don't have the tools to enforce legal limits, and by necessity, the poor sometimes eat even the most visibly affected crops. A potential intervention is biocontrol, which involves introducing competing varieties of fungi that do not produce aflatoxins. Donors have been considering the potential of using a pay-for-performance model which would provide rewards to a designated party based on the prevalence of aflasafe strains (that cannot produce aflatoxins) on farmers' fields and/or in markets. A starting point for quantifying social value discussed by the World Bank is to estimate the Disability Adjusted Life Years (DALYs, or years of healthy life lost) averted and then paying per DALY. Additional ways of quantifying the social value of introducing this intervention may include estimating the impact on animals in terms of impaired productivity and death and also the cost in annual lost export revenue due to the impact of Aflatoxin.

\* Scherer and Yago, (2011)

## 5. MARKET DETERMINED

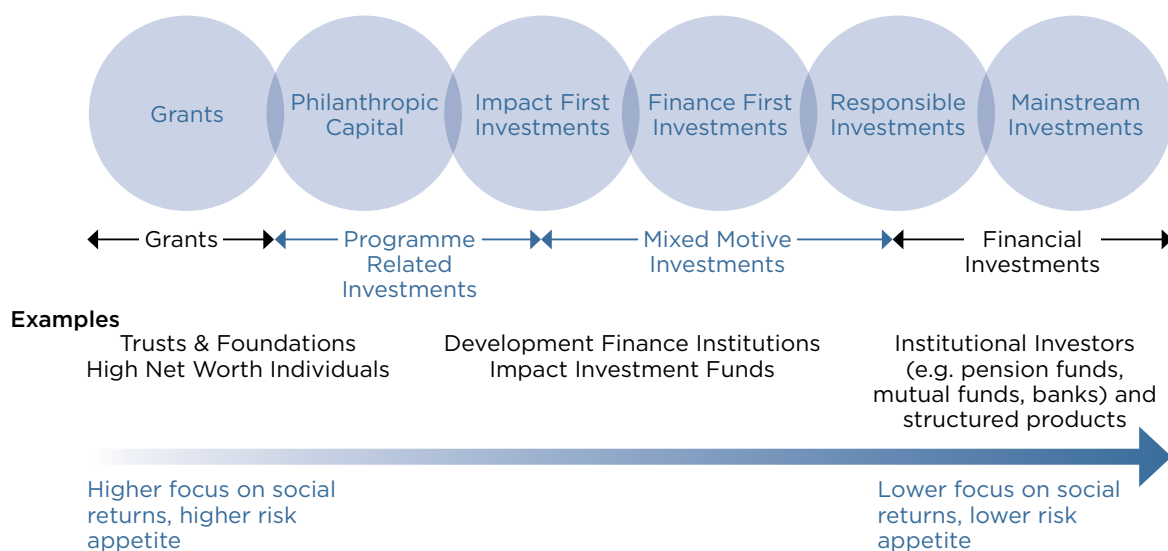
As the market for DIBs develops, it may be possible for outcomes funders to open up the question of pricing to the market through a procurement process to help determine the most appropriate outcome value. Bidders (i.e. service providers or intermediaries working with service providers) will need to have enough data to undertake a sensible analysis of the costs of DIB delivery and to make an informed judgement on the likely level of outcomes that can be achieved. It is also important that outcomes funders develop the necessary commissioning capabilities to enable design of fair and efficient procurement processes in addition to ensuring that they have the capacity to undertake thorough due diligence on bids to determine value-for-money both in terms of quality and cost of delivery. If this were not the case, there will be a serious risk of there being a "race to the bottom" amongst bidders such that the cheapest bid wins, regardless of the actual quality of the DIB provider and its ability to deliver the results. Bidders with a lack of understanding of the country context and delivery environment are also prone to optimism bias, which causes them to bid based on unrealistic assumptions of the results they can deliver for a certain outcomes price. DIB parties will need to be aware of these potential pitfalls and ensure that processes and safeguards are in place to ensure that market-determined outcomes are priced appropriately and that the bid that genuinely ensures best value-for-money is selected.

### C. DETERMINING THE RISK-RETURN PROFILE

To determine the appropriate risk-return profile of the DIB proposition, stakeholders will need to consider: i) the type and amount of risk to be transferred by outcomes funders to investors, ii) investor preferences such as those relating to term, liquidity and investment size; and iii) the appropriate balance between outputs-based payments and outcomes-based payments within the DIB contract. The risk-return profile will also vary according to whether investors are primarily socially motivated and have a higher risk appetite, so that they have an interest in testing certain interventions under a DIB model and are willing to take financial losses if interventions do not prove successful, or if they are relatively less focused on social returns and have less risk appetite, in which case they will need to be reassured of the interventions' track record in delivering outcomes.

The pricing of outcome payments, and thereby the returns to investors, needs to be considered in conjunction with the risk profile of the DIB proposition. Experience from developing Social Impact Bonds suggests that the different parties to the contract often have quite different perceptions of the potential risks associated with the contract. We

**Figure 6:** Overview of investor universe



recommend that early DIBs are developed collaboratively between the key DIB parties with open discussions of the potential risks within the project and who will be best placed to manage them. This will ensure that the resulting contracts are attractive to investors, whilst offering good value to outcomes funders.

In traditional commercial markets, the higher the risks borne by an investor, the higher the expectation of a return. Early DIBs would be regarded as high risk by commercial or institutional investors as they are an unknown structure without a track record and involve implementing programmes through non-government organisations in developing countries. An element of social investment is therefore likely to be needed to make early DIBs an attractive proposition to all parties.

Social investment is still an emerging field. Social investors are those who invest both for financial and social benefit. Social investors weigh the social and financial returns they expect from an investment differently from purely commercial investors and may be willing to take on higher risks in order to generate greater social impact. Such investors include charitable trusts and foundations, development finance institutions, dedicated impact investment funds and wealthy individuals. We expect there to be considerable interest in investing in DIBs, but also significant barriers – for example, the specific rules or mandates under which impact investors have to invest money may not include DIBs. Consequently, larger transactions are likely to require a layered structure with different investors taking on different levels of risk, with social investors helping to “crowd-in” others by taking on higher levels of risk. As the market develops over time and a track record for this type of product is generated, there may be the opportunity to open DIBs up to retail investment.

## 1. ASSESSING THE TYPE AND AMOUNT OF RISK TRANSFER

Due to the large number of projects it takes on and the scale of its operations, which allows for considerable aggregation, the public sector could be thought to be risk neutral. Following this logic, the public sector should, in theory, only be concerned about the expected return on its investment, not the risk of that return being realised. In practice, however, the public sector’s approach to individual projects can be more conservative, as there are public pressures over waste in the event of failure. Individuals’ reputations are often tied to the

results of specific projects and not the whole of government spending. As a result, there is acknowledgement that the public sector is often limited in the levels and types of risk it can take, how much it can innovate and the types of programmes it can fund.

Development Impact Bonds can provide a way for the public sector, as outcomes funders, to pay for better outcomes whilst avoiding paying for programmes that fail. Within a DIB contract, investors provide upfront funding to finance a portfolio of interventions that are targeted at achieving a set of desired outcomes.

Potential investors will evaluate whether the proposed payments for achieving the outcomes sufficiently compensate them for taking on the risk of failing to deliver those outcomes. In general, the more a risk is believed by investors to be outside of their control, the higher the perceived level of risk transfer and the higher the financial return they will require for their investment. For instance, there is little rationale for government outcomes funders to transfer acts of god risks or political risks that are outside of investors' control and outcomes funders may be better off retaining these risks to ensure value for money.

Since DIB contracts are structured around the desired programme outcomes, they should allow investors and service providers more flexibility to adapt interventions to achieve success than traditional input-oriented contracts. This flexibility is a key benefit of the structure. It provides outcomes funders a route through last mile implementation issues and enables delivery to hard-to-reach populations, which may be difficult to achieve under input or process oriented contracting approaches. This flexibility also enables investors to better manage their risk, since investors (and the service providers they finance) can innovate and adapt interventions, processes and structures to meet the needs of the target population as these needs become clear over the course of the implementation period. This flexibility should increase investors' potential to deliver agreed outcomes and thereby help them manage and reduce their risk of DIB non-performance and hence, capital loss.

Outcomes funders are likely to want to limit these freedoms, to ensure that interventions will be aligned with their ethical principles and social objectives and avoid perceived risks of gaming. The engagement of socially-motivated investors in the DIB may, to some extent, help mitigate some of these risks. We recommend that outcomes funders think in terms of best practice principles (e.g. adherence to agreed standards of professional conduct and basic safeguards etc.), as opposed to specifying the interventions themselves or mandating outcomes funder permission to adapt the programme.

Risks that may be transferred by outcomes funders to investors via a DIB contract include:

### **Intervention risk**

Outcomes funders may want to transfer the risk of financing innovative interventions which have a weak or non-existent track record in generating the desired outcomes. In some cases, interventions that have an evidence base of delivering outcomes when implemented in one location may need to be adapted to deliver results in another location.

DIB actors will want to be reassured that in-depth research has been undertaken to understand target population needs, to ensure that the interventions identified are suited to addressing these specific needs. In addition, there would need to be a clearly articulated theory of change for how and why proposed interventions are expected to bring about the desired outcomes. Contextual factors that may have an effect on implementation of activities and their potential to bring about desired outcomes will also need to be identified to understand the extent of risk transfer. For example, differences in population

characteristics and preferences, policy environment, quality of service providers and availability of complementary services and infrastructure will need to be considered when translating interventions for implementation across geographies.

The DIB structure allows flexibility to adapt the intervention over the course of programme delivery – specifications are around the outcomes to be delivered, rather than around the specific activities or interventions to deliver those outcomes. Based on the evidence collected and learning that takes place during DIB implementation, interventions can be adjusted to respond to new needs as these emerge and resource allocation can be altered to help ensure that the mix of activities delivered continues to make maximum impact in improving outcomes. The flexibility to adapt interventions as necessary throughout programme implementation enables investors to reduce the risk of intervention failure.

### **Operational risk**

This is the risk arising from setting up and delivering interventions to the target population. These risks may be relevant even to well-established and evidenced interventions and could arise from the people, systems and processes through which interventions are delivered. Some interventions may have demonstrated success as a small-scale pilot, but there is uncertainty around scaling up due to the high level of complexity in managing large numbers of personnel, the need to set up delivery infrastructure to cover a big geographical area and systems capable of collecting and analysing large amounts of data for performance management and evaluation purposes. Investors will need to be reassured by the quality of the management team who will oversee and monitor the set up and delivery of interventions to be confident of achieving the contract outcomes.

#### **Case Study: Operational risks associated with reducing Rhodesian sleeping sickness in Uganda\***

Robust scientific evidence suggest that if the level of human infective parasite in cattle is effectively reduced through mass treatment of cows, there is a low probability that the desired outcome (i.e. a reduction in the incidence of Rhodesian sleeping sickness in humans) will not be achieved. Scaling up the delivery of the required intervention however, is operationally complex. It requires the mass treatment of 3 to 4 million cattle once a year for three years to reduce the level of parasite prevalence in the cattle population in at-risk districts, followed by the implementation of sustainment activities to maintain this reduction in the longer term. The successful implementation of this intervention will require robust management of people and resources, significant community engagement and the creation and maintenance of relevant delivery infrastructure. Therefore, the primary risk being transferred from outcomes funders to investors in this case is operational.

\* See Case Study 1 on pp. 38-42 for more detail

### **Demand side risk**

Even if interventions are well-designed in addressing the needs of the target population and mechanisms are in place to enable efficient service delivery, engaging the target population will be essential to ensuring that there is sufficient demand for the service. For example, for a DIB that focuses on increasing the rate of HIV testing, improved access to testing facilities may be just one of the components of a successful programme. Investors will want to ensure that the intervention model involves engagement activities at both individual and community levels to improve education and raise awareness of HIV, which are likely to be crucial for increasing HIV testing rates due to the sensitivities surrounding HIV status.

## **2. INVESTMENT TERM, LIQUIDITY AND SIZE**

In order to successfully attract capital from investors, it is important to involve potential investors in the DIB development process to understand their priorities, not only in terms of the types of risks they are willing to take, but also in terms of their preferences with respect to investment term, liquidity and investment size.

### Investment term

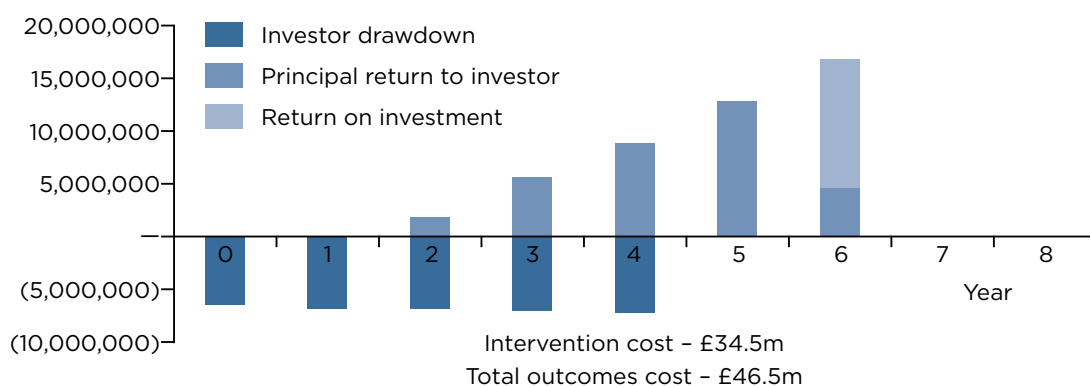
The longer investors have to wait to receive back their capital and make a return, the higher the likely cost of capital (see Figure 7 below). As a result, a DIB would ideally be structured over a period of 3–10 years, enabling longer term outcomes to be measured whilst ensuring value for money for the outcomes funder by reducing the length of time investors have to wait to receive their capital back.

If outcomes take a long time to materialise and trigger outcome payments, or if outcomes funders require outcomes to be sustained for a lengthy period of time before payments are made, the level of return that investors are likely to require will be higher due to the time value of money and the higher risk that the requirement of sustained outcomes brings. Where this is a concern, it may be possible to develop outcome payment structures that reduce risks for investors by, for example, enabling a proportion of the payments to be made within a relatively short timeframe based on intermediate outcomes or desired outputs, with further payments made at a later stage if final outcomes are achieved.

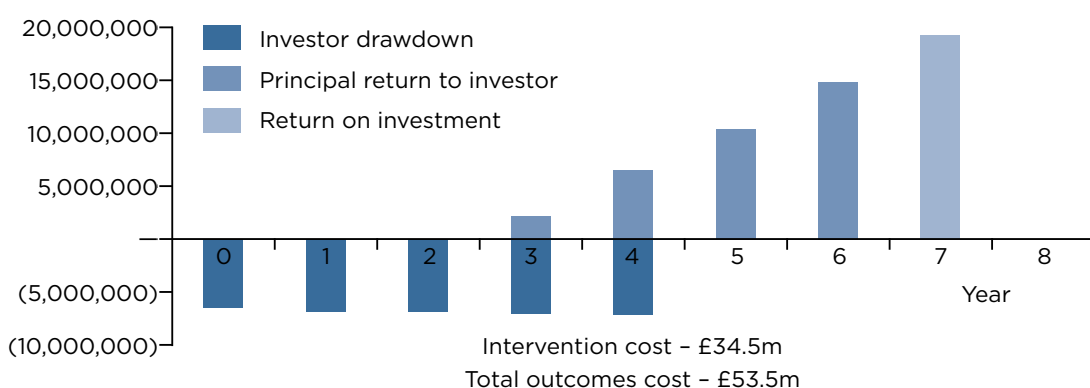
The graphs below illustrate cashflows to and from investors for the same programme depending on whether the payment structure is designed to have a 12 or 24 month delay in outcome payments. In the latter case, outcomes funders will need to pay a higher absolute amount in outcome payments to compensate for the longer investment term if the targeted annual rate of return is to be held constant between the two payment structures.

**Figure 7:** Illustrative payments to investors based on 12 month lag and 24 month lag in outcome payments

#### Scenario 1: 12 month lag in payment of outcomes



#### Scenario 2: 24 month lag in payment of outcomes



## Liquidity

Currently there is limited ability to exit investments in outcomes-based contracts due to the early stage of their development. There is not yet a market place to trade these investments and there may be challenges in determining their value. However, as the market develops and DIBs begin to develop a track record of generating returns to investors, there should be more possibilities for investors wishing to exit to sell their investments onto other investors if desired. For example, investors with a low risk appetite may want to purchase performing DIBs that are already generating a steady return on investment. This could enable initial trail-blazing investors to exit their investments before the full investment term of the DIB is reached, allowing them to put the realised capital towards supporting new initiatives.

## Scale of investment

If the scale of the investment required is large, it may be necessary to develop investment structures that have a lower risk profile or higher returns to make the investor case compelling to a wide range of investors. Alternatively, it may be possible to attract a larger number and range of investors by designing a DIB with different capital classes and payment structures. The timing, triggers and frequency of outcome payments can be used to vary the level of risk transfer (and the commensurate levels of returns) to suit different investor needs. The feasibility of bringing different investors into a single structure will need to be carefully considered.

The following table provides an illustration of potential risk-return profiles for different investment classes within a DIB. In this example, Class 1 has a low risk/return profile with full capital protection<sup>47</sup> – which makes it similar to standard debt-like instruments in capital markets. Class 3 has a high risk/return profile, with 100% capital at risk – which makes it an equity-like investment. Class 2 has a medium risk/return profile with partial capital protection – this is a theoretical midpoint and is not yet a tested profile in capital markets.

**TABLE 1: ILLUSTRATION OF POTENTIAL CAPITAL CLASSES WITHIN A DIB<sup>48</sup>**

Capital Class	Investment Risk	Description	Target return per annum	Maximum downside
Class 1	Low	Full capital protection	2%-5% target return p.a.	0% return (full return of capital)
Class 2	Medium	Partial capital protection	3%-10% target return p.a.	-50% return (return of half of the capital)
Class 3	High	100% capital at risk if agreed outcomes not achieved	10%-20% target return p.a.	-100% return (full loss of capital)

<sup>47</sup> Under full capital protection, all the original money invested is returned to the investor at the end of the investment term, regardless of outputs/outcomes achieved. The investors in Class 1 will effectively be making a repayable loan, with a maximum downside that they only get their capital back at the end of the investment term (without any additional return in the form of interest/dividend payments).

<sup>48</sup> Risk and return numbers are illustrative only and would depend on the specific investment.



### 3. OUTPUTS VS. OUTCOMES-BASED PAYMENTS

Some social areas are better suited to outcomes-based payments than others. The degree to which payments are based on outcomes rather than outputs may depend on: the ease of measuring outcomes in terms of resource need, data availability and quality; the strength of the relationship between outputs and outcomes; the timeframe required to achieve outcomes; the importance placed on the linkage between outcomes and cost savings; investor risk appetite; investment scale and the availability of outcomes-related capital.

If outcomes measurement will require intensive amounts of resources and if there is strong evidence of a relationship between delivering outputs and achieving outcomes, then it might be worth including outputs-based payments in addition to outcomes-based payments within the DIB contract. In designing the payment mechanism, it is also necessary to consider the level of capital that is realistic to put at risk on a fully outcomes basis. In some cases for example, the measurement timeframe for outcomes may be beyond some investors' appetite in relation to investment term. In order to attract a wide range of investors and new capital into this space, it may be necessary to think carefully about how much (or how little) of the contract would need to be outcomes-based to get the benefits of involving private investors, whilst keeping the costs of capital low.

**Case Study: Determining the right mix of output vs. outcome payments in a DIB focused on reducing Rhodesian sleeping sickness in Uganda\***

In the context of reducing sleeping sickness in Uganda, there is significant scientific evidence linking the treatment of cattle to a reduction in the level of human infective parasite in their blood, which in turn is linked to a reduction in human cases of sleeping sickness. The primary risk being transferred from outcomes funders to investors in this instance is therefore associated with the complexity of delivering the treatment to cattle and then ensuring that the impact of this treatment is sustained in later years. A mixed output-outcome payment model may be a sensible option in this context. For example, payments could be made based on the successful achievement of outputs, in the form of effective delivery of the mass cattle treatment programme in years 1-3 and on the successful achievement of outcomes, in the form of a sustained reduction in the human infective parasite prevalence rate in cattle in years 4-8.

\* See Case Study 1 on pp. 38-42 for more detail

### D. ROLE OF DIB PARTIES

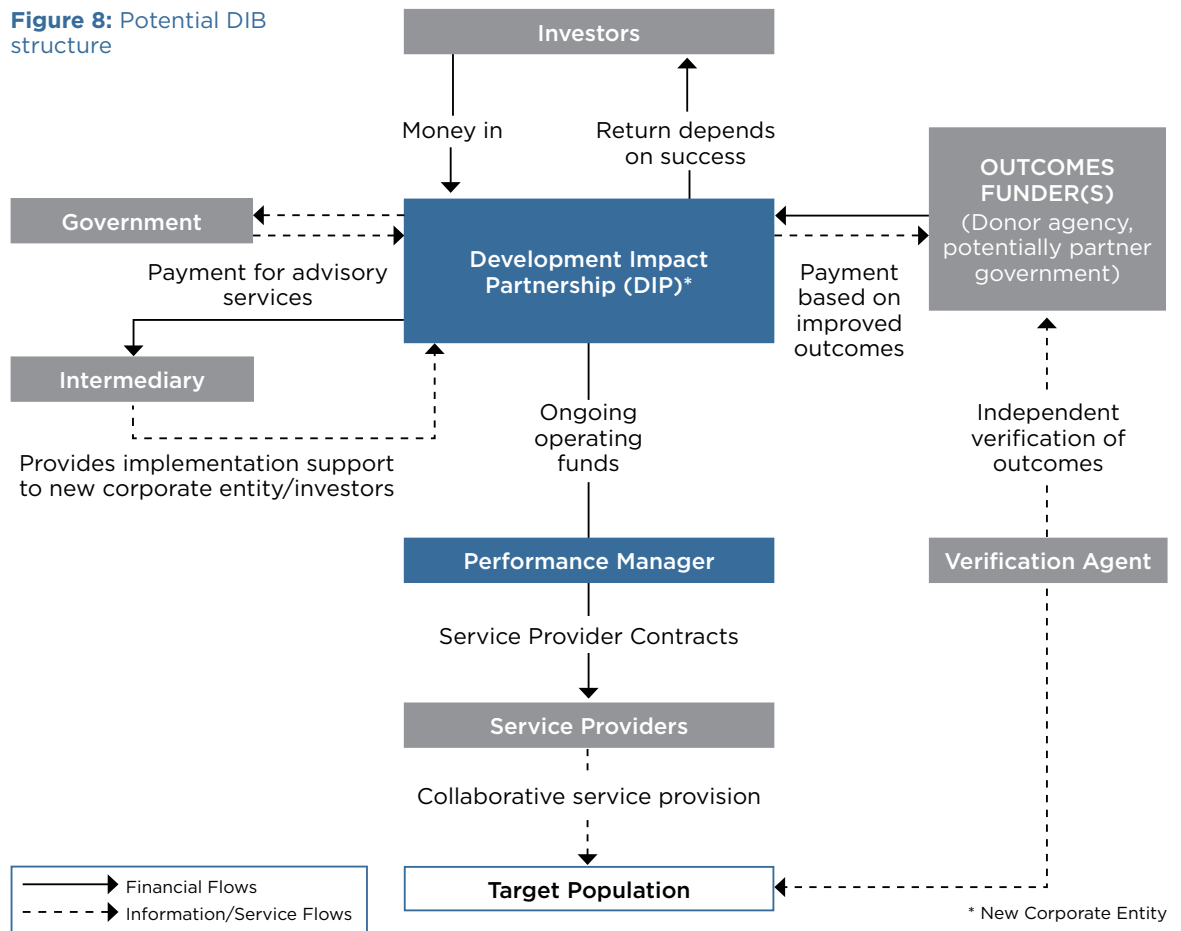
Development Impact Bonds bring together governments and donors, private sector investors and service delivery organisations, in a way that draws on the best contributions each party can make towards achieving social outcomes. It is likely that early DIBs will be pulled together initially by intermediaries, acting as the champion of the project and bringing stakeholders together to develop a DIB model that works for all parties.

This section further describes the possible role of the various parties within a Development Impact Bond.



A potential DIB structure is illustrated in Figure 8 below:

**Figure 8:** Potential DIB structure



## 1. DONOR AGENCY

In early DIBs, it is envisaged that donor agencies will take the lead role in paying for outcomes, although there is also potential for philanthropic funders as well as private corporations to provide part of the outcomes payments. Corporations could potentially reap significant benefits from improvements in development outcomes (for example, gaining a more productive workforce if malaria rates go down) and may be interested in engaging with DIBs by being an outcomes funder. This section focuses on the role of donor agencies, but this is not to exclude other actors and variations of the model as pilot projects are developed.

The role of outcomes funders in a Development Impact Bond is to pay investors if – and only if – DIB-funded programmes succeed in delivering outcomes. Donor agencies can play this role as well as the critical role of identifying potential social issues of focus in collaboration with partner governments in developing countries. Where appropriate, donor agencies may consider commissioning an intermediary to undertake a feasibility study, which would assess whether or not a DIB may be a suitable mechanism for funding interventions to address the social issues at hand.

In the scenario where the donor agency develops an outcomes funding model using a Development Impact Bond, it would be in charge of procuring either an intermediary or

service providers to deliver the DIB contract. The donor agency would work in partnership with the intermediary/service providers and investors to develop and refine the operating model, outcomes measurement and payment framework, and to develop the outcomes contract. Where possible, the donor agency should engage early with the partner government to assess the potential roles that it can play in the DIB project, for example as a co-funder of outcomes or to co-monitor the DIB contract.

Another possibility is that service providers, foundations, partner governments or intermediaries may come to donor agencies with ideas for DIB models seeking outcomes funding. We hope that in such circumstances donor agencies would be open to considering testing such innovations on the basis that they will only pay if results are delivered.

During delivery of the outcomes contract, the role of the donor agency will be to provide high-level monitoring of programme results, authorise outcome payments (based on independently reported and/or independently verified results) and continue the dialogue with other DIB actors to ensure that the DIB continues to meet the strategic goals of both outcomes funders and the partner government. Where outcomes reports from the intermediary and service providers highlight barriers to achieving outcomes, the donor agency could work in a collaborative manner with DIB partners to help overcome these challenges and to enable improved delivery of results.

It is essential that Development Impact Bonds – in particular pilot projects – are evaluated rigorously to ensure that lessons learnt are used to inform the design of future DIB programmes. The donor agency has an important role in ensuring that this evaluation process takes place, for example by funding evaluation and ensuring contract and outcome transparency, so that lessons can be learnt and shared to inform future contracts. Such lessons learnt can include, for example: whether and how the structure changed incentives; whether and how the structure led to greater innovation; and whether and how it resulted in greater efficiency in terms of services, stakeholder relationships and value for money.

## 2. DEVELOPING COUNTRY GOVERNMENT

As with any development programme, wherever possible Development Impact Bonds should be structured to avoid setting up systems that are parallel to a government's own systems. In most cases, it is expected that the government would work with outcomes funders and other DIB actors to agree the target population and definition of success for the programme before commencement. The subsequent role of the government in the partner country will vary from one context to another but is an important consideration in structuring DIBs.

Possible roles for the government include:

### **Funder or co-funder of outcomes**

Some emerging or developing country governments – whether national, regional or local – may be able to fund outcomes entirely from domestic resources (i.e. with no donor funding, although possibly with donor technical assistance). In that case the structure would be a Social Impact Bond along the lines of the existing SIBs. In some cases however, there may be mixed donor and developing country government funding of the Impact Bond outcomes, in which case the structure would be a Development Impact Bond because of the presence of donor funding.

### **Service provider**

It is possible that government entities, particularly at a local level, could be service providers contracted under a DIB structure. Attracting investment into government services may pose more of a challenge than funding private (either not-for-profit or for-profit) providers. This is in part because switching providers or pushing for service improvement in the event of poor performance would likely be more problematic. In some contexts though, using this model to provide additional funding and improved coordination for public services may be a viable approach.

### **Co-monitor of contract**

Where services are delivered by private providers, governments could have a role in contract oversight. Donor agencies could use DIBs to support capacity building by creating mechanisms to improve host country governments' capacities to define and monitor outcomes-based contracts, develop robust data systems and scale up successful programmes. The extent to which developing country governments are involved in monitoring contracts during service delivery will need to be judged on a case by case basis. In cases where the public sector is lacking in its ability to provide basic social services, DIBs could provide a mechanism for coordinating non-government providers towards outcome delivery.

## **3. INVESTOR**

Within a DIB framework, private sector investors provide upfront funding to service providers to enable the delivery of improved development outcomes. Since outcomes funders only make payments if agreed outcomes are achieved, investors bear the risk of failure. The alignment of investors' financial returns to the achievement of social outcomes means that there is a strong incentive for investors to manage their investment risk by bringing discipline and rigour to performance management and outcome measurement, most likely through the hiring of a performance manager (e.g. through an intermediary) to oversee the DIB on a day-to-day basis and maximise the likelihood of them receiving a return on their investment. The involvement of investors in the financing of the DIB could therefore help to increase the likelihood of ultimately achieving social outcomes and financial returns.

Prior to committing finance to a DIB project, investors would undertake in-depth due diligence to assess the risk-return profile of the investment proposition. Whilst investors will likely carry out desk research, meetings with the relevant DIB parties and on-site visits themselves, they may also rely on an intermediary to support them in, for example, the due diligence of the intervention model and potential service providers (e.g. in terms of their organisational capacity, financial status, delivery track record and governance structure).

To manage their investment risk, investors would ensure that qualified personnel and robust systems are in place to provide day-to-day performance management of the portfolio of service providers. Investors could either perform this performance management and coordination role themselves or commission a third party performance manager to carry out this function. Where barriers to achieving targeted outcomes are identified, investors and/or their appointed representatives will work with relevant DIB parties to resolve these issues, such that outcomes can be delivered.

#### 4. SERVICE PROVIDERS

The service providers are selected and commissioned by the investor or by their appointed representative. Unlike in Results-Based Financing contracts, the service provider is financed upfront by investors to deliver interventions and therefore does not bear all the risk of non-delivery of outcomes. Given that the DIB would likely be funding a portfolio of service providers in order to achieve desired outcomes, different providers are encouraged to work in collaboration and with target beneficiaries and communities to both complement the expertise and interventions carried out by one another and ensure the interventions are well suited to the needs of the target population.

The nature of the DIB requires rigorous measurement and evaluation of outcomes and the service providers play an important role in the collection and reporting of inputs, outputs and outcomes data. Based on this data (which is quality-checked by investors and/or their appointed representative), the efficiency and quality of services delivered, and the effectiveness of interventions in achieving desired results can be assessed. Where areas for improvement are identified, the service providers will work with investors and/or their appointed representative to make adjustments such that better outcomes can be achieved.

#### 5. VERIFICATION AGENT

Rigorous and reliable information about the outcome measurements is critical to the DIB approach. The verification agent is the organisation contracted to audit delivery of the outcomes agreed in the outcomes contract, based on which outcomes funders make payments to investors if outcomes are successfully achieved.

It is highly recommended that outcomes funders ensure that outcome metrics are independently verified by a third party to ensure all DIB parties have confidence in the reported results. A verification agreement between the outcomes funder and the verification agent specifies the scope and methodology of the verification exercise.

#### 6. INTERMEDIARY

The term intermediary has been used here to mean a third party acting as a financial intermediary and/or a coordinating agency. In the development of Social Impact Bonds, intermediaries have played a key role in bringing all the parties together to make the transaction happen. This role, which involves representing the parties not in the room and negotiating an agreement that fits the needs of all those engaged in the process, is likely to be just as important in the context of DIBs.

In addition to the role of intermediation, there are a number of additional roles in building and implementing DIBs which need a combination of mission-driven ethos and analytical rigour where an intermediary can play a part. These include feasibility assessment, contract development, capital raising, due diligence, performance management, service commissioning and capacity building. They are outlined below from the perspective of the key stakeholder engaged. In early DIBs, as in SIBs, a single organisation may play all these roles. Over time, and as the market develops, different organisations are likely to take on different roles in a given transaction and outcomes funders, partner government, investors and service providers may develop the capability and capacity to take these on themselves. The intermediary may then play a lighter touch role, for example only taking part in the capital raising process or taking on the performance management role.

### **Outcomes funders/partner government perspective – feasibility assessment and contract development**

From the outcomes funders and partner government's perspective, an intermediary could provide support in developing outcomes-based contracts that are of interest to social investors, making it possible to i) raise capital for the pre-financing of desired interventions and ii) involve a private-sector stakeholder group that takes on the risk of failure to deliver outcomes and that is therefore incentivised to drive the achievement of those outcomes. Intermediaries could also support the design of the procurement process, where necessary, to enable social investment to play a role in financing the contract.

In Development Impact Bonds where the intermediary is responsible for commissioning service providers to deliver interventions on behalf of investors, the outcomes funders and partner government will not have a direct contractual relationship with service providers (see Section F below on DIB structures). In this case, the outcomes funders and partner government can focus on evaluating the outcomes of the programme, rather than having to manage each individual service provider contract and having to coordinate activities between providers on the ground. The intermediary will report regularly to the outcomes funders and partner government, providing information on key performance indicators and highlighting challenges that need to be resolved in order to improve the delivery of results.

### **Investor perspective – due diligence and performance management**

From the investor perspective, intermediaries can bring knowledge of outcomes contract design and implementation to the DIB project (see Box 2 p.28, in Section 1 for more on how intermediation works in the Peterborough Prison Social Impact Bond). The intermediary understands investor needs and priorities and can reflect these in discussions with the outcomes funders, partner government and service providers when developing the DIB contract to ensure that the investment proposition remains attractive to investors.

Where intermediaries act on behalf of investors post contract completion, they can bring contract management and stakeholder engagement expertise to the project, helping to ensure engagement of key parties in supporting contract delivery and ensuring that potential risks to the project are properly managed and mitigation strategies are in place. It is important that intermediaries playing this role have experience in establishing robust performance management and monitoring systems, such that project needs, activities and outcomes can be monitored and can be used as active, diagnostic tools to highlight opportunities to improve the services delivered. This can help to reassure investors that services will be delivered efficiently and effectively, increasing the chances of generating improved outcomes and thereby reducing the financial and reputational risks associated with the investment. Such an intermediary would report regularly to investors to keep them updated on progress. For more on the role of the intermediary and performance management of the Peterborough SIB please see p. 28.

### **Service provider perspective – commissioner and capacity builder**

Service providers, with existing relationships to service users and their communities, may be well placed to assess what will work and hence may benefit from outcomes-based contracts in which the service offering is less tightly specified. However, many providers may be unfamiliar with the requirements for delivering in an outcomes-based contract and in the earlier stages of the DIB development process, an intermediary could support service providers in thinking through the necessary processes and resources needed for participation in a DIB.

In the later stages of the DIB development process, an intermediary may be responsible for commissioning service providers on behalf of investors. Such intermediaries can also play an important role in capacity building, such that service providers are supported in developing the processes and systems necessary to deliver services within an outcomes-based contract. For example, the intermediary may work with the service provider to establish data monitoring and evaluation systems to keep track of project expenditure, management information and outcomes.

## E. RESOURCE AND EXPERTISE REQUIRED TO DEVELOP DIBS

At this early stage, the development of high quality DIBs is likely to require considerable thought and collaboration between key stakeholders. This section discusses potential activities and outputs at each stage (see Figure 9, p. 92 for a summary), alongside the range of skills and expertise required.

### 1. DIB IDEA GENERATION

A DIB idea usually comes in the form of a problem where, for example, present funding models may not be producing ideal results, where implementation is perceived to carry significant risk, or where the model needs significant last mile adaptation over time or by creation.

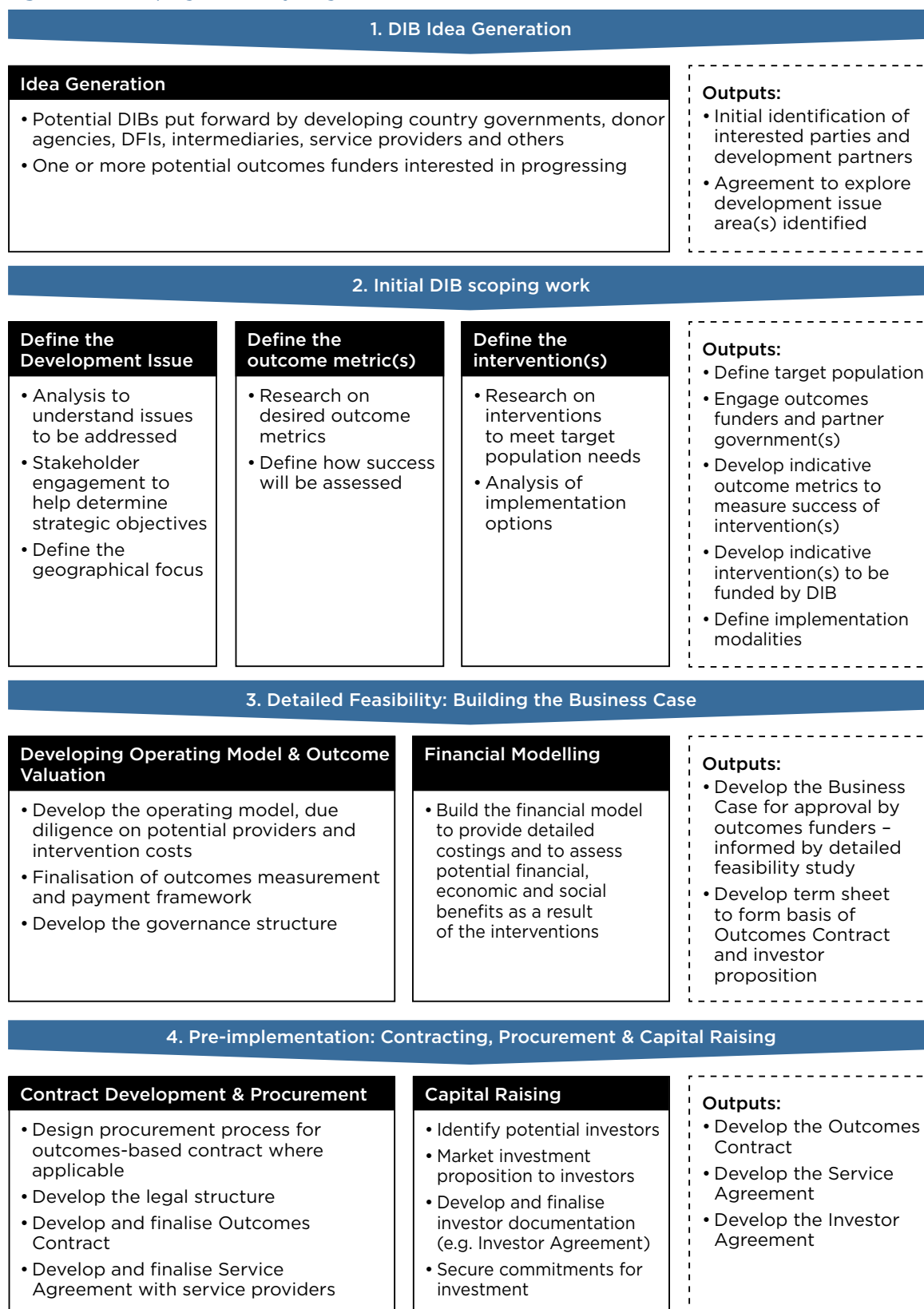
Ideas for DIBs may come from a number of sources. The models put forward in this report were initiated by two development agencies, two intermediaries, a development finance institution and a service provider. Over time, the outcome nature of DIBs should allow ideas to be brought forward from the field and tested by development agencies or other outcomes funders on an experimental basis. In order to progress to a scoping or feasibility assessment, which is likely to require significant time and effort, we recommend that one or more potential outcomes funders have been engaged and have expressed an interest at the idea generation stage.

### 2. SCOPING WORK

At the scoping stage, the social issue that the DIB is looking to address needs to be further analysed and understood. Outcomes funders may choose to commission a third party to undertake data analysis in order to understand population trends, identify the geographical focus and determine clear criteria against which the target population can be identified. Potential outcome metrics and ways of measuring success are developed through consultation with all DIB actors (e.g. partner government, outcomes funders, investors, potential service providers and beneficiaries). These will form the basis on which outcome payments are made. In addition to identifying outcome metrics, research will need to be carried out to identify interventions that address the needs of the target population and have potential to achieve the desired outcomes.

Development agencies or outcomes funders may be tempted to attempt much of this work in isolation. The learning from developing early SIBs is that they should resist this temptation. Extensive stakeholder engagement and coordination are required to develop a thorough understanding of the social issue and strategic objectives of outcomes funders and other parties. In early DIBs we expect that an intermediary, preferably with experience in designing outcomes-based contracts, is likely to be helpful in building the case for DIB feasibility and to coordinate input into the DIB project from multiple stakeholders (see Section D for further details on the role of intermediaries).

**Figure 9: Developing a DIB: Key stages**



### 5. Service Delivery, Contract & Performance Management

Service Delivery, Contract and Performance Management	
<ul style="list-style-type: none"> <li>• Mobilisation of service delivery providers</li> <li>• Contract management</li> <li>• Data collection and analysis</li> <li>• Develop and finalise Verification Contract between outcomes funder and verification agent</li> <li>• Independent verification of reported results</li> <li>• Reporting to outcomes funders / partner government / investors</li> </ul>	<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Delivery of services</li> <li>• Ongoing management / outcomes reports to outcomes funders / partner government</li> <li>• Verification Contract between outcomes funders and verification agent</li> <li>• Verification reports from verification agent to outcomes funders / partner government / investors</li> </ul>

### Stakeholder Engagement Throughout

Stakeholder Engagement	
<ul style="list-style-type: none"> <li>• Stakeholder engagement throughout each stage of DIB development process</li> </ul>	<p><b>Outputs:</b></p> <ul style="list-style-type: none"> <li>• Government, outcomes funders, Service Provider(s) and Investor(s) satisfied with project progress and resulting contracts</li> </ul>

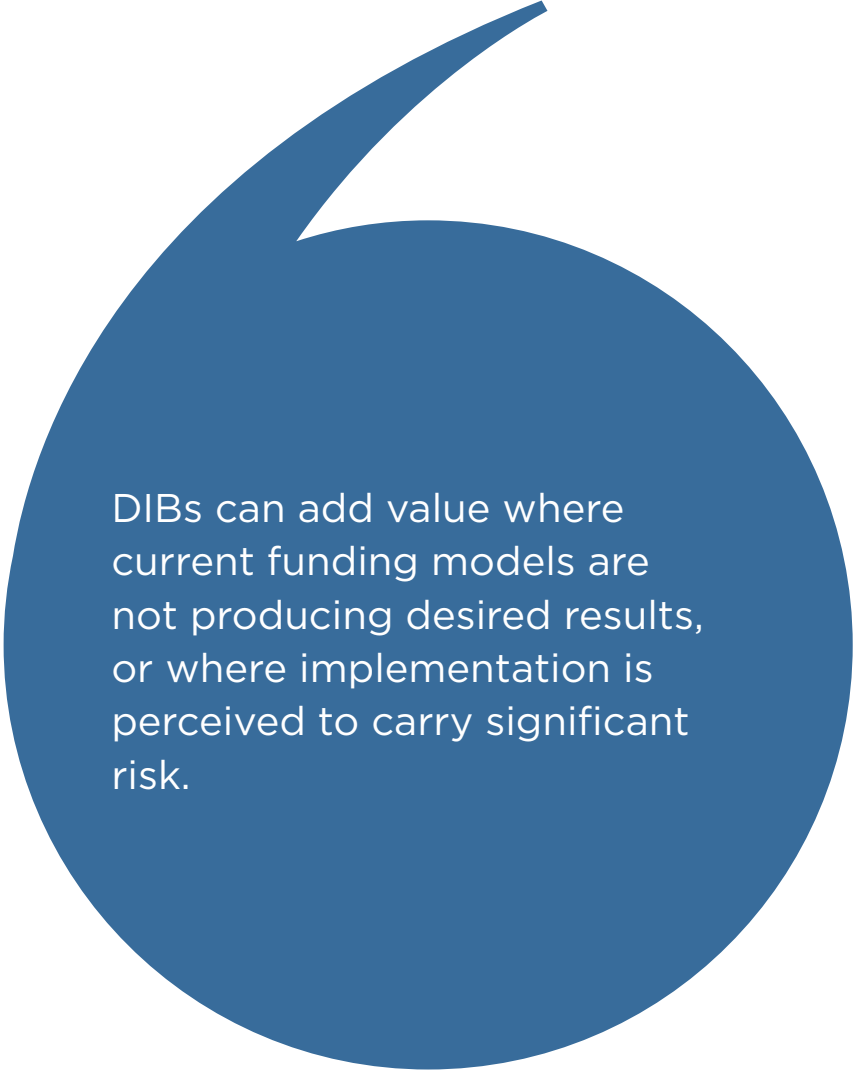
### 3. DETAILED FEASIBILITY

For a DIB to be feasible, there must be an outcomes funder (or funders) willing to commit to pay for outcomes if DIB-funded interventions are successful. Intermediaries can provide support to outcomes funders in undertaking detailed feasibility work and in developing a DIB business case, which can assist outcomes funders in finalising their decision to fund outcomes through a DIB.

The business case outlines a detailed operating model and outcomes measurement and payment framework. The operating model sets out indicative programme delivery costs and describes how the proposed interventions will fit with existing infrastructure and services. The outcomes measurement and payment framework forms the basis of the DIB outcomes contract, providing detail on the conditions under which outcomes funders will make payments to DIB investors.

Intermediaries can assist outcomes funders in performing financial analysis to test different ways of structuring outcome payments and to assess the financial and social benefits resulting from DIB-funded interventions under different success scenarios. A term sheet can then be developed, outlining the key terms and conditions of the outcomes contract. Intermediaries can also bring an understanding of potential investor needs to the project and can undertake an initial marketing exercise of the investment proposition to potential investors at this stage. This helps to ensure that the outline terms proposed will be successful in attracting investment from potential investors.





DIBs can add value where current funding models are not producing desired results, or where implementation is perceived to carry significant risk.

#### 4. CONTRACTING / PROCUREMENT / CAPITAL RAISING

During the contracting stage, key terms in the outcomes contract such as the target population, investment obligations, outcomes definition, payment mechanism, reporting framework and verification processes will need to be finalised. If a partner has not yet been formally selected at an earlier stage then a procurement process to select an intermediary or service provider(s) to deliver the DIB contract may be needed. At this stage, detailed discussions are held between outcomes funders and the intermediary/service provider(s) to discuss and agree key contract terms. Input from legal experts into contract development will also be necessary. Where an intermediary is commissioned to deliver the DIB contract, it will also need to draw up service agreements with the service providers it subcontracts.

With regard to capital raising for the DIB, an intermediary with access to investor networks and the necessary regulatory authorisation (e.g. FCA or SEC equivalent) can help market the investment proposition to investors and secure commitments for investment into the DIB. The capital raising exercise will likely involve the development of investor materials (including an Information Memorandum and investor presentations) and the presentation of the investment proposition to investors. An investor agreement will need to be developed and agreed, which specifies the amount and timeline for drawdown of capital from investors and the terms under which payments are made to investors.

#### 5. SERVICE DELIVERY / CONTRACT AND PERFORMANCE MANAGEMENT

Once the outcomes contract is agreed and financing commitments are secured from investors, the mobilisation of services can begin on the ground. A key benefit of DIBs is that high quality data collection is built into the model; tracking performance is an ongoing process overseen by actors who have financial returns at stake and are able to adapt intervention models that are not achieving optimal results. The model creates incentives to put in place good data tracking systems where they do not exist.

Contract and performance management will be carried out on an on-going basis by investors, or more typically by a performance manager representing their interests, to ensure that the quality of the service being delivered is sustained. The performance manager may be hired by investors, or by an intermediary contracted to manage service providers and coordinate activities on the ground. On-going engagement with local stakeholders by service providers and by the performance manager will be needed to sustain buy-in for the programme.

The investors or performance manager will work with service providers to establish data monitoring and evaluation systems which enable periodic collection and analysis of management information and outcomes data throughout the course of the programme. Outcomes reports will be submitted by the performance manager or service providers to the outcomes funders, providing data on whether or not agreed outcomes metrics have been achieved.

Outcomes funders will be involved in the high-level monitoring of programme results and authorisation of outcome payments where these are due. Outcomes funders should commission either an independent third party to undertake measurement or an independent verification agent (potentially a consulting/research firm) to audit and verify the accuracy of reported outcomes if there are sufficiently rigorous measurement systems already in place. Based on the results of this measurement and verification process, the level of outcomes payments due can then be determined.

Early implementation of Social Impact Bonds in the UK has shown the value of investing in data systems to enable routine monitoring of performance. Even if outcome payments are not triggered and investors lose all or part of their investment, commissioners and service providers have gained a way to assess the performance of the services they are paying for, leading to more efficient and effective management of public money in the longer term. For more on performance management [see p.28 for an overview of the Peterborough SIB](#).

## F. DIB STRUCTURES

During development or after agreement of the business case by outcomes funders and other stakeholders, consideration will need to be given to the potential DIB structures.

There are several ways to contract a DIB and the appropriate legal structures depend on a number of factors. In particular, the roles that different DIB parties intend to play and the desired level of flexibility to adapt service provision to changing circumstances will determine the contractual relationships between the various parties. Two examples of DIB structures are illustrated below.

### **Contracting via a New Corporate Entity**

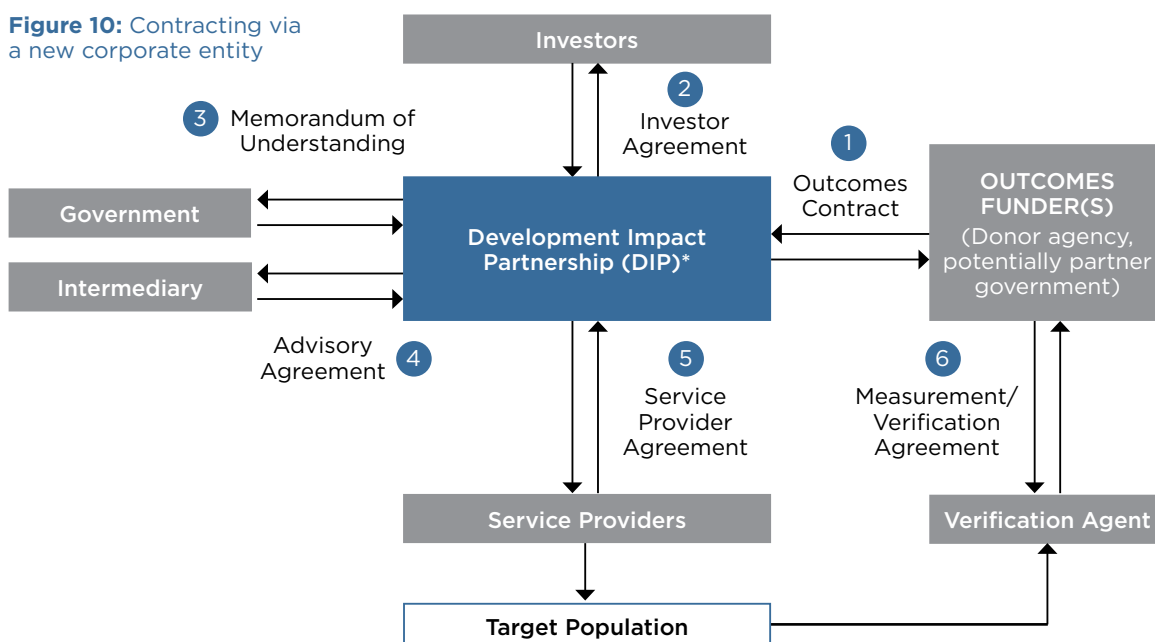
In this scenario, contracts are held by the Development Impact Partnership, a new corporate entity established for the purpose of holding investment from DIB investors and for holding contracts with the various parties. These parties include: the outcomes funders, developing country government, service providers, investors and the intermediary.

This structure allows investors greater flexibility to change providers or allocate resources differently depending on measured performance and impact. Since it is the new corporate entity which subcontracts service providers to deliver services – rather than the outcomes funder directly contracting with service providers – the new corporate entity has flexibility to subcontract with additional providers where new needs emerge or to change providers where necessary, without impacting the outcomes contract between it and the outcomes funder.

Funds flow from investors to the new corporate entity, which is then used to finance service providers' delivery costs upfront. If outcomes are achieved, payments flow from the outcomes funders to investors via the entity, which is contracted by the outcomes funder to deliver the DIB contract.

*Figure 10* below illustrates how this contracting structure works in practice and the various legal agreements that sit between the DIB parties.

**Figure 10:** Contracting via a new corporate entity



- 1 **Outcomes Contract** between the DIP (a new corporate entity) and Outcomes Funder(s) \* New Corporate Entity
- 2 **Investor Agreement** between the DIP and investors, specifying capital drawdown schedule
- 3 **Memorandum of Understanding** between the developing country government and the DIP
- 4 **Advisory Agreement** between the DIP and the intermediary
- 5 **Service Agreements** between the DIP and each individual service provider
- 6 **Measurement/Verification Agreement** between Outcomes Funder(s) and a selected verification agent, who will measure or audit the results

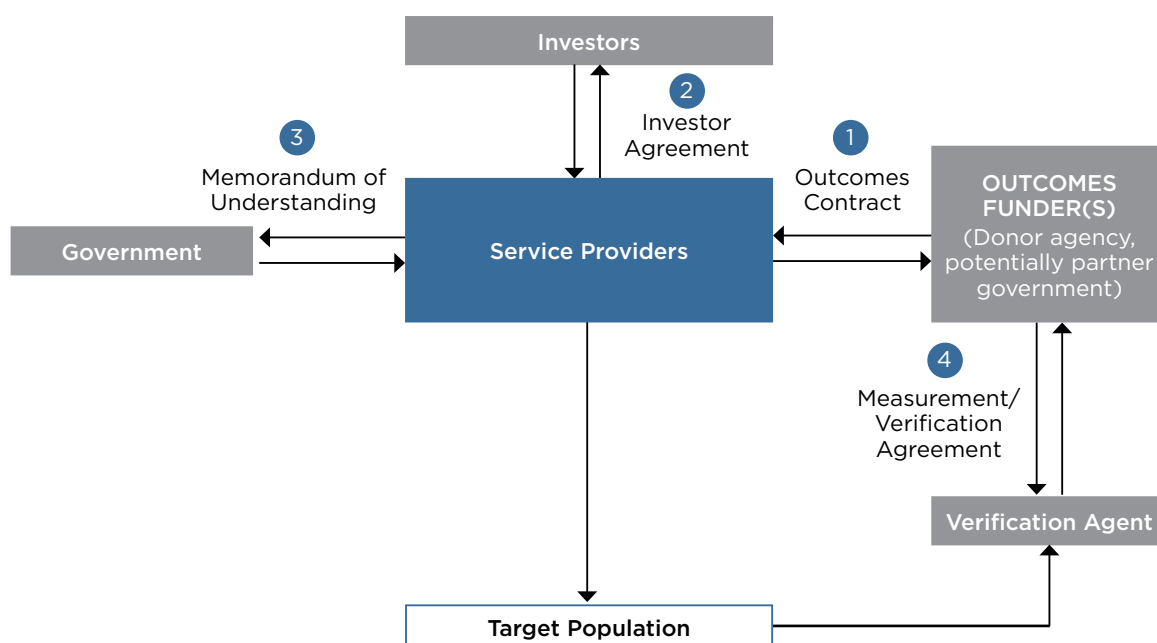
**Contracting via a New Corporate Entity**

- 1 **Outcomes Contract:** This details the relationship between the Outcomes Funders and the new corporate entity (the organisation responsible for designing and implementing the strategy to deliver outcomes), under which payment from outcomes funders is contingent on the new corporate entity achieving agreed social outcomes. Donor agencies and partner governments could be involved as co-commissioners of outcomes.
- 2 **Investment Agreement:** This is an agreement between the new corporate entity and investors, specifying how much investor capital will be drawn down (and the timeline for drawdown) and terms under which payments are made to investors.
- 3 **Memorandum of Understanding:** Depending on country circumstances, there could be a formal Memorandum of Understanding between the government and the Development Impact Partnership, which defines the government's objectives and the manner in which the DIP helps to meet them.
- 4 **Advisory Agreement:** If the new corporate entity has an intermediary acting on its behalf in terms of performance management, data monitoring or evaluation, there will also be an advisory agreement between the new corporate entity and the intermediary detailing the services to be supplied by the intermediary and the fee paid by the new corporate entity for these services.
- 5 **Service Provider Agreement:** There will be a service provider agreement between the new corporate entity and each of the service providers, specifying what services will be delivered, payment and reporting schedules.
- 6 **Measurement/Verification Agreement:** This is an agreement between the outcomes funders and the measurement/verification agent, the organisation contracted to independently measure outcomes or audit the results reported.

### Direct contracting between outcomes funders and service providers

In this scenario, the outcomes-based/payment-by-results contract is between the outcomes funders and a lead or sole service provider. There is an investor agreement directly between investors and the service provider. This structure reduces the potential to switch (or add) providers further down the line, since the outcomes contract is between the outcomes funders and a particular service provider. Investors may therefore wish to do greater due diligence on the service provider and its management capacity.

**Figure 11:** Contracting directly between outcomes funders and service providers



- 1 **Outcomes Contract** between the service provider and Outcomes Funder(s)
- 2 **Investor Agreement** between the service provider and investors, specifying capital drawdown schedule
- 3 **Memorandum of Understanding** between the developing country government and the service provider
- 4 **Measurement/Verification Agreement** between Outcomes Funder(s) and a selected verification agent, who will measure or audit the results

#### Direct contracting between outcomes funders and service provider

1. **Outcomes Contract:** This details the relationship between the outcomes funders and the service provider (the organisation responsible for designing and implementing the strategy to deliver outcomes), under which payment from outcomes funders are contingent on the service provider achieving agreed social outcomes. Donor agencies and partner governments could be involved as co-commissioners of outcomes.
2. **Investor Agreement:** This is an agreement between the investors and the service provider, specifying how much investor capital will be drawn down (and the timeline for drawdown) and terms under which payments are made to the investors.
3. **Memorandum of Understanding:** Depending on country circumstances, there could be a formal Memorandum of Understanding between the government and the service provider, which defines the government’s objectives and the manner in which the service provider helps to meet them.
4. **Measurement/Verification Agreement:** This is an agreement between the outcomes funders and the measurement/verification agent, the organisation contracted to independently measure outcomes or audit the results reported.

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## FAQs

### **1 Are Development Impact Bonds really bonds?**

Development Impact Bonds (DIBs), like Social Impact Bonds (SIBs), are results-based contracts in which private investors provide pre-financing for social programmes and public sector agencies pay back investors their principal plus a return if, and only if, these programmes succeed in delivering social outcomes. Unlike SIBs, DIBs involve donor agencies, either as full or joint funders of outcomes. Because repayment to investors is contingent upon the achievement of specified social outcomes, DIBs are not “bonds” in the conventional sense.

This type of approach to financing and delivering social services has been given many names in different countries, including “Social Impact Bonds” in the U.K. and Ireland; “Pay for Success” in the U.S.; and “Social Benefit Bonds” in Australia. The principle of all of these approaches is the same: investor returns are linked to results, driving results-focused social programmes.

Although the risk-return profile will vary with each DIB, in many cases a DIB may be more similar to an equity investment than a debt investment. With a debt investment, the business borrowing the money has to repay the original amount invested, plus an interest charge, within an agreed timeframe, regardless of how well or badly the business is performing. By contrast, when an equity investment is made, money is invested in a business in the form of shares and there is no requirement for the business to repay the cash – instead, the investor makes a return through dividends on their shares (payable when the business performs well) and by selling the shares in the longer term.

### **2 Who might invest in Development Impact Bonds?**

Among private investors, there is a spectrum of investors with different objectives and risk appetites. At one end of the spectrum are investors who expect a social return but no financial return (e.g. charities making grants); at the other end are investors who expect double-digit financial returns, without necessarily any social return (e.g. private equity investors).

Because DIBs have yet to be tested, initial investors are likely to consist of socially motivated individuals and organisations with an appetite for risk – i.e. willing to sacrifice some (if not all) financial returns in exchange for potential social returns. These might include trusts and foundations, development finance institutions and high net worth individuals with a significant interest in the target geography and/or social issue. Private institutional investors, on the other hand, may have less appetite for the high risks entailed in development programmes, and may not come on board until the DIB model develops a track record of success.

### **3 Why do investors receive a positive financial return in the event of success? Aren't they making money from the poor?**

The transfer of risk from public agencies to private actors is an essential feature of Development Impact Bonds. High levels of risk, among other factors, can prevent public agencies – typically donors working with national governments – from investing adequately in prevention, or in innovative approaches where there may be some uncertainty as to

expected results; when they do invest in social programmes, public agencies are often forced to micro-manage inputs (i.e. how funds are spent) to minimise risks of failure, thus inhibiting a results focus and flexibility in programme implementation. By bringing in private investors who provide upfront funding, DIBs allow public agencies to transfer the kinds of risk that are keeping them from investing in socially desirable interventions.

However, risk transfer is not free. Investors must be compensated for the risk of losing money. As a general rule, the greater the risk investors believe they are taking, the higher the financial return they will require for their investment. The perceived level of risk transfer, and the required level of financial returns, will also be greater the more a risk is believed by investors to be outside of their control. If donors were to fund the programmes themselves, they would be the ones taking on the risk of failure, as they would have to pay for services regardless of whether or not they were successful in delivering outcomes.

There are additional benefits to private sector involvement beyond risk transfer. The alignment of financial and social returns creates incentives for the private sector to work more efficiently (see FAQ 6), such that: new approaches are tested; performance is rigorously monitored; and service delivery is enabled to respond to new data as this is collected and analysed. The private sector may also be less susceptible to political pressures to misallocate resources. However, purely private sector solutions can suffer from problems of equity and access. DIBs can harness the strengths of private sector management, while ensuring that the programme is designed to enable access to services for those who would otherwise not have received them.

#### **4 What kinds of financial returns can investors expect to make?**

Investors must be compensated appropriately for the risks they undertake. The greater the risk investors believe they are taking, the higher the financial return they will require for their investment. Given the dual interest of DIB investors in both social and financial returns, with most investors likely to be impact-first (rather than finance-first) investors, especially in early DIBs, there will be a limit to the level of returns that DIB investors can expect. Key DIB parties will need to develop DIBs collaboratively so contracts offer good value for money to outcomes funders (i.e. donors), whilst remaining an investible proposition for investors.

#### **5 Isn't this just an expensive way for the government to fund programmes?**

Development Impact Bonds represent a way for donor agencies and partner governments to be more innovative and transfer risks associated with delivering successful outcomes to investors; outcomes funders pay if, and only if, pre-agreed outputs and outcomes are successfully achieved. There is therefore particular value to outcomes funders in transferring risk if there is uncertainty or complexity around what works in a particular social issue area or context. For example, private sector rigour and accountability mechanisms may make investors better placed to manage risk around delivery and implementation (see FAQ 6). The financial incentive associated with this risk transfer provides investors with an incentive to monitor and react quickly to poor performance to ensure that outcomes are successfully delivered.

When assessing whether a DIB proposition represents good value for money compared with other approaches, it is important to take into account different success scenarios. Where similar programmes have been funded historically via traditional aid contracts, the average cost of delivering outcomes across both successful and unsuccessful programmes in the social issue area needs to be taken into account when assessing the average cost of

delivering outcomes. If funders only considered the maximum possible cost of a DIB (i.e. when the highest possible level of success is achieved) this would not be a true reflection of DIB costs.

DIBs won't be suitable for every problem in development, but in many cases it will be worth considering whether the approach can lead to better results, produced more efficiently than with alternative approaches.

## **6 Are DIBs really worth the added costs?**

Due to the nature of the DIB structure and emphasis on achievement of outcomes, the added costs of setting up an investment vehicle and systems to support data collection, monitoring and evaluation – critical to measuring and assessing outcomes – mean that DIBs may initially appear more expensive than other, non-results based, aid programmes. However, the additional expenditures have significant benefits.

For example, early implementation of Social Impact Bonds in the UK has shown commissioners and service providers the value of investing in data systems to enable routine monitoring of performance. Specific day-to-day management and data analysis performed by Social Finance on behalf of investors in the Peterborough SIB (focused on reducing the reoffending rates of short term prisoners) includes: collecting data around client needs and services; tracking performance along key agreed indicators; and discussing monthly performance data and potential changes to services with the service providers involved.

Data and analysis performed can have a direct effect on the way services are shaped and delivered. For example, in the Peterborough SIB, it was identified that unresolved mental health issues had a statistically significant and substantive impact on the cohort's reoffending behaviour; this information led to the commissioning of an additional and complementary low-level mental health intervention.

In addition to investing in improved data and monitoring systems throughout the course of a programme, there is significant value to rigorous, independently verified outcomes data. This includes being able to assess what public money has been spent on and what has been achieved using that money, and increasing accountability and transparency to both target beneficiaries and taxpayers in donor countries. Many argue that such systems should be an important part of designing and implementing all types of aid programmes, but linking investor returns to verified results creates the incentives to put high quality data systems in place. Even if outcome payments are not triggered and investors lose all or part of their investment, commissioners and service providers have gained a way to assess the performance of the services they are paying for, leading to more efficient and effective management of public money in the longer term.

The other aspect of DIBs that can make them appear costlier than alternative funding approaches is that, if programmes are successful, investors get paid a return. However, this must be considered within the context of the risks that a DIB holds. The lower the risks investors are taking and the greater control they have over the risks they hold, the lower the financial return they will require for their investment. Outcome funders only pay if there is clear evidence that the programme has succeeded in achieving outcomes (see FAQ 3 and 5).

## **7 Are Development Impact Bonds a mechanism for privatisation by the back door?**

Because of the involvement of private investors and the latitude afforded to them to choose interventions and service providers, critics may accuse DIBs of representing a new form of government privatisation. This criticism belies a misunderstanding of the DIB model and how it works.

First, DIBs take programmes that have a poor record of attracting funding – by both private and public sectors – and turn them into investment opportunities. DIBs are not intended to take programmes adequately funded by government and outsource them to private sector actors; instead, they are intended to create incentives to invest in socially desirable programmes that would otherwise be neglected due to, for example, risks associated with their delivery, their lack of political salience, inefficiencies in public spending, or short-term election cycles.

Second, the involvement of private investors is intended to better align incentives – of all stakeholders, not just private investors – with the achievement of social outcomes. The first step to implementing a DIB is to identify a robust, independently viable outcome, or combination of outcomes, that captures accurately the intent of the project for both public and private sector actors. This is different from privatisation, where a public agency simply contracts out services to a private entity, whose financial interests and incentives may be at odds with that of the public agency.

Moreover, Governments have a critical role in DIBs – they need to be fully supportive of the programmes, and confident they meet their national goals and priorities. The precise role of the host country government in implementation will vary, including but not limited to service provider and co-monitor of contracts. Moreover, should DIBs prove successful in scaling a specific intervention, governments may then choose to fund the intervention directly, obviating the need for a DIB structure.

## **8 How can Development Impact Bonds support the capacity development of host country governments?**

Donors should avoid projects that create parallel systems and thus undermine the capacity of host country governments. The aim of DIBs is to create incentives to invest in socially desirable programmes that would otherwise be neglected under prevailing funding models, and their focus should be to strengthen the host government's capacity to collect and measure data, commission services, and co-manage contracts rather than create unnecessary, duplicative parallel systems.

Moreover, DIBs are focused on scaling innovative, evidence-based interventions that tackle the root causes of poverty. It is understandable – perhaps even desirable – for such interventions to come from and be tested outside of government, as governments – both in developed and developing countries – are generally more constrained in what they can and cannot spend public resources on.

## **9 Can DIBs create a better mechanism for service user feedback?**

By tying investor returns to achievement of social outcomes, DIBs create incentives for investors to put in place the necessary feedback loops, data collection and performance management systems necessary to achieve desired outcomes. The collection of up-to-date information from customers enables service provision to quickly respond to new needs and circumstances as these emerge, resulting in a more bottom-up, client-centred approach.

## **10 Could Development Impact Bonds work in a context where there is limited data?**

Results-based approaches depend on access to good data, which may be limited: statistical codes of practice may not exist or may be poorly implemented; resources may not be sufficient to ensure robust data; fraud may occur; and government administrative sources may be slow, inhibiting results-based approaches which need timely access to information.

Because DIBs are not yet a tested instrument, initial pilots will probably focus on countries and/or sectors where either reliable data already exists, or cost effective ways to collect data can be found, even if it means starting small. Once DIBs get off the ground and are proven to deliver results, they can expand into areas that could benefit from a DIB but that currently lack sufficient data systems to measure and track outcomes. In such contexts, outcome funders and/or investors could provide additional resources (not necessarily on an outcomes-basis) to help build local governments' capacity to collect and measure its own data.

## **11 Don't DIBs put too much focus on quantitative social indicators and can't these indicators be gamed?**

As with other results-based approaches, funding under DIBs is linked to results which must be quantitatively measured. Independent verification of outcomes is therefore a critical part of DIB design to ensure that the outcome funder (donor or government) is paying for something that actually happened. Outcome metrics, and how they will be verified, must be carefully defined at the onset of the project to minimise chances of perverse incentives or gaming.

The alternative to paying for results – paying for project inputs – is more problematic because it often leaves funders unsure of the outcomes of their programmes. DIBs put in place the incentives to get good quality measures of development outcomes and evidence of what strategies lead to those outcomes.

## **12 What is the difference between DIBs and existing results-based mechanisms?**

Results-based funding approaches to aid programmes have emerged as an alternative to traditional input-based funding and attempt to increase the effectiveness of aid. DIBs build upon the positive work that has already gone into the development of results-based funding programmes and share many of the advantages of other results-based approaches, for example, increasing accountability around the impact of aid funding. Many development challenges will be better suited to approaches that pay governments or service providers directly for results rather than via a DIB investment-backed mechanism. However, in some cases, DIBs could help to address the limitations of existing results-based mechanisms, thereby bringing additional benefits. First, existing results-based approaches require that service providers and/or the partner government provide pre-financing. This is not always possible, particularly for smaller organisations and/or developing countries with limited access to capital markets. By bringing in private investors to provide project financing, DIBs enable service providers and/or partner governments to access the finance they need to roll out interventions, but without compromising the results focus. This shifts risk from service providers or governments to private investors.

Second, by tying investors' financial returns to the achievement of social outcomes, DIBs create a distinct stakeholder group with a strong incentive to ensure effective and efficient delivery of outcomes. Private sector actors whose financial returns are tied to achieving social outcomes can make the process of monitoring and ultimately achieving outcomes more rigorous.

### **13 What is the difference between Development Impact Bonds and the IFFIm (International Finance Facility for Immunization) bonds?**

The IFFIm bonds were designed to raise funds for issues where frontloading of funds is essential; capital market investors provided funding for immunisation programmes, which require long-term budget and planning decisions, and donors made long-term pledges to pay investors their principal and a return. Returns to investors are not based on the success of the programmes; in contrast, a key feature of DIBs is that independently verified results are the trigger for payments back to investors.

Unlike the IFFIm bonds, DIBs are not meant to be only a financing instrument for social programmes, but rather a new model for how services are delivered. DIBs create partnerships that give private sector actors incentives to improve the efficiency and effectiveness of service delivery, and the financing mechanism allows this to happen.

### **14 Can donors make multi-year commitments to pay for outcomes?**

In most cases, DIBs will require governments and/or donors to: 1) obligate the full amount of funds for a successful outcome upfront, although there would be uncertainty as to the exact level of outcomes that would be achieved (and thus the amount of outcome payments due), and/or 2) make a binding multiyear commitment when laws require that budgets be set annually.

Governments and/or donor agencies will vary in their legal capacity to make such binding, long-term financial commitments. Laws may require that funds allocated for any given year be spent that year, whereas DIBs require funds to be committed flexibly, based on the level of success that programmes achieve and without a guarantee that any particular amount will be used to make an outcome payment. To maintain the integrity of the outcomes-based approach, outcome funders should make this funding flexible when possible (allowing, for example, funds that are committed but not disbursed in the first or second year of a pilot to be carried over) and avoid setting rigid expectations for results that will be reached.

Public sector agencies will have to consider their own legislative or budgetary systems to determine how outcomes-based programmes could be structured. They can explore options such as: funding initial DIB pilots with 'challenge funds' that are set up under alternative, more flexible budgeting rules, or setting up funds to absorb any payments that are committed but not disbursed because the expected level of outcomes was not achieved. These funds could be used in a number of ways: for example, they could contribute to the payments of other outcomes-based programmes funded by the same donor, where achieved results are greater than expected. They could also be used to pay for new programmes (not necessarily outcomes-based) designed to address issues that prevented the government or service providers from achieving expected results under the DIB.

### **15 Do outcome funders relinquish all control over how contract outcomes are delivered?**

Outcome funders constitute a key stakeholder within the DIB structure; they help define outcomes and ultimately pay for them if they are achieved. However, in principle, they should avoid dictating the means by which outcomes are to be achieved; prescribing solutions will not only compromise the results focus and flexibility in delivery to react to implementation challenges and client needs that are so fundamental to DIBs, but also make DIBs a less attractive business proposition to investors.



This can be a challenge given the need for donor agencies to be accountable for how public funds are used. Although they only pay for success, outcome funders must still ensure that outcomes have not been achieved at a broader cost, i.e. through corruption or violating social and environmental safeguards.

Therefore, although outcome funders should avoid prescribing how outcomes are reached, appropriate safeguards will also need to be carefully considered to ensure that outcomes funders are comfortable that interventions will be aligned with their ethical principles and social objectives. Outcomes funders should stipulate in the DIB contract broad parameters, or best practice principles (such as adherence to agreed standards of professional conduct, etc.), to ensure that interventions are in line with prevailing norms, laws and regulations, while giving service providers the flexibility they need to deliver outcomes.

#### **16 What kind of safeguards would be put in place to protect both investors and outcomes funders from risks out of their control, e.g. political risk?**

When structuring a DIB, it is important to identify the key risks of the programme and to be clear about who holds these risks within the DIB contract. The value of the model lies in the transfer of key delivery and implementation risks to investors who are better placed to manage them than the outcomes funder. However, the contract should also clearly lay out how payments will be settled in the event of an Act of God or force majeure occurrence which neither party has control over. For example, it may be the case that both the outcomes funder and the investors agree within the contract that further capital drawdowns/investment flows will be stopped under circumstances such as force majeure and agree some kind of political risk mitigation clause. From an investor's point of view, it is important that responsibility for certain risks, such as political risk, are clearly laid out in the contract so that they are able to price, monitor and manage their investment effectively.

#### **17 Is it possible to offer a guarantee to investors?**

Some examples of SIBs across the world have been structured with a guarantee of principal to certain investor classes. The idea of offering some form of guarantee to investors is possible if outcomes funders (or other stakeholders) are willing to provide it. Offering a guarantee which could, for example, take the form of full or partial protection of principal (or guarantee of outcome payments in the event that payments are not honoured by an outcomes funder), reduces the risk to investors and has the potential to widen the investor base, making it easier to raise capital. However, when considering structuring any form of guarantee, it is important to analyse what kind of effect this would have on the risk transfer proposition. One of the key benefits of the DIB model is that risks associated with delivering successful outcomes are transferred to investors, who then have a stake in those social outcomes; therefore, those structuring the DIB must be careful to ensure that incentives remain aligned with the achievement of outcomes at all times.

It may be the case that some of the risks being transferred to investors are ones which no stakeholder has full control over, for example political risk if operating in fragile states. For investors to hold these risks, they would either have to be compensated sufficiently, which may make the return higher than outcomes funders would want to pay, or be offered some kind of political risk guarantee to lower the risk profile of the investment.

## Glossary

Baseline	<p>A baseline is used to measure the progress of interventions in achieving target outcomes, against a scenario in which these interventions were absent. A number of different approaches to establishing a baseline can be taken depending on how and what is being measured.</p> <p><i>Historical Baseline:</i> For more information, <a href="#">see p. 75</a>.</p> <p><i>Live Comparison Group:</i> For more information, <a href="#">see p. 75</a>.</p> <p><i>Randomised Controlled Trials:</i> For more information, <a href="#">see p. 74</a>.</p>
Cash on Delivery Aid	<p>Cash on Delivery (COD) Aid is a type of outcomes-based contract pioneered by the Center for Global Development. Under COD Aid, donors pay partner governments for measurable and verifiable progress on specific, pre-agreed outcomes, i.e. \$100 for every child who completes primary school and takes a test above baseline.</p>
Capital Protection	<p>This is a protection provided to an investor against the loss on the initial amount invested. For example, if an investment has 100% capital protection, then the investor is guaranteed repayment of 100% of the amount of capital he or she invests.</p>
Capital Requirement	<p>The total amount of money needed from investors to fund a programme.</p>
Cost of Capital	<p>This is the rate of return that investors would expect to earn in an alternative investment of equivalent risk.</p>
Development Impact Partnership	<p>The Development Impact Partnership is a new legal structure established for the purpose of holding investment from DIB investors and for holding contracts with the various DIB parties.</p>
Evaluation	<p>Evaluation of development assistance describes what has happened and why, using reliable and transparent methods of observation and analysis.*</p>
High Net Worth Individual (HNWI)	<p>A high-net-worth individual is typically defined as a person having investable finance (financial assets not including primary residence) in excess of \$1 million.</p>
Inputs	<p>Inputs are the financial, human, and other resources required to achieve outputs in a given project, including time, people (staff, volunteers), funds, materials, equipment, and technology.</p>
Impact Investing	<p>Impact investing is an investment strategy whereby an investor actively seeks to invest their capital in companies, organisations and funds which aim to generate social as well as financial benefits.</p>
Institutional Investors	<p>Entities with large amounts of money to invest and a diverse portfolio of investments with which to spread their risk are termed institutional investors. These include: investment companies, mutual funds, insurance companies, pension funds, investment banks etc.</p>
Intermediary	<p>The term intermediary has been used here to mean a third party acting as a financial intermediary and/or a coordinating agency. Their role can range from supporting early feasibility studies and working with service providers, to engaging investors, capital raising and supporting performance management. In this early stage of development, intermediaries could play a vital role in championing the model, bringing relevant DIB parties together and helping to negotiate a solution that works for all parties. (<a href="#">See pp. 89–90 for more on the role of the intermediary</a>)</p>
Investment Class	<p>Investment class is the term given to different types of investors depending on the level of return they are seeking and the level of risk they are willing to take based on that return.</p>
Investment Term	<p>Investment term is the length of time that it takes for an investor to get his/her money back – i.e. principal plus return. In a DIB, investors only get paid if outcomes are achieved.</p>
Investor	<p>The role of the investor in a DIB contract is to provide funds upfront for services, to be repaid (principal plus return) if – and only if – outcomes are achieved.</p>

\* DFID, (2005)

Investor Proposition	The investor proposition is a term used to describe the overall proposal to investors – this includes the total capital required, what the target return is and when and how the capital and return will be repaid.
Liquidity	Liquidity is an asset's ability to be sold without causing a significant movement in the asset price and with minimum loss of value. The essential characteristic of a liquid market is that there are always ready and willing buyers and sellers.
New Corporate Entity	The DIB structure requires the establishment of a new legal structure (new corporate entity) for the purpose of holding investment from DIB investors and for holding contracts with the various DIB parties.
Official Development Assistance (ODA)	The Development Assistance Committee (DAC) defines ODA as “those flows to countries and territories on the DAC List of ODA Recipients and to multilateral institutions which are: i. provided by official agencies, including state and local governments, or by their executive agencies; and ii. each transaction of which: a) is administered with the promotion of the economic development and welfare of developing countries as its main objective; and b) is concessional in character and conveys a grant element of at least 25 per cent (calculated at a rate of discount of 10 per cent).”
Outcomes Funder	The role of the outcomes funder in a DIB contract is to pay investors for outcomes (principal plus return) if – and only if – outcomes have been achieved, as confirmed by independent verification.
Outcomes	There are different ways to define outcomes, depending on the case at hand. For example, the World Bank defines project outcomes as the uptake, adoption or use of project outputs by the project beneficiaries.* Depending on the horizon over which outcomes are measured, an Intermediate Outcome may be used, which specifies a result proximate to an intended final outcome, but likely more achievable in the lifetime of a project. Example: Teachers use the new teaching methods (intermediate outcome) to improve learning among students (final outcome).
Outcomes Metric	Outcomes metrics denote the way in which outcomes are collected, reported and measured. In a DIB, outcome metrics ultimately determine whether (and how much) investors will get paid for their initial investment.  <i>Binary outcome metric:</i> A binary outcome metric is one that provides a “yes/no” answer. Examples of binary metrics include: whether or not a child dropped out of school, whether an individual reoffended or not within 12 months of discharge from prison, whether or not a community installs a chlorine dispenser, etc.  <i>Cohort-level outcome metric:</i> A cohort-level outcome metric looks at the performance of a group of individuals and can be used to measure improvement in the average performance of all people being measured. For example, a cohort-level outcome metric could be the average number of convictions committed by a cohort of people. In this instance, the cohort-level metric might create an incentive to target those with the highest volume of offences – the less crime they commit, the greater the reduction in the overall average offending behaviour across the whole group of people, thereby incentivising providers to work with the most difficult cases.  <i>Frequency outcome metric:</i> A frequency outcome metric is one that measures the number of times that an event occurs within a given period. Examples of frequency outcome metrics are: number of days in the year that a child attends school, the number of conviction events associated with an individual within 12 months of discharge from prison, the number of times that a community purchases chlorine for water treatment over a certain time period, etc.

\* World Bank website, Results Terminology: [http://siteresources.worldbank.org/INTISPMA/Resources/383704-1184250322738/3986044-1250881992889/O4\\_WorldBank\\_Results\\_Terminology.pdf](http://siteresources.worldbank.org/INTISPMA/Resources/383704-1184250322738/3986044-1250881992889/O4_WorldBank_Results_Terminology.pdf)

Outcomes Metric (continued)	<p><i>Individual-level outcome metric:</i> An individual-level outcome metric measures the success of each individual. For example, in developing a SIB focused on funding a range of services that help people achieve sustained recovery from substance misuse, it was proposed that one of the performance indicators, namely reduced use of problem drugs and/or dependent drinking, should be measured at the level of the individual. By measuring against an individual's own behaviour at the start of treatment, outcome payments are made to incentivise and reward incremental progress that represents distance travelled. The drawbacks of individual-level outcome metrics are that it can be time-consuming and costly to measure everything on an individual measure and could potentially be intrusive for service users.</p> <p><i>Outcomes Pricing:</i> Outcomes pricing is the way in which the price of desired social outcomes is determined. There are a number of potential approaches to pricing outcomes.</p> <p><i>Cashable Benefits:</i> For more information, <a href="#">see p. 78</a>.</p> <p><i>Cost-Plus:</i> For more information, <a href="#">see p. 77</a>.</p> <p><i>Historical Cost:</i> For more information, <a href="#">see p. 77</a>.</p> <p><i>Market Determined Outcome Value:</i> For more information, <a href="#">see p. 79</a>.</p> <p><i>Quantified Social Value:</i> For more information, <a href="#">see p. 78</a>.</p>
Outputs	<p>Outputs are the supply-side deliverables, including the events, products, capital goods or services that result from a project's inputs (i.e. construction of a school).</p> <p>The key distinction between an output (a specific good or service) and an outcome is that an output typically is a change in the supply of goods and services (supply side), while an outcome typically reflects changes in the utilisation of goods and services (demand side). Outputs are often intended to lead to outcomes/impact.</p>
Partner Government	<p>Partner government is the term given to the government of the country in which the DIB intervention is implemented.</p>
Payment Mechanism	<p>The payment mechanism details the way in which outcome payments are structured, e.g. conditions that trigger outcome payments, the "price" of outcomes achieved, and the frequency at which payments are made, etc.</p>
Perverse Incentives	<p>A perverse incentive is one that has an unintended and undesirable result, contrary to the interests of the incentive makers.</p>
Pull Mechanisms	<p>Pull mechanisms are results-based incentives designed to overcome market failures and encourage innovation and engagement. Pull mechanisms reward successful innovations ex post, compared with push mechanisms, which fund potential innovations ex ante.</p>
Results-Based Aid	<p>Results-based aid is a form of payment by results in which the risk for delivery of results is transferred to partner governments.</p>
Results-Based Financing	<p>Results-based financing is a form of payment by results in which the risk for delivery of results is transferred to service providers or suppliers.</p>
Return	<p>Return is a way to measure the performance of an investment. With DIBs, the return is the additional payment made to investors for the use of their capital, adjusted to take into account the risk of that investment, and commensurate with progress made in achieving desired social outcomes.</p>

Risk	<p>Risk is the probability of whether or not the programme will be delivered as planned and therefore whether the anticipated outcomes will be achieved. There are a number of potential types of risk associated with delivering outcomes.</p> <p><i>Demand Side Risk:</i> These are risks relating to interventions where demand from the target population is essential to their uptake, continuation and ultimate success. For more information, see <a href="#">p. 82</a>.</p> <p><i>Intervention Risk:</i> These are risks arising from uncertainty surrounding the intervention(s) itself and could be a result of either a lack of proven track record, application to a different geography or implementation at a larger scale than has previously been done. For more information, see <a href="#">p. 81</a>.</p> <p><i>Operational Risk:</i> These are risks arising from setting up and delivering interventions to the target population. For more information, see <a href="#">p. 82</a>.</p>
Risk Return Profile	The risk return profile outlines the level of return expected from an investment given the risks undertaken. The underlying assumption is that higher levels of risk require higher returns for the investment to be “attractive” to investors.
Service Provider	The service provider delivers services to the target population. They could also play the role of a coordinating agency within a DIB contract.
Social Investment	Social investment is the provision and use of capital to generate social as well as financial returns. See also, impact investing.
Target Population	The term target population denotes those individuals or communities to which services will be made available/delivered as part of the programme.
Verification	This term is used to mean an audit of results achieved to ascertain the validity and reliability of the information. For example, verification could involve some form of repeated measurement of the original or source data. For more information, see <a href="#">p. 76</a> .
Working Capital	This term is used to mean capital that enables a firm to continue its operations, whilst having sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses.

## Acronyms

AMC	Advance Market Commitment
ARVs	Antiretroviral Drugs
ART	Antiretroviral Treatment
ASER	Annual Status of Education Report
BDS	Business Development Services
CGD	Center for Global Development
CHAI	Clinton Health Access Initiative
COD Aid	Cash on Delivery Aid
COCTU	Coordinating Office for Control of Trypanosomiasis in Uganda
DAC	Development Assistance Committee
DALY	Disability Adjusted Life Year
DCLG	Department of Communities and Local Government
DfID	Department for International Development
DIB	Development Impact Bond
DWP	Department for Work and Pensions
ECC	Essex County Council
ESCO	Energy Services Company
EVS	Education Vouchers Scheme
FAS	Foundation Assisted Schools
FCA	Financial Conduct Authority
FHA	Fund Holding Agency
GAVI	Global Alliance for Vaccines and Immunization
GLA	Greater London Authority
GPOBA	Global Partnership for Output Based Aid
GHG	Green House Gas
HNWI	High Net Worth Individual
HPTN	HIV Prevention Trials Network
IDA	International Development Association
ISS	Immunisation Services Support
LCPS	Low Cost Private Schools
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OOS	Out Of School
OPIC	Overseas Private Investment Corporation
PBF	Performance Based Financing
PEAS	Promoting Equality in African Schools
PEF	Punjab Education Foundation
QAT	Quality Assurance Tests
RBA	Results-Based Aid

RBF	Results-Based Financing
RCT	Randomised Controlled Trial
RIU	Research Into Use
SACEMA	South African Centre for Epidemiological Modelling and Analysis
SEC	Securities and Exchange Commission
SIB	Social Impact Bond
SME	Small and Medium sized Enterprise
SOS	Stamp out Sleeping Sickness
SPV	Special Purpose Vehicle
TasP	Treatment as Prevention
TB	Tuberculosis
UCE	Uganda Certificate of Education
USAID	United States Agency for International Development
UTCC	Uganda Trypanosomiasis Control Council

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We conceive of and advocate for practical policy innovations in areas such as trade, aid, health, education, climate change, labor mobility, private investment, access to finance, and global governance to foster shared prosperity in an increasingly interdependent world.

WE BELIEVE THAT IF SOCIAL PROBLEMS ARE TO BE TACKLED SUCCESSFULLY, THE ORGANISATIONS SEEKING TO SOLVE THEM NEED SUSTAINABLE REVENUES AND INVESTMENT TO INNOVATE AND GROW.

Our role is to devise the financial structures and raise the capital to enable this to happen.

Social Finance injects market principles into funding in a way that stands or falls on results - both social and financial. We support social organisations to raise and deploy capital; we work with government to deliver social change; and we develop social investment markets and opportunities.

Now more than ever, there is a pressing need to harness social investment to make a long-term difference to society.

This is our ambition.

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